

ARS AMORETTO

ARS KNITTER

INSTRUCTION MANUAL

## \* ATTENTION IN OPERATING THE MACHINE

The main reason of trouble lies in the wrong operation. Sufficient knowledge about the mechanism of the machine and following the Instructions accurately are the most important points for life time use.

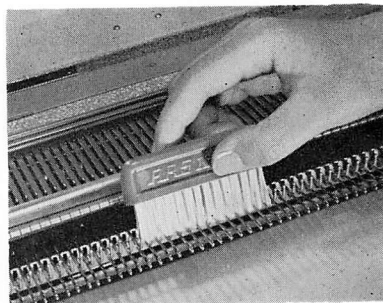
Remember these essential points.

1. When the operation of Carriage becomes heavy during knitting, don't use force.  
In this case, let every Lever of Carriage be "OFF" at once and the Carriage becomes free. Then return the Carriage quietly and examine the cause of trouble carefully.
2. Avoid sliding of the Carriage without holding Yarn so that needles may not be injured.
3. The sliding of Carriage is sufficient enough in accordance with the width of garment. When the stitches were created in the needles of both sides, return the Carriage at once.
4. When changing Tuck Button, never change Clutch without making (O). Don't change Tuck Button while Change Pointer is set to the number except (O).
5. When you don't use Dial, set graduation (O) to the red Pointer.

If you are troubled in operation, ask your dealer or the ARS. KNITTING MACHINE MFG. CO. directly.

## ◇ CARE AND MAINTENANCE OF THE MACHINE

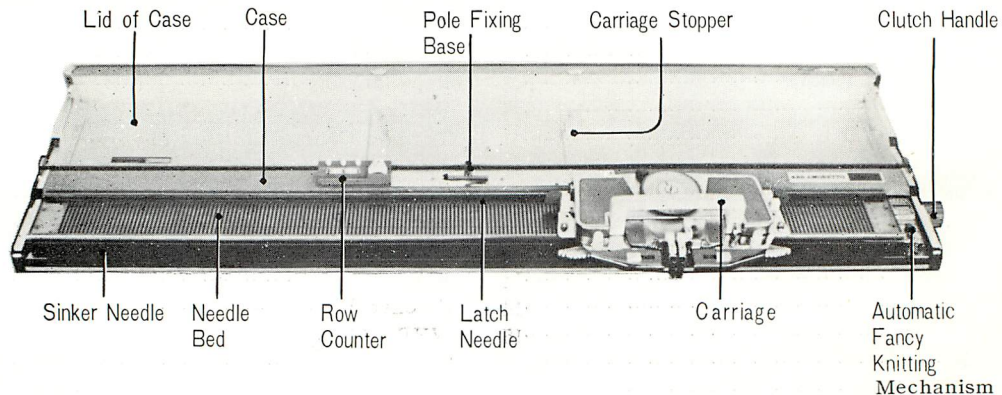
- It is important to oil the machine properly, Especially oil the place of friction such as Butt of Needle, Cams or the rail of Carriage
- Use oil sparingly to prevent yarn from smearing. When oiling, use only lightest of machine oil such as Sewing Machine Oil.
- Special oil for our machine in the Accessories is helpful when sliding of Carriage is not light and feeding of yarn is not smooth.
- Wool fiber accumulating in the Needle Bed must be removed from time to time with a Cleaning Brush.
- When the Latch of Latch Needle is stuffed with dust and the movement of Latch is not smooth, remove dust using the point of usual needle and then oil it.
- If the Latch bends, repair it with Nipper.



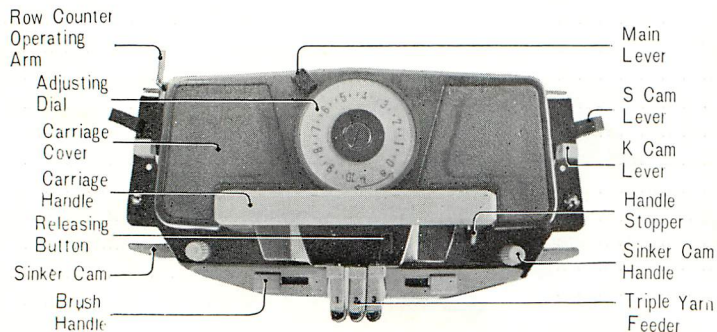
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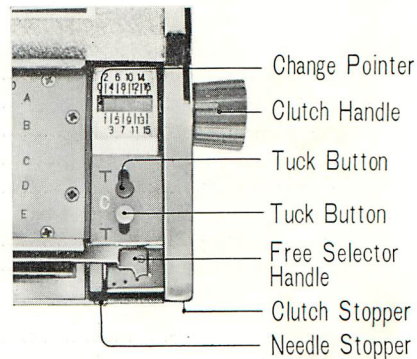
## ☒ PARTS LIST OF MAIN BODY AND CASE



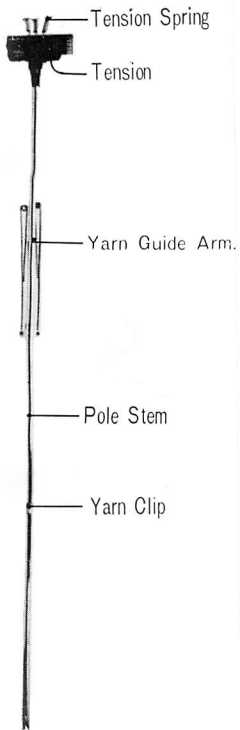
## ☒ PARTS LIST OF CARRIAGE



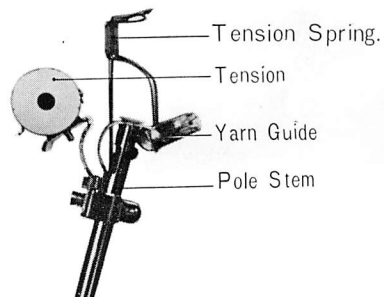
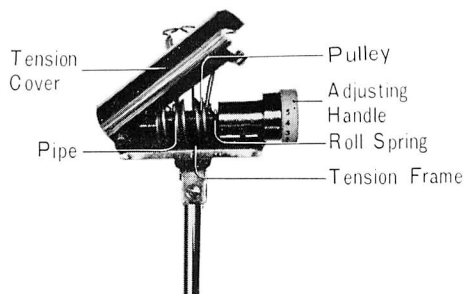
## ☒ AUTOMATIC FANCY KNITTING MECHANISM



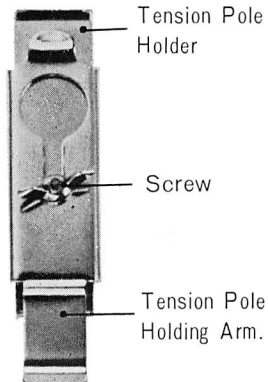
☒ PARTS LIST OF TENSION POLE



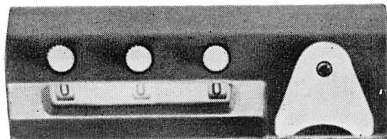
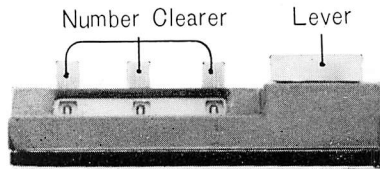
☒ PARTS OF TENSION



☒ TENSION POLE HOLDER



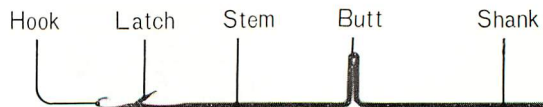
☒ PARTS LIST OF ROW COUNTER



☒ KNITTING CODE



☒ PARTS LIST OF LATCH NEEDLE



☒ LIST OF ACCESSORY



Clamp



Transfer Tool



Cleaning Brush



Raveling Cord



Tapper



Crochet Needle



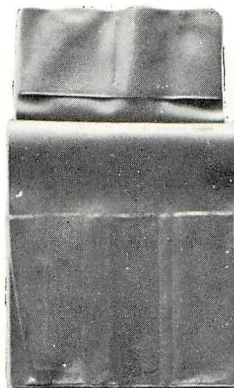
Needle Change Pin



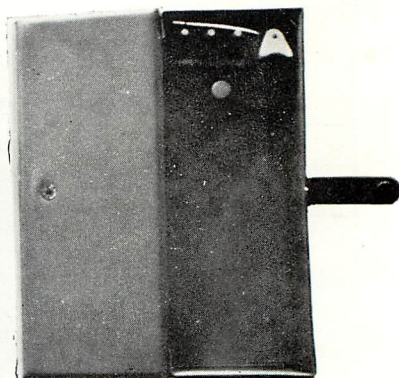
Tapestry Needle



Spare Needle

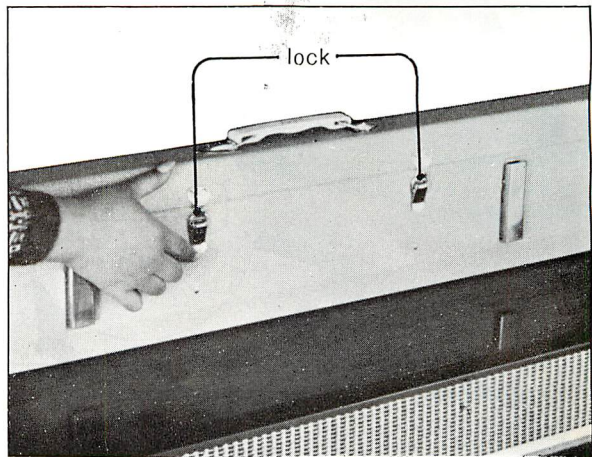


Accessory Bag



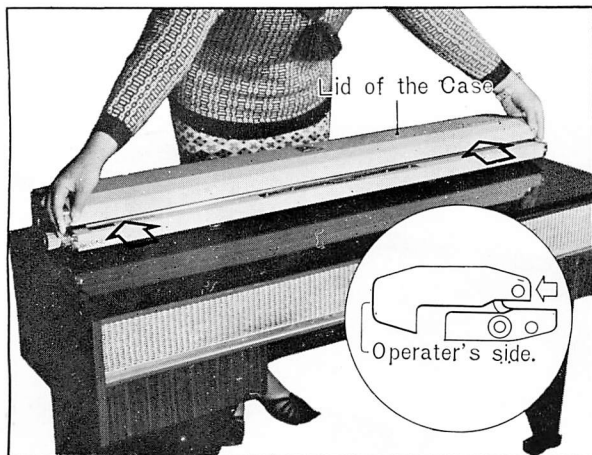
Accessory Case

# ASSEMBLY

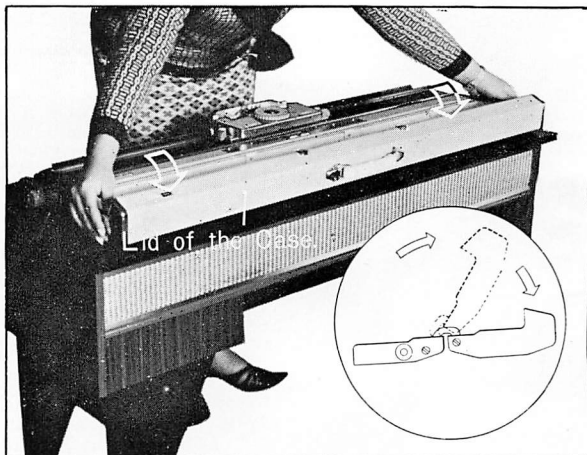


Put the machine upright on the table. Unlock two locks on both sides.



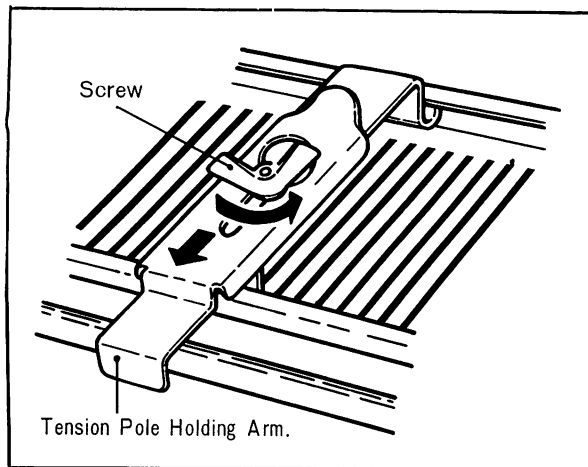


Place the machine flat with the lid upward.  
Pull the lid of the case to the operator's side.



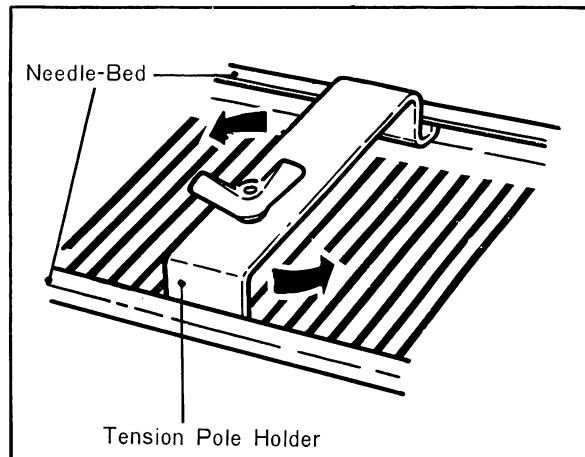
Turn over the lid following the order of the Arrow-Mark.

Take out accessories out of the case.

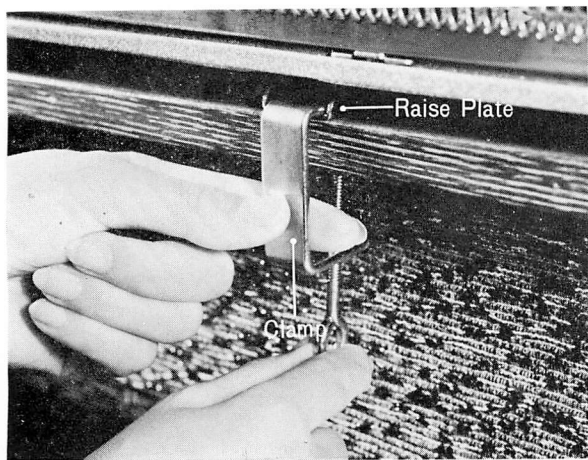


Loosening the Screw counter clockwise, push the upper part of Tension Pole Holding Arm to the operator's side.

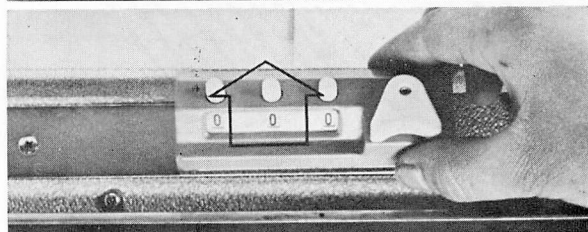
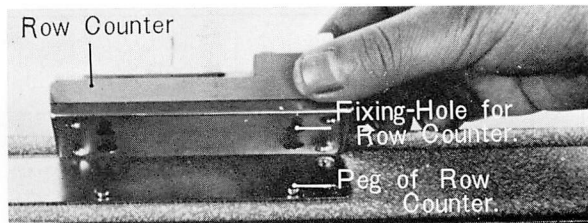
By removing it, Pole Stem is free to be used.



Turning round the base of the Screw (or the Tension Pole Holder) as the Arrow-Mark shows take out it from the Needle-Bed.

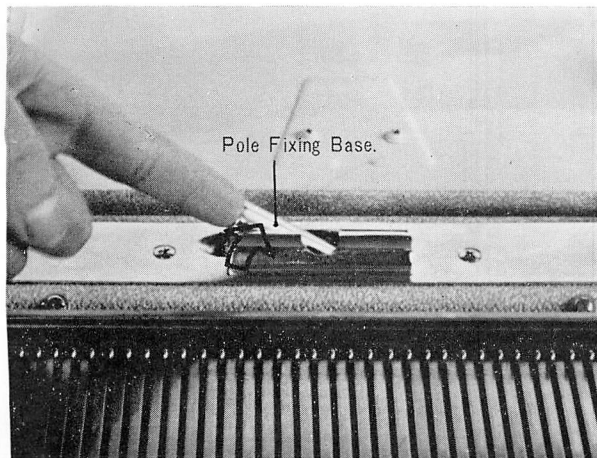


Fix the Raise Plate of both sides with clamps to the table.

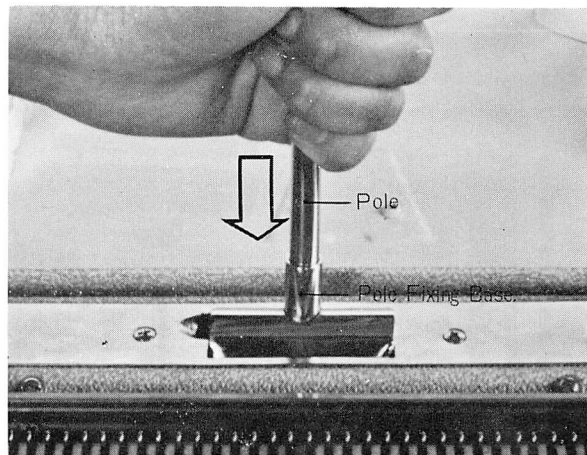


Insert the hollows in the reverse side of the Row-Counter into the pegs on the machine either on the right side or the left side.

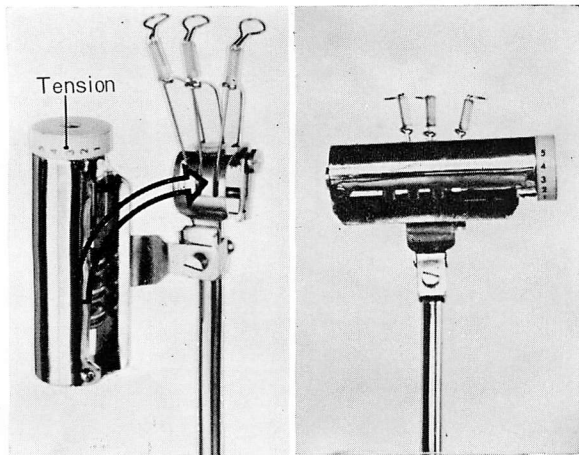
Push it toward Arrow-Mark till it stops.



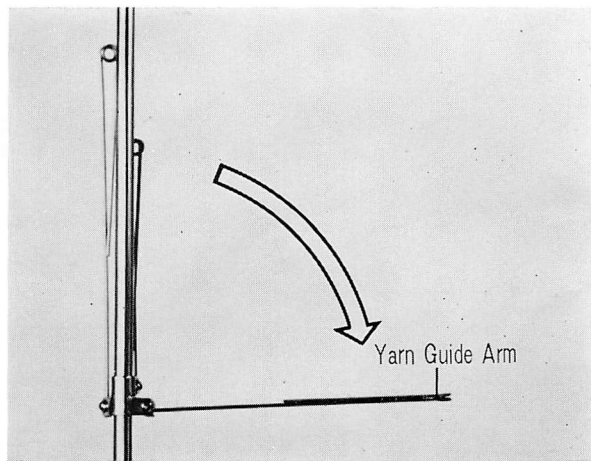
Raise the Pole Fixing Base.



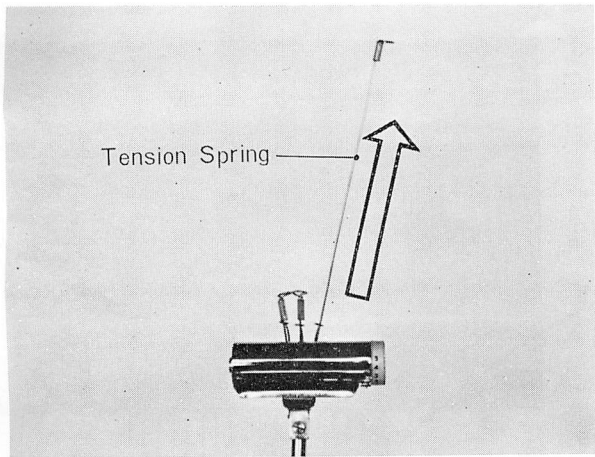
Insert the Pole into Pole Fixing Base with Tension facing the operator.



Pulling Tension toward you, revolve it to the direction of the Arrow-Mark.

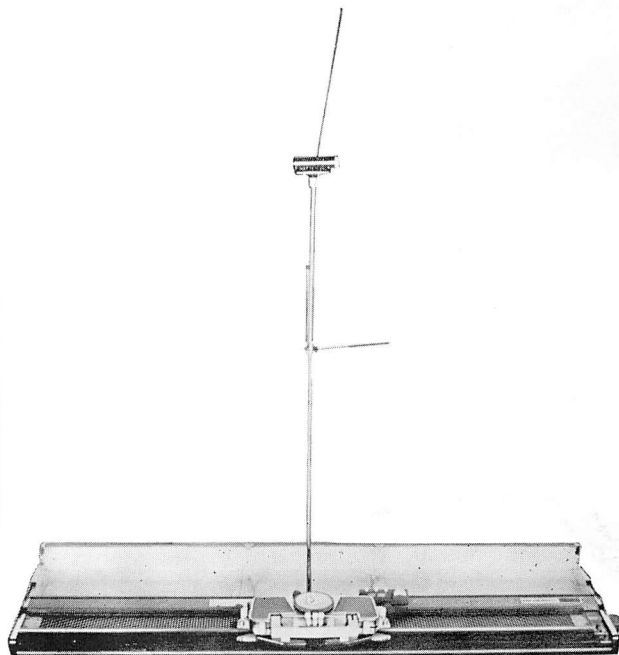


Spread the Yarn Guide Arm out of the Pole.



Tension Spring

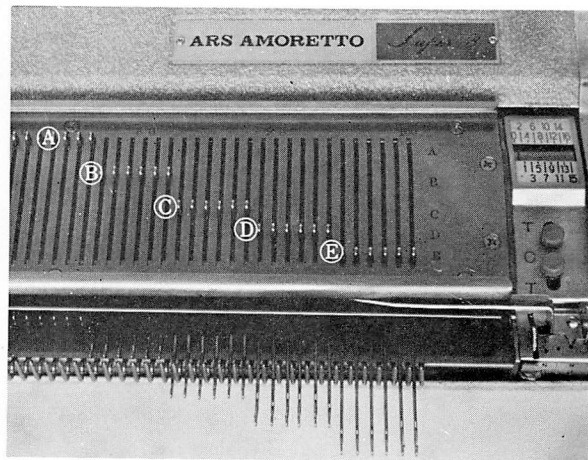
Pull out Tension Spring.



Now you have completed the assembly of the machine.

BEFORE KNITTING

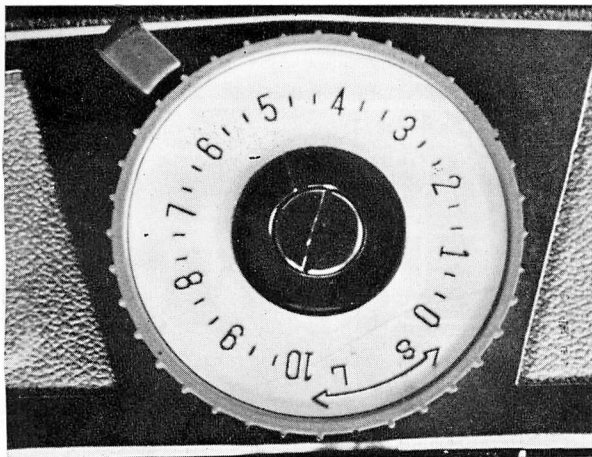
☒ POSITION OF NEEDLE



There are five positions (A, B, C, D, E) for the needles.

The marks printed on the both sides of the needle bed show the position of A, B, C, D, E.

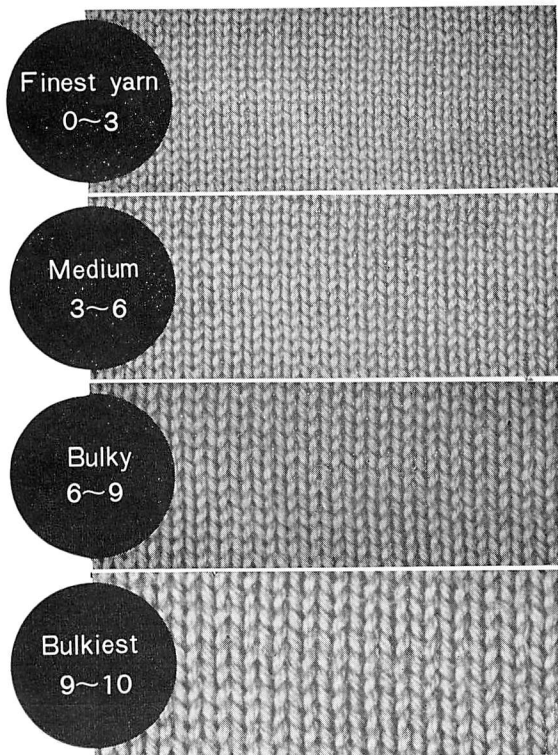
## ☒ ADJUSTING DIAL



In accordance with the thickness of yarn, Adjusting Dial controls stitches.

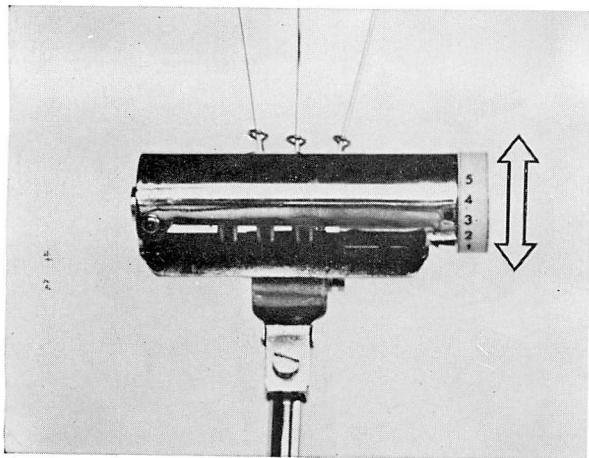
Choose the suitable dial number following the Figs of the right side.

## Standard gauge of Adjusting Dial





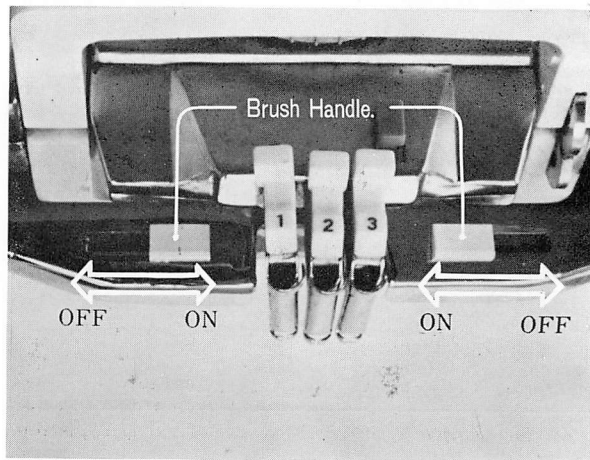
☒ HOW TO CONTROL THE FEEDING OF YARN



The diagram shows the proper relation between yarn and the controlling number.

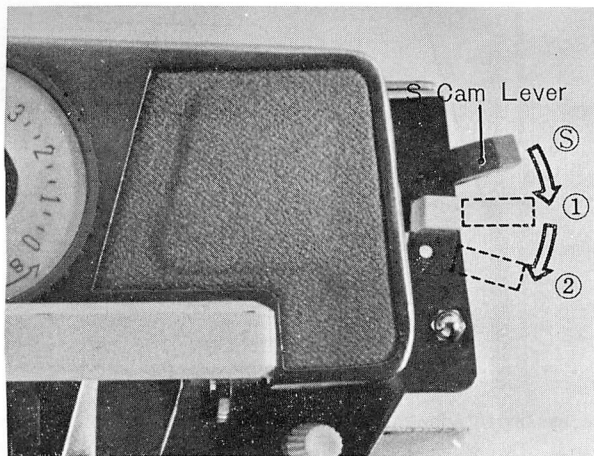
Yarn	Controlling Number
Bulkiest	1~2
Bulky	1~3
Medium	2~4
Finest	4~5

☒ THE OPERATION OF BRUSH HANDLE



Brush Handle is used for the casting-on, trimming of Turning-Course knitting and Lace knitting.

## ◇ S. CAM LEVER

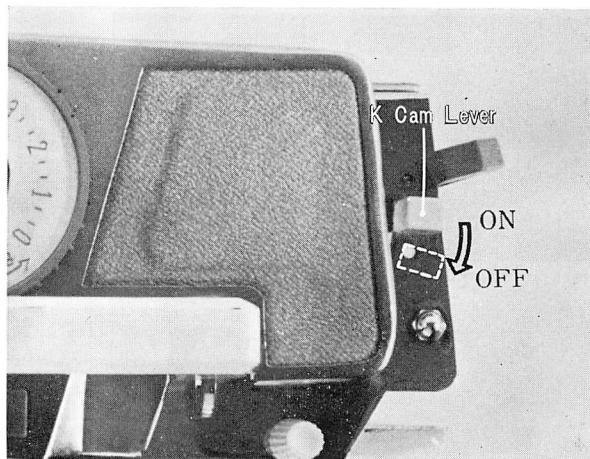


S. Cam Lever has three positions to operate.—S.

1. 2.

(S)	Stockinette st. Fancy st.
(1)	Knit-in st.
(2)	Trimming of Turning Course knitting.

## ◇ K. CAM LEVER

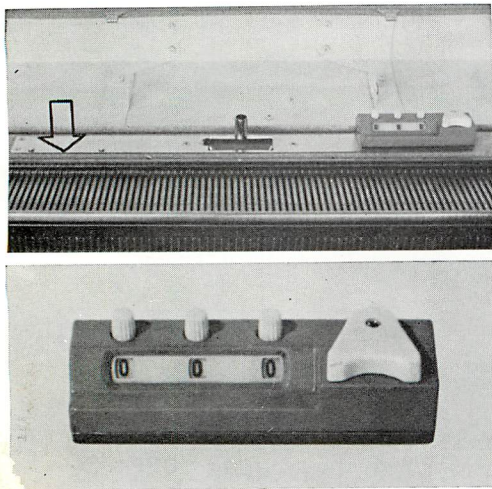


K. Cam Lever moves to "ON" or "OFF".

ON	Stockinette st. Fancy st.
OFF	When sliding Carriage without holding yarn.

Note: When sliding Carriage without holding yarn, be sure to make Main lever "OFF" as well as K. Cam Lever.

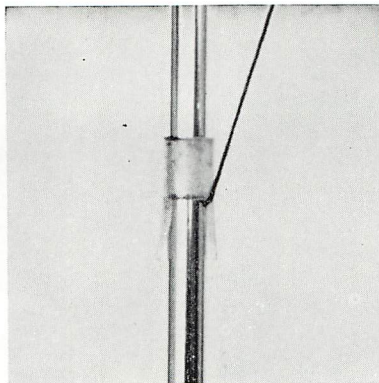
## ☒ ROW COUNTER



Row Counter can be installed either in the right side or the left side with the Tension Pole in the center.

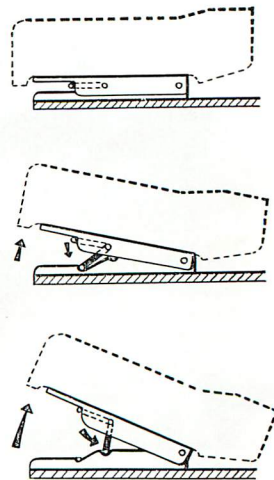
Putting the hollow in the reverse side of Row Counter on the Peg for Row Counter, push it backward till it stops.

## ☒ YARN CLIP



If it is necessary to suspend yarn temporarily, use Yarn Clip attached to Pole Stem.

## ☒ RAISE PLATE



When using Transfer Tool or Tapper, use Raise Plate to change the angle of the machine.

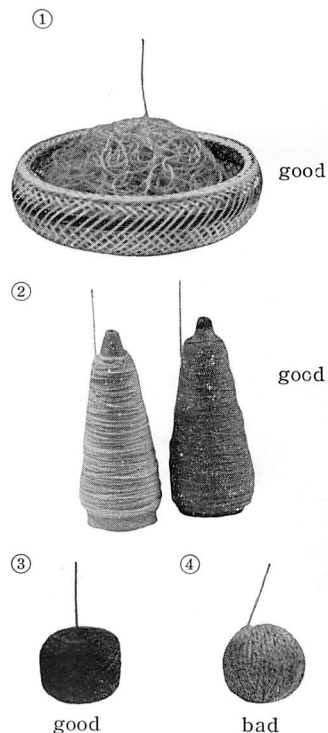
## ☒ PREPARATIONS BEFORE KNITTING

1. It is very important to prepare the knitting yarn well, not to be entangled, not to be short. There are many kinds of methods to prepare the knitting yarn as in Figs.

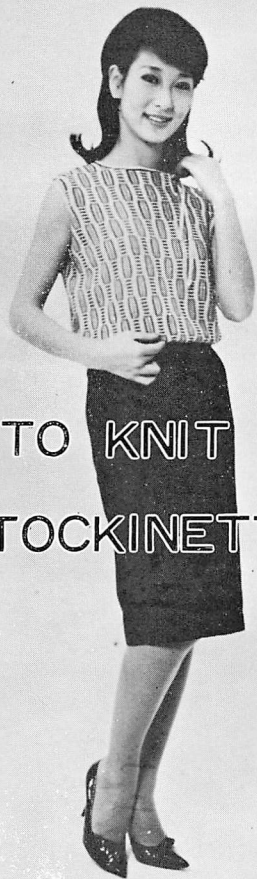
It is not so good to take yarn directly from the ball as in Fig. (4) in view of strong resistance.

(Besides the accessories, Measure, Scissors, Tapestry Needle,  
Note Book and Pen or Pencil are necessary.)

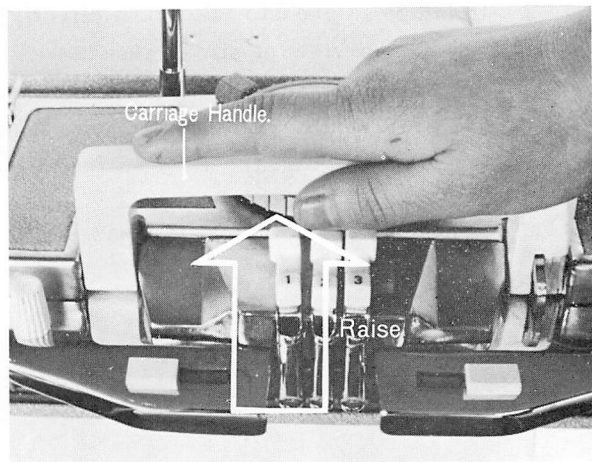
2. It is essential that the table surface should be perfectly even and steady.



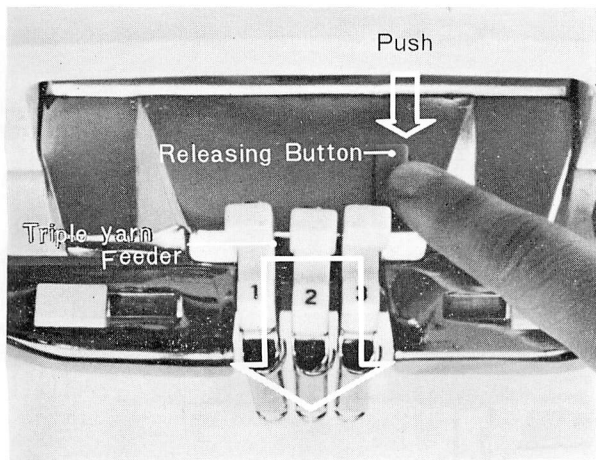
HOW TO KNIT  
STOCKINETTE ST.



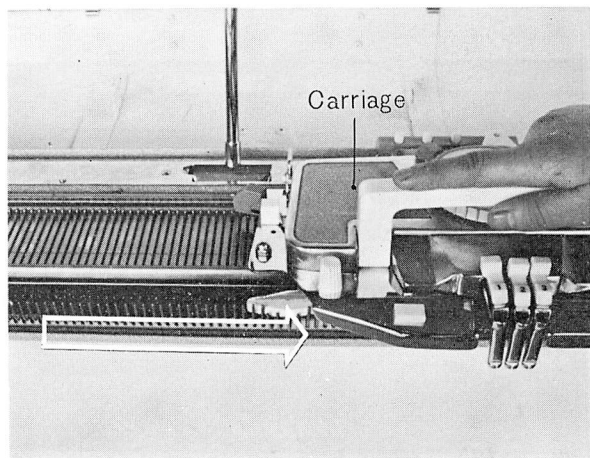
☒ STOCKINETTE KNITTING  
(PLAIN KNITTING)



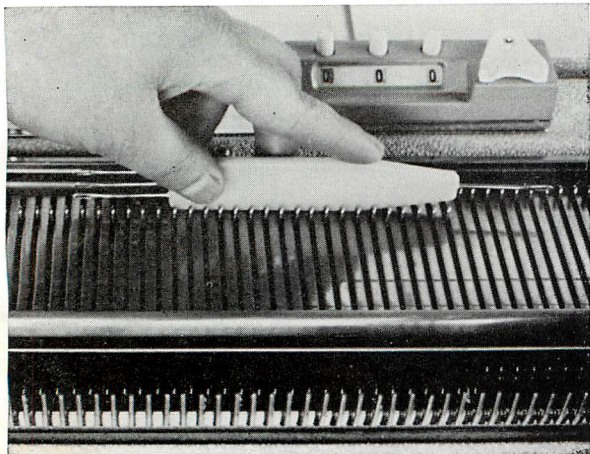
Raise Carriage Handle upright.



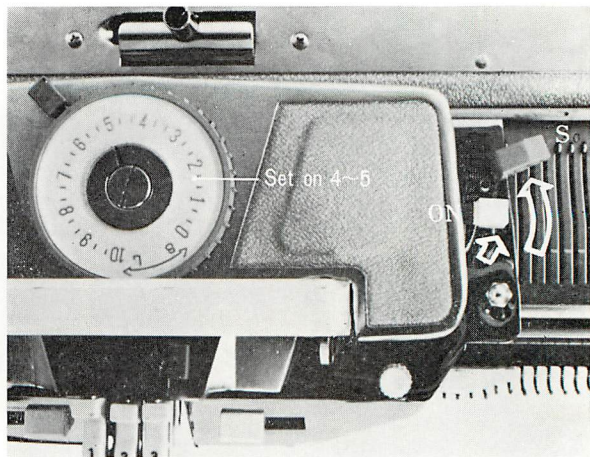
Push Releasing Button downward and three Yarn Feeders advance forward.



Slide Carriage gently to the right side.

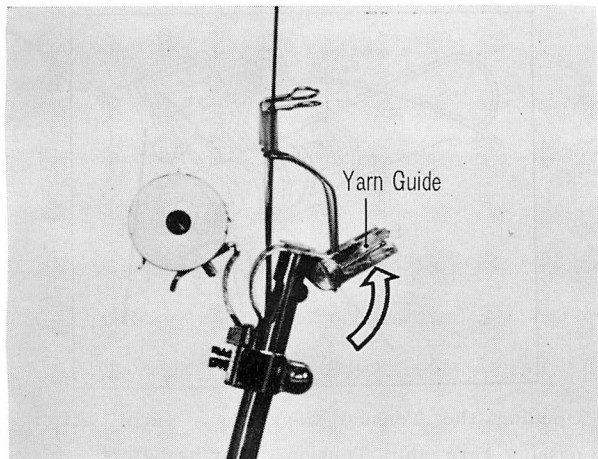


Put about 50 needles of the center place at B position. (See page II.)

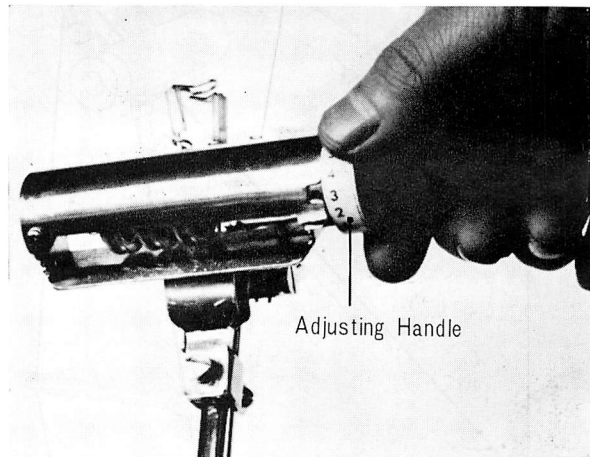


Set the Adjusting Dial on 4~5.

Let K Cam Lever and S Cam Lever of both sides be as the Fig. shows.

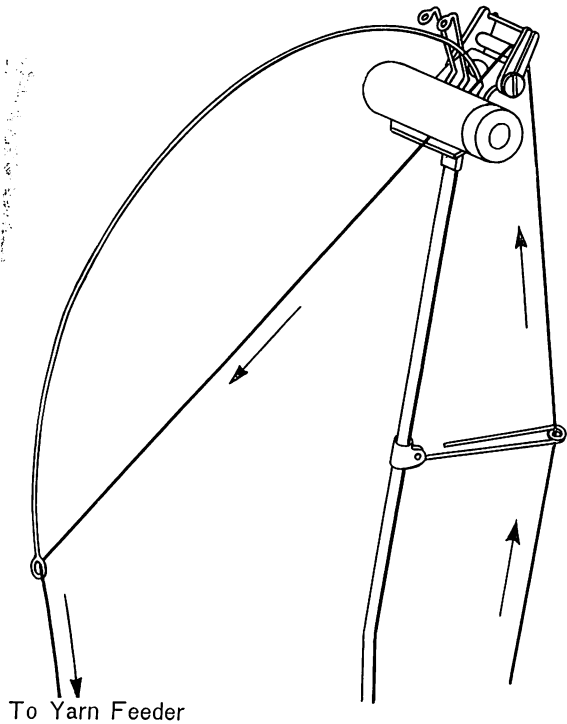


Raise the Yarn-Guide of Pole.



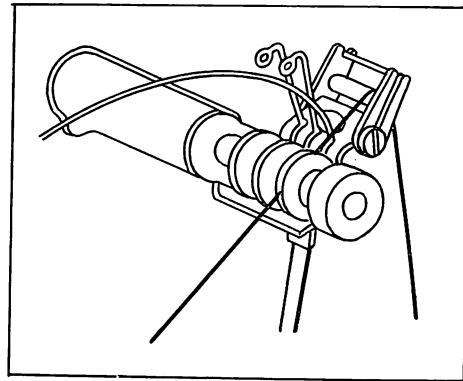
Set Adjusting-Handle on 3.



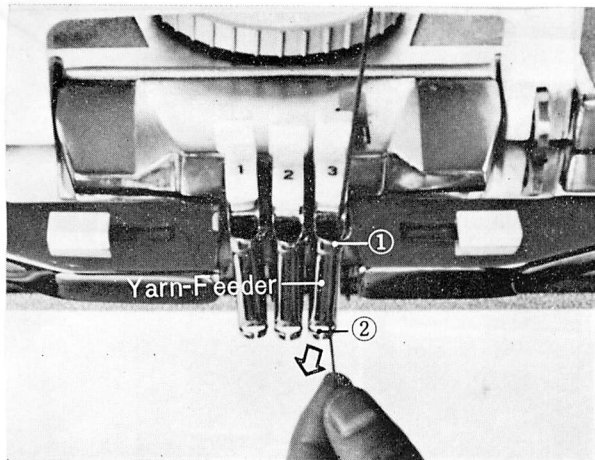


To Yarn Feeder

Pass yarn through Pole

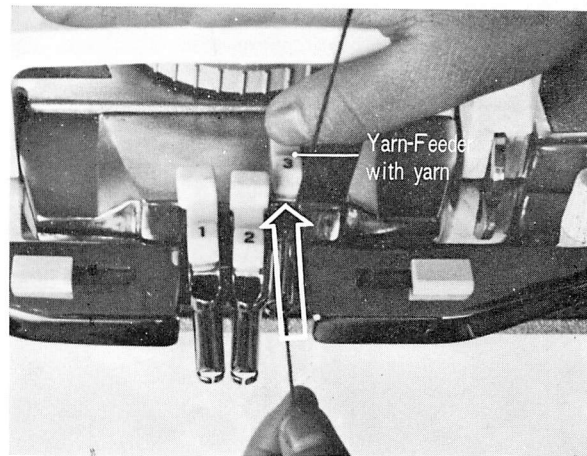


Opening the Tension Cover pass yarn. After passing yarn, shut Tension Cover as before.

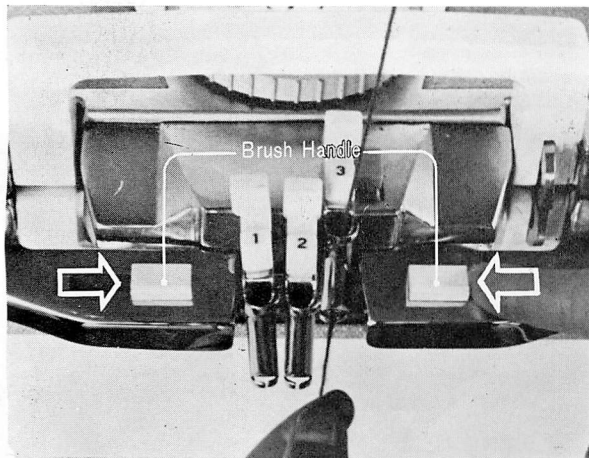


Pass yarn through Yarn Feeder.

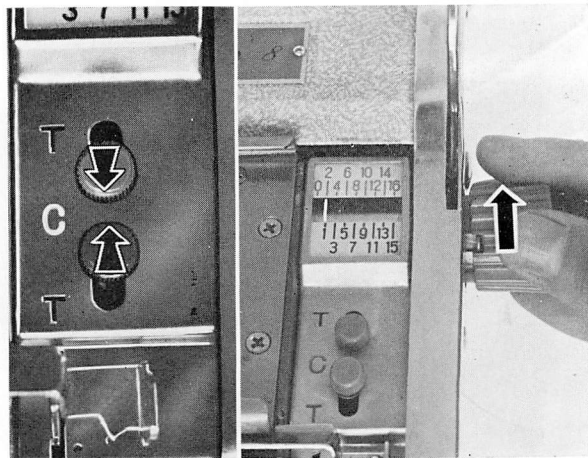
(Passing yarn through 1 and 2 portion, pull it toward the Arrow-Mark.)



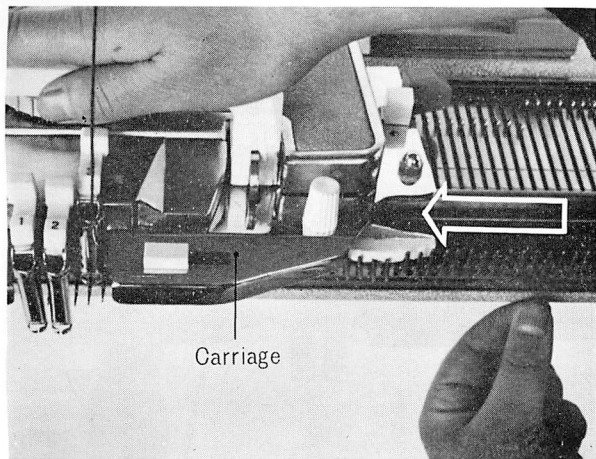
Push Yarn Feeder with yarn toward the Arrow-Mark.



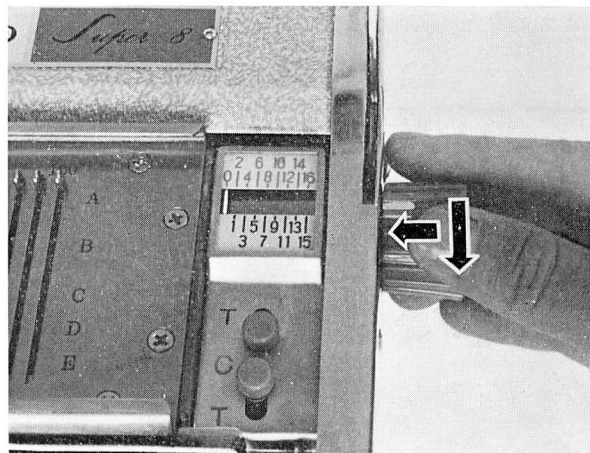
Move Brush Handles of both sides as the Arrow-Marks show so that they may be "ON".



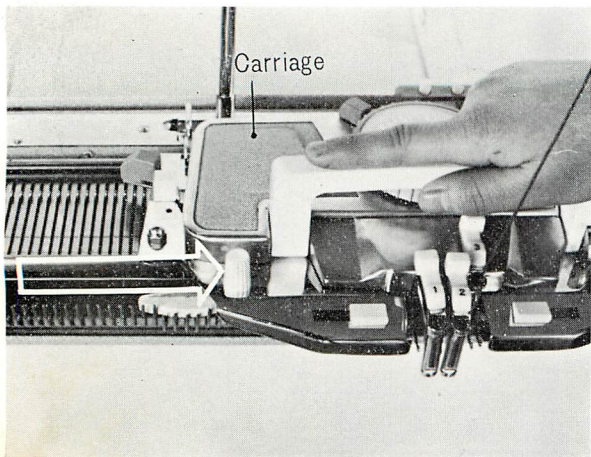
Setting Tuck Buttons on C position, let Clutch Handle be 2.



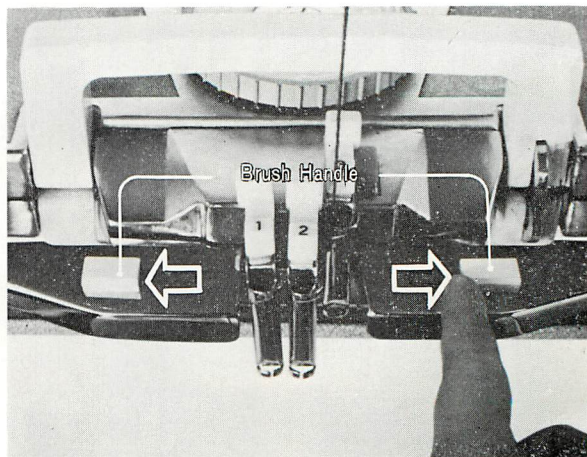
When sliding Carriage to the left side holding the end of yarn downward with a left hand, Latch needles catch yarn.



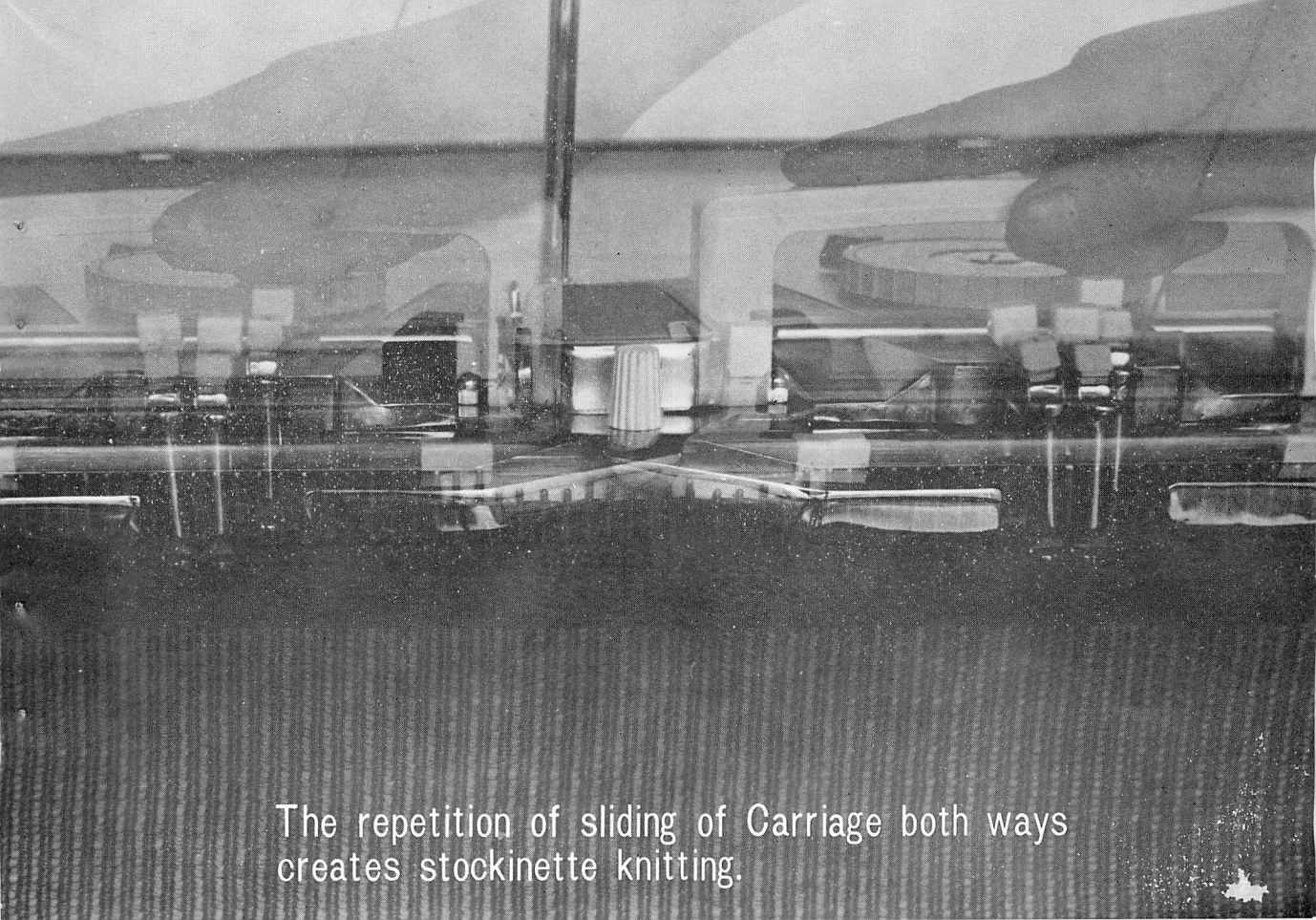
Make Clutch Handle O.



Return Carriage to the right side and the second row is created.

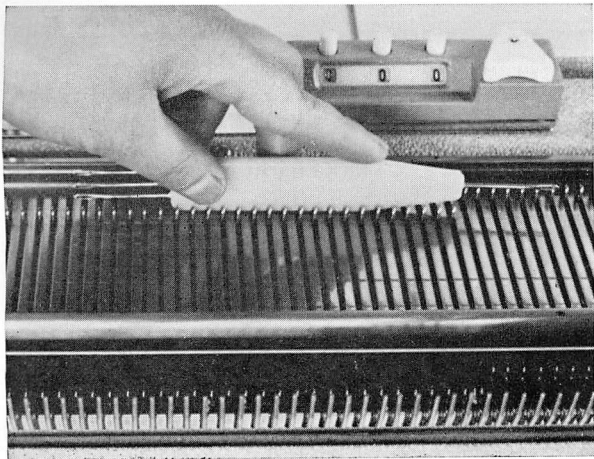


Restore Brush Handle that was "ON" before to "OFF" as the Arrow-Mark shows.

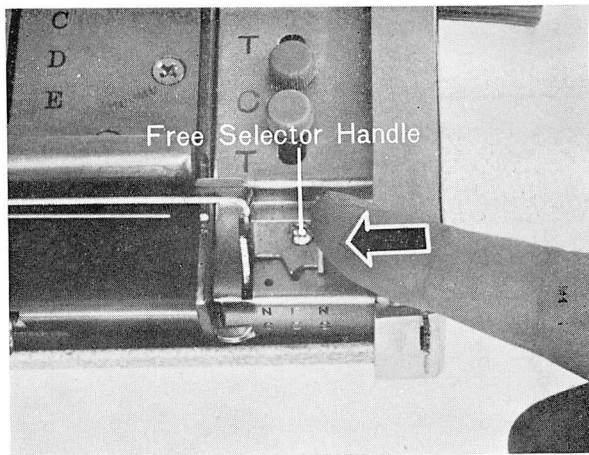


The repetition of sliding of Carriage both ways  
creates stockinette knitting.



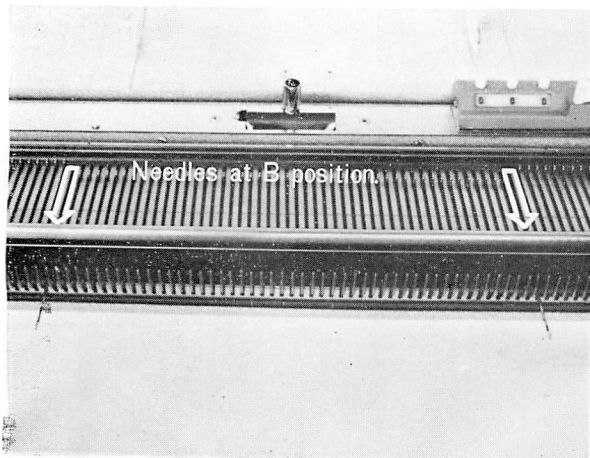


Put about 50 needles at B position.

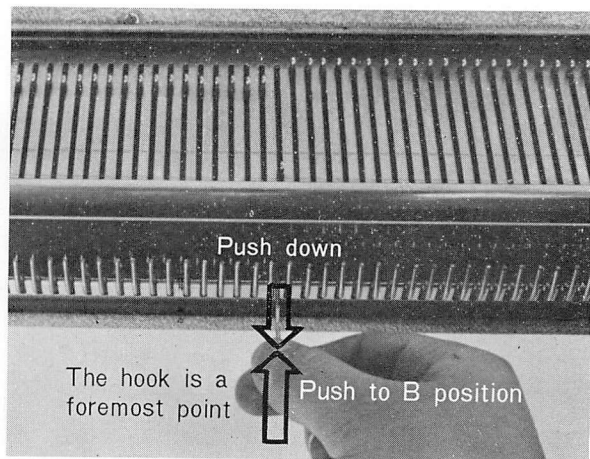


Set Free Selector Handle on F. S. position.

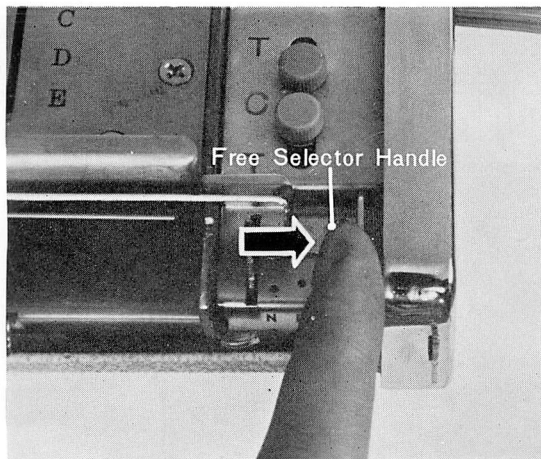




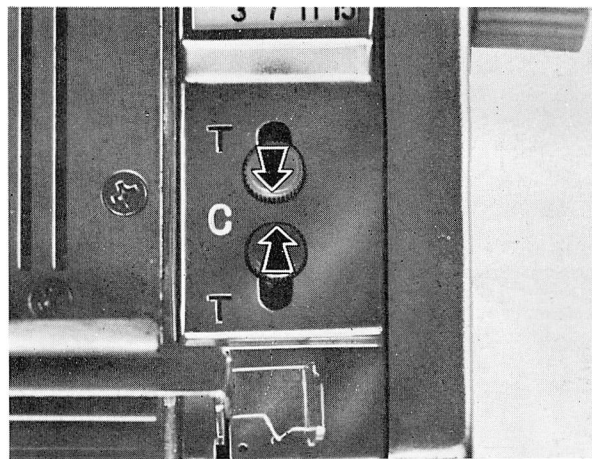
Move one needle of the extreme edge of the left and right side which had been put at B position to E position.



Pushing the hook of needle downward which had been at E position restore it to B position.

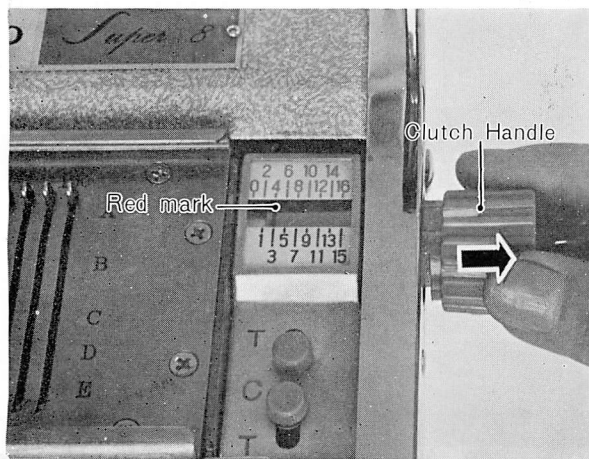


Set Free Selector Handle on N. S. position.

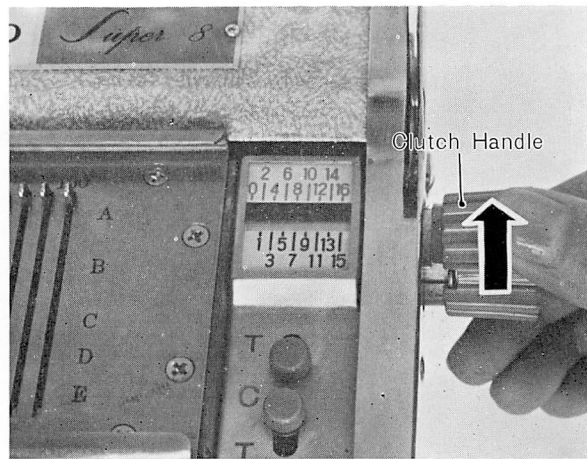


Set Tuck Buttons on C position.

At this time, passing yarn through Pole and Yarn Feeder, knit 5~6 rows with stockinette st.

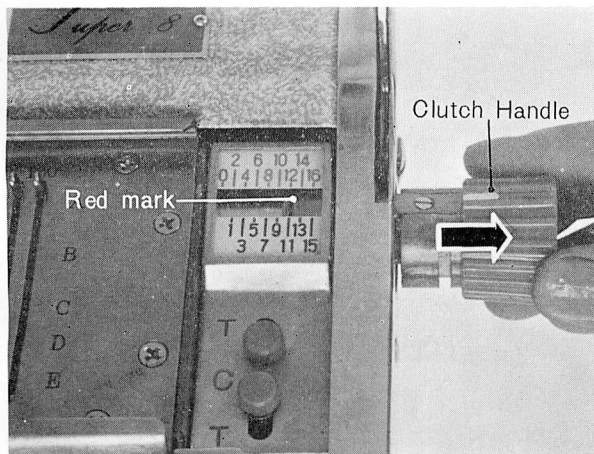


Set the red mark of Clutch Handle on 4.



Turn Clutch Handle clockwise toward the direction of 4 till it stops.

Knit two rows. (Both ways sliding of Carriage.)



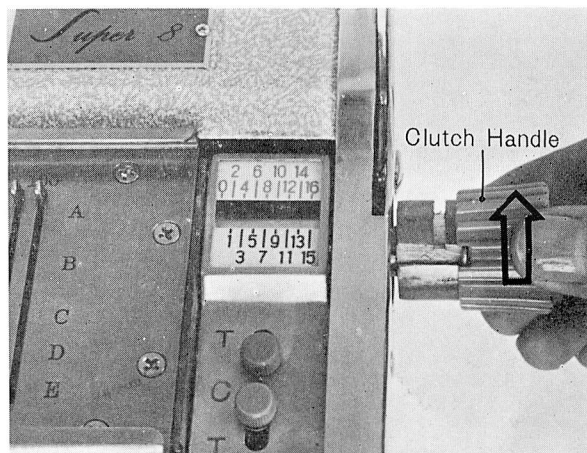
Restore Clutch Handle to 0.  
Set the red mark of Clutch Handle on 12.

Note:

While knitting, before changing the Clutch Number, it is not necessary to move the red mark to 0 at each time.

The state in which the red mark is visible is all night.

Therefore, putting the red mark not only on 0 accurately but on other places is permissible.



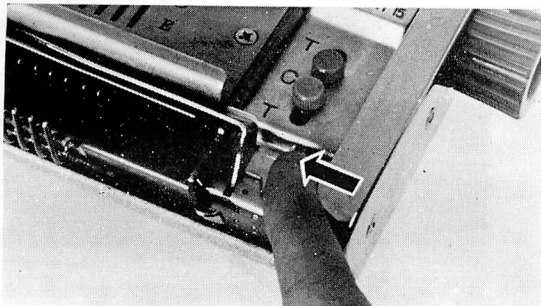
Turn Clutch Handle clockwise till it stops.

Knit two rows.

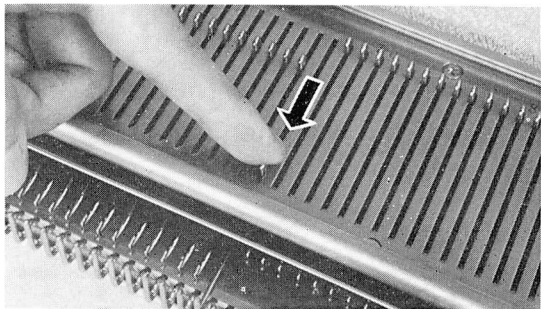


Operation of above procedure creates fancy knitting.

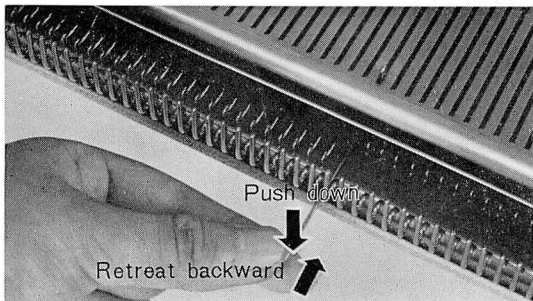
## ☐ HOW TO USE FREE SELECTOR



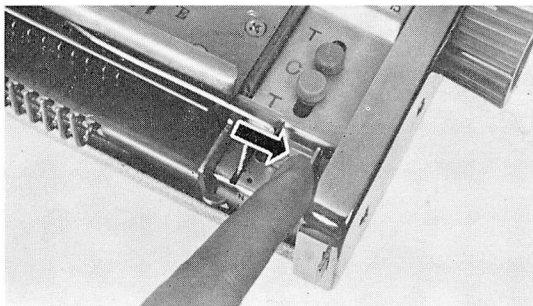
- (1) Set Free Selector Handle on F. S. position.



- (2) Move the needle which you want to do "Setting of Free Selector" to E position.



- (3) First, press the Hook of the needle downward. Next, move that needle to the C position with a state of being pressed down.

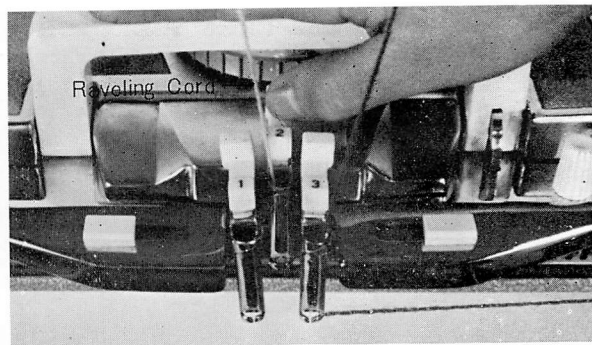


- (4) Set Free Selector Handle on N. S. Position.

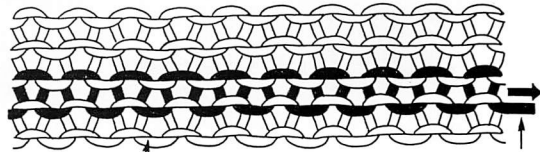
# HOW TO USE ACCESSORIES



## ☒ HOW TO USE RAVELING CORD



Usually in the beginning, we knit 4 or 5 rows in stockinette st. Then knit one row with Raveling Cord. The third step is to begin the main garment knitting. After you have knitted desired rows, pull out the Raveling Cord.

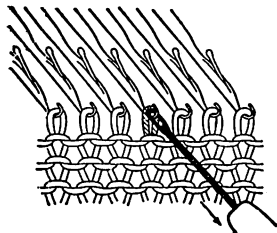


This part is a loose course knitting.

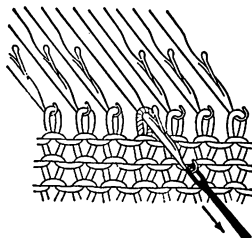
Pull out this Raveling Cord.

## ☒ HOW TO USE TRANSFER TOOL

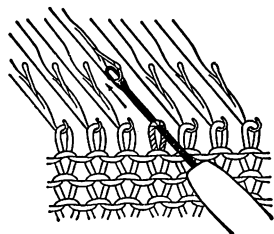
The Transfer Tool is a useful hand instrument for moving stitch from one needle to another at the time of increasing or decreasing stitch. We have three kinds of it. 2×1, 3×1, 3×2.



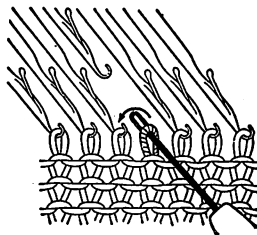
(1)  
Place the eye of Transfer Tool into the hook of Latch Needle.



(2)  
Pull the needle toward you with the Transfer Tool. This maneuver will cause the stitch in the hook of the needle to slide behind the latch.



(3)  
Now push the needle all the way back (away from you) until the stitch is transferred onto the Transfer Tool.



(4)  
Bring the Transfer Tool with the stitch on it to the adjacent needle, right or left, or your desired needle.

Note:

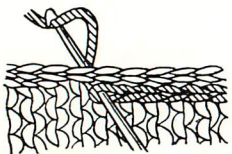
When using the Transfer Tool, be sure to set the Free Selector Handle on N S. position.



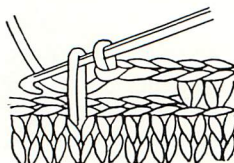
☒ CROCHET NEEDLE



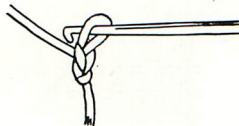
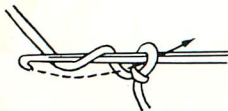
(1) Slip Binding Off



(2) Button Hole



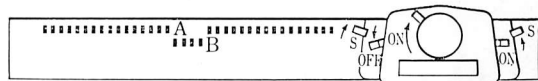
(3) Basic way of creating stitch



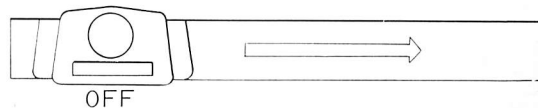
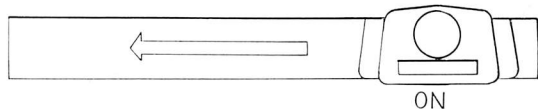
# VARIOUS WAYS OF KNITTINGS



## ☒ TAPE KNITTING

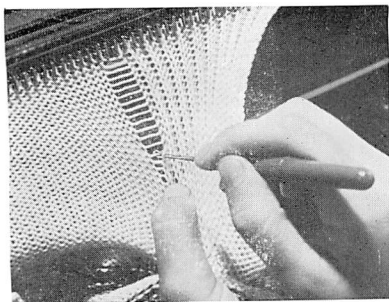


Placing Carriage on the right side, let K. Cam Lever of the left side be "OFF". Putting 3—4 needles at B position, bind each hook with yarn from the left side and take out the end of yarn at the right side.



As the above Fig. shows, when sliding Carriage to the left side, let Yarn Feeder be "ON" and when to the right side, let Yarn Feeder be "OFF".

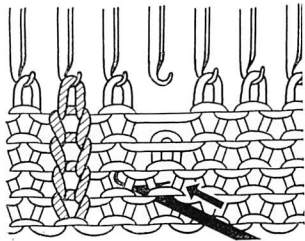
## ☐ RIBBING BY HAND



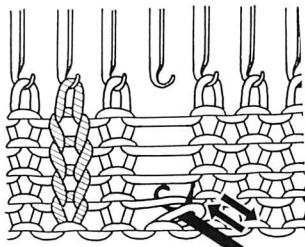
Ribbing is required in cuffs, waist band and other various parts. There are many kinds of ribbing according to the number of stitch in Knit and Purl such as alternate, every third or fourth vertical row. To do ribbing, after making Stockinette St. as long as you desire drop the stitch to be ribbed vertically.

Using Tapper change Purl to Knit.

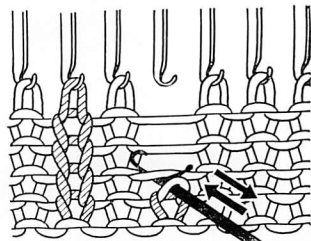
Knit stockinette st. with a gauge tighter than that of usual stockinette knitting by 3—4.



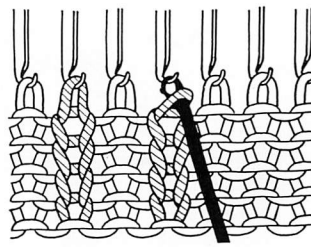
(1) Insert Tapper into the first stitch from which you want to begin Rib-knitting. Drop the stitch from stockinette st. of the line all the way.



(2) Push forward Tapper until the stitch is behind the open latch and the cross yarn above it is in the hook of Tapper.

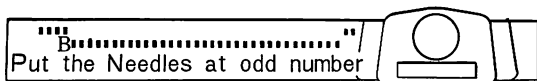


(3) Pull Tapper and the latch will close on the trapped cross yarn.



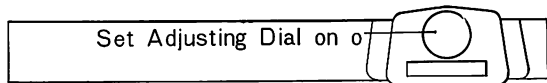
(4) Repeating this operation, transfer the last stitch to the hook of latch needle.

## ☒ HOW TO CREATE THE HEM OF RIBBING



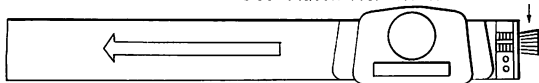
(1) Put the needles of odd number at B position.

After knitting 5—6 rows in stockinette st, knit one row of Raveling Cord.

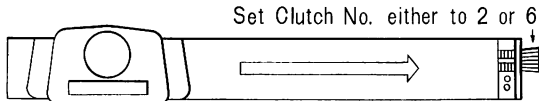


(2) Set Adjusting Dial on 0.

Set Clutch No. either on 2 or 6

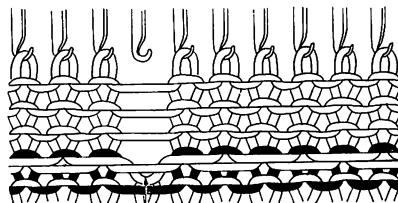


(3) Set Clutch No. either on 2 or 6 whose butts of both sides lower. Knit one row with a main yarn.



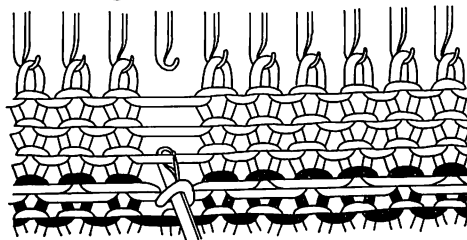
(4) Knit one row with Clutch No. either 6 or 2...reverse number of the previous step.

Letting Clutch Number be (0), knit 20—30 rows in stockinette st. with the number of Adjusting Dial less by 2—3 than that of stockinette st.



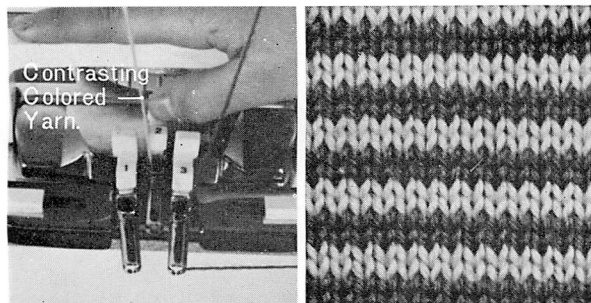
Pick up this stitch

(5) Drop stitch at every other stitch. Make Purl with a Tapper. First, pick up a loop above the Raveling Cord.

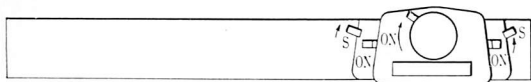


(6) Continue making Purl up to the top. After making Purl at every other stitch, pull out Raveling Cord and set loose the part of Loose Course.

☒ STRIPED FANCY KNITTING OF EVERY TWO ROWS USING TWO COLORS

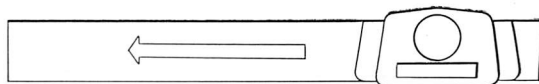


As the above Fig. shows, pass the main yarn and the contrasting yarn through two Yarn Feeders.

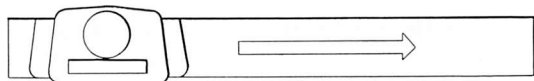


Yarn Feeder-Main Yarn

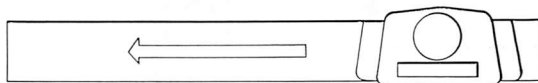
(1) Set each Lever on as the above Fig. shows. Push the Yarn Feeder that holds the main yarn.



(2) Sliding Carriage to the left side, knit one row.

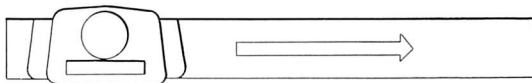


(3) Sliding Carriage to the right side, now knit the second row.



Yarn Feeder-Contrasting Colored yarn.

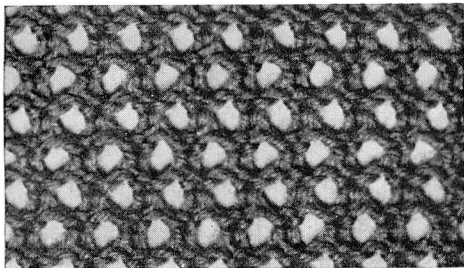
(4) Pushing the Yarn Feeder that holds the contrasting colored yarn, change the yarn. and then slide Carriage to the left side to knit the third row.



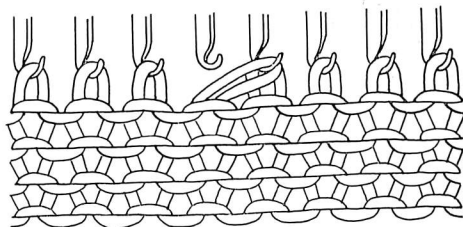
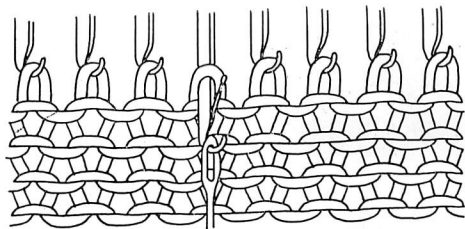
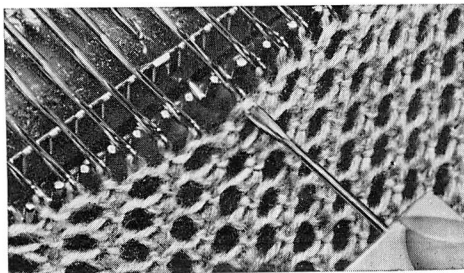
(5) Sliding Carriage to the right side, knit the fourth row.

Returning to the first operation, repeat this way of knitting.

## ☒ LACE KNITTING



Knit 4–5 rows in stockinette st. Using Transfer Tool, transfer the stitch to the next needle at every other stitch.

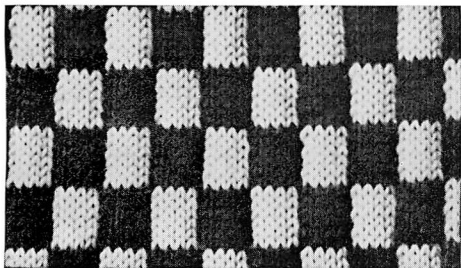


After transferring stitches, let Brush Handle of both sides be "ON". Then knit two rows in stockinette st.

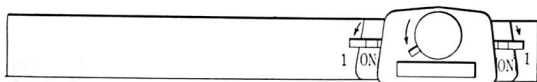
Restore the eye of the Transfer Tool which had been transferred to the adjacent needle to the previous needle.

Repetition of this work will create lace stitches.

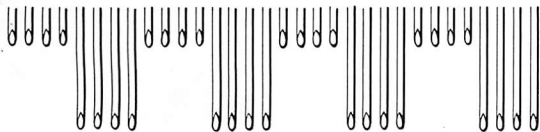
## ☒ CHECKERED PATTERN KNITTING



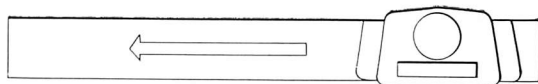
Knit 4~5 rows in stockinette st. using two colored yarn.



(1) Let each lever be as the above Fig. shows.

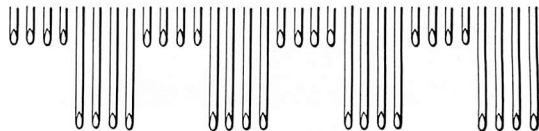


(2) Put the needles at E position at every 5th needle as the above Fig. shows.

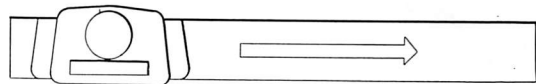


Yarn Feeder-Contrasting Colored yarn.

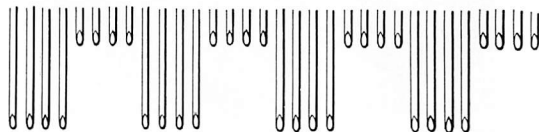
(3) Pushing Yarn Feeder with the contrasting colored yarn, slide Carriage to the left. Then one row is created.



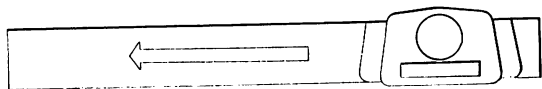
(4) Put needles at E position like the case of No. 2.



(5) Sliding Carriage to the right side, knit the second row with the same contrasting colored yarn.

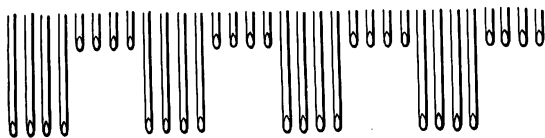


(6) Put the needles that are vice versa of No. 2 at E position.

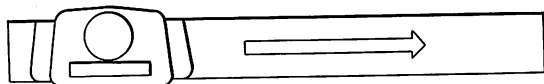


Yarn Feeder-Main Yarn.

(7) Push the Yarn Feeder with the main yarn. Slide Carriage to the left side to create the third row.



(8) Put the needles which are same as the third row at E position.

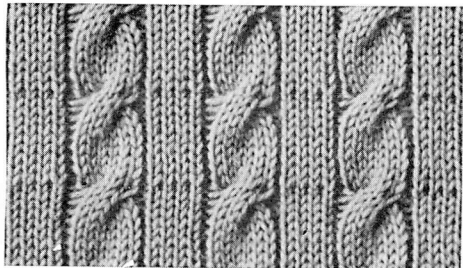


(9) Slide Carriage to the right to knit the 4th row with the main yarn as same as the third row. After repeating twice the operation (from 2 to 9), repetition of 3 times totally creates one pattern.

(10) Put the needles like Fig. 2 knit 2 rows with main yarn instead of contrasting colored yarn. Making the main yarn and the contrasting colored yarn reversibly every three times creates checkered pattern.

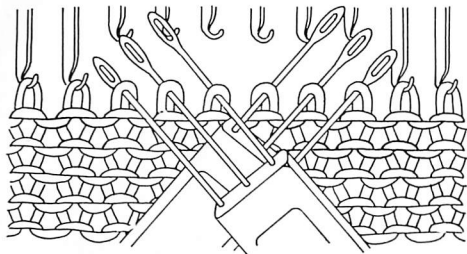


## ☒ ROPE KNOTTING

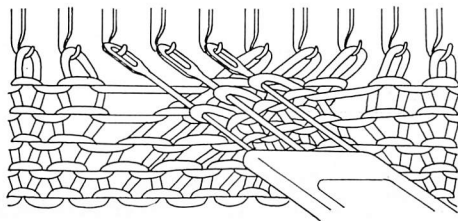


After knitting 8 rows in stockinette st. interchange stitches as the Fig. of the right side shows.

After knitting one pattern, make the stitches of both sides of Rope knitting purl from knit.



Take three interchanged stitches onto two Transfer Tool.



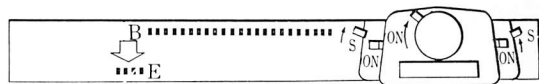
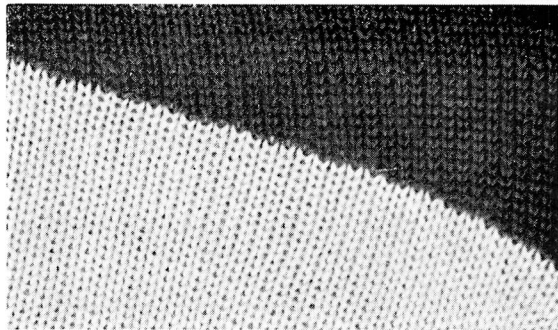
Take stitches of both sides vice versa.

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

# VARIOUS WAYS OF KNITTING

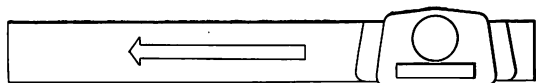
## ☒ TURNING COURSE KNITTING (1)

This is used for the slope such as shoulder.

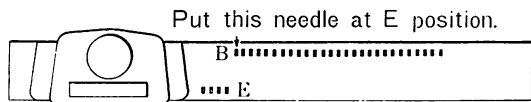


- (1) Put the resting needles at E position.

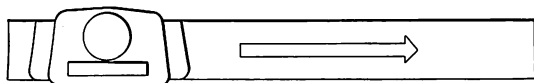
Note: The number of the resting needle is different from the material of knitting and the curve.



(2) Knit one row. In this case only the needles at B position work to knit.



(3) Put the needle of the left edge (B position) which was knitted to E position.



(4) Slide Carriage to the right side to create the second row



Put the resting needles at E position.

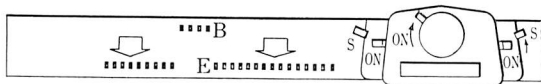
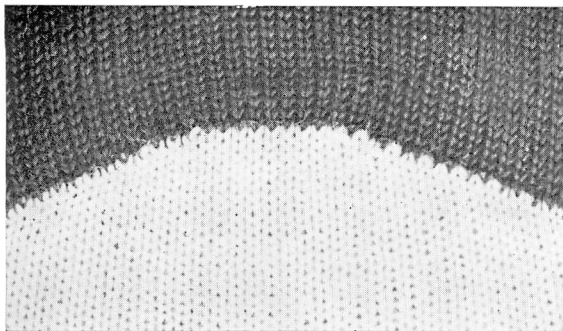
(5) Put the resting needles at (E) position like No. (1).

Repeat the operation (2—5) and you will create the Turning Course knitting as the Fig. shows.

After finishing the Turning Course knitting and when you want to knit with all the needles, let S Cam Lever of the proceeding direction be 2 and Brush Handle "ON".

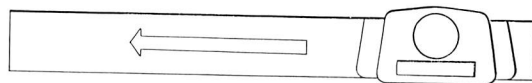
## ☒ TURNING COURSE KNITTING (2)

This type of Turning Course knitting is used for the middle part of garment such as sleeve.

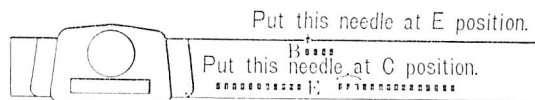


(1) Leaving the working needles in the middle part of the machine, put the needles of both sides at E position.

Note: The number of needles that was put in the middle part differs in accordance with the material of knitting or a type of curve.

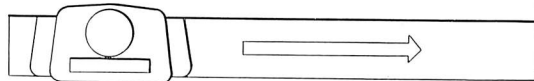


(2) Knit one row. Only the needles at (B) position work to knit.

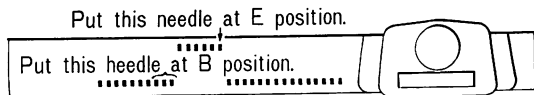


(3) Put the needle of the left edge which had been knitted at E position and put the needle at the right side at C position.

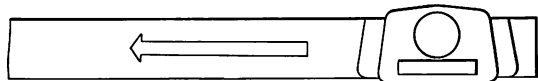
(The number of needle which is to put at C position differs in accordance with the material of knitting or a type of curve.)



(4) Slide Carriage to the right to create the second row.



(5) Vice-versa of No. 3, put the needle of the left side at B position and one needle of the right edge at E position.

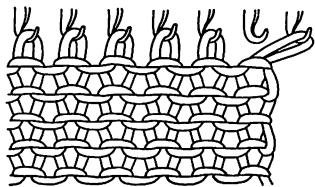


(6) Slide Carriage to the left to create the third row.

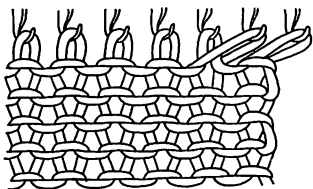
Repeated operation (from 3 to 6) will create the Turning Course knitting as the picture shows.

When you finished Turning Course knitting and you want to begin stockinette knitting, make S Cam Lever of the proceeding direction 2 and Brush Handle "ON".

## ☒ INCREASING STITCH

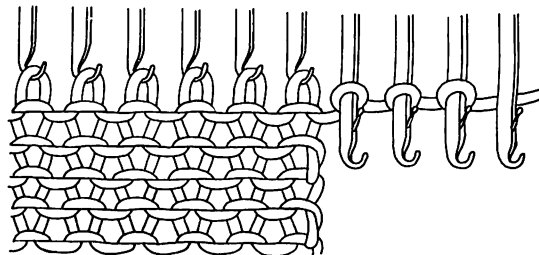


Transfer one stitch of the edge to the vacant needle of the outside.



Take the loop beneath one row to the vacant needle.

When increasing over two stitches at one time



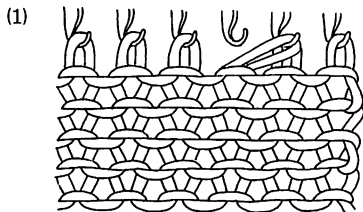
This is used at the side of Carriage.

Put the needles that you want to increase at D position and wind yarn around it. You don't have to wind yarn around the last needle.

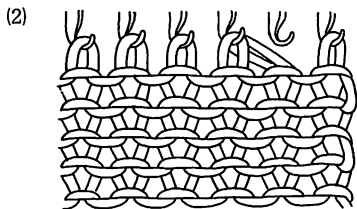
Knit the next row.

## ☒ DECREASING STITCH

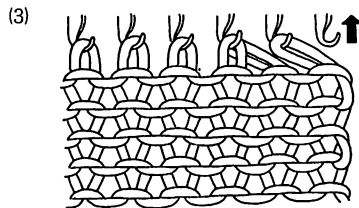
### DEECREASING TWO STS.



Put the third stitch upon the second st.

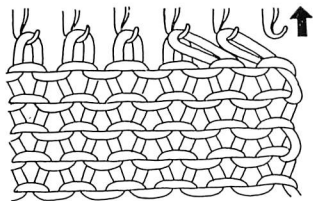


Transfer this double sts.  
to the former place of st.



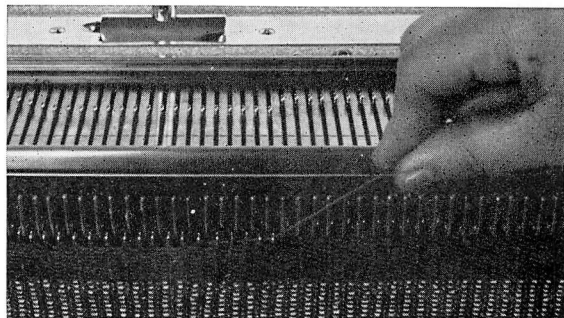
Transfer the st. of the edge to the second  
st.

## OTHER TYPE OF DECREASING STITCH.



Move the two stitches from the edge to the needles of inside.

## ☐ HOW TO RAVEL THE GARMENT

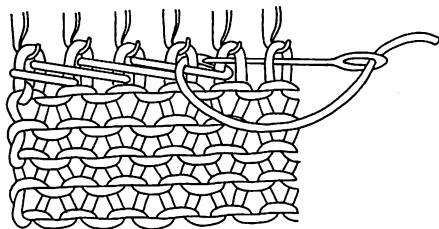
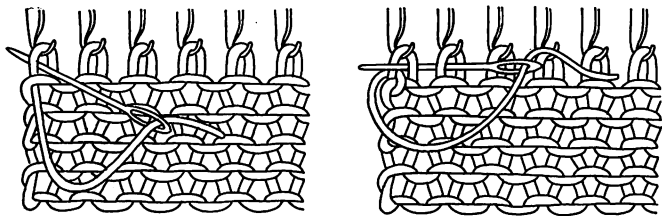


Pulling the garment to the operator's side, put the needles forward.

Pulling the garment lightly downward pull the end of yarn horizontally rather strong and then move it upperward slantingly and you will ravel about one row. If you repeat this procedure, you can ravel a necessary number of row.

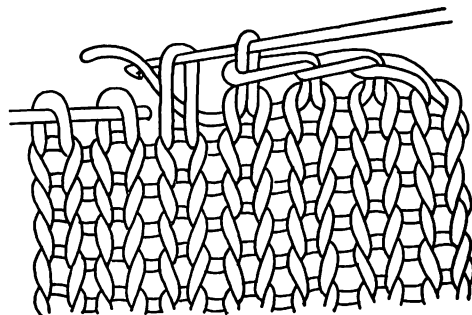


## ☒ WIND BINDING



While the garment is held on the machine, bind off passing yarn between stitches as the Fig. shows. It is used for binding off the Purl knitting or Garter knitting.

## ☒ CROCHET BINDING



Taking all the stitches onto the Knitting Needle, then pull every stitch with the Crochet Needle to bind from the end of yarn.



WHEN THE OPERATION  
IS NOT SUCCESSFUL.

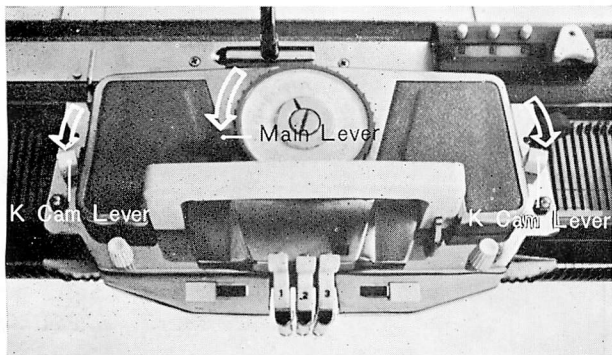
☒ WHEN CARRIAGE IS STICKY

- (1) Is the number of Adjusting Dial fit the yarn using? (See page 12)
- (2) Is the control of the feeding yarn proper for the yarn using? (See page 13)
- (3) Is the yarn smoothly fed? Not entangle?
- (4) Did you remove wool fiber accumulating in the Needle-Bed from time to time?
- (5) Did you oil your machine especially on the place of friction? (See page 56)

☒ WHEN USING USED YARN

- (1) Avoid using yarn with too many knots.
- (2) Press Yarn well.
- (3) Avoid using too napping yarn.

☒ WHEN CARRIAGE IS HARD TO SLIDE

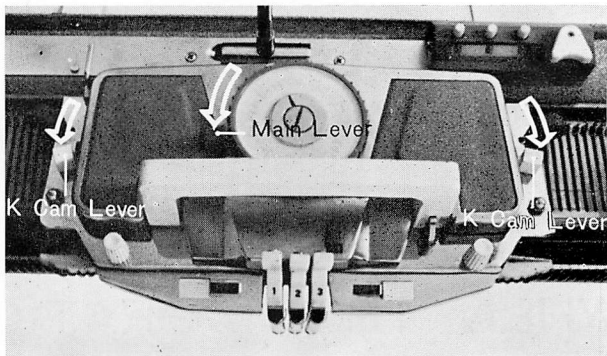


Let every Lever shown on the above Fig. be "OFF".

Slide Carriage to the place where there is no garment.

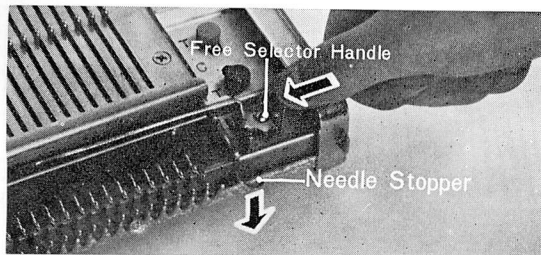
After examining the cause of trouble, begin the knitting.

☒ SENDING FREE CARRIAGE

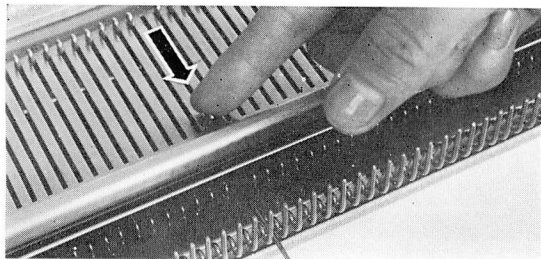


When you make all the Lever "OFF", Carriage becomes free to move.

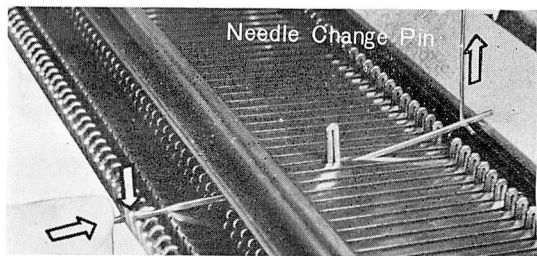
## ☒ CHANGE OF LATCH NEEDLE



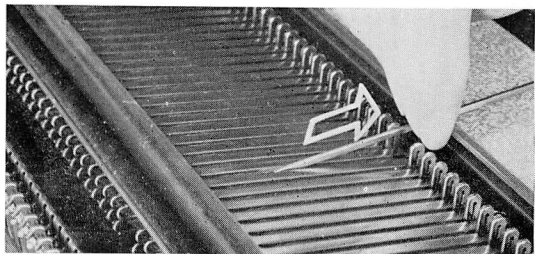
- (1) Pushing Needle Stopper downward, set Free Selector Handle to N. C. position.



- (2) Push forward the butt of the needle that you want to change to (E) position.

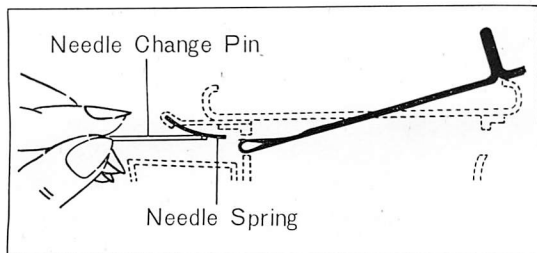


- (3) Push the hook of the needle downward and the end of the needle comes up from the Needle-Bed.

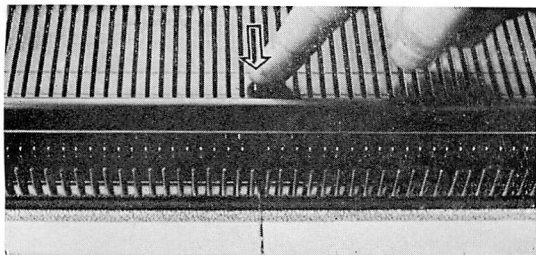


- (4) Holding the risen butt pull it up.

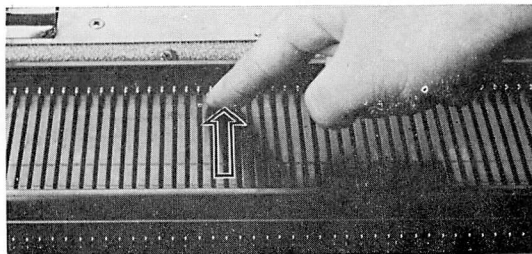
## ☒ HOW TO INSERT THE NEEDLE.



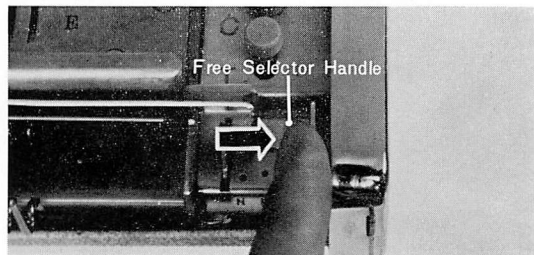
- (1) Pushing the Needle Spring up as the above Fig. shows, insert the needle.



- (2) Sliding the needle to the front side, insert the shank.



- (3) Restore the needle to the backward.



- (4) Restore Free Selector Handle to former position, then push Needle Stopper to former position.

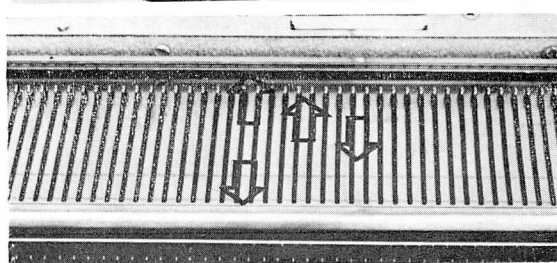
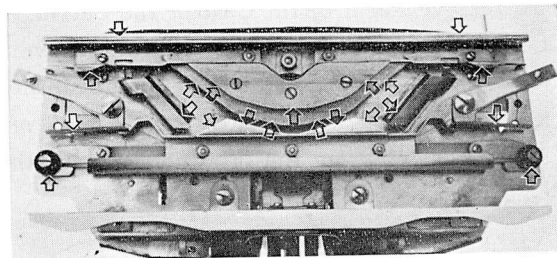


REPAIRING AND  
PRESERVING.

#### ☒ CARE

After knitting two or three garments, oil the following places.

Before oiling, remove wool fiber accumulating in the Needle-Bed with a Cleaning Brush.



## ☒ PRESERVING

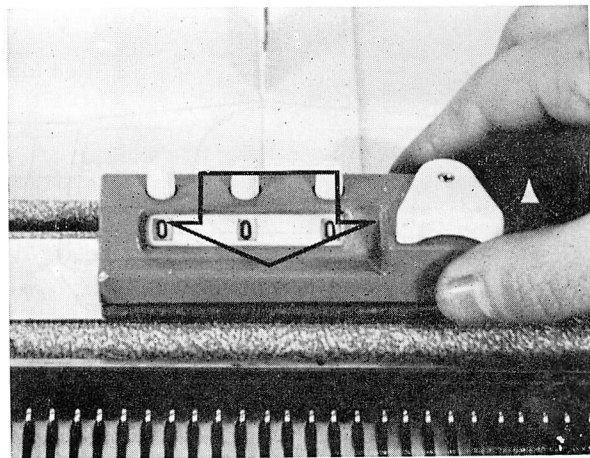
When you don't use the machine for a long time, oil a little thick on the parts shown on the previous page.

Preserve the machine in the dry place, avoid direct sunshine.

To remove smear of the Case or the Carriage Cover, wipe off with soapy water. Never use Benzine, and Alcohol. When you use the machine once again after a long period of non-using, wipe off the oil well with cloth and use a new oil sparingly.

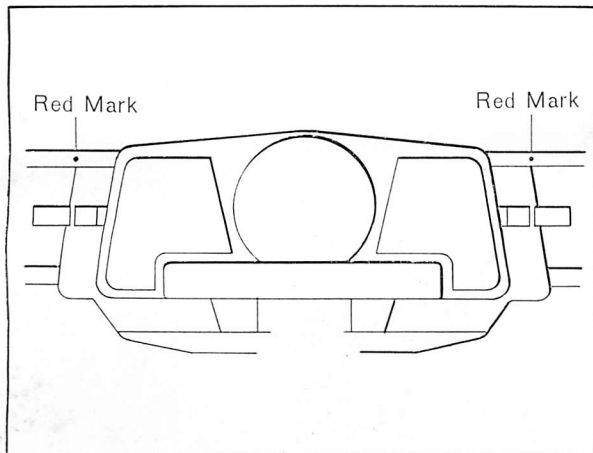
A black and white photograph of a woman standing next to a typewriter. She is wearing a patterned, double-breasted suit jacket and a matching skirt, a pearl necklace, and a dark hat. She is holding a small object in her left hand. The typewriter is partially visible on the right side of the frame.

# HOW TO ENCASE THE MACHINE

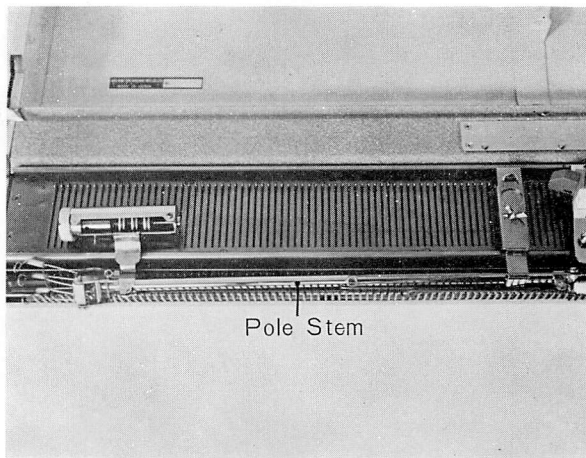


Put all the needles at A position and make the number of Clutch Handle O.  
Pulling Row-Counter to the operator's side remove it.



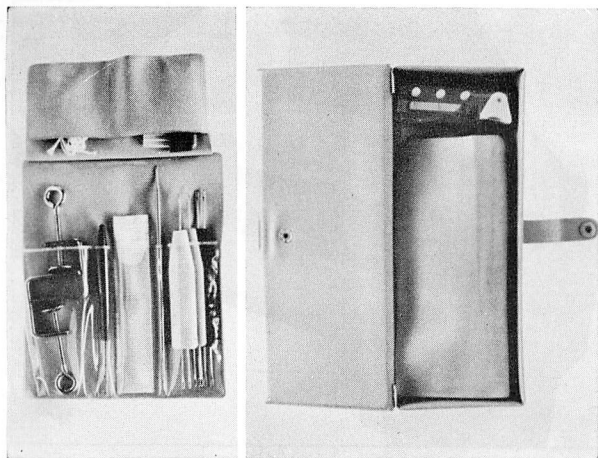


Set both edges of Carriage to Red-marks of Needle-Bed and Carriage will come to the middle part of the machine.

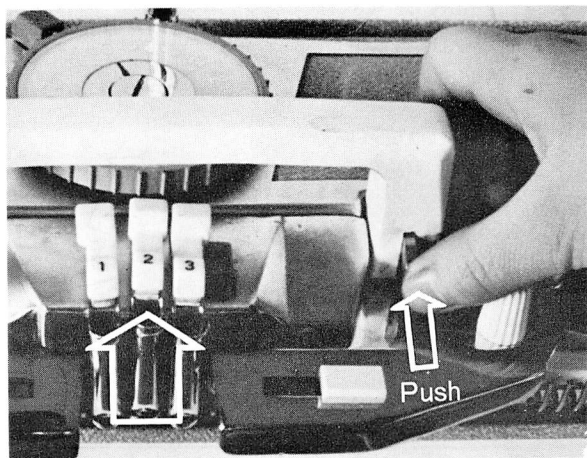


Remove Pole from the machine, bring down Pole Fixing Base.

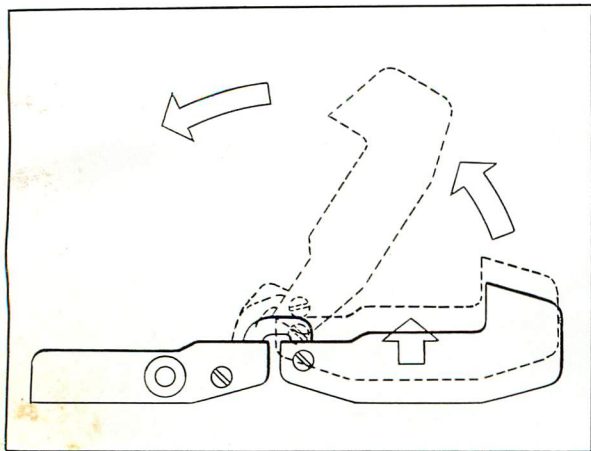
After putting Tension Spring into the stem of Pole, fix Tension and pole in the machine with Tension Pole Holder.



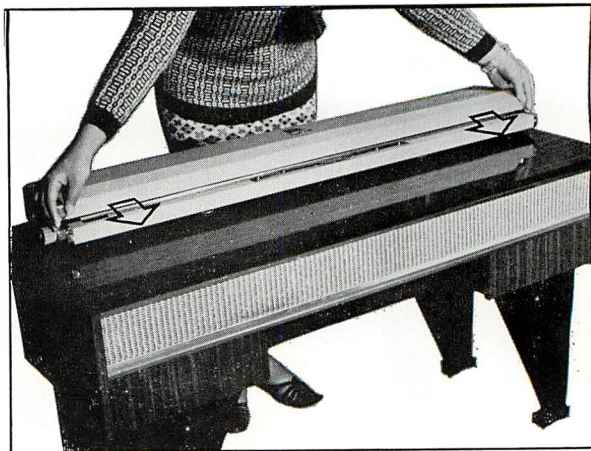
Put Accessories in the case as the upper Fig. shows and put the case of Accessory on the Needle-Bed in the right side of Carriage.



Push three Yarn Feeders, then after pushing Handle Stopper bring down Carriage Handle as the above Fig. shows.



Holding the lid of the case upward, shut it to the direction of Arrow-mark.



Push the lid to the direction of Arrow-mark then lock at the both sides.

## ☒ PLURAL KNIT

Plural knit is a wonderful way of knitting that can create more than two articles simultaneously using one single machine.

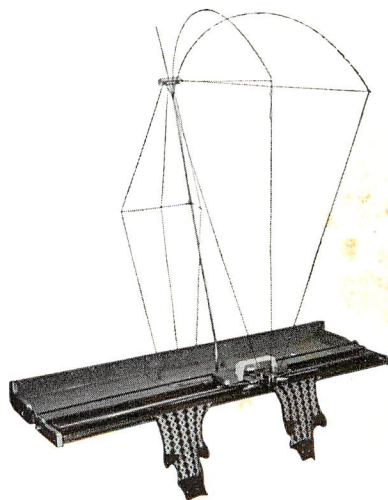
The Multi-Color Triple-Yarn-Feeder is very efficient to knit this convenient way of knitting.

Please enjoy the excellent features of our machine to full extent. The Fig. of the right side shows that a pair of socks are being knitting at the same time.

How to knit the socks of the right and left is like this; Pass yarn through Yarn-Feeder (3) and (1) respectively. First, knit the right side with (3), then knit the left side, changing the Yarn-Feeder to (1).

Repeating this operation at every row, you can create a pair of socks.

Plural Knit is suitable to knit sleeves of sweater and cardigan and is applied to many purposes. This unique Plural Knit is only found in ARS KNITTER.



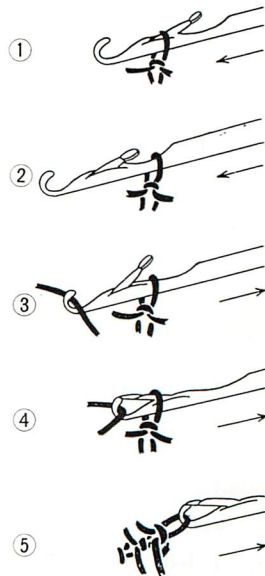
## ☒ STITCHES ARE CREATED LIKE THIS.

Knitting is created by the combination of stitches, lengthwise and widthwise.

The stitches are made by the repeated movements of Latch Needles.

The Figs. show the movements of needle and the process of creating stitch.

Please understand the principle of knitting, which is very helpful to practise afterward.



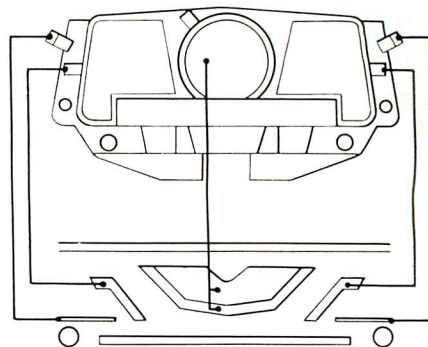
## ☒ FUNCTION OF CAM

Cam is a mechanism, transmitting the movements of Carriage to Latch Needles, and it is the most important part. Taking off Carriage from the main body and looking at the reverse side of Carriage, please understand the mechanism and function and the method to operate after having read the following explanation.

There are four kinds of Cams in ARS AMORETTO. Each Cam has a special function as follows ;

## THE RELATION BETWEEN EACH LEVER AND THE WORK OF CAM

Front side of Carriage



Reverse side

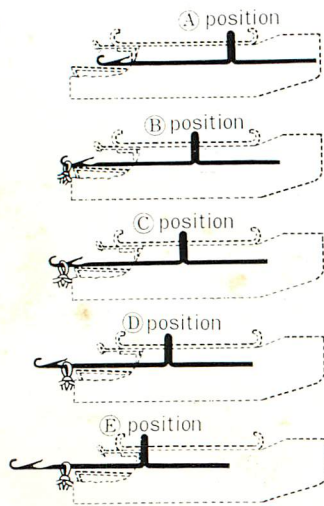
Name of Cam	Outline	The Lever to be operated	The work of Cam when the Lever is "ON"
R CAM		Main Lever	Make the Latch Needles advance.
T CAM		Main Lever	Let the needles in the position of Tuck advance.
K CAM		K Cam Lever	Let the needles go back.
S CAM		S Cam Lever	Let the needles in the $\text{Ⓟ}$ position go back to the place where K Cam works, namely the place of working area.

When the each Lever is "OFF" each Cam doesn't work, stopping the movements.

## ☒ THE POSITION OF LATCH NEEDLE

The position of Latch Needle is shown by the position of butt which appears above Needle-Bed.

There are 5 basic positions of Latch Needles in operating the knitting machine that are shown from (A) to (E). Referring to the undermentioned pictures, understand the each position of butt and the meaning of its work. (See page 11)



- (A) Place the needles which you don't use in knitting in this position.
- (B) The needles start from this position usually, and begin the movement to knit.  
Place the needles to knit in this position.
- (C) This Position of Butt shows the state just before the stitches pass over Latch.
- (D) This position of needles shows the place where needles advanced most by R Cam to the front side of the knitter. Stitch is held to Stem, passing over Latch.
- (E) The needles of this position work only by S Cam. When S Cam Lever of the proceeding direction of Carriage is "ON", needles go back.

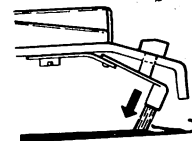
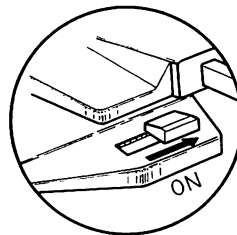
## ☑ OPERATION OF BRUSH-HANDLE

Brush Handle is used so that the latches of Latch Needles can open at the time of Casting-On or the finishing of Turning Course. Make Brush Handles "ON". When you want to slide Carriage from the right side to left in the beginning of knitting, don't forget to make Brush Handles of the both sides "ON".

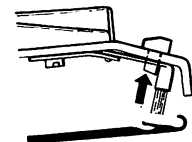
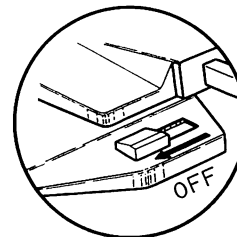
But when yarn was held, namely, after the first row was created, Latches open naturally without the aid of Brush Handles.

Therefore after the first row, make Brush Handles "OFF" always.

When Brush-Handle is "ON", Latch Brush lowers and Latches open.



When Brush Handle is "OFF", Latch Brush departs from needles and never work.





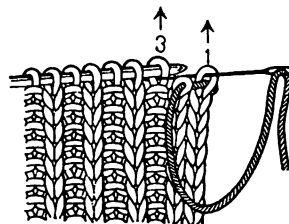
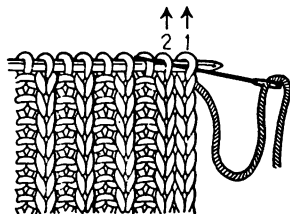
## ☒ HOW TO BIND OFF RIBBING

(A) How to bind off knit 1, Purl 1, Ribbing.

Measure length of yarn about from 2.5 to 3 times as long as width of garment. Break off yarn. With a knitting needle, take off stitches on machine from back to front. Thread Tapestry Needle.

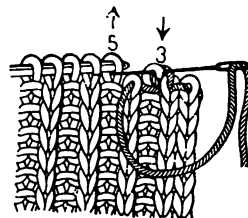
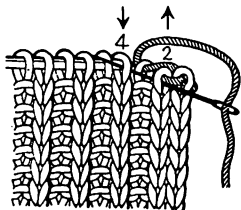
(1) With two Knit Stitches of both sides facing you, take two stitches from back to front using Tapestry Needle.

(2) Take 1st and 3rd stitch from front to back.



(3) Take 2nd stitch from front to back and 4th from back to front.

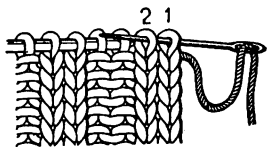
(4) Take 3rd stitch from back to front and 5th stitch from front to back.



As Figs. (3) (4) show, needle always goes through the same stitch (Knit or Purl) twice.

(B) How to bind off Knit 2 Purl 2 Ribbing.

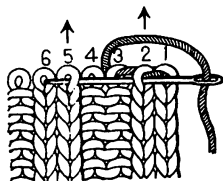
(1) With two Knit Stitches of both sides facing you, take two stitches from back to front using Tapestry Needle.



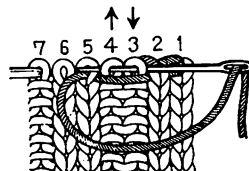
(2) Take 1st and 3rd stitch from front to back.



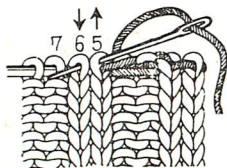
(3) Take 2nd stitch from front to back and 5th stitch from back to front.



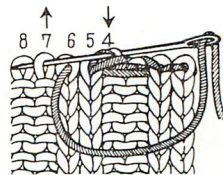
(4) Take 3rd stitch from back to front and 4th stitch from front to back.



(5) Take 5th stitch from front to back and  
6th stitch from back to front.



(6) Take 4th stitch from back front to and  
7th stitch from front to back.



As Figs. (3), (6) show, needle always goes through the same stitch (Knit or Purl) twice.

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