

# My **BERNINA** Guide

707  
717

# Table of contents

	Page		Page		Page
Adjusting motor model 707	5	Flat joining seam	23	Satin stitch	10
Adjusting motor model 717	4	Flat seam	17	Satin stitch embroidery	40-41
Adjusting stitch length	10	Gathering	20 and 37	Scissors Holding	16
Applique work	38-39	Gathering of Material	20	Securing Threads	12
Automatic Stitches	14	Gusset Seam	17	Sewing Elastic Thread	20
Basting	24	Hemmer	34	Sewing on buttons	30
Blind-hems	21	Hems in Jersey Material	15	Sewing table (707)	9
Bobbin and bobbin case model 717	4	Hemstitching	44	Shell Edging	18
Bobbin and bobbin case model 707	6	Hemstitch needle	44	Shell hemmer	35
Breakdowns	45-47	Inserting the bobbin	7	Some Technical hints	11
Buttonholes	25	Inserting zips	31	Straight stitch	12
Buttonholes with cord	26	Jersey repairs	16	Stretch stitch	23
Changing Presser feet	9	Jersey seams	17	Tailor tacking	32
Cleaning and Oiling model 707	48	Lace on Jersey	18	Terry Cloth Darning	29
Cleaning and Oiling model 717	50	Lace in material	19	The various Parts of the Machine (707)	2
Corded Buttonholes	26	Lap hemmer	36	The various Parts of the Machine (717)	3
Darning	27-29	Lowering drop feed control	8	Thread Correct Holding	15
Darning Fine Socks	28	Lycra seams	23	Thread cutter	9
Darning Sleeves	28	Monograms	46	Threading machine	8
Darning Terry Cloth	29	Neatening seams	13	Thread table	6
Darning with Wool	29	Needle Position	12	Treble needle	42
Double hemstitch needle	43	Oiling Model 707	48	Trellis work with metallic thread	44
Double needle	42	Oiling Model 717	50	Tricot Hems	15
Edgings - Fancy	18	Patching	22	Tricot Patching	16
Edging with gimp	39	Patching Jersey	16	Tricot repairs	16
Embroidery Designs	14	Patching Material	22	Tricot seams	17
Elastic seams	23	Pintucking	43	Unpacking and packing the machine	5
Elastic Thread	20	Pre-embroidered applique	44	Waving on Jersey	15
Elastic Waistband	18	Quick seam	17	Winding bobbin thread	6
Electrical connections model 717	4	Reverse Sewing	12	Wool Darning	29
Electrical connections model 707	5	Reverse stitching	12	Zigzag Sewing	13
Finishing of Seams	13	Ruche	44	Zip Insertion	31

**Name :**

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**Address :**

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**Date of delivery :**

**Machine No.**

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**Dear Bernina Customer,**

You are now the happy owner of a new Bernina. We greatly appreciate the confidence you have placed in us and assure you that you will not be disappointed.

We have deliberately chosen the title, "My Bernina Guide", because we are certain that this tuition book will become a very personal thing to you in association with your machine.

Together with your book you will receive instruction from your Bernina dealer. Your samples of work can then be mounted on the red printed spaces provided and a valuable work of reference can thus be compiled.

Special attachments are required for some of the jobs described in this book. These can be supplied against extra charge. Your Bernina dealer will be glad to advise you.

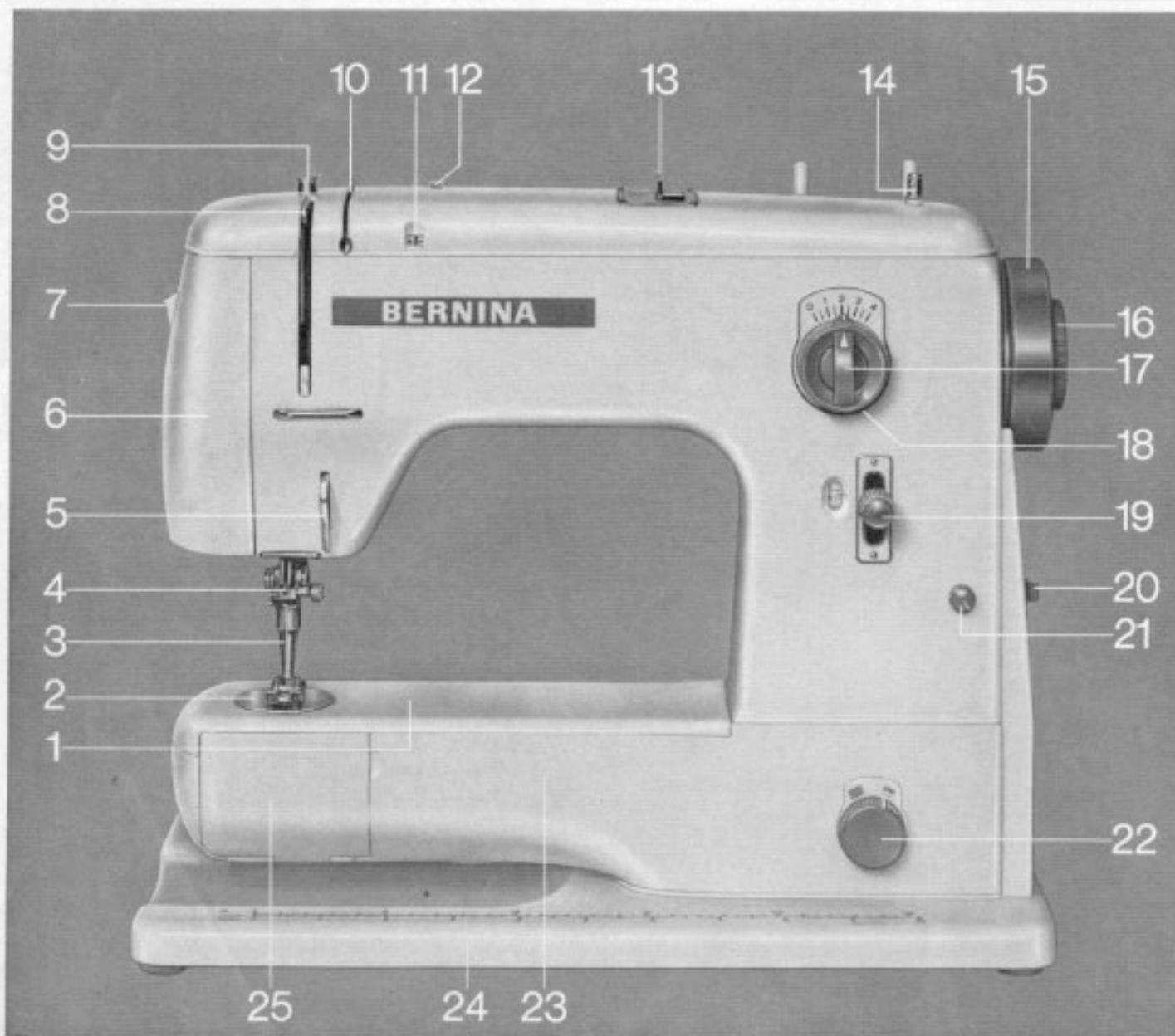
As soon as you have mastered the sewing techniques taught to you during your instruction period you will discover that sewing with a Bernina is a pleasure.

We wish you every success.

**Fr. Gegauf Ltd., Manufacturers of Bernina Sewing Machines  
Steckborn TG / Switzerland**

# The various parts of the machine

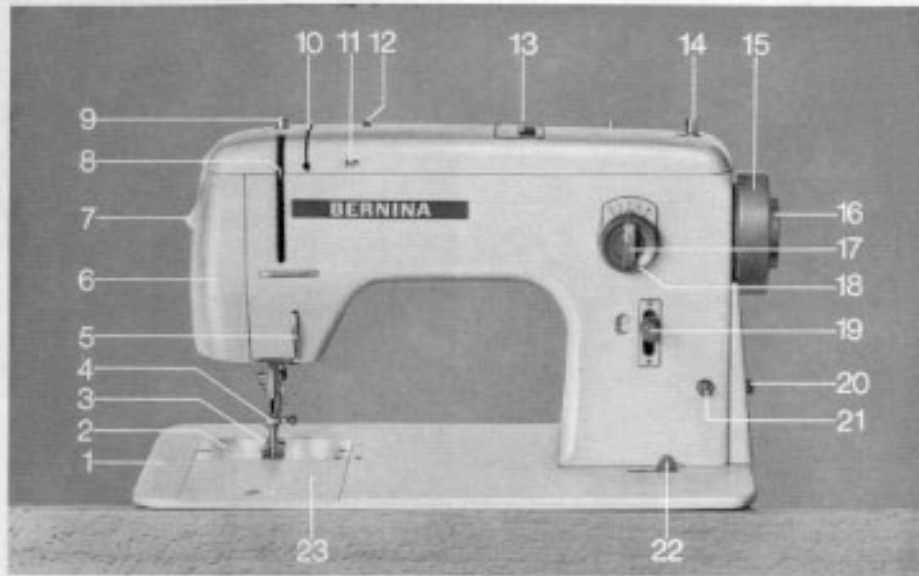
Model 707



- 1 Free Arm Cover Plate
- 2 Needle Plate
- 3 Sewing Foot
- 4 Needle Clamp
- 5 Thread Guide
- 6 Light Cover
- 7 Light Switch
- 8 Take-up Lever
- 9 Bobbin winder tension
- 10 Thread Tension Discs and Slot
- 11 Tension Indicator Window
- 12 Tension Centering Wheel
- 13 Pattern Selector
- 14 Bobbin Winder Spindle
- 15 Handwheel
- 16 Handwheel Release
- 17 Needle Position Control Knob
- 18 Knob for Setting Zigzag
- 19 Stitch Length Regulator
- 20 Satin Stitch Stop Lever
- 21 Satin Stitch and Buttonhole Regulator
- 22 Control Knob for Drop Feed
- 23 Free Arm
- 24 Base Plate
- 25 Bobbin case cover

# The various parts of the machine

Model 717



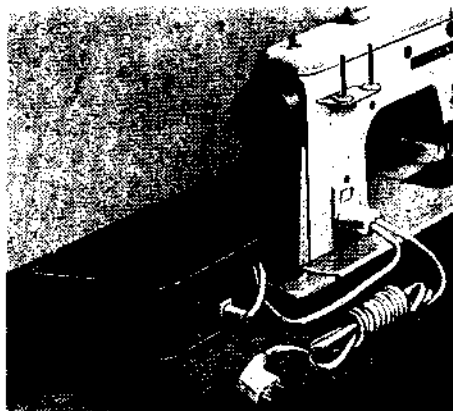
- |                                  |  |
|----------------------------------|--|
| 1 Base Plate                     | 13 Pattern Selector                      |
| 2 Needle Plate                   | 14 Bobbin Winder Spindle                 |
| 3 Sewing Foot                    | 15 Handwheel                             |
| 4 Needle Clamp                   | 16 Handwheel Release                     |
| 5 Thread Guide                   | 17 Needle Position Control Knob          |
| 6 Light Cover                    | 18 Knob for Setting Zigzag               |
| 7 Light Switch                   | 19 Stitch Length Regulator               |
| 8 Take-up Lever                  | 20 Satin Stitch Stop Lever               |
| 9 Bobbin winder tension          | 21 Satin Stitch and Buttonhole Regulator |
| 10 Thread Tension Discs and Slot | 22 Control Knob for Drop Feed            |
| 11 Tension Indicator Window      | 23 Needle Plate Slide                    |
| 12 Tension Centering Wheel       |  |

Model 717

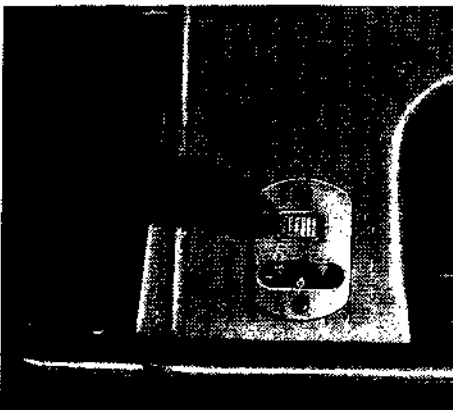
Model 717

**Connecting up.** Compare the voltage indicated on the machine plate with that of your main voltage.

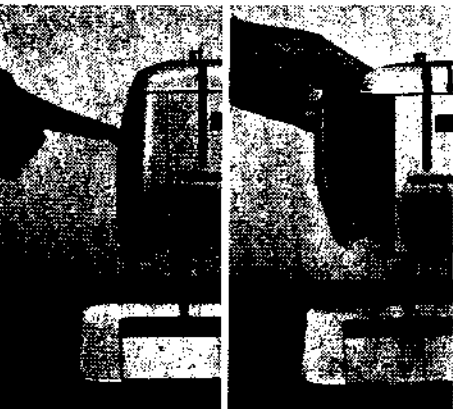
Connect foot starter to the machine. Foot starter and flex are connected by a special plug. When this plug is attached to the machine there remains only the flex plug to be connected to a power point. By pressing lightly on the foot starter the machine is set in motion.



**Adjustable motor.** It is an advantage with many kinds of sewing to be able to reduce the speed of the machine. Push the switch. Now the machine runs with half the number of revolutions and the speed can easily regulated.



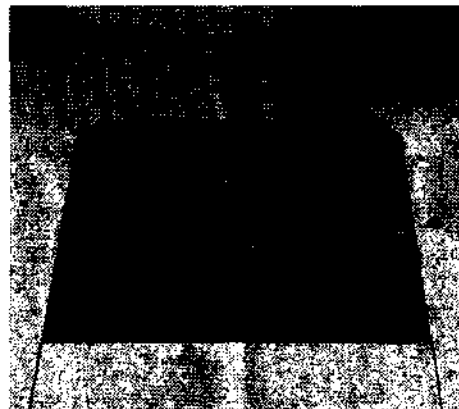
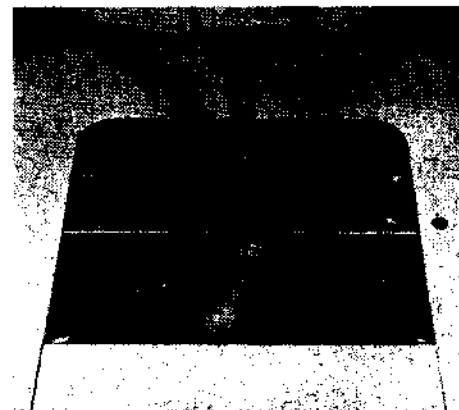
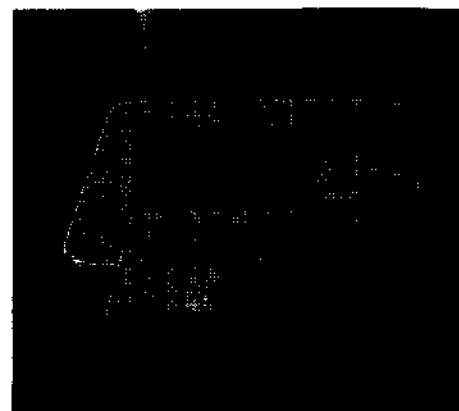
**Light switch.** By pressing switch (7) the dazzle-free light can be switched on and off. Pull out light cover sideways to change the bulb. Press bulb upwards, turn anti-clockwise and draw downwards. To insert bulb, turn it clockwise.



## Removing the bobbin case

Open stitch plate slide. Turn hand-wheel towards you, until needle reaches highest point.

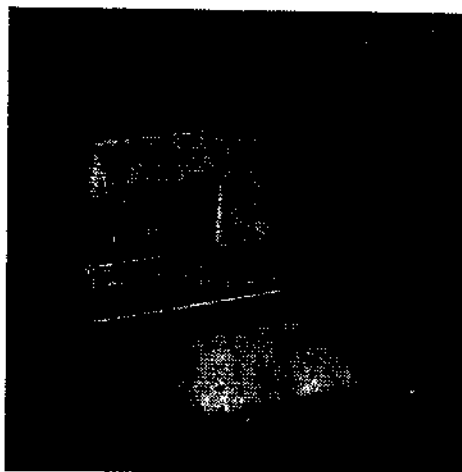
Open the hinged latch with thumb and forefinger of the left hand and remove the bobbin case. The insertion of the bobbin case is carried out in the same manner.



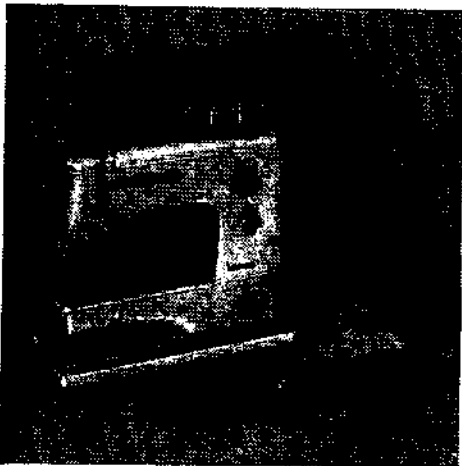
Model 707

Model 707

Sewing machine, foot control and table are housed in the case.



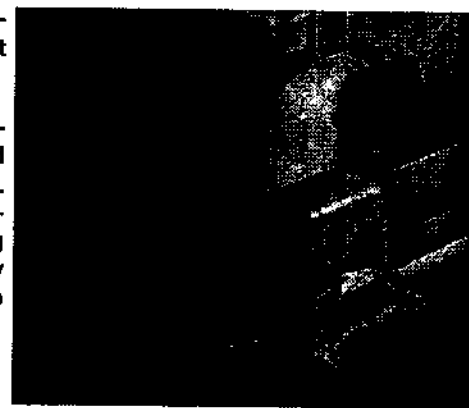
To take the machine out of the case, place it upright on a table. When locks are opened, one side of the case can be pulled down. The machine can now be placed without difficulty wherever it is needed.



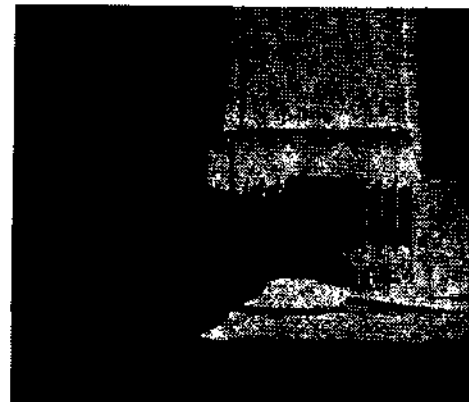
When replacing the machine after use, make sure that the hand wheel is next to the compartment for the foot starter.

**Connecting up.** Compare the voltage indicated on the machine plate with that of your main voltage.

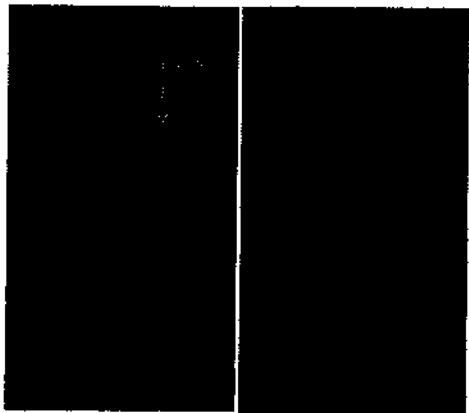
Remove foot starter from case and connect it to the machine. Foot starter and flex are connected by a special plug. When this plug is attached to the machine there remains only the flex plug to be connected to a power point. By pressing lightly on the foot starter the machine is set in motion.



**Adjustable motor.** It is an advantage with many kinds of sewing to be able to reduce the speed of the machine. Push the switch. Now the machine runs with half the number of revolutions and the speed can easily regulated.

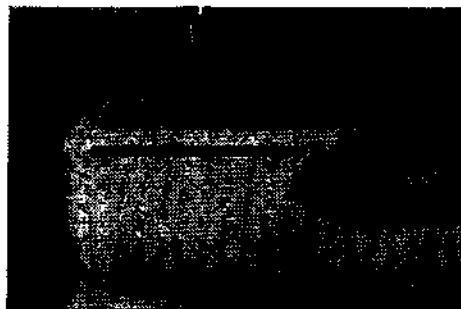


**Light switch.** By pressing switch (7) the dazzle-free light can be switched on and off. Pull out light cover sideways to change the bulb. Press bulb upwards, turn anti-clockwise and draw downwards. To insert bulb, turn it clockwise.

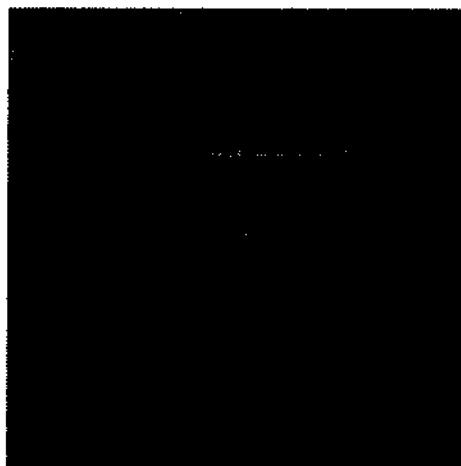


Model 707

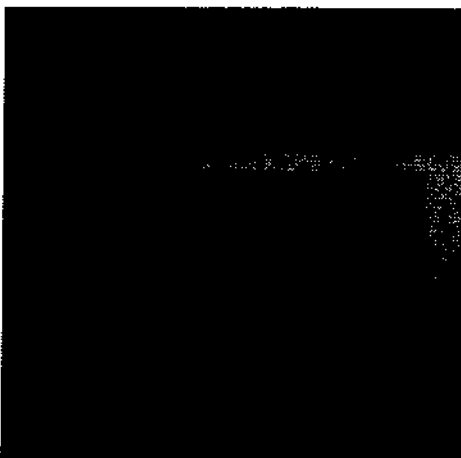
## Removing the bobbin case



Open hinged bobbin case cover. Turn hand wheel towards you until the needle is in its highest position.



Open the hinged latch with thumb and forefinger of the left hand and remove the bobbin case. The insertion of the bobbin case is carried out in the same manner.



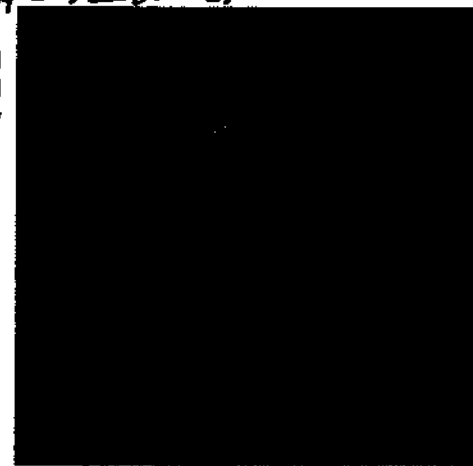
## Needle and thread table

	<i>brits</i> very fine	fine	medium	strong	<i>Dorim</i> large
Needle system 705 B	60	70	80	90	100
Mercerised sewing thread (3 ply)		50	50	40	40
Darning thread (2 ply)	50	30-50	50		

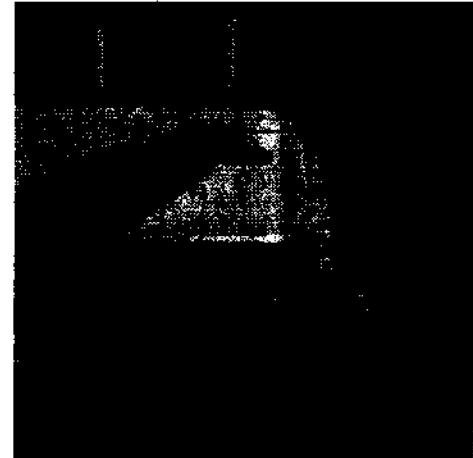
*100% polyester metrosene threads are used today on single brits with # 60-70-75/11 #5 and for Dorim 104/16 #5 needles.*

## Winding of thread on bobbin

Loosen hand wheel: Hold hand wheel with the left hand. Loosen the hand wheel release with the right hand by turning anti-clockwise.



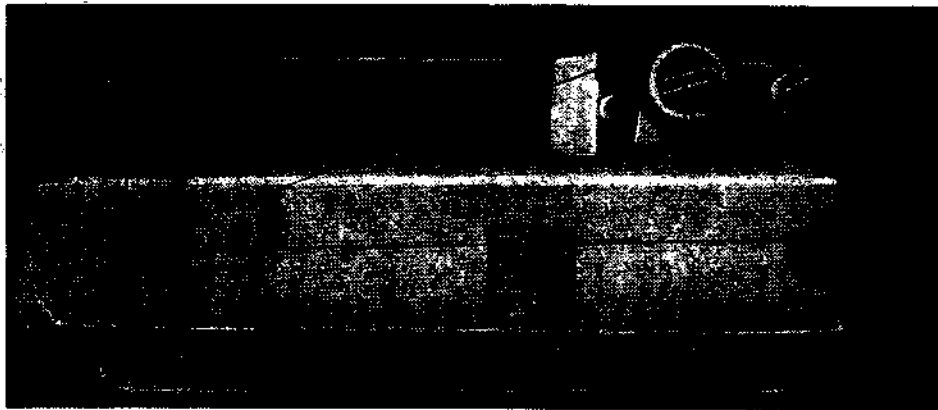
Push the bobbin winder spindle on the top cover to the right and mount the bobbin case. Bobbin winder is now switched on.



## Correct choice of needle and thread

Use only needle system 705 B for the Bernina machine class 707 and 717. Make sure that both needle and thread correspond to the sewing table given above. The usual needle numbers for sewing are 80, 90 and 100. For darning, needle numbers 70 and 80.





Draw the thread from the spool round tension (9) and from there — as shown in picture — guide it to the mounted bobbin case. Start the motor by pressing on the foot starter.

As soon as there is enough thread wound, stop motor, remove the bobbin case and push the bobbin winder spindle again to the left. Re-tighten release screw on the hand wheel.

**Insertion of bobbin into the bobbin case.** When the bobbin is in the case make sure that the thread unwinds in the direction of the arrow.

Draw thread through slot and then under tension spring. Do not hold the bobbin. The bobbin must turn in the direction of the arrow when unwinding.

**Insertion of the bobbin case into the hook.** Raise needle to top position by turning the handwheel. As when removing the bobbin case hold it by the hinged latch with thumb and forefinger of the left hand. Hold bobbin case in such a way that the extension arm is directed upwards and fits into the niche of the hook race cover.

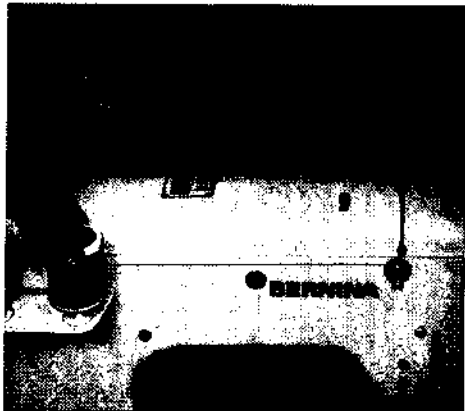
Check-up: Pull end of thread.

# To thread the machine

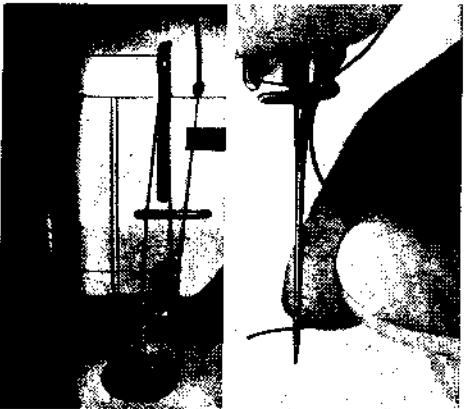
**Fixing the needle.** Loosen the needle clamp screw half a turn. Push the needle upwards as far as it will go with the flat side at the back and facing away. Tighten needle clamp screw.



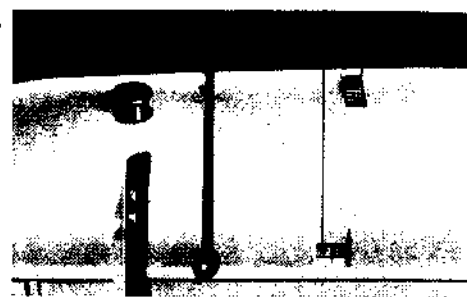
**Threading the machine.** The thread is led from the spool to the needle in one movement. Presser foot and take-up lever must be in their highest positions. Place spool on pin. Lead the thread with the left hand through the eyelet then pull it through the slot of the tension disc. With the right hand hold the spool steady.



Now draw thread through the thread guide (5) up to the slot of the take-up lever (8) and again down to the needle eye. Thread the needle from the front to the back leaving a loose end of approximately 10 cm (4 ins.).



**The thread tension discs.** Bernina has the unique advantage that during normal sewing the thread tension does not have to be altered. The tension centering wheel (12) can be regulated for special purposes. For your guidance: Normal tension = Black line in centre of window. + in centre = Tighter tension. - in centre = Looser tension.



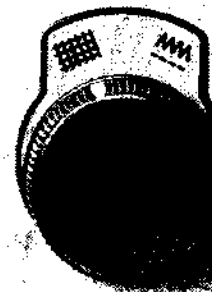
**Bringing up the bottom thread.** Hold needle thread loosely. Now turn the hand wheel towards you until the take-up lever is in its highest position. Pull the needle thread slightly and the bobbin thread will come up through the needle hole. Pull both threads under the presser foot and lay them there sideways.



**Lowering the feed dog.** For certain types of sewing, in particular darning, the feed dog must be lowered.

Model 707

**Darning.** Turn control knob (22) to the left as far as it will go towards the darning sign. For normal sewing turn knob to right as far as it will go towards the zigzag and straight stitch sign.



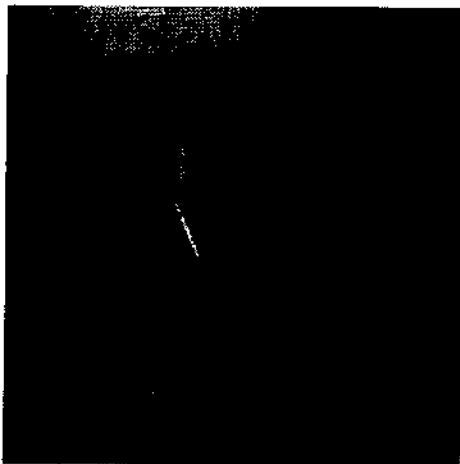
Model 717

**Darning.** Lower feed dog by setting the lever (22) to the right upon "darning" symbol. For all other tasks lever has to be set upon "sewing".

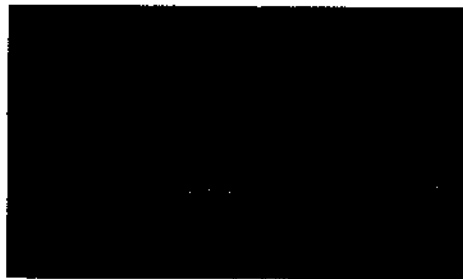


Only model 707

**Removing work.** It is essential to bring the take-up lever (8) into its highest position by use of the handwheel when sewing is finished. Raise presser foot by means of the lever at the back of the machine; this will release the top thread tension and the material can be removed easily by pulling to the rear.

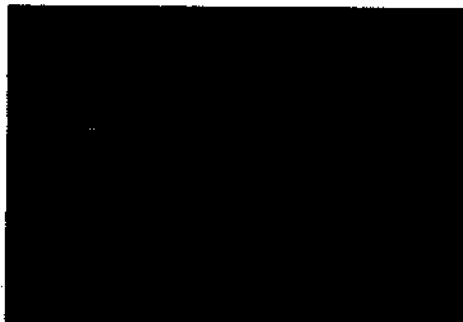


**Thread cutter.** The lever on the presser foot bar is made in such a way that it can be used as a thread cutter. This small device helps to save time, especially when scissors are not close at hand.



Only model 707

**Fitting the sewing table.** The sewing table is secured to the back of the case by a wing-nut which when turned releases the table.



When sliding the table on the free arm, make sure that the locking lever is turned to the left. To secure the sewing table the lever must be turned to the right in the direction of the arrow.

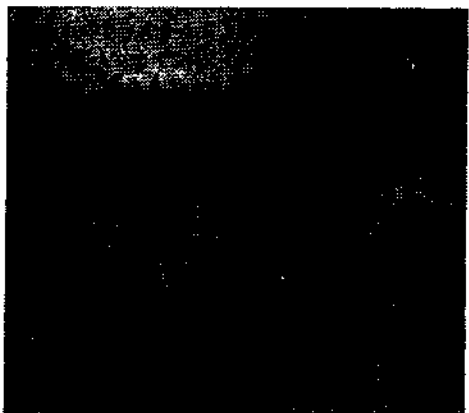
Use the correct presser foot for each type of work. Only in this way will you achieve easy and perfect work. The patented Bernina presser foot clamping lever permits quick and easy changes. The Bernina principle: "Just clip it on!" The work is done in no time.



Raise presser foot by using lifting lever



Loosen clamping lever and release presser foot



Fix the required presser foot on and push lever downwards. The presser foot is secured and the machine is ready for sewing. Only Bernina has this advantage.

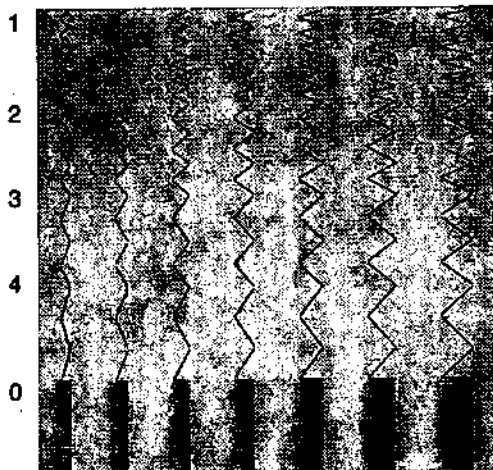
# Satin Stitch

Needle position : centre

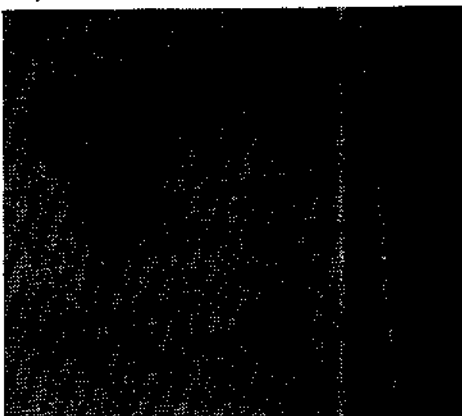
Zigzag width :

Stitch  
length :

1 1,5 2 2,5 3 3,5 4



We recommend the following method :  
Practise first on a sample with the de-  
sired thread and material (back with  
paper). If the satin stitch becomes too  
open or too close (fabric does not move)  
adjust in the following manner :



close to 0

## Zigzag sewing

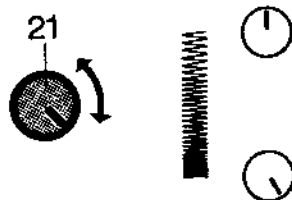
Setting the machine for the zigzag width:  
use knob 18. The pointer on zigzag  
knob (18) indicates the zigzag width on  
the dial behind. For straight stitching the  
pointer on the knob is set to 0. Turning  
the knob to the right from 0-4 increases  
the width of the stitch. The larger the  
number the wider the stitch. While sew-  
ing, the knob may be moved freely. **But  
never turn the knob when the needle is  
still in the fabric.**

**The satin stitch stop lever** serves as a  
rapid transition from normal stitch to  
satin stitch (closely sewn stitches). To  
set for satin stitch move lever 20 up and  
then push up lever 19 as far as it will go.  
The knob is set for sewing thread No. 30.  
If a different thread is used then knob 21  
may have to be adjusted.

**If the satin stitch is too dense or too  
open...**

Bring stitch length lever down, turn dial  
(21) either to the left or to the right.  
Bring lever (20) up and set the stitch  
length lever up until you feel it meet the  
stop.

When the indication mark on dial (21)  
points downwards the satin stitch is at  
its densest. When the indication mark  
points upwards the satin stitch is at its  
most open. A density between the two  
extremes can be chosen according to  
requirements.



Various stitches which can be sewn on  
the Bernina Class 707 or 717.

Scallop pattern

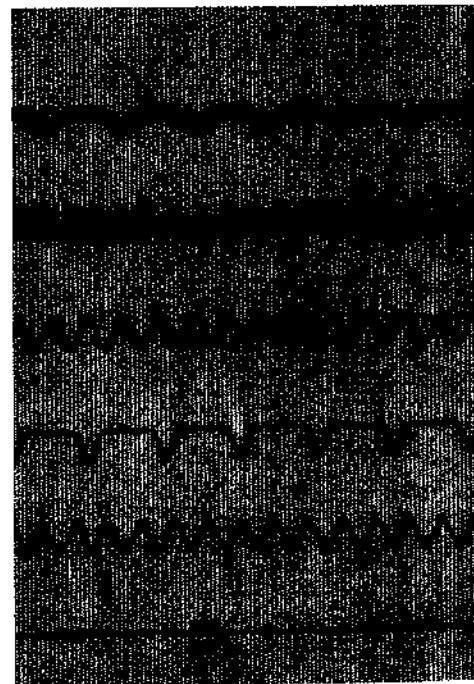
Stretch seam

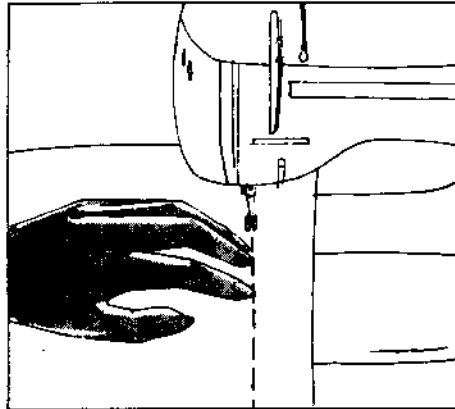
Running stitch

Blind stitch

Zigzag stitch

Straight stitch



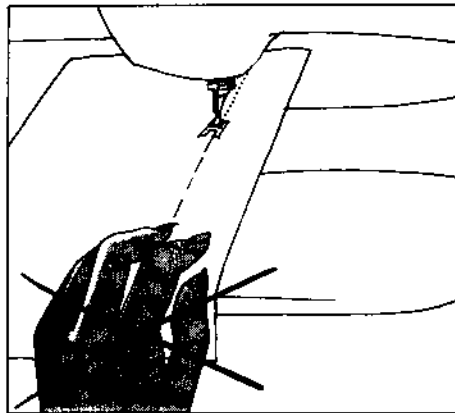


If you like to work as comfortably as possible we would advise you to observe the following points:

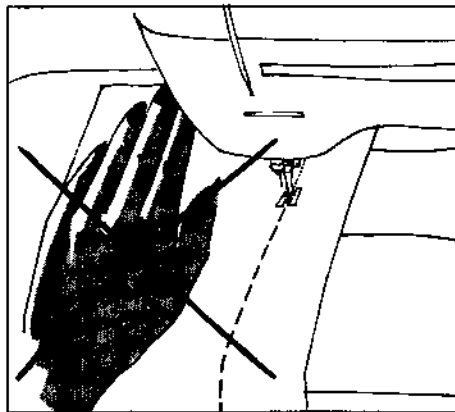
Place your Bernina far enough from the table edge (about 6 inches) for you to lean your left elbow on the table even when using the slide-on sewing plate which makes sewing easier.

Sit exactly in front of the needle bar. The mastering of your sewing depends only on how you guide the material.

The basic rules are therefore:



1. Guide the material as close as possible from the side, and near the presser foot



2. ... not from the front

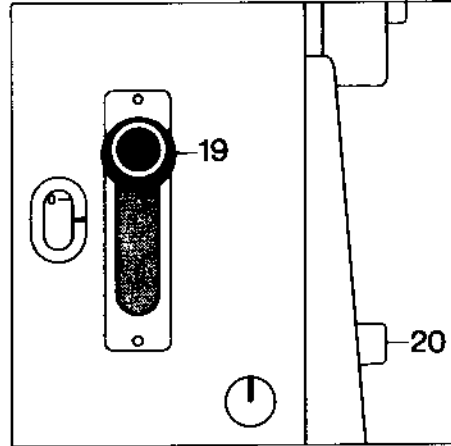
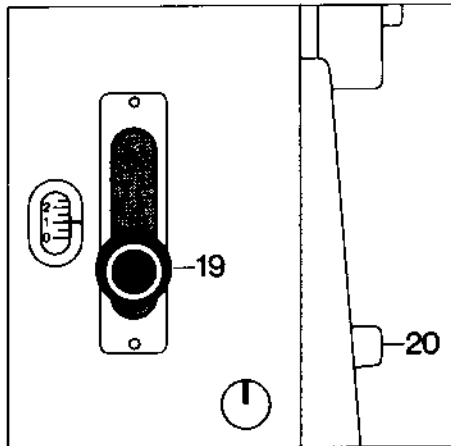
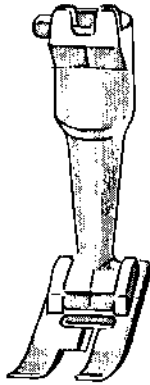
3. ... and not with the hand flat. Nor must the material be pulled to the rear.

# Straight stitching

## Zigzag foot

Needle:  
normally 80  
at times 70–100  
depending on the  
material and thread

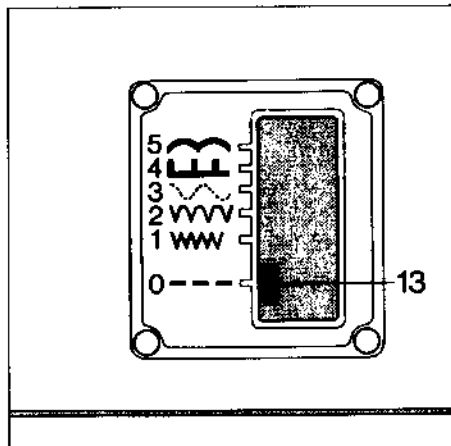
Thread:  
adapted to the  
fabric sewn



## Straight stitch

Zigzag: 0  
Stitch length: 1–4  
Needle position: centre  
Drop feed control: sewing  
Automatic: straight stitch-----

Set stitch length lever at desired length.  
Normal stitch length: about 1½–2



## Reverse sewing

(Satin Stitch lever (20) must be in down position.)

For reverse stitching push stitch length lever (19) upward (where no numbers are marked).

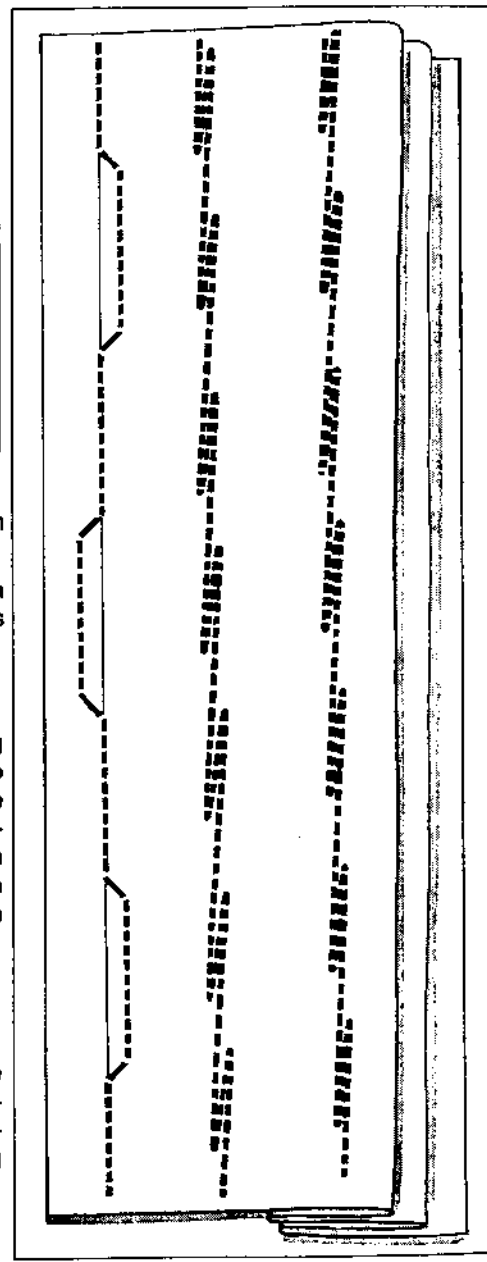
## Securing threads, etc.

Select a stitch length for normal sewing and turn knob on stitch length lever to right. Screw in as far as it will go. If the lever is raised above 0 for reverse sewing it will then select the same stitch length as for forward. When stitch length lever is returned below 0 the stitch length is the same as it was before.

## Securing in thick seams

(Stitch length not too short.)

Before stitching in reverse always leave the needle completely down in the material, then move lever to reverse sewing. The same applies when sewing forward again.



left      centre      right



## Needle Position

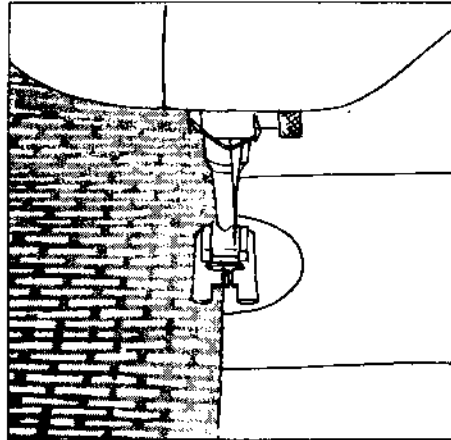
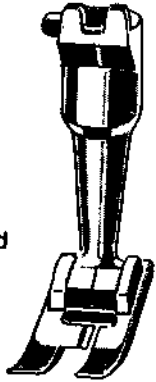
With the needle position knob the needle can be set at right or at left for buttonholes, blind hemming, zips, etc.

For normal sewing the needle remains in the centre.

## Zigzag foot

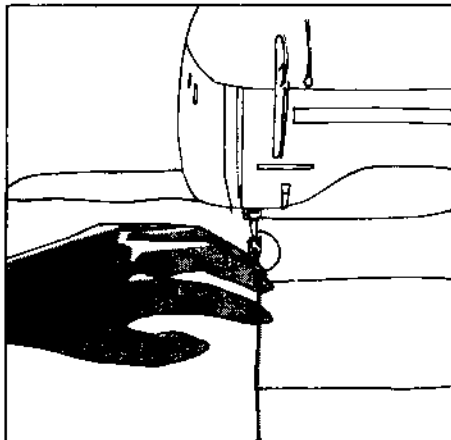
**Needle:**  
normally 80  
at times 70–100  
depending on the  
material and thread

**Thread:**  
adapted to the  
fabric sewn  
if possible 50

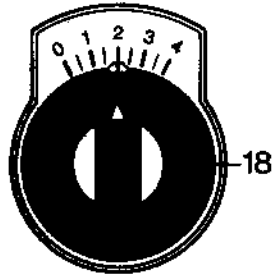


Guide the cut edge under the **centre** of the foot so that the needle actually goes once into the material and once outside.

As a general rule the following is valid:  
zigzag not too wide, stitch length not too long. First trim the edge neatly.



If you guide the work like this: From the front, close to the foot, fingers on the edge, you will easily get a neat finish.

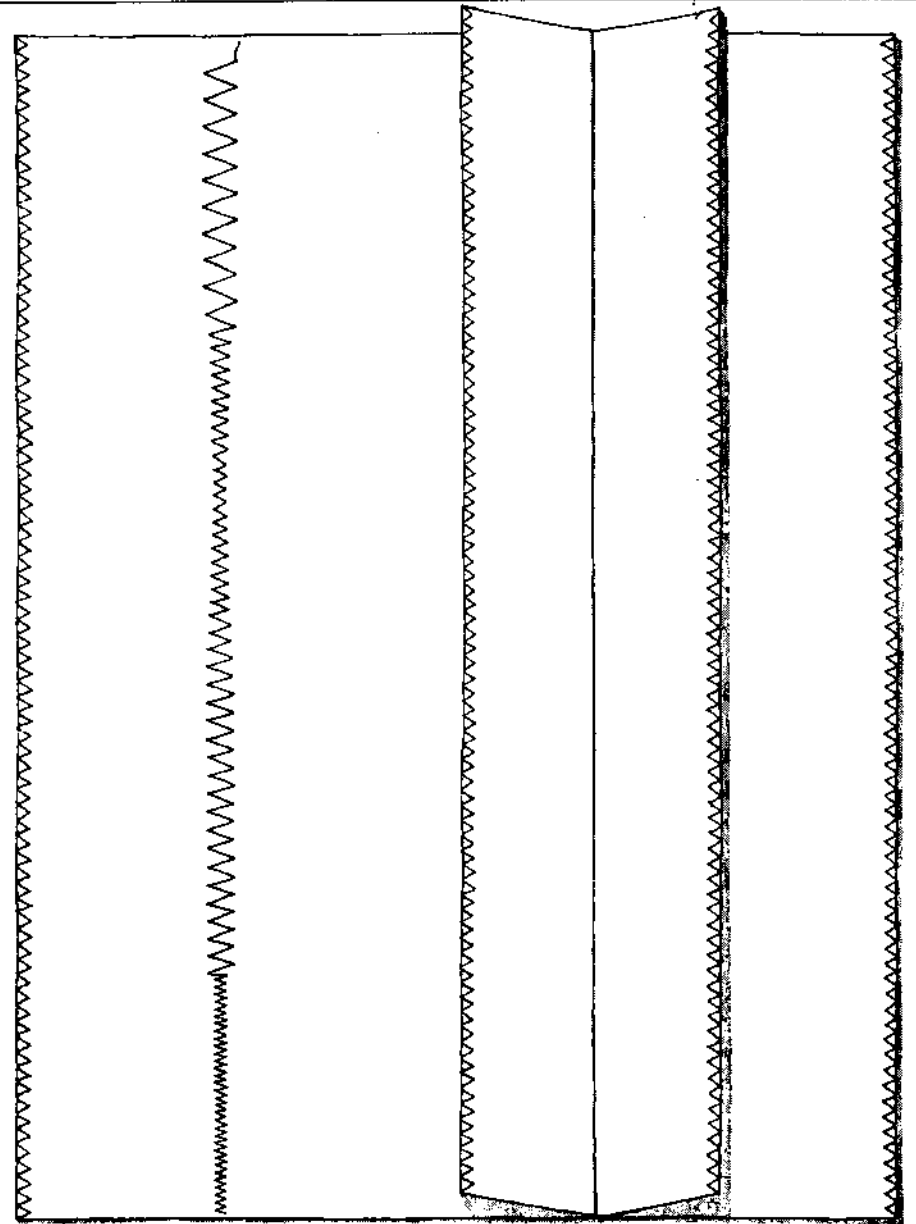


## Zigzag sewing

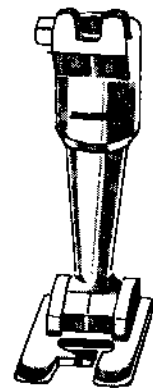
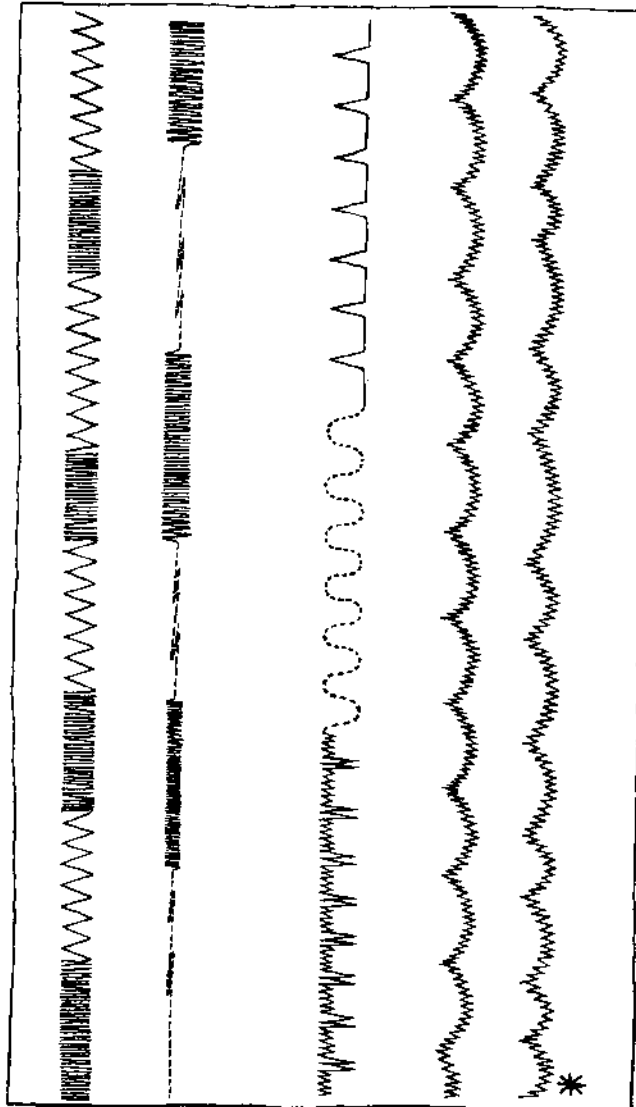
Set zigzag width according to work and material.

## Finishing Edges

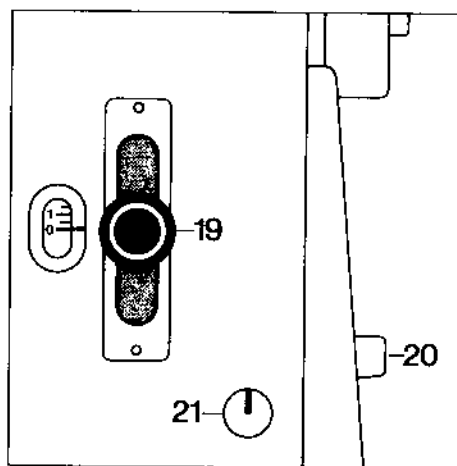
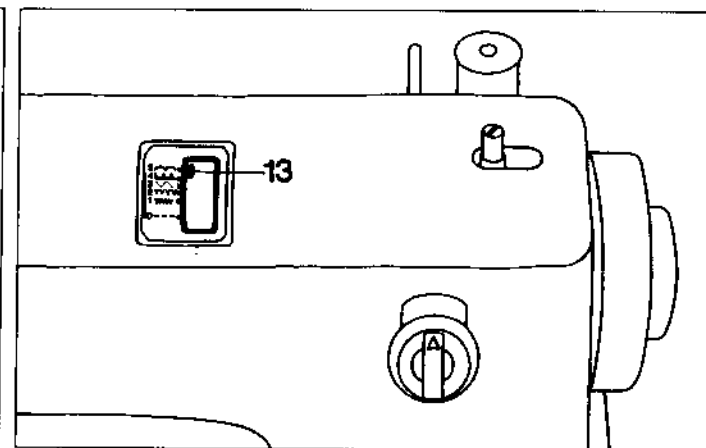
Zigzag:  $2\frac{1}{2}$ –4  
Stitch length: 1–2  
Needle position: centre  
Automatic: zigzag WWWW  
Drop feed control: sewing



# Automatic stitches



Embroidery foot  
Needle: 80-70  
Embroidery  
thread: 30



## Automatic

Pull lever 13 to right and set it next to desired pattern. When doing this do not leave the needle down in the material.

Zigzag: 4  
Stitch length: Satin Stitch  
Needle position: centre  
Drop feed control: sewing  
Paper underlay when needed

When embroidering it is advisable to lay paper underneath to prevent the material from puckering. (Do not use tissue paper, as this is too soft. Typewriting paper is excellent.)

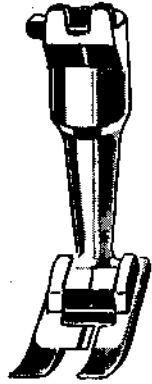
## Satin Stitch (Close zigzag)

Zigzag: 4-1½  
Stitch length: Satin Stitch stop lever up  
Stitch length regulator up as far as stop  
Needle position: centre  
Automatic: zigzag WWWW  
Drop feed control: sewing

Model 707 only: When embroidering always use the slide-on sewing table so that the work can enter **evenly** under the foot. Pushing or pulling produces irregular patterns.

The Bernina satin stitch control gives the correct stitch length (density) for a satin stitch and automatic embroidery instantly and without searching. Push lever 20 upward, then move lever 19 upward (stitch length regulator) until it will touch the stop.





Zigzag foot

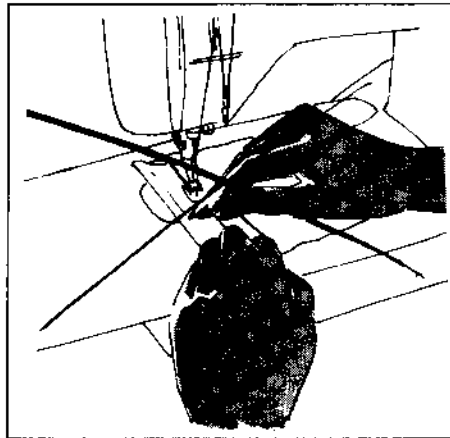
Needle: 80-70

Thread:  
30 or 50

## The Waving of Jersey

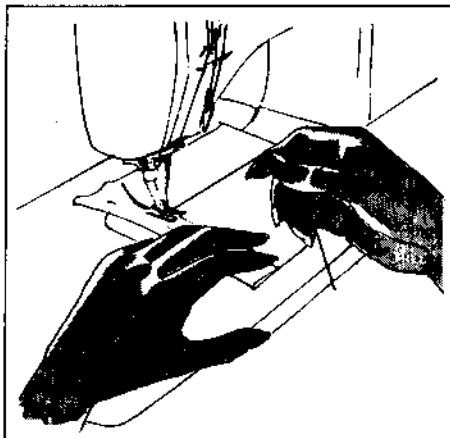
To prevent the Jersey from waving, guide an extra thread inside the zigzag. (Not only for hems but whenever jersey stretches, e.g. patching, oversewing, etc.)

Press with a damp cloth before removing the extra thread.



## How to hold the extra thread

Not like this, because you obscure your view of the work.

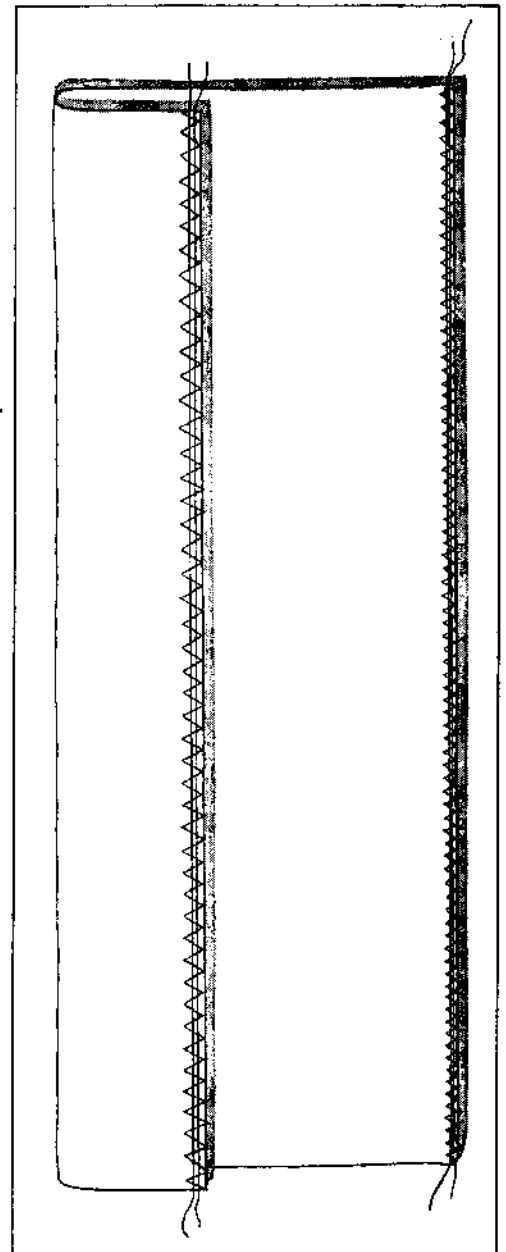


But like this: This way the view is clear and the work can be guided easily.

## Important

Hold the thread slightly taut while sewing and the Jersey will not stretch so much.

The thread can also be guided through the hole in the needle plate like pintuck cord. (Especially useful for a large patch.)



## Hems for Jersey underwear

Needle position: centre  
Automatic: zigzag WWWW  
Drop feed control: sewing

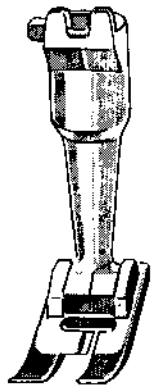
## Single turned-in hems

Zigzag: 3  
Stitch length: 1½

## Double turned-in hems

Zigzag: 2½  
Stitch length: 1½

# Patching Jersey



Zigzag foot

Needle: 80-70

Thread:

30 or 50

## Patching Jersey

Zigzag: about 3

Stitch length: 1-1½

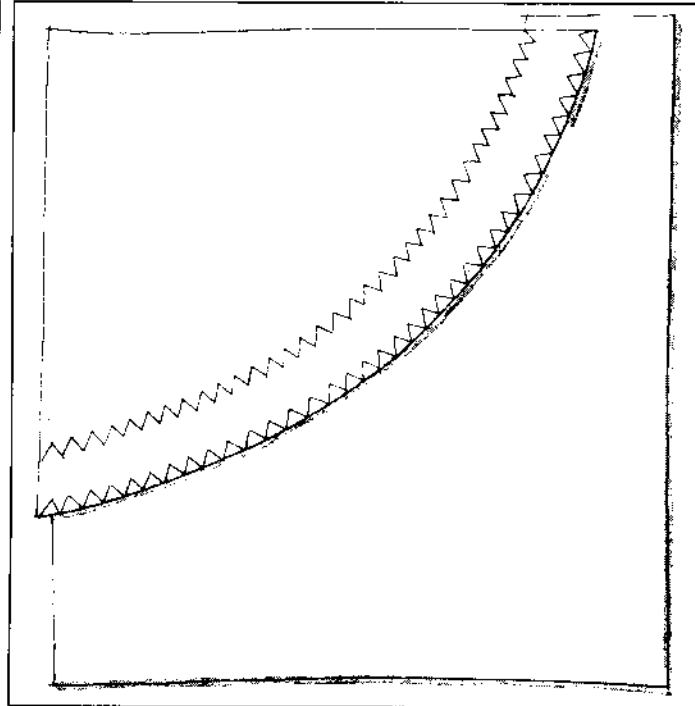
Needle position: centre

Automatic: zigzag WWWW

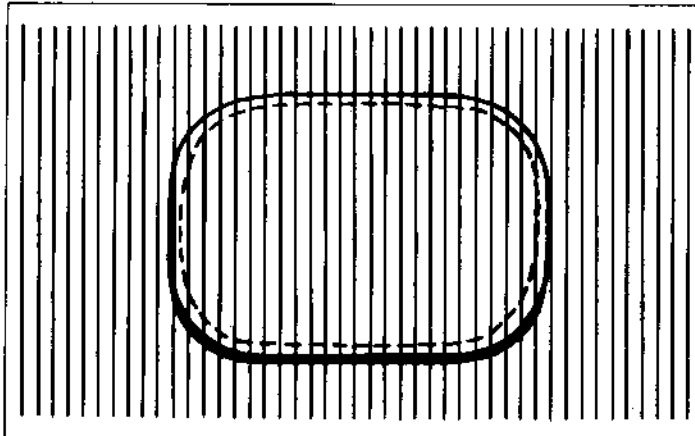
Drop feed control: sewing

Baste the new piece on to the right side of the work, then sew it on, first with the zigzag just covering the edge, then a second time one presser foot width from the first seam. For cotton Jersey use the extra thread to avoid waving.

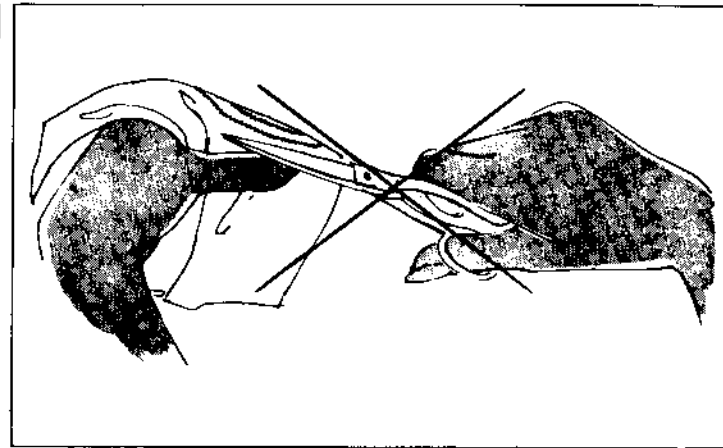
Afterwards cut the damaged piece out on the wrong side. (Hold the scissors correctly.)



Whenever possible make the patches in round shapes.

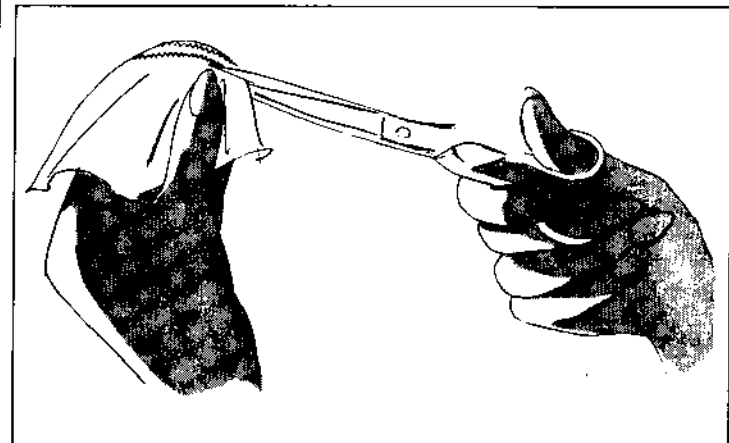


When square patches are unavoidable at least the corners should be rounded.

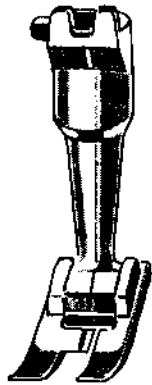


## How to hold the scissors

Whenever you have to trim close to a zigzag the scissors should **not** be held like this (with the backs of the hands towards you). There is a risk that you might cut into the stitches.



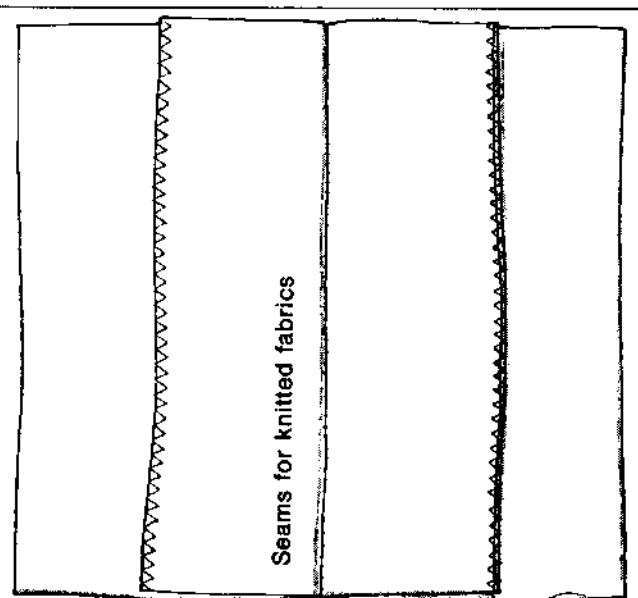
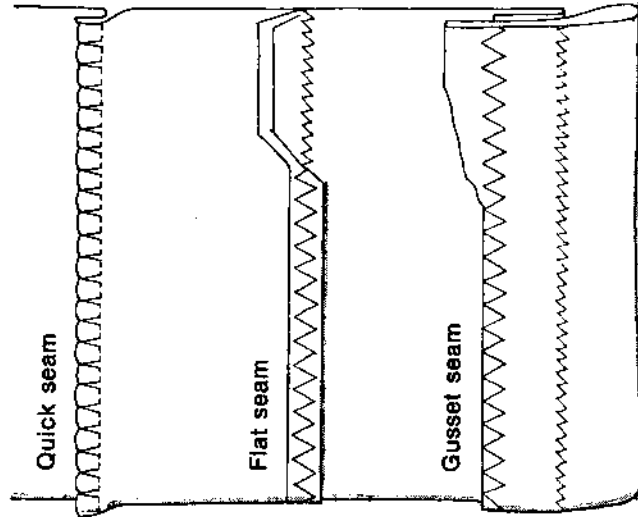
This way is much easier. **Palm of the hand towards you holding the scissors quite flat!!!** Cut only with the tips of the scissors. The thumb of the left hand should be close to the seam just where the scissors are cutting.



Zigzag foot  
Needle: 80-70  
Thread: 30

### Four important points when sewing Jersey

1. Baste always with darning thread.
2. Use only a perfect needle. A blunt needle leaves holes.
3. Use fine mercerised thread.
4. Press each seam after sewing and not all seams together when the work is completed.



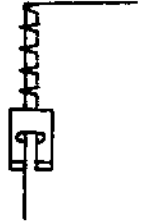
## Seams on Jersey

Needle position: centre  
Drop feed control: sewing  
Automatic: zigzag WWWW  
except for quick seam

### Quick seam

Zigzag: 3-4  
Stitch length: 1/2-1  
Automatic: Blindstitch

**Joins up and oversews simultaneously.**  
**Important! Cut edges must be on left.**



## Flat Seam – Cotton Jersey Underwear

**1st run:** join up at one presser foot width.

Zigzag: 1                      Stitch length: 1-1 1/2

**2nd run:** press seam open and sew over it on right side.

Zigzag: 3                      Stitch length: 1-1 1/2

**To finish off cut the remaining material. Hold the scissors correctly.**

## Gusset Seam

**1st run**

Zigzag: 1                      Stitch length: 1-1 1/2

Pin the pieces together leaving the double layer (gusset) protruding about 1/4 inch. **Sew at one presser foot width from the inner edge.**

**2nd run**

Zigzag: 3                      Stitch length: 1-1 1/2

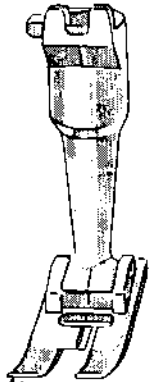
Press the whole seam towards single layer of Jersey and **sew at one presser foot width along first seam on right side.** Trim off turnings. Hold scissors correctly.

## Seams for Knitted Fabrics: Dresses – Skirts – Sweaters

Zigzag: 1                      Stitch length: 1

Knitted fabrics can be joined up like other materials. Seams are pressed open but remain stretchy.

# Edgings



Zigzag foot

Needle: 80-70

Thread:

*100% polyester*

## Shell Edging

Zigzag: 4  
Stitch length: 1  
Needle position: centre  
Automatic: Blindstitch  
Drop feed control: sewing

Place folded edge to the left as for quick seam.

## Elastic Band

Zigzag: 3  
Stitch length: 1-1½  
Needle position: centre  
Drop feed control: sewing

Do **not** pull the elastic while sewing. The zigzag stitch stretches as much as the elastic.

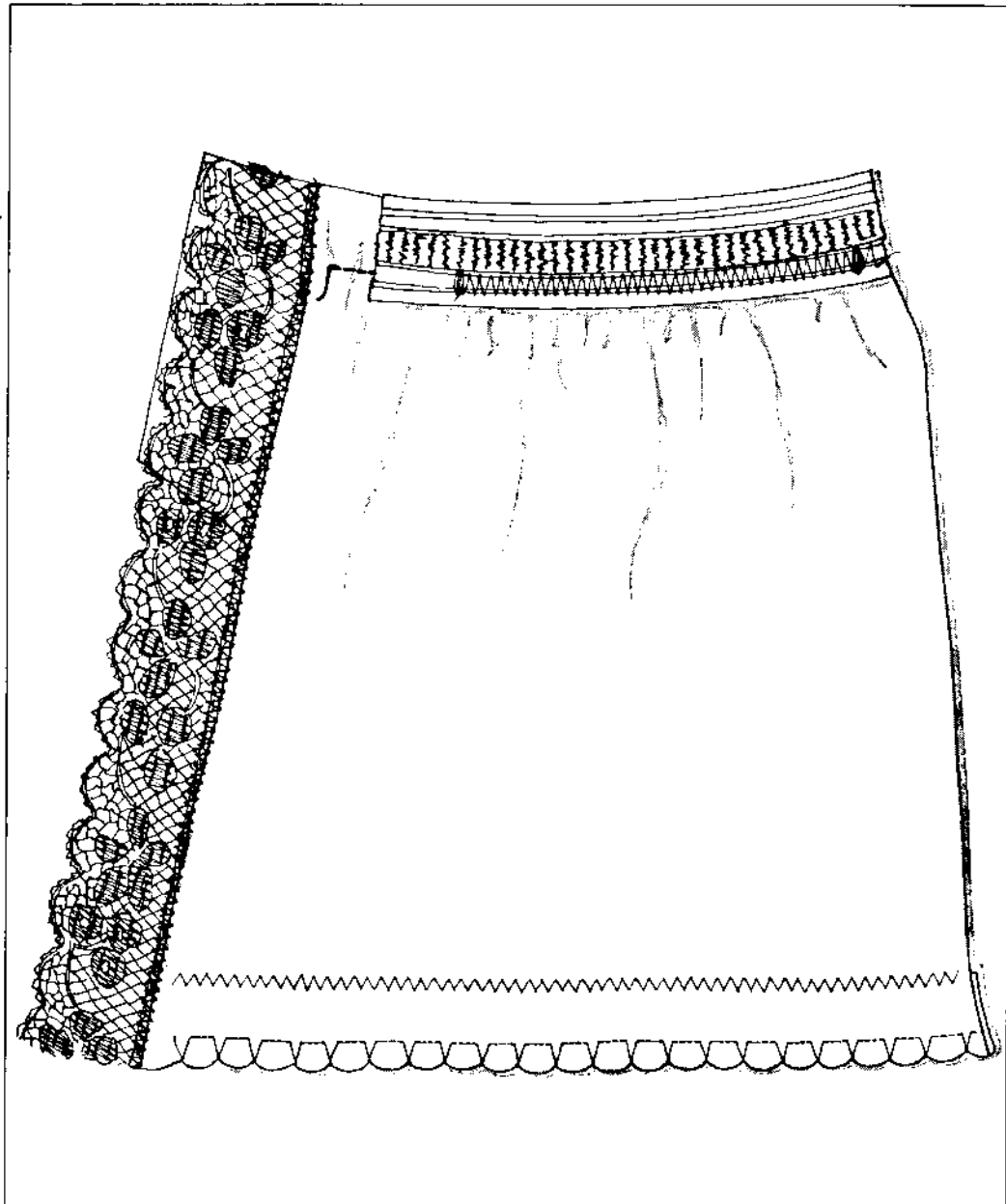
The easiest way when sewing Jersey is to gather it up first, sewing long straight stitches, then draw the under thread and pull work up to desired length.

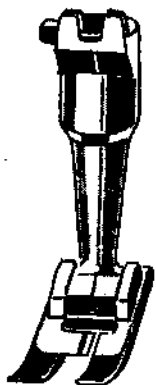
After this, pin on the elastic and sew it with zigzag. Trim off surplus material on the wrong side. (Hold the scissors correctly.)

## Lace on Jersey

Zigzag: 1½-2  
Stitch length: ¼-½  
Needle position: centre  
Automatic: zigzag WWWW  
Drop feed control: sewing

Pin or baste lace on and sew straight on with zigzag. Trim off surplus on wrong side along zigzag. Hold the scissors correctly.





Zigzag foot

Needle: 80-70

Thread: *100% polyester*

## Lace (and insertion) in material

Needle position: centre

Automatic: zigzag WWWW

Drop feed control: sewing

### 1st run

Zigzag: 0

Stitch length: about 1

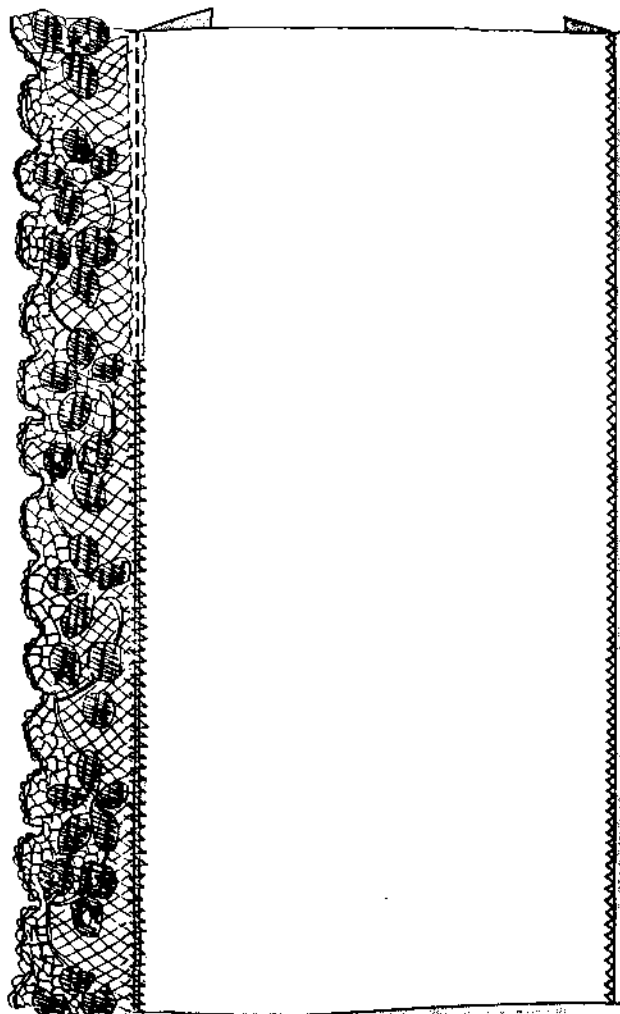
Pin in lace, baste it and sew on with straight stitch

### 2nd run

Zigzag:  $1\frac{1}{2}$ – $2\frac{1}{2}$   
according to lace

Stitch length: about  $\frac{1}{4}$ – $\frac{1}{2}$

Fold turning to wrong side against straight stitch and press. Sew a zigzag seam over the straight stitch. Then cut off the turnings along the zigzag seam. Hold the scissors correctly.



## Narrow edging

Zigzag: about  $1\frac{1}{2}$ –2

Stitch length: about  $\frac{1}{4}$ – $\frac{1}{2}$

Needle position: centre

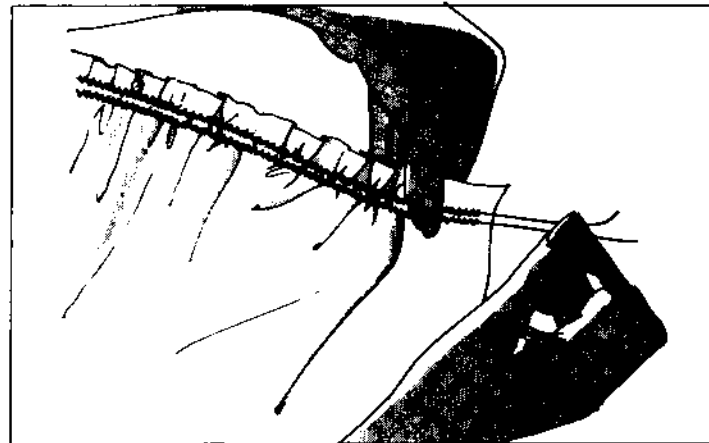
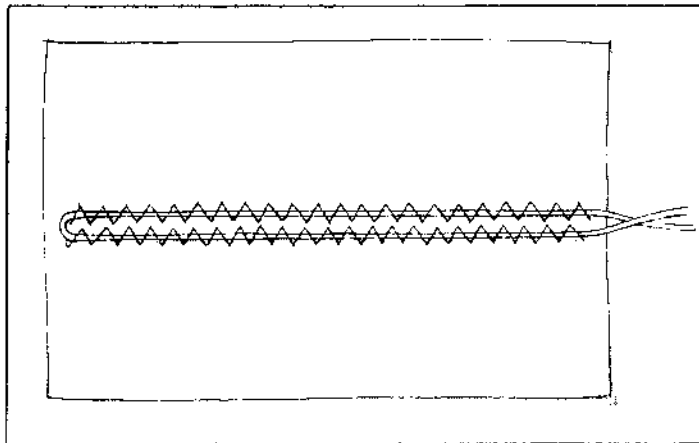
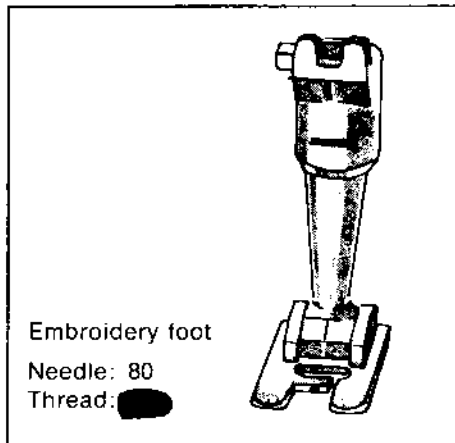
Automatic: zigzag WWWW

Drop feed control: sewing

Prepare and press turnings. Sew zigzag over this pressed edge as for oversewing. (Guide work as for oversewing.) Finally trim away turnings. Hold scissors correctly.

# Elastic thread

## Gathering of material

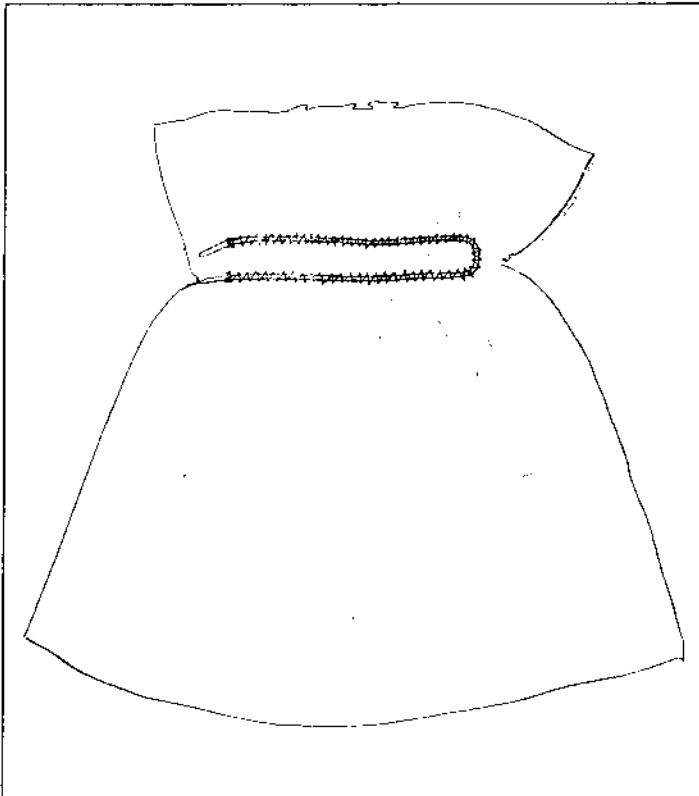


### Applying elastic thread

Zigzag: 2  
Stitch length: 2  
Needle position: centre  
Automatic: zigzag WWWW  
Drop feed control: sewing

Thread the elastic through the hole in the embroidery foot and pull it while sewing. The more you pull the more it gathers. For a second row (one presser foot width) **pull material straight while sewing.**

When doing it on socks do not pull the elastic too much.



### Gathering material

Zigzag: 2  
Stitch length: 2 (for heavy fabrics up to 4)  
Needle position: centre  
Drop feed control: sewing  
Automatic: zigzag WWWW

#### Pearl Cord

The pearl cord is threaded through the hole of the embroidery foot (as with elastic thread) and oversewn with zigzag. Contrary to elastic, the cotton is not pulled while sewing but only **afterwards**. (Hold both yarns and gather material.) Always sew two rows at a distance of 2 mm (1/8 inch.).

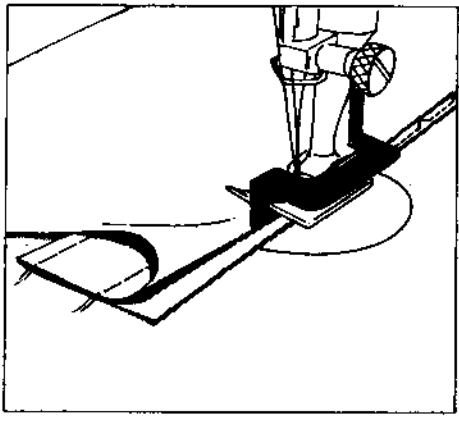
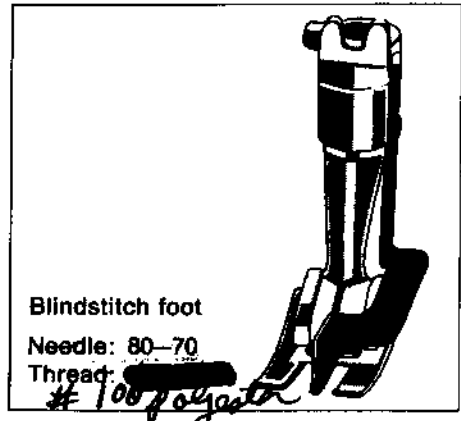
### Normal gathering

Short pieces or sheer fabrics can also be gathered in this way:

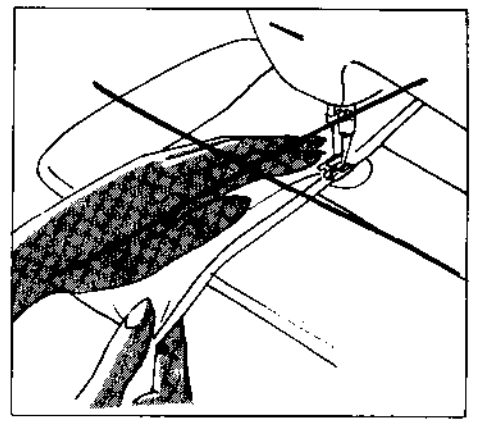
Zigzag: 0  
Stitch length: 4

Sew two rows of straight stitch, then hold both bottom threads and gather up to the desired width.

# Blind hem stitch



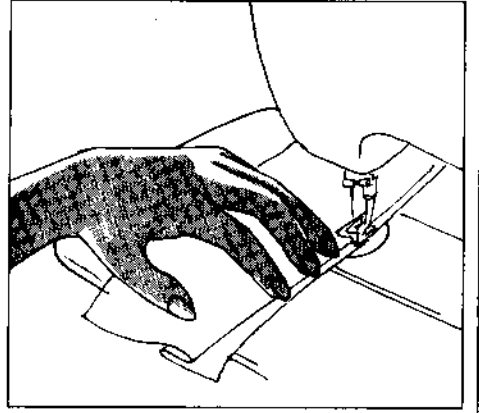
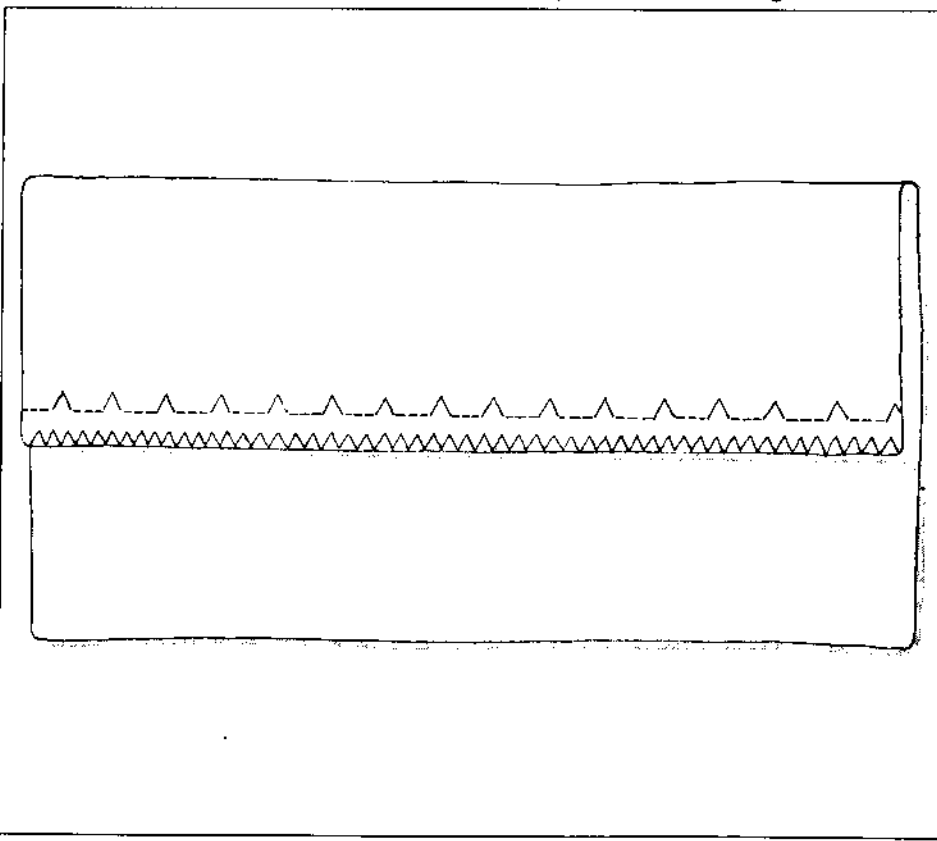
This is how the work is placed under the foot. Adjust the zigzag so that the needle just catches the **edge** of the fold.



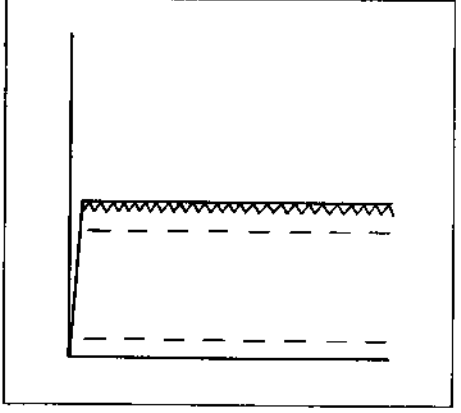
Very poor position.

**Basic Setting**  
 Zigzag: about 2 1/2  
 Stitch length: about 2 1/2  
 Needle position: right  
 Drop feed control: sewing  
 Automatic: Blindstitch

**Setting for sheer fabric**  
 Zigzag: about 1 1/2  
 Stitch length: about 1 1/2  
 Needle position: centre



This is the correct way. Fingers of left hand must lie on the folded edge so that they can "feel" the regular feeding of the work. Hold the work very lightly while sewing.



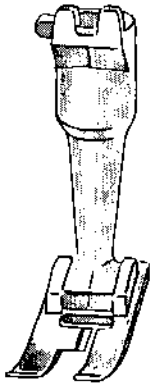
Oversew and prepare the hem as diagram, baste with machine or by hand 1/4" from edge and press.

# Patching material

Zigzag foot

Needle: 80-70

Thread: 50



## Patching with running stitch

Needle position: centre  
Drop feed control: sewing

### 1st run

Zigzag:  $1\frac{1}{2}$ -2  
Stitch length: 1-1 $\frac{1}{2}$   
Automatic: zigzag WWWW

Do not cut off damaged part but baste the new patch on right side of work, and sew it on with a small zigzag.

### 2nd run

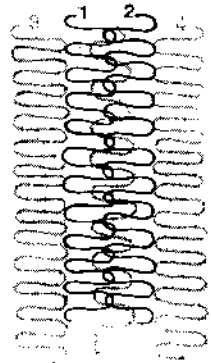
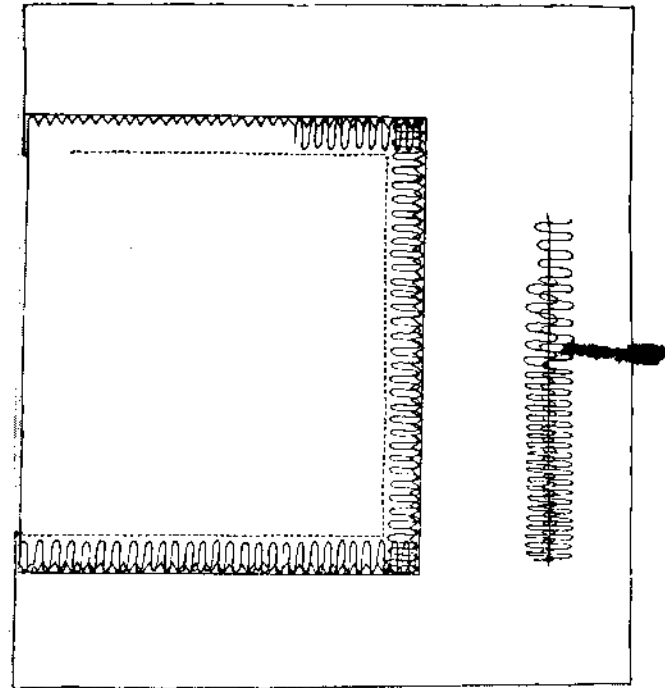
Zigzag: 4  
Stitch length: close to 0  
Automatic: Running stitch

Now sew over patch edge with running stitch. Take care to oversew edges correctly.

### 3rd run

Zigzag: 0  
Stitch length: 1  
Automatic: straight stitch -----

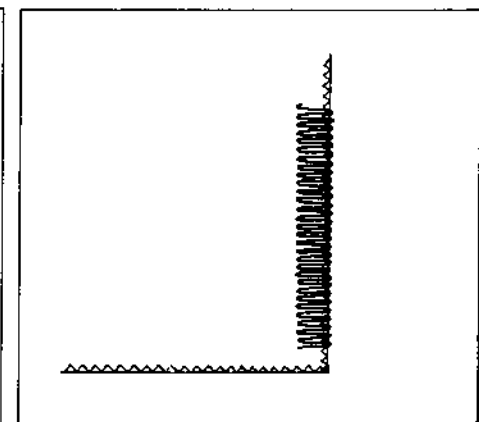
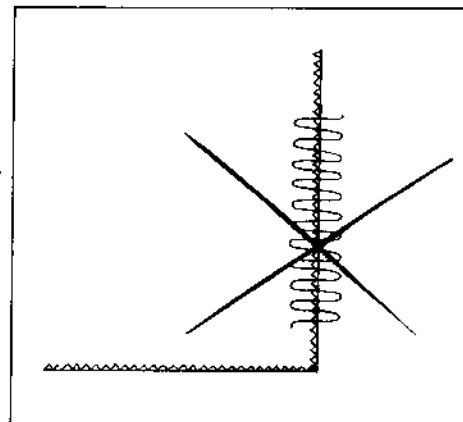
Along inner edge of running stitch sew a straight stitch. Cut away damaged part. (Straight stitch makes the trimming much more easy.)



## Modern "Darning" with running stitch

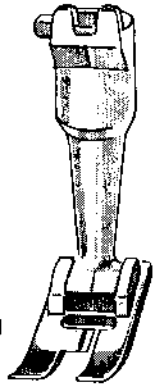
Zigzag: 4  
Stitch length: close to 0  
Needle position: centre  
Automatic: Running stitch

Always underlay a fine fabric. Sew 2-5 rows of running stitch (according to the type of material).



**Oversew edges correctly:** See diagram. Running stitch should not overlap the edges.





Presser foot

Needle: 80

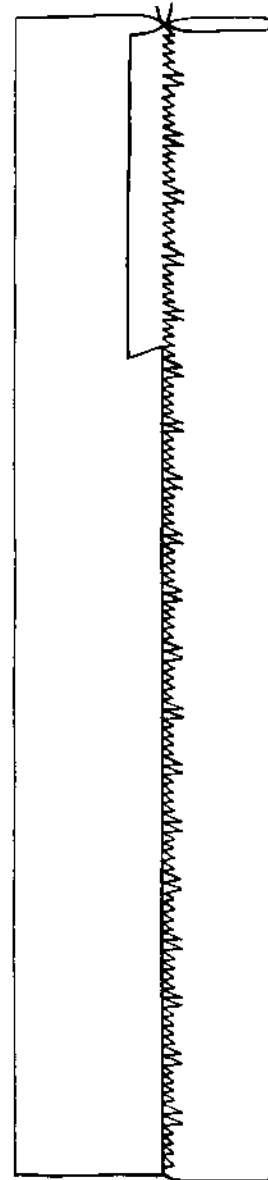
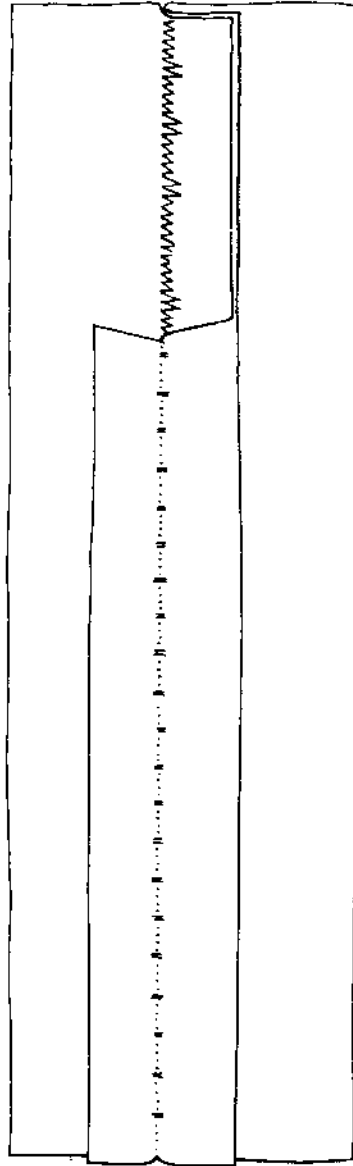
Thread:  
Mercerised sewing  
thread 50 or 60/3

## Stretch seam

for ski trousers and very elastic fabrics like Helanca®, Crimplene, etc.

Zigzag: 1—1½  
Stitch length: ½—⅓  
Automatic: Stretch seam *wllwll*  
Needle position: centre  
Drop feed control: On sewing

Sew tacked seam. (Lay the work under the presser foot in such a way that the somewhat wider zigzag stitch is directed towards the cut edge.) Press seam open and if necessary neaten.



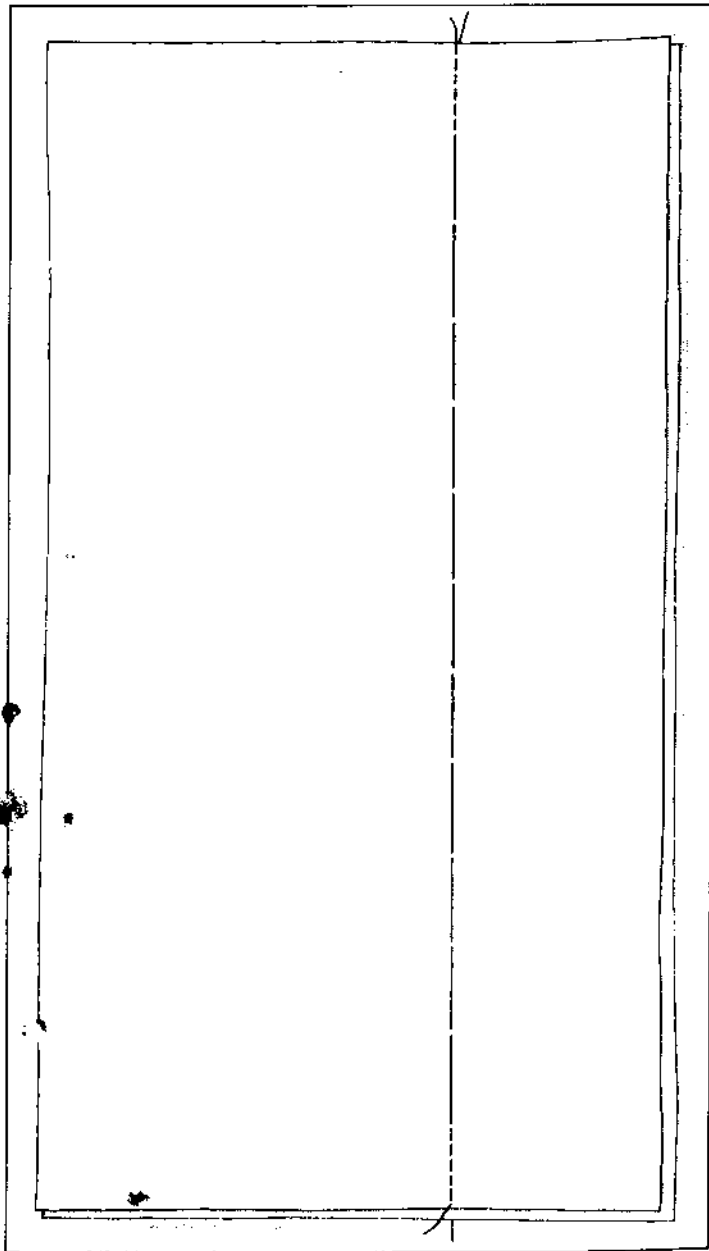
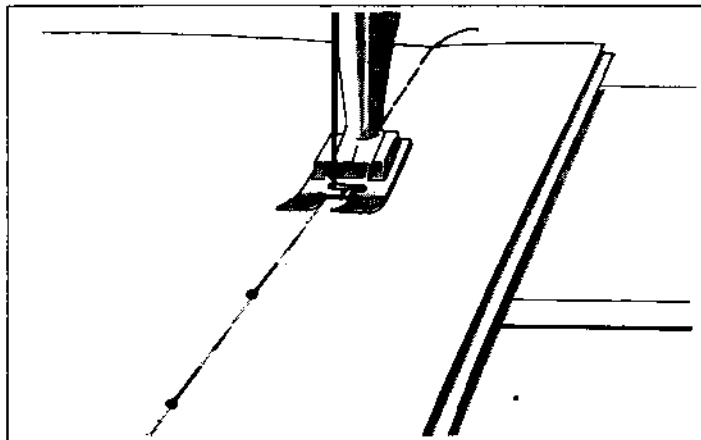
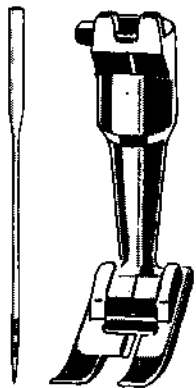
## Stretch seam as hem only for Jersey underwear.

Zigzag: 3—4  
Stitch length: approx. ¾  
Automatic: Stretch seam *wllwll*  
Needle position: centre  
Drop feed control: On sewing

Iron hem. (Do not turn under the edge.) Measure depth of hem and then sew. (Lay the work under the presser foot so that the somewhat wider zigzag stitch is directed towards the edge of the hem.) Finish by cutting away surplus fabric on the sewn edge.

# Basting

Zigzag foot  
Magic needle  
Thread: 30



## Basting

Zigzag: 4  
Stitch length:  $1\frac{1}{2}$ —4  
Needle position: left  
Automatic: Blindstitch  
Drop feed control: sewing

The magic needle has two eyes, one above the other. The lower eye is threaded for regular sewing. For basting, thread the upper eye.

Choose stitch length according to material and work, not too short or the basting may not easily be removed.

It is important to pin first, especially for cross stripes that have to match up exactly.

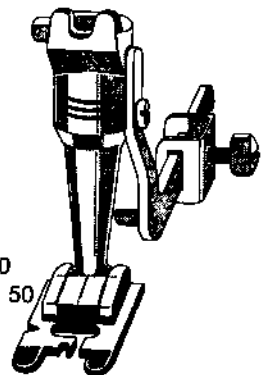
## To secure the threads

Sew a few stitches with zz on O. at the beginning and end of seam.

This is how the material is placed under the foot.

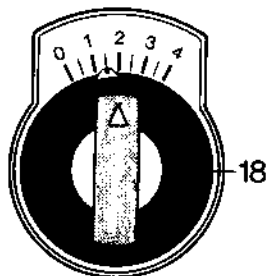
Important! The basting stitches do not form in the centre of the foot but only at the left hand swing of the needle.

Place the basting line at the left side of the foot. (Holding the work taut from the front and rear ensures correct guiding.)



Buttonhole foot

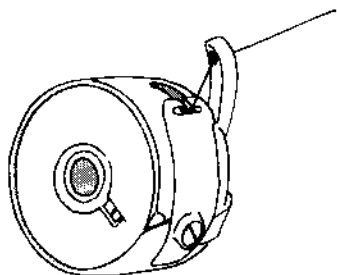
Needle: 80-70  
Thread: 30 or 50



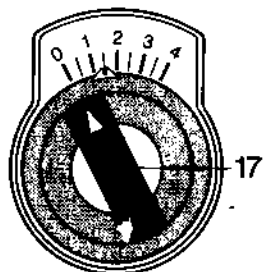
### Adjustment of the Buttonhole

Two mechanical spring settings have been built-in for the buttonhole: one for zigzag 1,75 satin stitch for the beads of the buttonhole, the other for zigzag 3-3½ width for the bar tacks at each end of the buttonhole. By turning the zigzag knob slightly the spring settings can easily be felt.

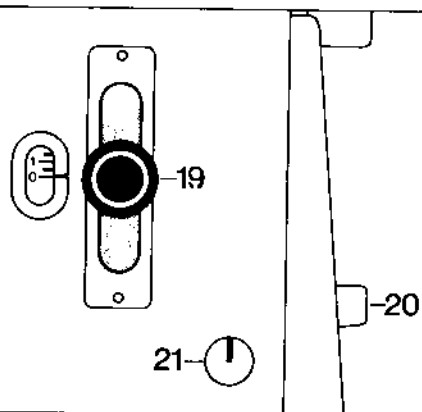
Zigzag 1,75 (Spring setting)



For sewing a buttonhole, thread bottom cotton through hole in finger of bobbin case.



Needle Position: left



Set lever (20) for satin stitch at top position and push stitch length lever (19) up to the stop.

### Sewing the Buttonhole

Set the required buttonhole length with the guide on the buttonhole foot.

Move needle downwards to foot level and check that needle comes to middle of foot opening. If not do one stitch, turning handwheel by hand. But **never change zigzag or needle position.**

1. Satin Stitch: Sew first bead of buttonhole to required length. Set needle in work in the middle of the foot. Lift foot. Turn work completely clockwise. Lower foot again.

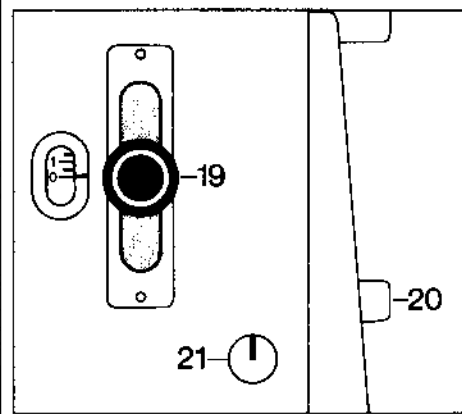
1. Bar Tack: Lift needle out of work. Set zigzag to approx. 3 width (using spring setting). Hold work firmly. Sew stitches for bar tack.

2. Satin Stitch: Lift needle out of work. Set zigzag back on to 1,75 (using spring setting) and sew satin stitch for second bead.

2. Bar Tack: Lift needle out of work. Adjust zigzag again to width approx. 3 (using spring setting). Hold work firmly. Sew stitches for bar tack.

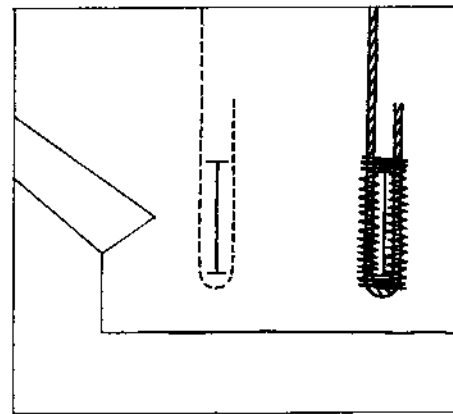
Finishing off: Set zigzag on 0 and sew a few stitches, still holding work firmly.

# Buttonhole with Re-Inforcing Cord

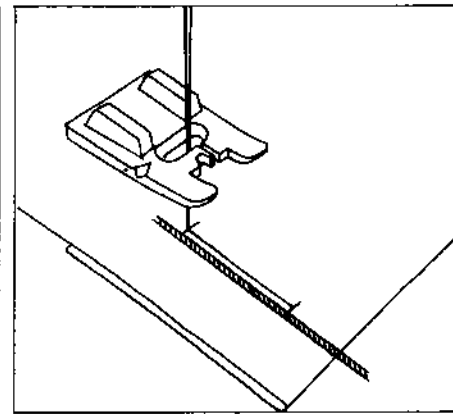


## Set the buttonhole satin stitch

With knob (21) the stitch density can easily be regulated to suit the material. It is recommended to make a trial buttonhole on a remnant of the material to be used. The method of adjusting is the same as for the satin stitch. (Page 8.)



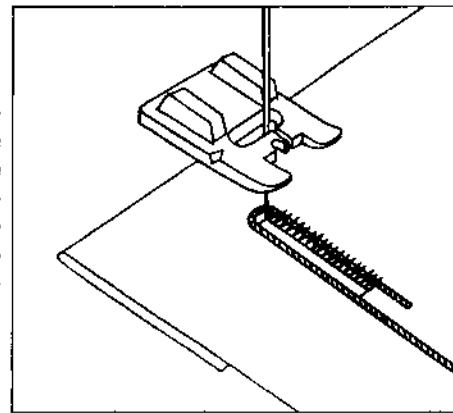
So that the loop of the inserted cord will reinforce the buttonhole where the button will pull, place the work to be sewn so that the edge of the material lies in front of the sewing foot and not behind.



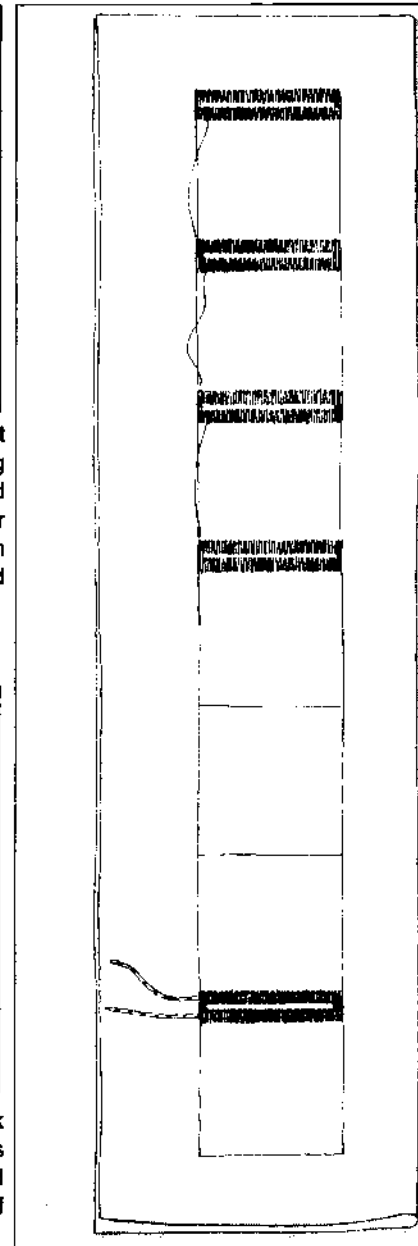
Lay the cord to be inserted to the left of the needle, so that when the sewing foot is lowered it will be in the left hand groove of the foot. Sew satin stitch for the first bead. Finish first bead with needle in work and to right of the cord and lift foot.

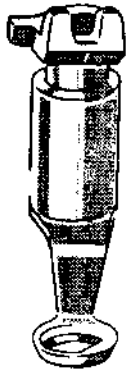
## How to sew the buttonhole with reinforcing cord

Set machine. Lower needle to the raised foot and make sure that it is in the centre. If not do one stitch by turning the hand wheel towards you, bringing the needle to the centre. Under no circumstances should the zigzag or needle position be changed. Place the work to be sewn under the foot and set the needle exactly at the beginning of the buttonhole. Do not lower the foot yet.



Hold cord in left hand and turn work clockwise with right hand until cords are parallel. Lower foot so that first bead now lies under right hand groove of foot. Continue sewing as described.



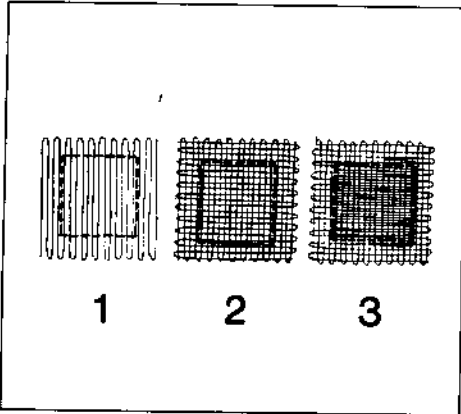


Small  
darning foot  
Needle: 80-70  
Thread: 50

The quick mastering of this work depends on regular guiding.

Therefore:

- Hold the hoop correctly.
- Always work from left to right (as when writing).
- Move work lengthways (not sideways) for selvedge and weftway.



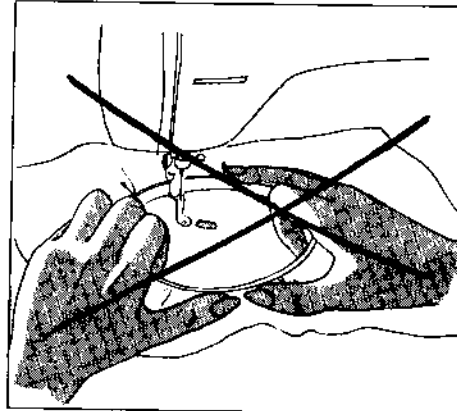
**A careful darn is done in 3 runs**

1. Weftway.
2. Selvedgeway. (Not too dense or it becomes too thick around the hole.)
3. Same way as 2nd run but only over hole itself losing threads in 2nd run of stitching.

**Main faults when darning**

Frequent thread breaking – work guided **irregularly**.

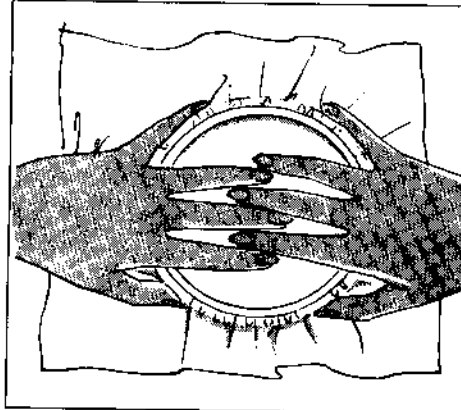
Poor stitch (looping on top) – work moved **too quickly**.



When wrong side of work is "grainy" work moved **too slowly**.

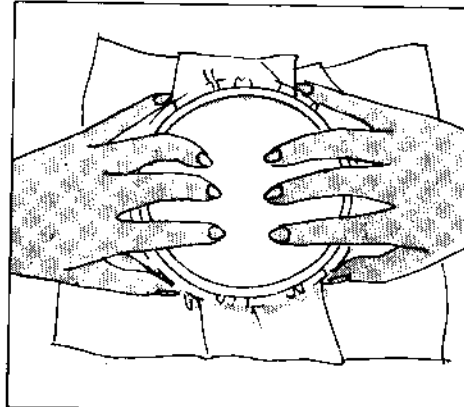
**How to hold hoop correctly**

Not like this ... this would produce irregular guiding with frequent thread breaks.



... but like this. What is to be guided must be firmly held.

Thumb facing the frame (slightly bent) side of little finger to the frame. Starting position of the fingers as in the picture – opposite one another.

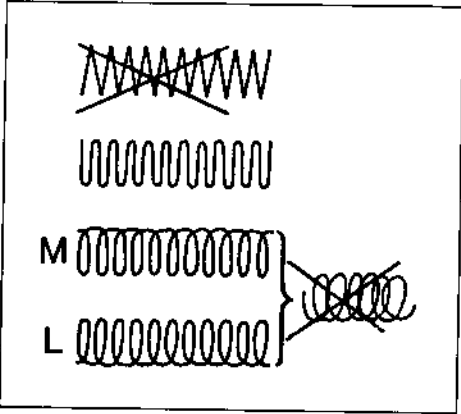


Then pulled back a little.

The frame is **guided** however by the outer fingers.

## Darning material

Zigzag: 0  
Stitch length: 0  
Automatic: straight stitch -----  
Drop feed control: lowered

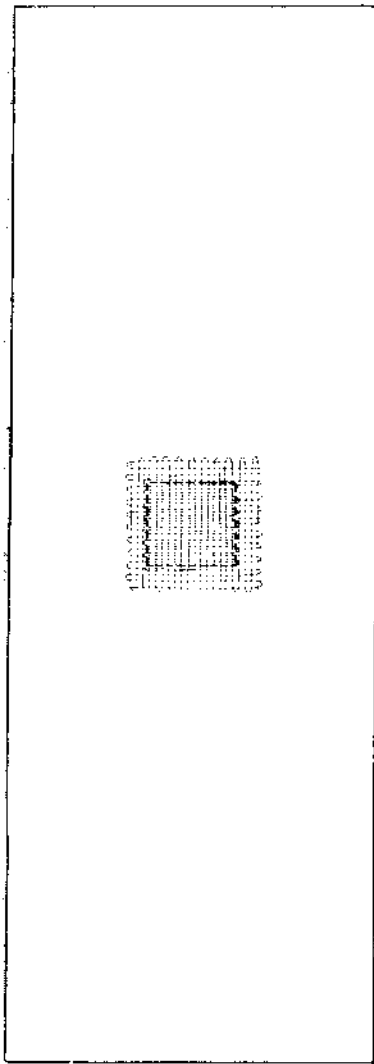


**How to darn correctly**

Make the turning points of each row blunt or the stitching will draw little holes at the ends. Beginners may prefer the L or M movement. Take care not to get circles.

# Darning fine socks

Model 707 only



Small  
darning foot  
Needle: 80-70  
Thread: 50

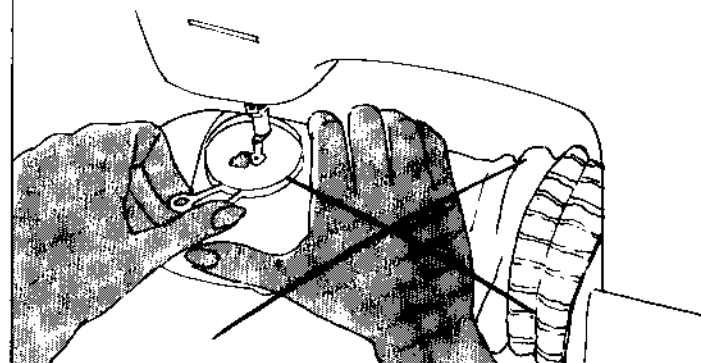


## Darning fine socks (also sleeves)

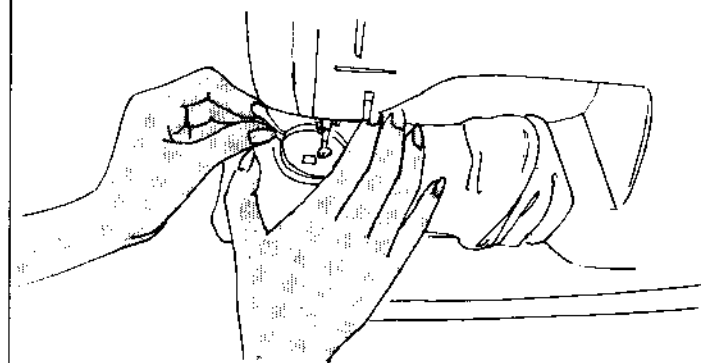
Zigzag: 0  
Stitch length: 0  
Automatic: straight stitch -----  
Needle position: centre  
Drop feed control: lowered

Place the darning ring on the free arm (stud of its shank in hole on right of cover plate), then pull work over ring (not ring over the work) stretch it to its maximum and insert the spring. Remembering the following points: After sliding the sock over the ring stretch it to its maximum and insert the spring clip so that the area to be darned is in the centre. It is obvious here that we do the 1st stitch run sideways and the 2nd run lengthways as we cannot turn the frame to another angle.

Wrong

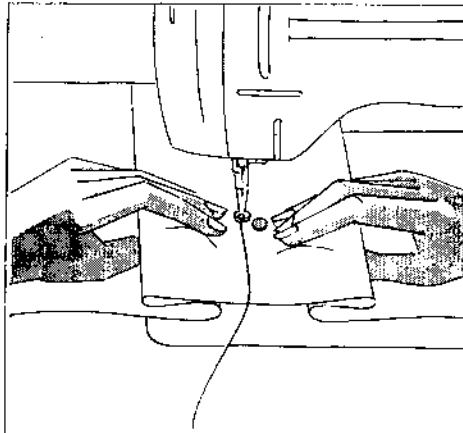
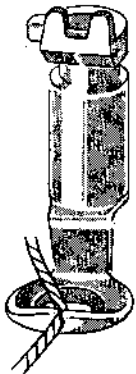


Correct



With the right hand keep the area of the hole taut over the hoop. Thumb on extreme point of free arm.

Wool  
darning foot  
Needle: 80-70  
Thread: 50  
(For Terry Cloth  
use 4 strands of  
untwisted thread  
instead of wool)

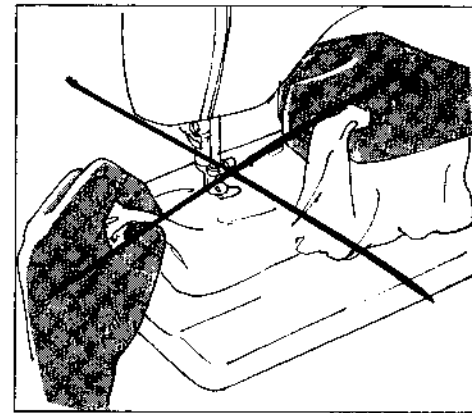


## 1st run: Applying the wool

Start the work on the left, a little above the hole. Stitch down the wool with one or two stitches, and leave the needle down.

Hold the area to be mended correctly. Do not push the work to and fro on the machine, but hold it taut while you guide.

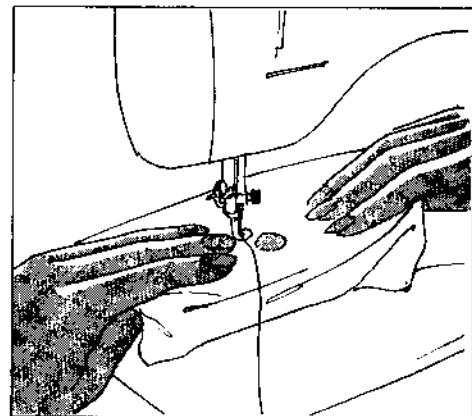
When applying the wool bear the following points in mind:



Model 707 only

- Do not make too deep a curve at the ends or the threads will be too far apart.

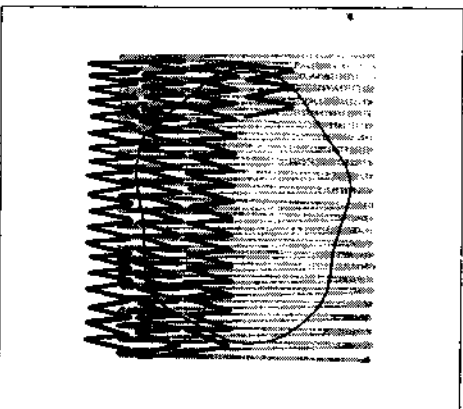
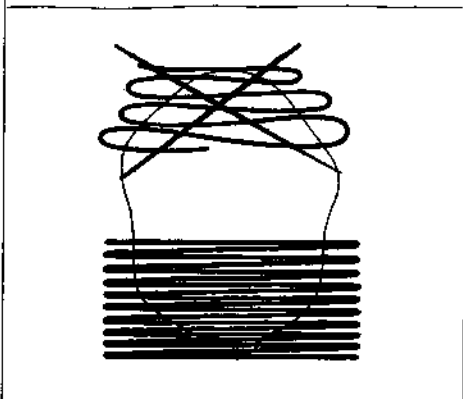
- Apply the wool threads close together over the hole (they may even lie slightly over one another). Always move work sideways (left to right and vice versa).



Model 707 only

## 2nd run: Oversewing the threads

Cut the wool at the presser foot. Hold work again as before. Now sew across the new wool threads with a zigzag. The zigzag rows should not overlap nor lie apart from one another.



## Darning of Woollens and Terry Cloth (towels)

Zigzag. 3-4  
Stitch length: 0  
Automatic: zigzag WWWW  
Drop feed control: lowered

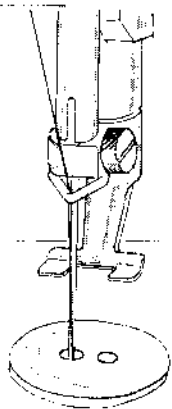
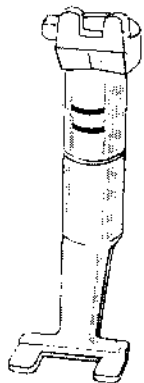
Thread machine with matching thread.  
Lay the wool in the slot of the presser foot. The wool will then be guided automatically.

# Sewing on buttons

Button presser foot

Needle: 80

Mercerised sewing  
thread: 50  
or  
embroidery  
thread: 30



## Sewing the button on

Zigzag: 3-4

Stitch length: 0

Needle position: left

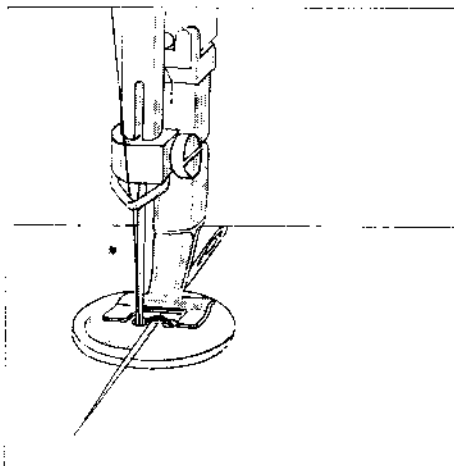
Automatic: zigzag WWWW

Drop feed control: lowered

Every zigzag presser foot can be used for button sewing. However, those who sew buttons on often will find the button presser foot superior. The wide gap in front allows a clear view.

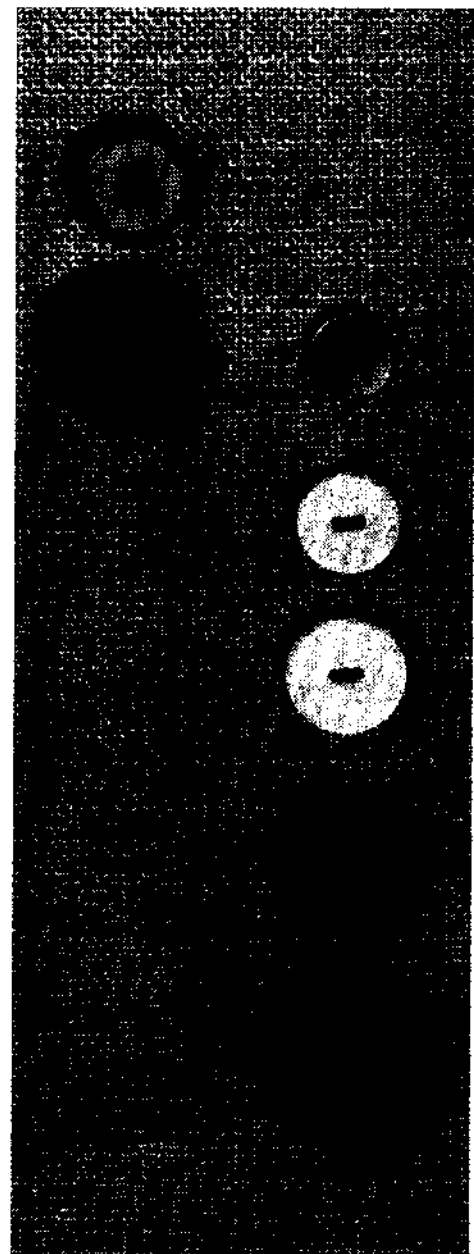
Slide piece of work under the presser foot. Place button on marked spot and let needle into the left hole. Then lower presser foot.

The zigzag width is nearly always 3-4 as the distance between the holes is usually the same, with the exception of decorative buttons.



Turn hand wheel until needle is in its highest position. Adjust zigzag width and make a trial stitch turning hand wheel by hand. You will then see whether the width of the zigzag is correct. If necessary, adjust zigzag. Now sew the button on. Less stitches are needed for light weight materials. To finish raise needle. Set zigzag to 0 and sew some fastening stitches.

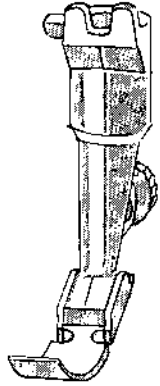
If a shank is required, lay a darning needle on the button and sew over it. (Add a few more stitches than usual.)



## Method:

Lower drop feed control and set machine. Leave zigzag on 0.



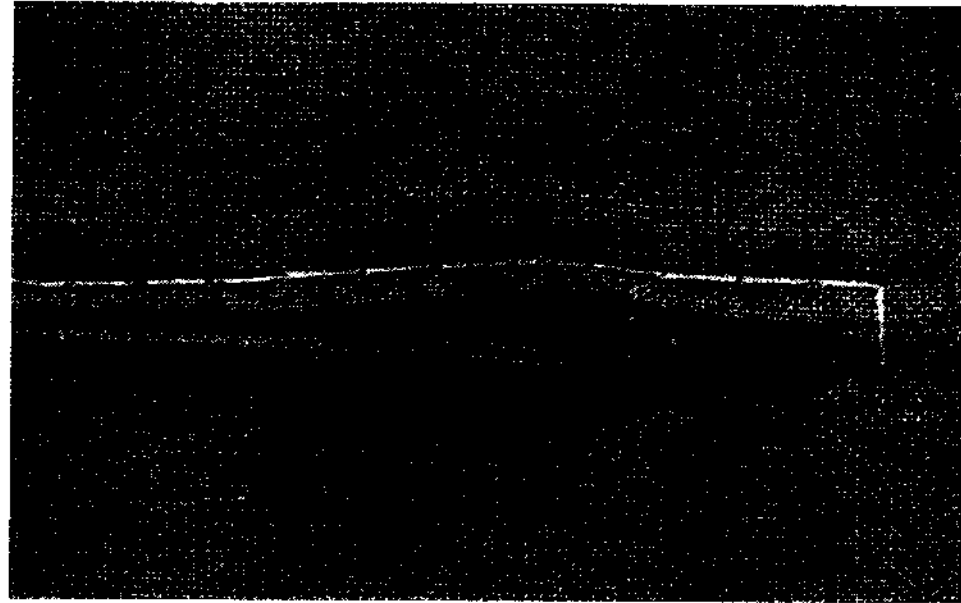


Zipper foot

Needle: 80

Thread: 30

Zigzag: 0  
Stitch length: 1½—2  
Automatic: straight stitch -----  
Needle position: according to side set left or right  
Drop feed control: sewing



The zip is basted in by short stitches so that the teeth are entirely covered by the material. Open the zip before you sew it in.

Sew down each side from top to bottom, once with the needle position right and once with the needle position left.

**Hint: The easiest way to insert a zip**

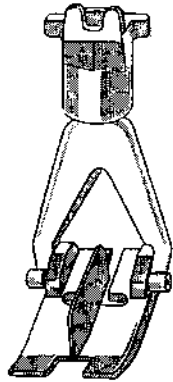
Sew seam first with a very long straight stitch or basting stitch, then press open. (Damp if necessary.) Finish the edges then unpick the seam. (When stitches are very long they are easy to remove.)

When inserted like this both sides remain even and are not distorted.

# Tailor tacking

Tailor tacking foot

Needle thread:  
according to  
material and  
colours



Automatic: zigzag WWWW  
Needle position: centre  
Drop feed control: sewing

### Tailor tacking with sewing thread

Needle: 80  
Zigzag: 1½-2  
Stitch length: 4

### Tailor tacking with basting thread (especially for wool materials)

Use basting thread for top thread only;  
and normal sewing thread for the bobbin.

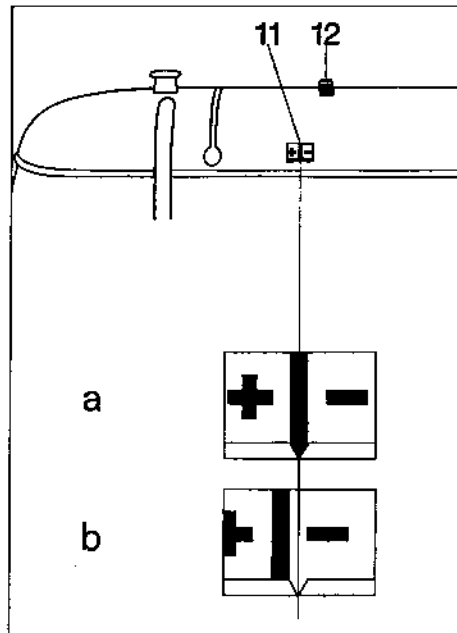
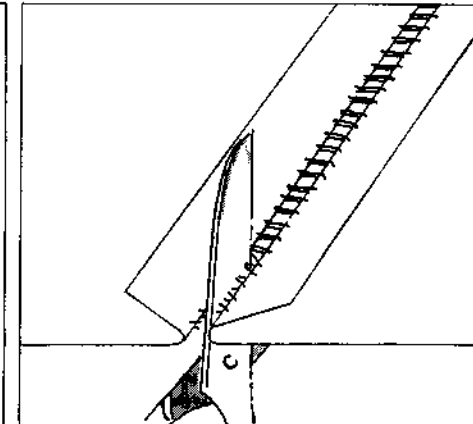
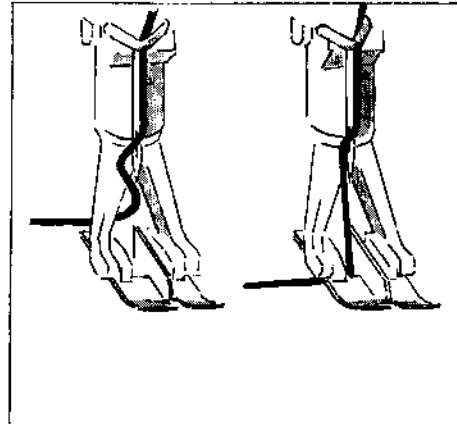
Needle: 90  
Zigzag: 2  
Stitch length: 4

### Tailor tacking with damping thread (for thin materials)

Needle: 70  
Zigzag: 1¾  
Stitch length: 4

### Important preparation

1. First set zigzag and put needle in its highest position. Presser foot is to be attached only after this procedure, in order to avoid damaging the needle.
2. Loosen top tension so that big, loose loops are formed or remove top thread from tension slot altogether and pass round pattern lever 13. When work is finished tighten tension again or replace in the tension slot.

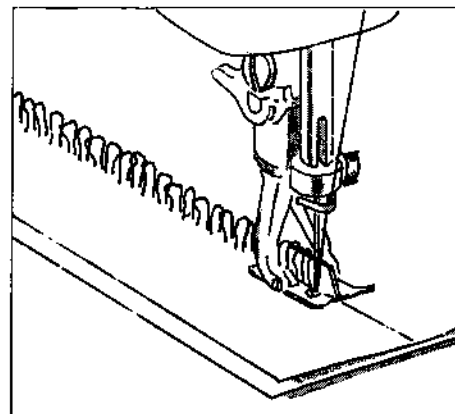


a Position of tension indicator for normal sewing

b Position of tension indicator for tailor tacking

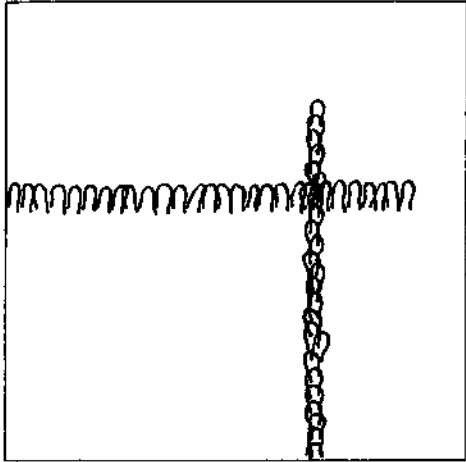
Draw thread to the rear under the presser foot. Before starting to sew always lay the thread sideways under the presser foot.

Pull both sides of the material gently apart and cut through the threads.

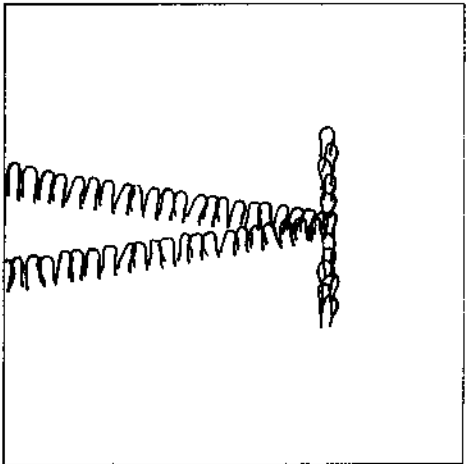


When tacking by hand one works directly alongside the pattern. It is to be recommended when working by machine (saves time) to transfer the pattern onto the material with chalk and then remove the pattern. It is understood that the pieces of material should be pinned down first before basting to prevent slipping.

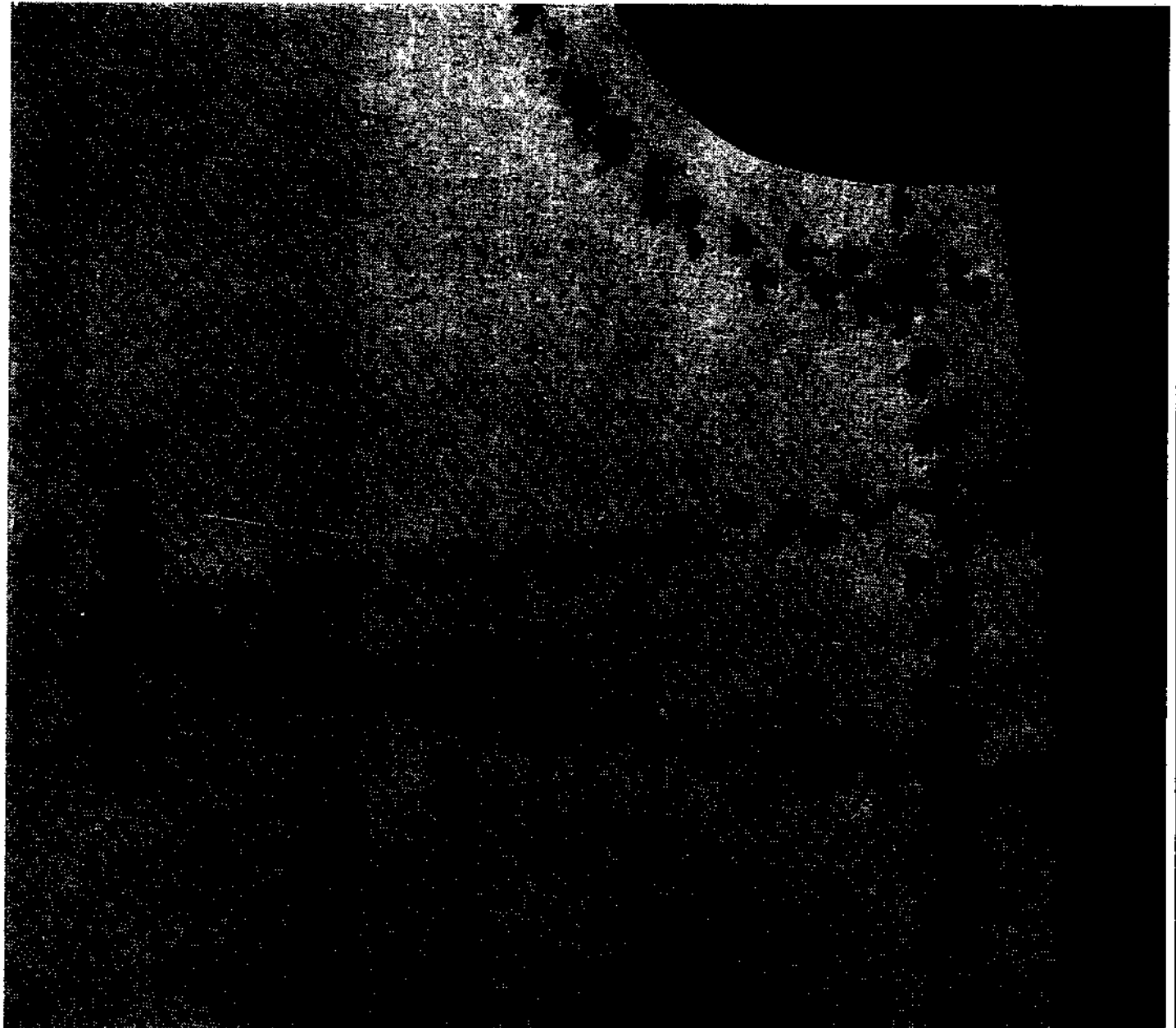
A pattern can be transferred onto the fabric with the aid of the tailor tacking foot, this forms the necessary loops.



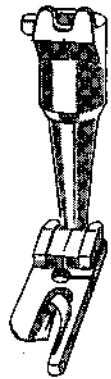
Mark the corners this way ...



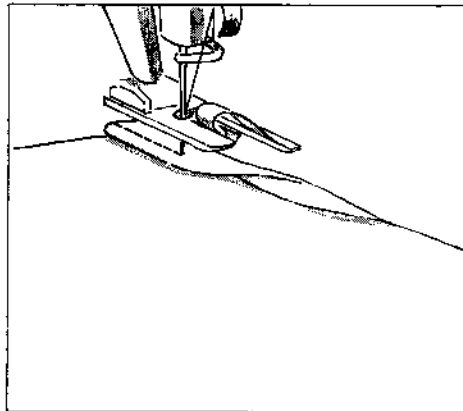
... and the darts like this



# The Hemmer

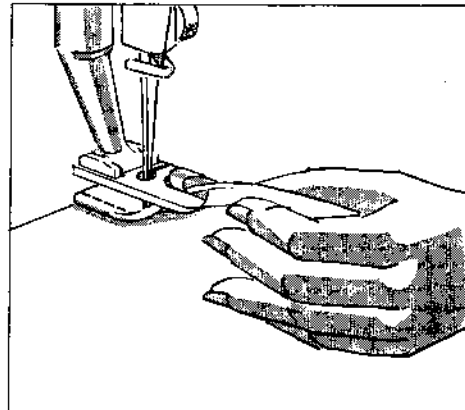


Hemmer  
Needle: 80-70  
Mercerised sewing  
thread No. 50

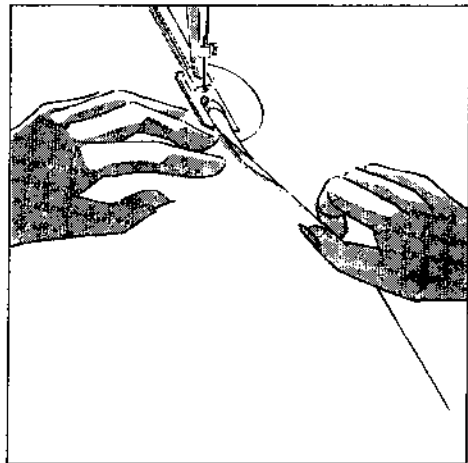


Zigzag: 0  
Stitch length: 1½-2  
Automatic: straight stitch -----  
Needle position: centre  
Drop feed control: sewing

**To begin sewing:** Fold edge of fabric twice (not too wide). Lay work under the presser foot and sew a few stitches.



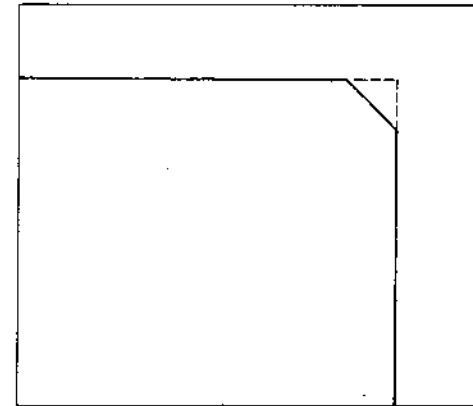
Leave needle in the fabric and lift presser foot. Tautly hold the first fold under the presser foot with the left hand and draw it through the spiral on the presser foot.



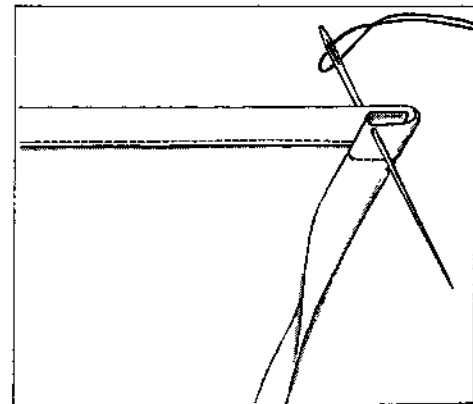
## How to guide the work

When guiding fabric hold it taut and lift it slightly. The edge of the fabric must be vertical and run through the machine in a straight line.

**The corners:** These are sewn in two stages as follows:

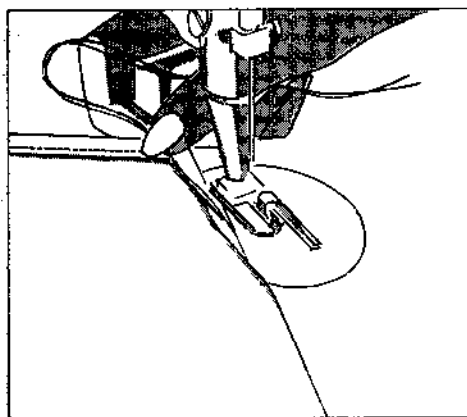


First cut a little off (not too much otherwise they will pull apart). Sew first seam.

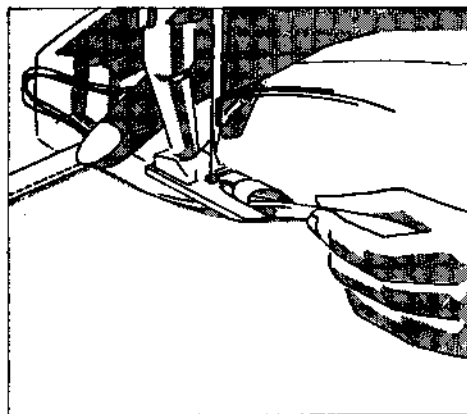


Fold edge of fabric twice and draw a strong thread through by hand.

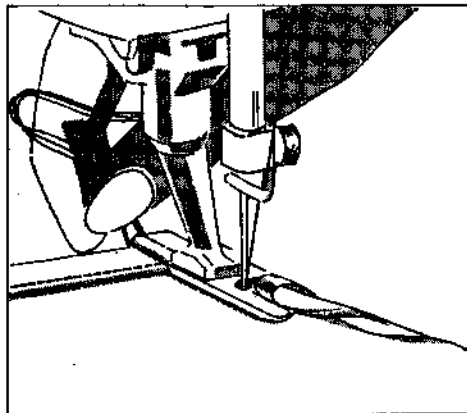
# Shell Hemmer



Hold corner (together with thread) with thumb and forefinger of the right hand and lay the work near the presser foot.



With the left hand hold the first fold near the presser foot and draw through the spiral on the foot. Still holding the fabric taut draw it towards you and lay the end under the needle. Stick the needle in and lower foot.



To facilitate sewing on the corner one should hold the tacked thread together with the sewing thread and pull gently until the presser foot no longer lies on the corner.

Shell hemmer

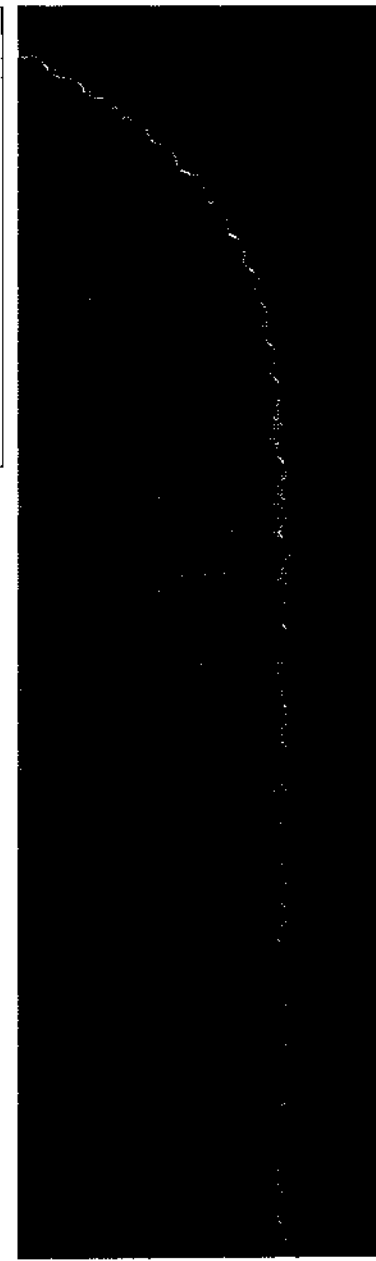
Needle: 80-70

Mercerised sewing  
thread No. 50

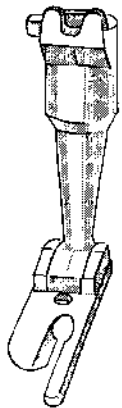


Zigzag: 4  
Stitch length: 2½-3  
Automatic: zigzag WWWW  
Needle position: centre  
Drop feed control: sewing

Use the same method as for normal hemming.



# The Lap Hemmer (Feller)

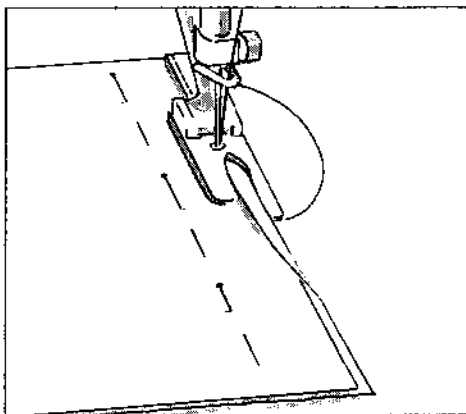


Lap hemmer

Needle: 80-70

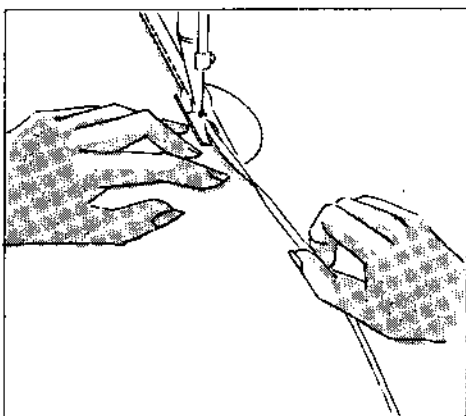
Mercerised sewing  
thread No. 50

Zigzag: 0  
Stitch length: 1½-2  
Automatic: straight stitch -----  
Needle position: centre  
Drop feed control: sewing

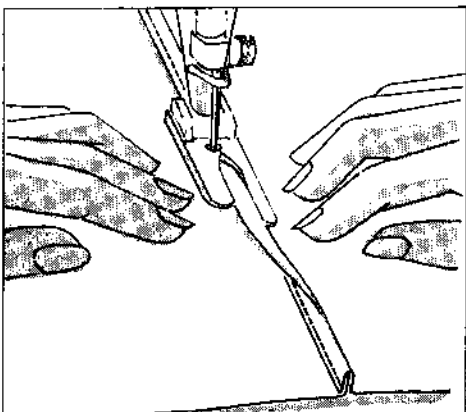


## First operation :

Pin both pieces of fabric together so that the piece underneath projects by 3 mm (1/8"). Fold overlapping piece over the top piece and slide it under the presser foot. Sew a few stitches. Leave needle in the fabric, lift presser foot and guide fabric into the foot.

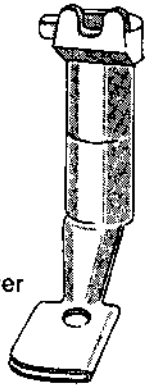


When sewing make sure that the same width of material enters the feller all the time. Guide the fabric as you do when sewing a hem.



## Second operation :

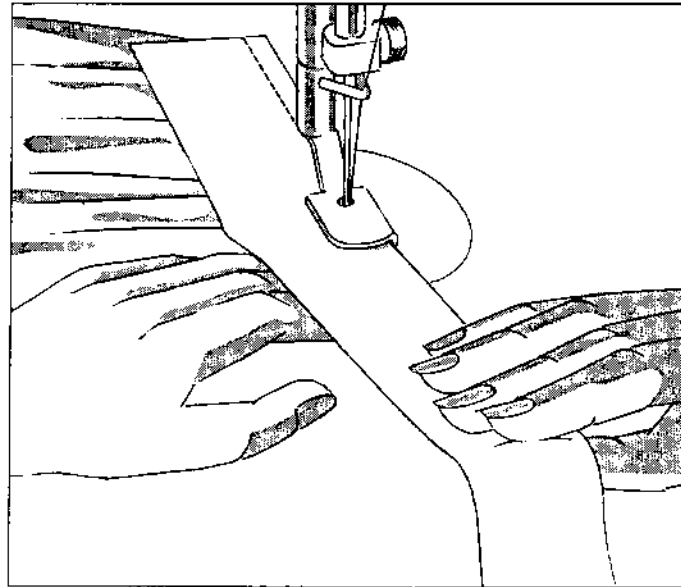
Now iron seam well, guide it again into the feller and sew the second row of stitches. Pull fabric slightly sideways on both sides of the feller.



Presser foot: Gatherer

Needle: 80-70

Mercerised sewing  
thread: 50

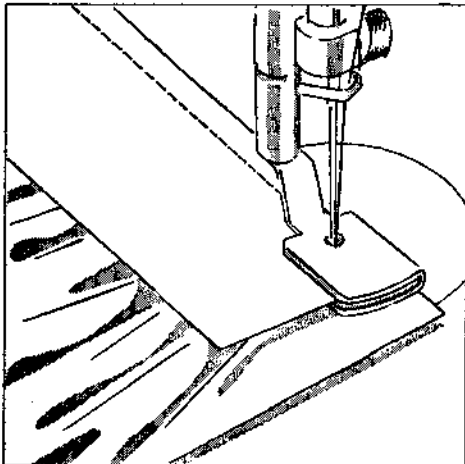


Zigzag: 0  
Stitch length: 1½-4  
Automatic: straight stitch -----  
Needle position: centre  
Drop feed control: sewing

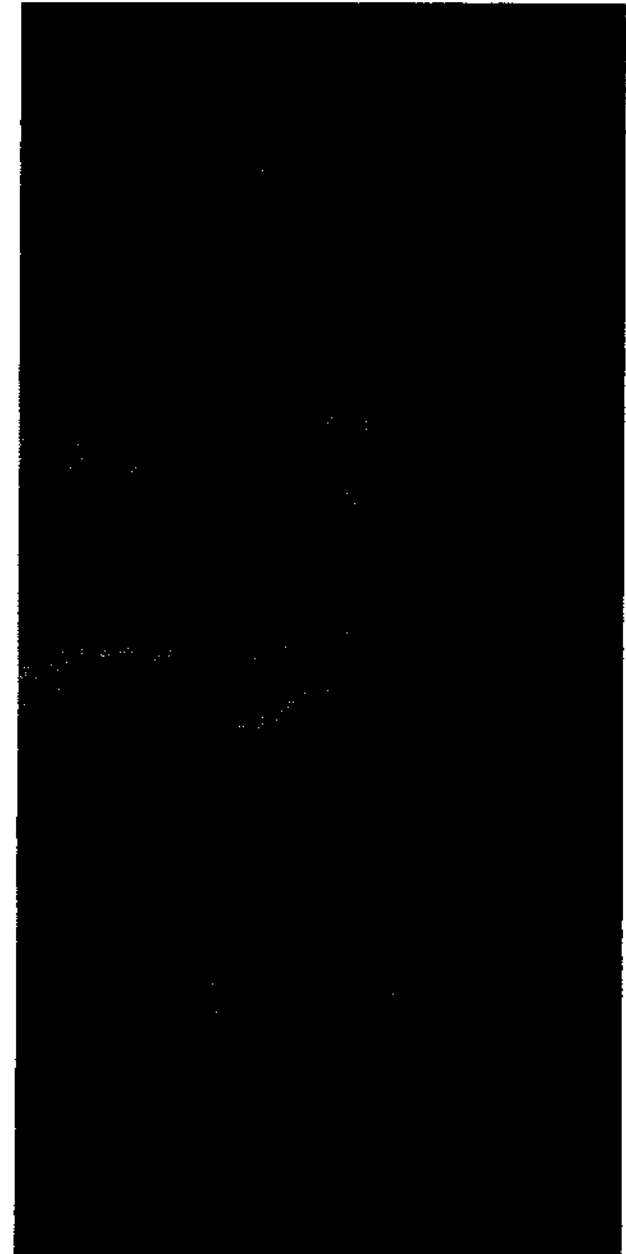
The flat piece of material is inclined to slip out of the slot. In order to avoid this the work should be guided as shown in the illustration, by holding the lower piece with the left hand and the upper piece with the right hand. Always pull slightly towards the right hand corner of the presser foot.

Calculation: The amount of gather depends on the length of the stitch. The longer the stitch the tighter the gather.

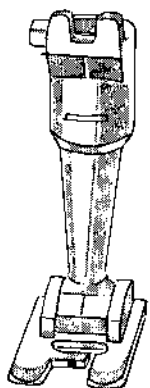
For tight gathering the upper piece of material can be pulled a little.



The material to be gathered always lies **under** the foot and the flat piece in the slot.



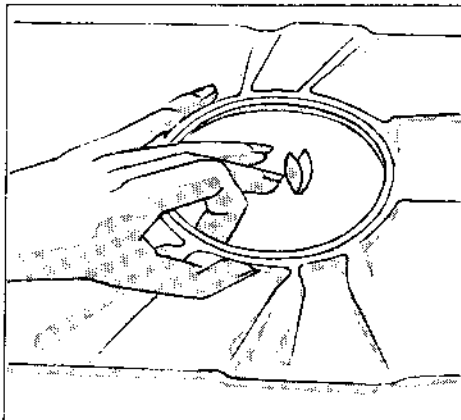
# Applique work



Embroidery foot  
Needles: 80-70  
Thread:  
Embroidery thread  
No. 50

Automatic: zigzag WWWW  
Needle position: centre  
Drop feed control: sewing

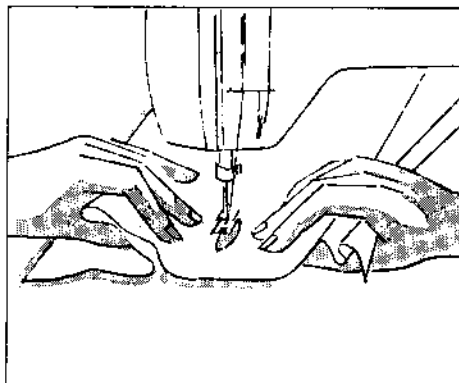
**Guiding with the frame:** The left hand must hold the frame steady, because often the frame is guided during sewing with this hand only.



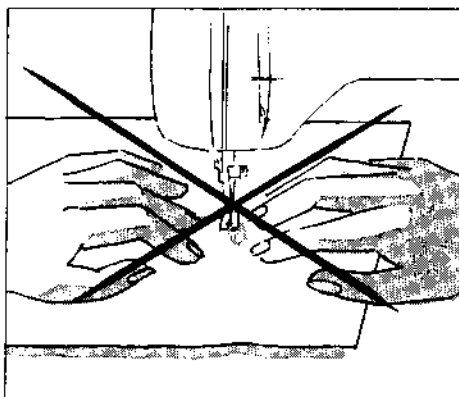
First put your hand in the position as when darning. Then draw forefinger back to the inner edge of the frame. Extend the middle and ring fingers. Your hand now has complete control of the frame and the best possible freedom of movement.

**Notice:** Do not place the forefinger parallel to the thumb, otherwise the movement of your hand will be restricted.

**Guiding without frame:** "You can only guide the work if it is held lightly." Nevertheless, it is essential to hold the material itself rather taut. This is the only way the work can be turned as the design requires.



**Correct:** Place thumbs under the material. Make a fold if the piece of work is large (see diagram). Guide near the presser foot.



**Incorrect:** This way is incorrect as pressure on the work will result.

## Working sequence

**Preparation:** Trace design on the wrong side of the material with the aid of special tracing paper. See that the motive is in reverse. The design can also be traced onto iron-on Vilene and the Vilene ironed on to the wrong side of the material. (Especially recommended for rough and irregularly woven fabrics are difficult to draw on.) If a design that is to be used often trace on thin Vilene and then transfer it onto the material. Vilene can be tacked on to a garment to stiffen it if desired.

### 1st run:

Zigzag:  $\frac{1}{2}$ -1  
Stitch length:  $\frac{1}{4}$ - $\frac{1}{2}$

Tack material for applique onto the right side.

1. Sew along the traced lines on the wrong side.
2. Turn to right side and cut away neatly along the sewn lines any surplus applique material. (At the same time remove the frame.) Hold scissors correctly.

### 2nd run:

Zigzag:  $1\frac{1}{2}$   
Stitch length: Satin Stitch

Cover the cut edge on the right side with Satin Stitch. Sew corners and small curves, stitch by stitch (using hand wheel).

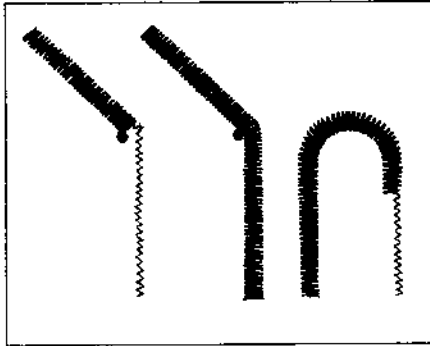
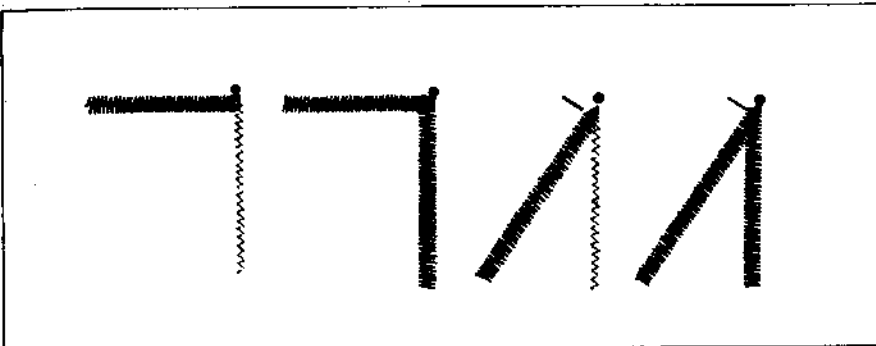
Finish by tracing the lines through that were not appliqued and sew from the right side.

## Guiding the work

You may work with or without the frame; however, taut material can be guided more easily.

**Important:** The machine feeds automatically but only in a straight line. For curves the work must be guided by hand i. e. the frame or the material must be lightly held by one or both hands and should not be pressed onto the sewing table.



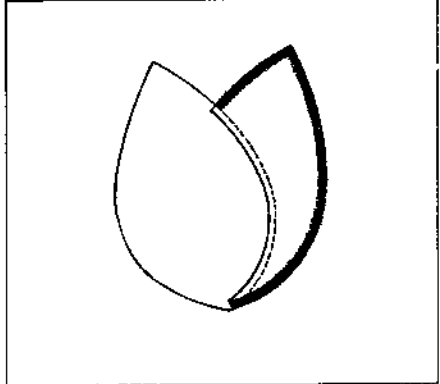
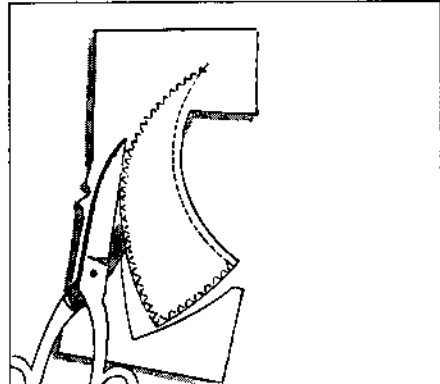
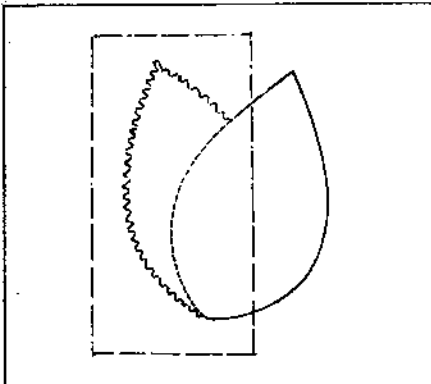


**Sewing the corners**

**1. Rectangular corner:** Put the needle on the outer edge, turn the work and continue sewing. The corner will now be oversewn.

**2. Pointed corner:** Stop sewing 1/2 cm (1/8") in front of the corner. Then turn back zigzag while sewing on 0. Raise presser foot and turn the material. Set zigzag onto 1 1/2 again and carefully continue sewing.

**3. Blunt corner:** Sew until the needle is in the middle of the angle. Then sew out from centre, replacing the needle in the middle after every stitch, raising the presser foot and turning the work slightly. **Curves:** Using the same method as for blunt corners.



**Multi-coloured applique work**

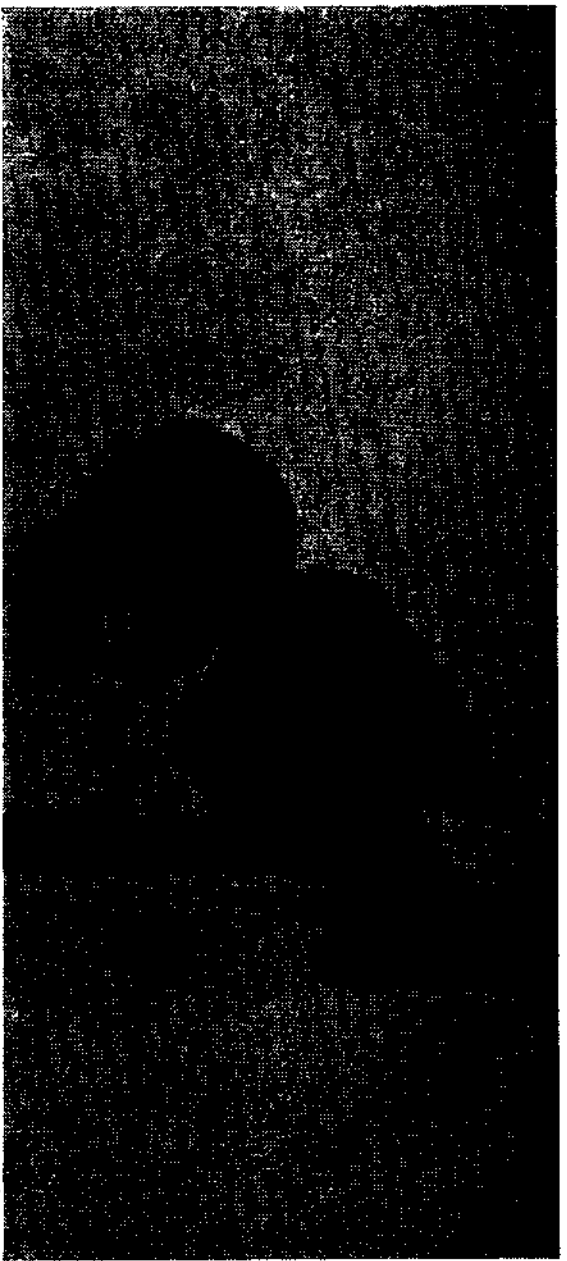
**The lower part:**

**1.** Only this part of the applique material should be tacked on. Sew around: Where the colours overlap use straight stitch and zigzag the other contours.

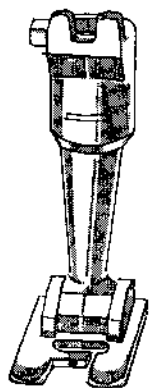
**2.** Trim away surplus applique material, cutting as closely as possible to zigzag stitches. Where a straight stitch has been used leave 1/2 cm (1/8") beyond stitches.

**3.** When covering the contours leave the straight stitched edge uncovered. This will be covered again by the next part.

**Top part:** Complete in the usual manner for applique work.



# Satin Stitch embroidery



Embroidery foot

Needle: 80

Thread:  
Embroidery  
thread No. 30

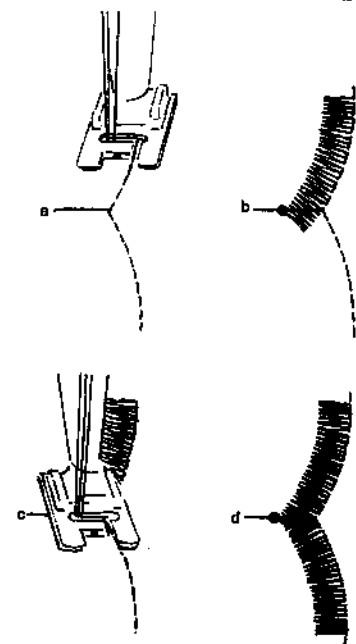
Zigzag: 4  
Stitch length: Satin Stitch  
Automatic: zigzag WWWW  
Needle position: centre  
Drop feed control: sewing

## Remember the following

when embroidering over satin stitch and ornamental stitch seams:

The stitch length for embroidery is to be adjusted to a short length. The material may block progress when the foot moves over a seam already embroidered. By guiding the work close to the foot and assisting its movement the difficulty can be removed.

If the foot is almost over the edge of the seam, hold the material back a little otherwise the foot will glide away and this will result in a long stitch (which will look as if a mistake has been made).



## Satin Stitch corners

**1. Open corner:** Sew until a space the width of the stitch is left in the corner. Place needle on the inside edge. Turn work and continue sewing.

**2. Closed, oversewn corner:** Sew to the corner. Put needle on the outer edge, lift presser foot and turn work. Lower foot again and continue sewing (help a little by placing finger near the foot, see embroidery over satin stitch or embroidery seams).

**3. Corner with diagonal design (rectangular):** Sew to the corner. Place needle on the outer edge. Lift foot, turn sewing work. Needle position, left or right (according to design) sew zigzag on 0. Lower foot. **Now whilst sewing slowly** turn zigzag onto 4 again; sewing slowly!

**4. Corner with diagonal design (for festoonery).** Needle position left!

**a)** Lay the work under the foot so that the design can be seen in the slot that runs lengthwise. **b)** Sew to the corner, i. e. till the needle is about to make a stitch from the left on the line drawn to assist you. **c)** Raise foot, turn work and turn zigzag to 0. Lower foot again. Make sure that the design appears once again in the slot that runs lengthwise. **d)** During sewing turn the zigzag again slowly onto 4; sew slowly!

**Borders for table-cloths, table-napkins, doilies, etc.**

## Border scallops

**Preparation:** Draw the scallops with the aid of a cardboard stencil onto the material. Mark all the corners with white crayon. Underlay with paper.

**1st run:**

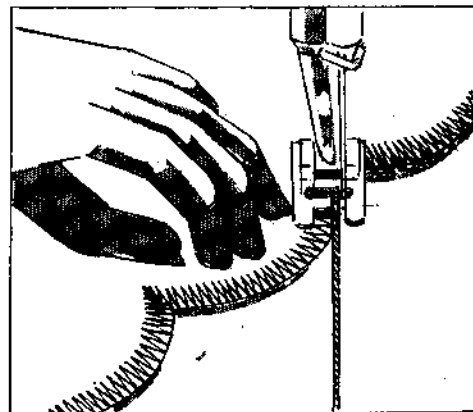
Zigzag: 4  
Stitch length: Satin Stitch

Sew satin stitch seam. Remove paper and carefully cut round the scallops.

**2nd run:**

zigzag:  $2\frac{1}{2}$ —3  
Stitch length:  $1-1\frac{1}{2}$

Oversew edge with zigzag. At the same time guide a pearl cord along the edge making sure that it does not slide over or under it.



**Note:** The machine feeds in a straight line and not in curves. The border cord must therefore be held straight and the scallop edge must be guided on this straight line. Guide slowly and near the foot.

# Satin Stitch embroidery

## Straight border

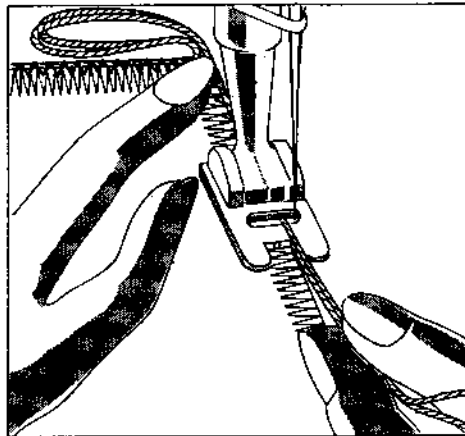
### Preparation :

Draw border line, underlay with paper.

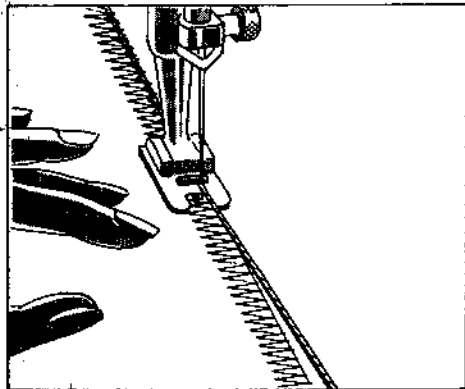
### 1st run :

Zigzag: 4  
Stitch length: Satin Stitch

Sew satin stitch seam. Remove paper and cut away surplus material.



**Corner:** Sew to the corner. Lower drop feed control. Sew three stitches using the hand wheel. Leaving the needle in the work at the inside edge, raise foot, turn work. Make a loop with the cord, lower foot and sew further three stitches. Raise drop feed control and continue sewing carefully. Pull on the loop until the foot no longer lies on the corner. To make loop disappear pull the ends of the cord. (See diagram.) Push corner stitch over the corner and continue sewing.

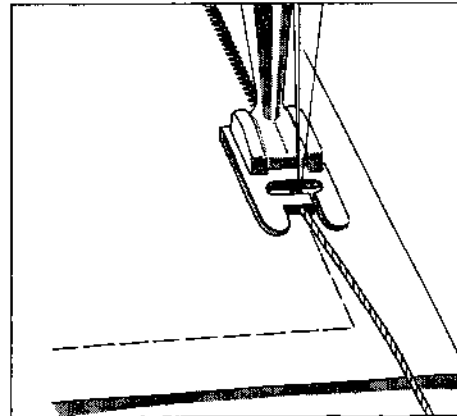


### 2nd run :

Zigzag: 2½-3  
Stitch length: 1-1½

Oversew edge with zigzag. At the same time guide through pearl cord (No. 8 three- to five-ply) taking care that it neither slides over nor under the edge.

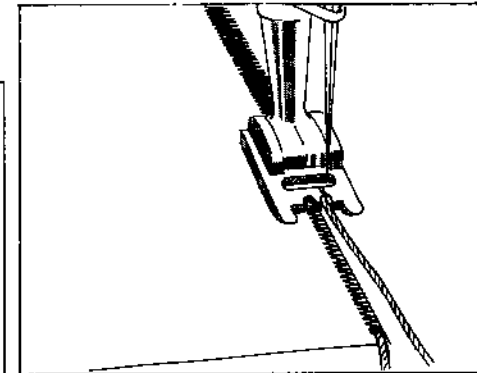
## Narrow border



### 1st run :

Foot: Embroidery foot  
Zigzag: 1½  
Stitch length: ¼  
Needle position: centre

Draw pearl yarn No. 5 or 8 (according to material) through the hole of the embroidery foot. Sew seam with satin stitch. Cut surplus material away carefully.



### 2nd run :

Foot: Small buttonhole foot  
Zigzag: 2-3 (according to material)  
Stitch length: Satin Stitch  
Needle position: centre

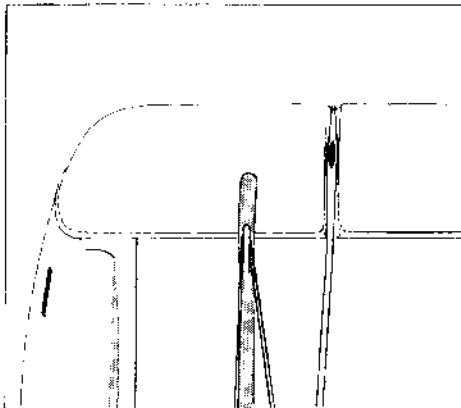
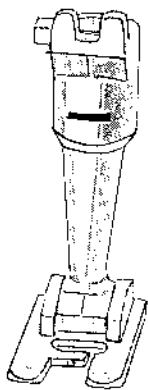
Now completely cover the first satin stitch seam with a second. Lay the work under the foot in such a way that the satin stitch seam is in the left groove of the foot. Place the cord (mostly 1-ply) into the right hand groove of the foot. In this way the yarn is joined exactly to the edge. Make the corner in the same way as with the wide border.

# Double and treble needle

Embroidery foot

Thread:  
Embroidery thread  
No. 30 or 50

Treble needle  
only 50



## Double and treble needle

These special needles produce very beautiful effects on delicate materials, whether shades of one colour or different colours.

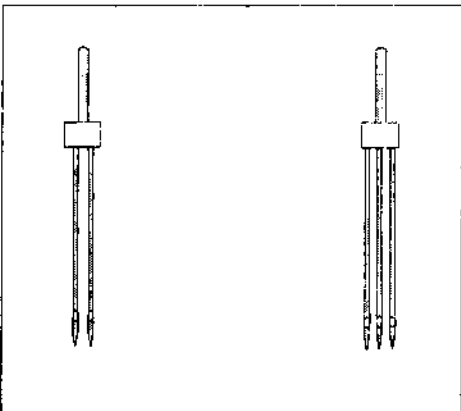
When threading through the thread tension, make sure that one of the threads goes left and the other right of the tension disc. When threading the treble needle, the threads for the two outside needles go on one side of the tension disc and the middle thread on the other. (Wind third thread on a bobbin and place it on the left hand upper thread pin beneath other spool.)

## Adjustment

Automatic: As desired  
Needle position: centre  
Drop feed control: Sewing

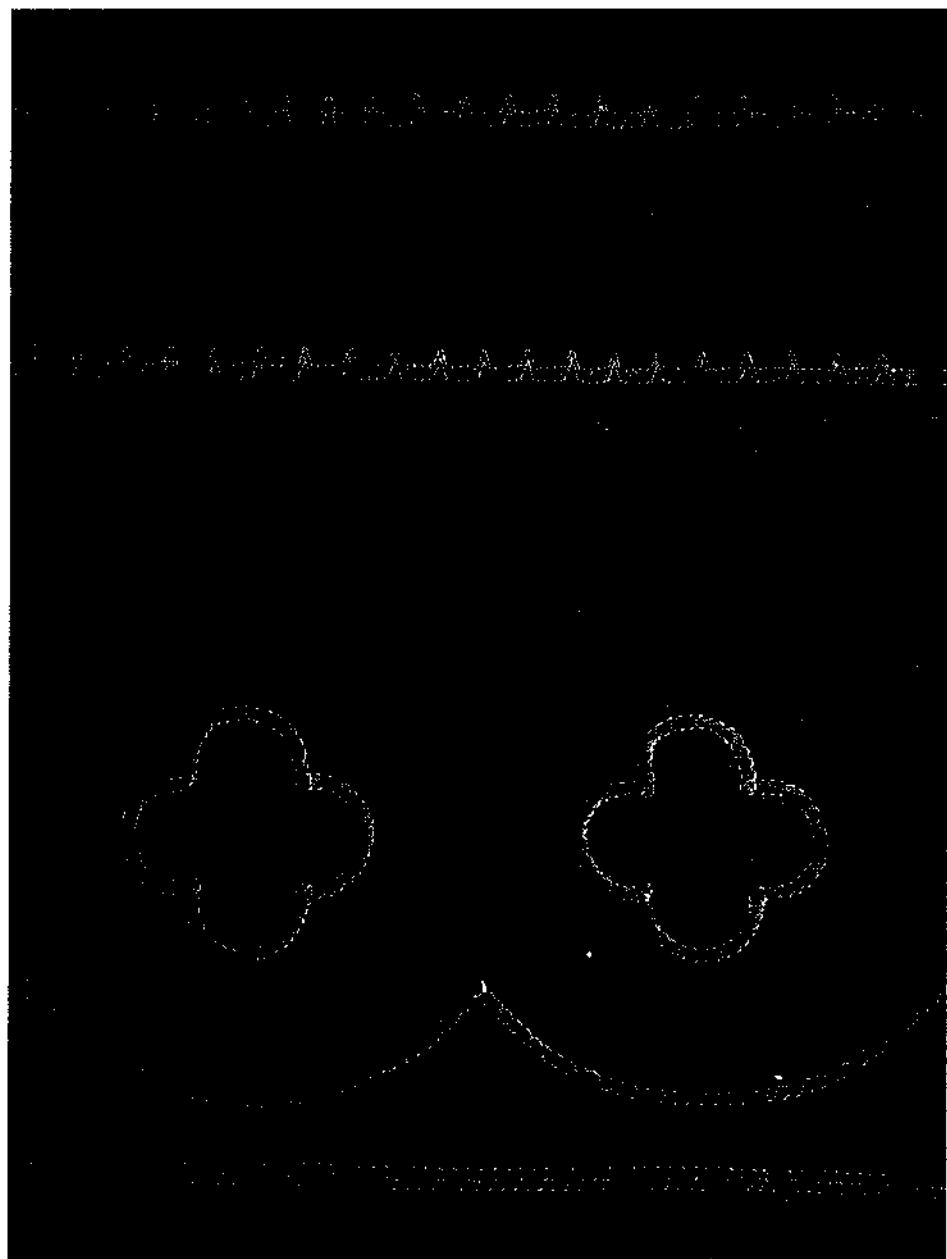
## Double needle

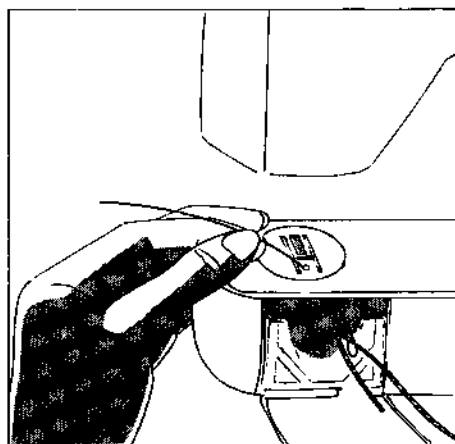
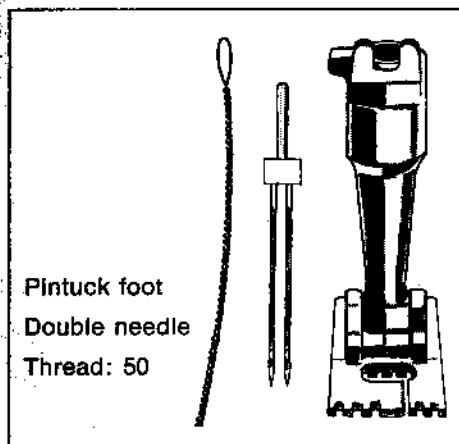
Zigzag:  $2\frac{1}{2}$   
Stitch length:  $\frac{1}{4}$ –1  
(according to pattern)



## Treble needle

Zigzag:  $1\frac{1}{2}$   
Stitch length:  $\frac{1}{4}$ –1  
(according to pattern)





## Sewing Pintuck Corners

Because of the double needle, corners cannot be turned at right angles in one stitch, as with a single needle.

You should therefore proceed thus :

Bring the points of the needles into the work. Lift presser foot. Half turn work. Lower presser foot. Turn balance wheel by hand to do one stitch leaving needle points in work. Lift presser foot. Complete the turn. Lower presser foot and continue.

## Fancy Patterns with double needle

(Remove the cord)

Zigzag: 0-2 1/2  
Stitch length: about 1/4  
Needle position: centre  
Automatic: as desired  
Drop feed control: sewing  
Thread: 30 or 50

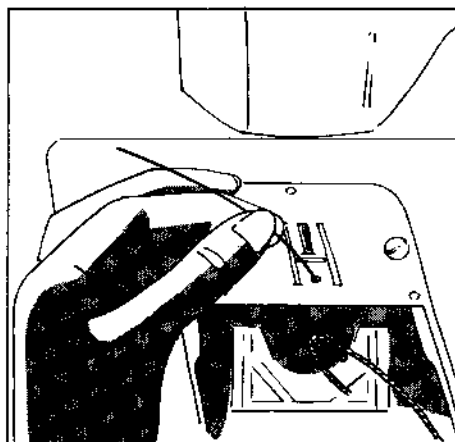
When designs are sewn in between or close to the tucks, use the **pintuck foot** for automatic guiding. For twin needle embroidery without pintucks, use the embroidery foot.

## Sewing Pintucks

Zigzag: 0  
Stitch length: about 1 1/2  
Automatic: straight stitch -----  
Needle position: centre  
Drop feed control: sewing

To sew pintucks, 2 top threads are needed (for double needle). When threading the machine take care that the two threads are not twisted together, but bring them singly from take-up lever to the needles.

The gimp is threaded like this: model 707



The gimp is threaded like this: model 717

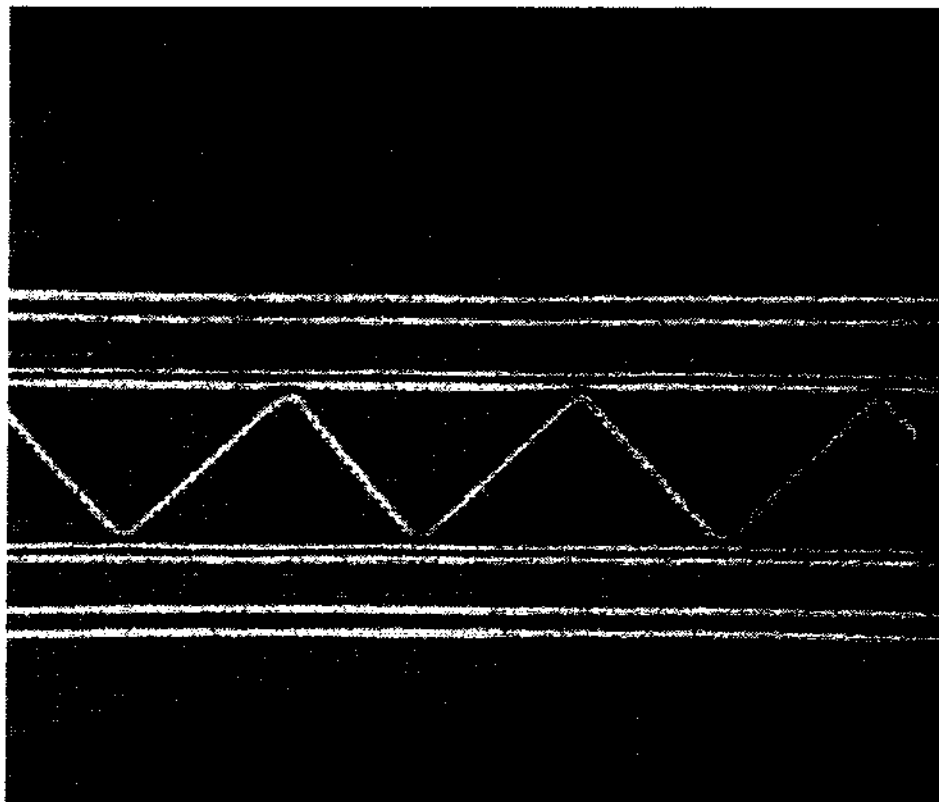
## The quickest way to set up the machine for pintucking

Insert bobbin case. (Do not bring up lower thread yet.) Insert and thread the twin needle.

Thread the gimp through the hole in the needle plate (the free arm cover can be removed for this) and finally bring up the bottom thread and clip on the pintuck foot.

## The gimp is threaded like this :

The regular spacing between the tucks is controlled automatically by the grooves on the underside of the foot. (When embroidery is eventually to be sewn between tucks, then a width of exactly 1 presser foot is required.)

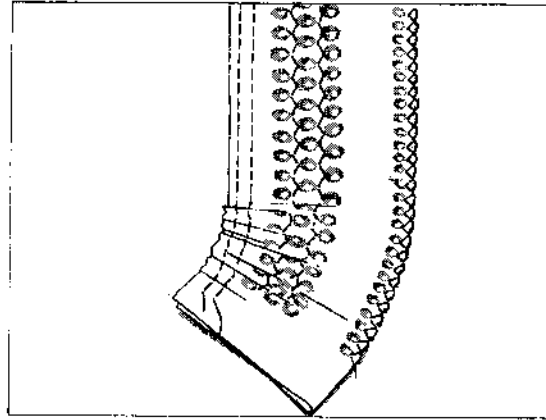
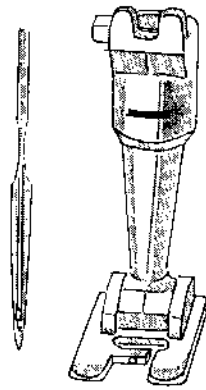


# Hemstitching (for fine fabrics)

Embroidery foot

Needle: Single hemstitch needle

Thread: Embroidery thread No. 30 or 50



## Ruche

Iron bias strip of organdy in two. Sew hem stitches at the desired distance over the folded edge. Sew the ornamental stitch in between with a normal needle.

An Entre-deux (insertions) is worked in the same way.

## Applique with Pre-Embroidered Material (use Organdie double)

Hemstitch a piece of fine material in the manner described until you get a trellis effect. With this trellis make a normal applique. Finish by cutting away background material from under trellis.

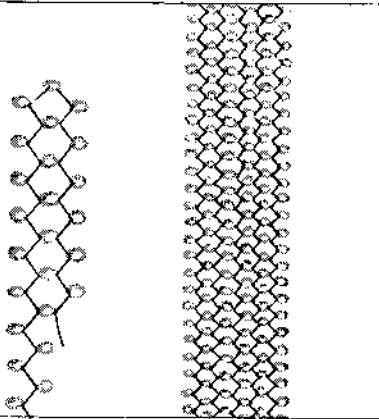
## Trellis work with metallic thread (Lurex)

Can be used as a border (e. g. for a stole). A very attractive effect is brought about if a double metallic thread is led through the hole in the embroidery foot.

## Single hemstitch needle

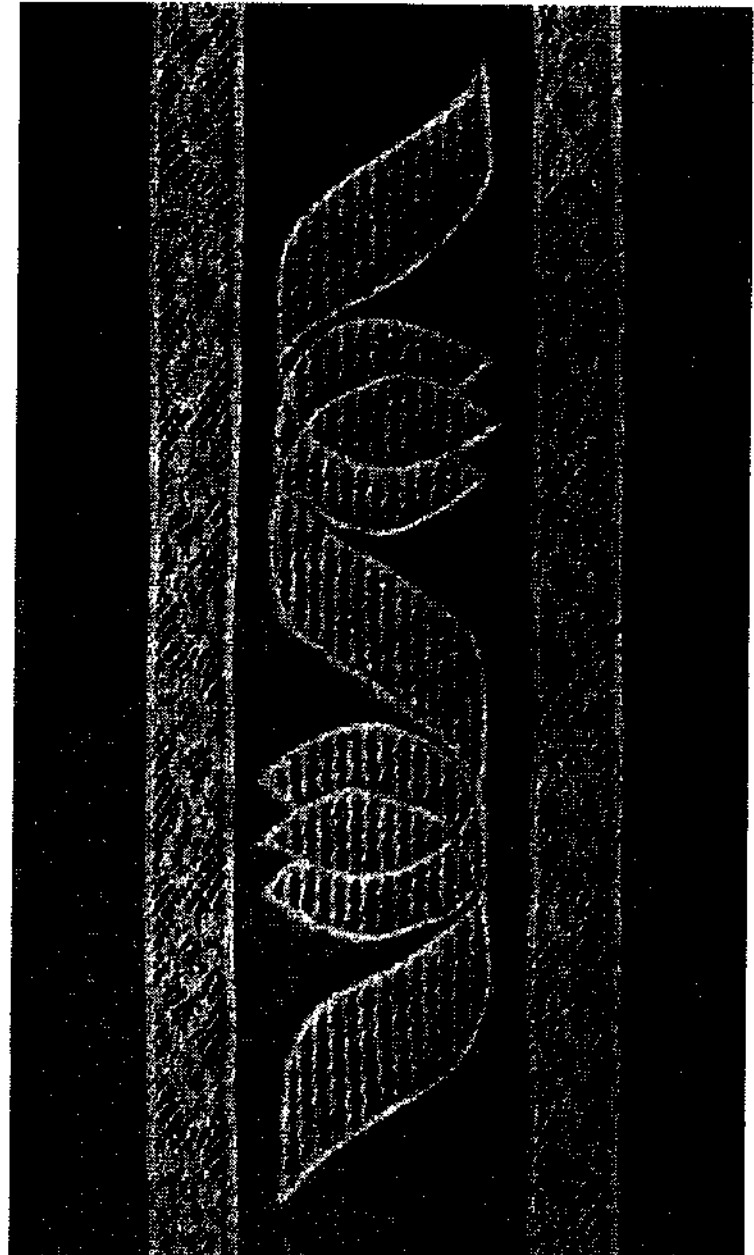
### Adjustment

Zigzag: 2  
Stitch length: 1  
Needle position: centre  
Automatic: zigzag WWWW  
Drop feed control: Sewing



### Method

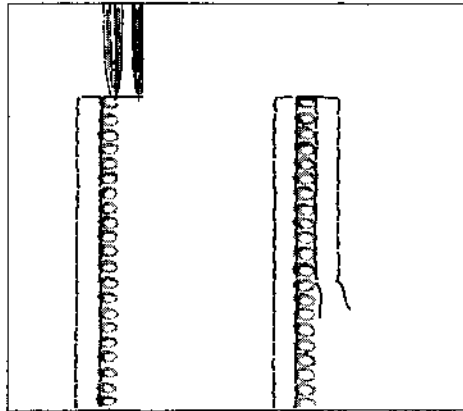
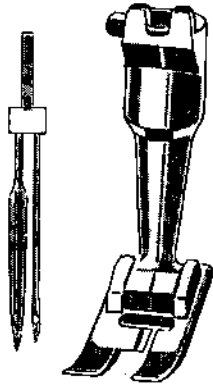
Sew first row of stitching. Leave tip of needle in work, turn and sew second row (the needle will then pierce holes of first row on one side).



Sewing foot

Needle: Double hemstitch needle

Thread: Embroidery thread No. 50



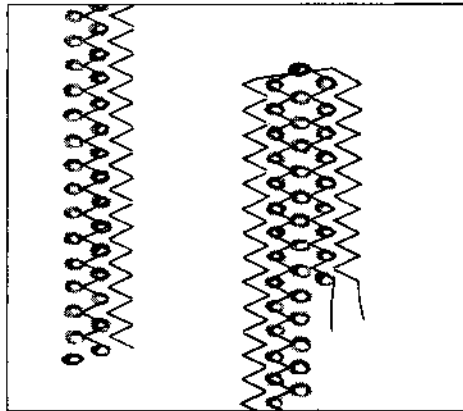
## Ordinary Hemstitching

Zigzag: 0  
Stitch length:  $1\frac{3}{4}$   
Automatic: straight stitch -----

Sew first hemstitch row of embroidery, raise needle and foot, turn work. Put wide needle in the first hole of the previously sewn row and resume sewing. In order that the hemstitch needle can sew exactly into the holes of the first seam, do not hold back work.

## Double hemstitch needle

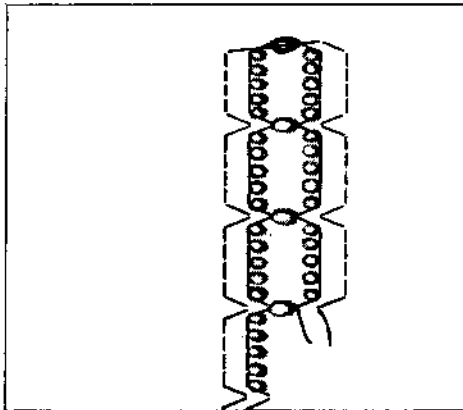
Automatic: 0  
Needle position: centre  
Drop feed control: Sewing




## Zigzag Hemstitching

Zigzag:  $1\frac{3}{4}$   
Stitch length:  $1\frac{3}{4}$   
Automatic: zigzag WWWW

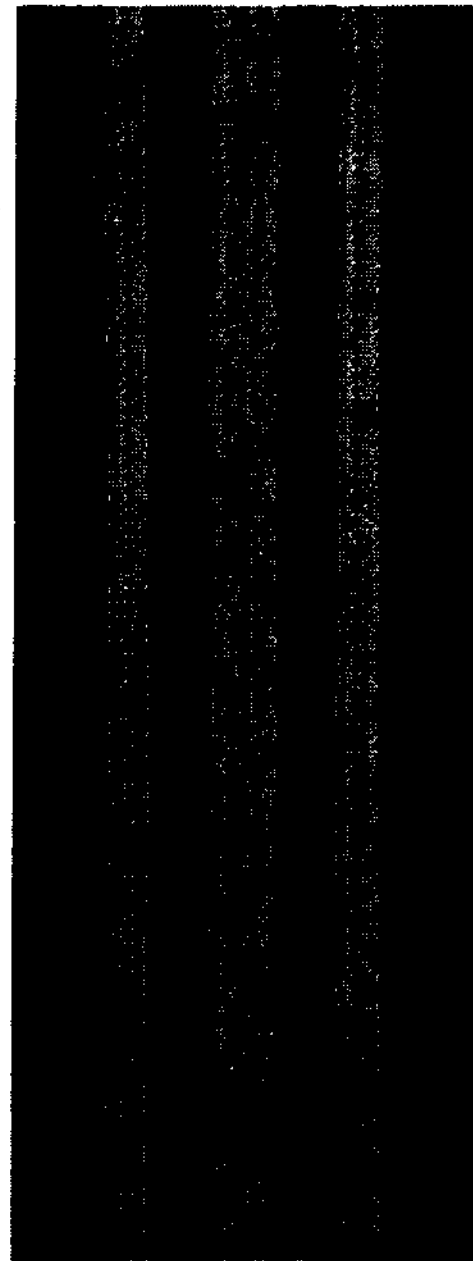
Sew the first side of the hemstitch row of embroidery. Just pierce the last left stitch, then turn back the hand wheel again and raise the presser foot. Turn work. With the wide needle stitch through the previously pierced hole and continue sewing. Do not hold the sewing work back.



## Fancy Hemstitching

Zigzag:  $1\frac{3}{4}$   
Stitch length:  $1\frac{3}{4}$   
Automatic: Blindstitch 

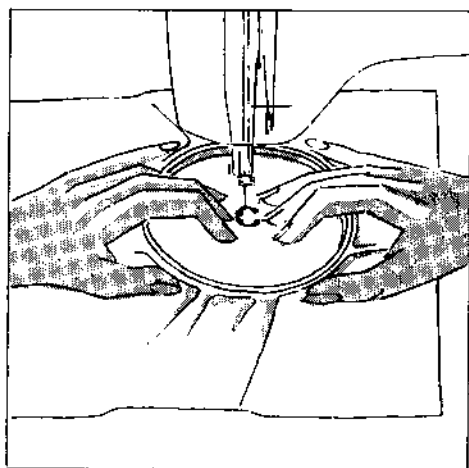
Worked in the same way as the zigzag hemstitching.



# Monograms

Without foot  
Needle: 80-70  
Thread:  
Embroidery  
thread 50

Zigzag: 4-2  
Stitch length: 0  
Automatic: zigzag WWWW  
Needle position: centre  
Drop feed control: Lowered



Stretch the material tightly in the frame as the work is to be carried out without a foot. **Important:** Lower the foot lever just the same as usual, otherwise the top thread tension will remain open and unattractive work will result. If the bottom thread is drawn through the finger of the bobbin case the work will run more smoothly (as with button-hole sewing).

## Method

Bring up the bottom thread through the material, sew a few straight stitches and cut the thread ends. Set zigzag. Place needle ready to begin and make a test stitch. The drawn line must be in the middle of the zigzag.

Move the frame as though wanting to write with it. **Do not stop turning frame until the monogram is complete.**

## Guiding the work

Hold frame as when darning. Do not move fingers while working, as jerky movements produce uneven monograms.

To produce a perfect monogram a great deal depends on how the frame is held. The more securely the work is held the better the result.

**Important:** Allow the machine to run rather quickly; however, the frame should be guided slowly and steadily.





**1. Generally,** most breakdowns are caused by incorrect handling of the machine. If breakdowns do occur then examine whether:

- a) the needle is inserted properly (the flat side of the needle must be at the back);
- b) the correct needle is being used (see needle and thread table);
- c) the machine is cleaned properly. Lift free arm cover plate and remove sewing lint;
- d) the hook race is clean and oiled;
- e) there are pieces of thread caught between the thread tension discs or under the bobbin case spring;
- f) hand wheel is secured properly.

**2. If the upper thread breaks.** Can have the following causes:

- a) top thread is too tight;
- b) use of inferior needles (buy them preferably from a Bernina dealer);
- c) needle inserted wrongly. Flat side must be at the back;
- d) the needle is blunt or crooked;
- e) Poor quality or knotted thread. Thread has dried out due to long storage;
- f) the needle plate hole is pitted by needle and needs repolishing. (Bring free arm cover plate, resp. needle plate to authorized Bernina dealer.)
- g) hook point is damaged (call authorized Bernina dealer).

**3. If bottom thread breaks.** Can have the following causes:

- a) the bottom thread tension is too tight;
- b) bobbin is crushed and jammed in the bobbin case;
- c) Needle hole in throat plate is damaged by the needle and needs repolishing

(call authorized Bernina dealer to change needle plate).

**4. Faulty stitches.** Can have the following causes:

- a) wrong needle. Use system 705 B only;
- b) needle is crooked or not inserted correctly (push needle right up in the needle bar !);
- c) low quality needle, roughly polished.

**5. Needle breaks.** Can have the following causes:

- a) needle clamp screw is not sufficiently tightened;
- b) the material was withdrawn towards the operator and needle bent (material should always be withdrawn to the rear);
- c) when sewing over **thick part** material was pushed whilst the needle was still in, therefore it bent, touched the throat plate and broke.
- d) when cheap cotton, irregularly twisted or even containing knots is used.

**6. Seam Irregularities.** A bad uneven seam results:

- a) if thread remnants are between the thread tension discs;
- b) if thread remnants are under the bobbin case tension spring.

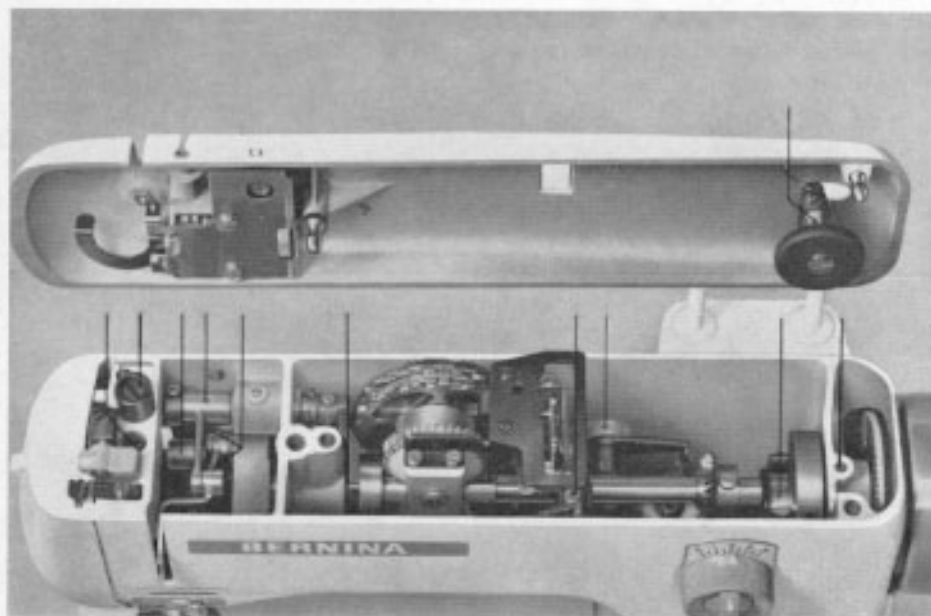
**7. Machine runs slowly**

- a) Motor does not function properly (call authorized Bernina dealer);
- b) foot starter does not function properly (call authorized Bernina dealer);
- c) use of low quality oil can block the movement. The machine must be dismantled and cleaned. Call Bernina dealer;
- d) machine has been standing in a cold room.

**When you bring your machine to an expert, please take along accessories and foot starter.**

# Cleaning and oiling

Model 707



Oil the machine frequently but not too heavily (1-2 drops). If too much oil is applied the excess will drain off unused and stain machine and material.

Always oil the machine **before use** and not afterwards. Use clear sewing machine oil only, free from resin and acid. Obtainable at all Bernina dealers.

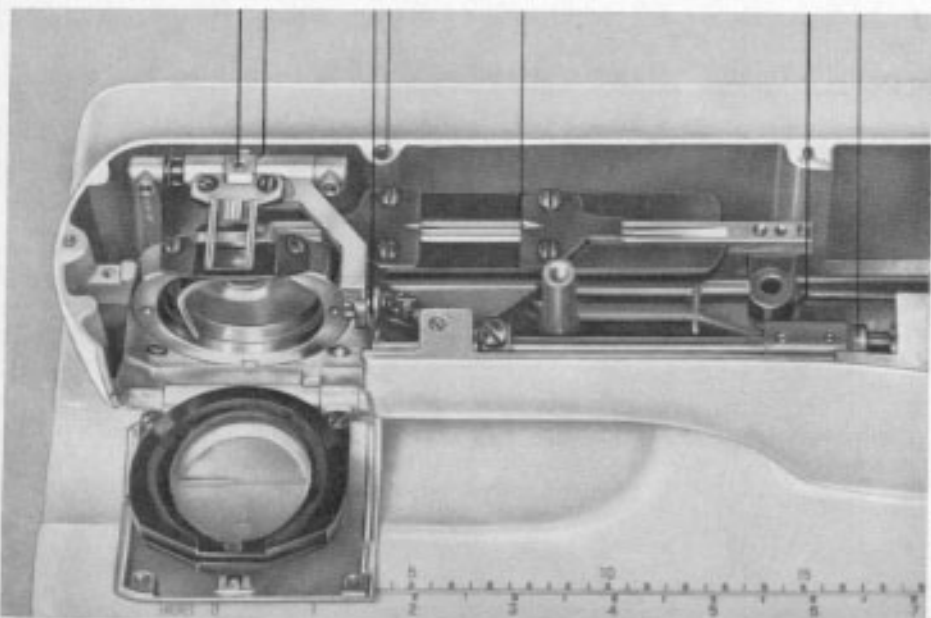
Proper oiling of the machine assures its free running and long life.

All the oiling points on the machine are marked in red.

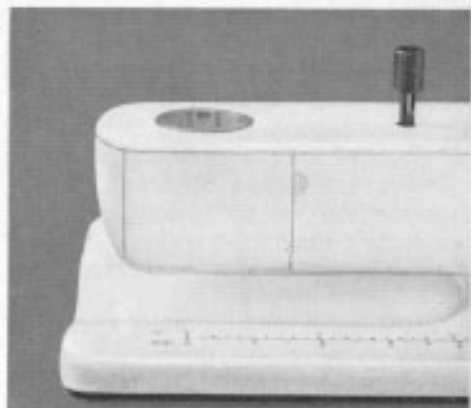
Unmarked points are provided with self-oiling bushings and thus need no oiling.

The main oiling points under the top cover of the machine.

The main oiling points under the free arm cover.

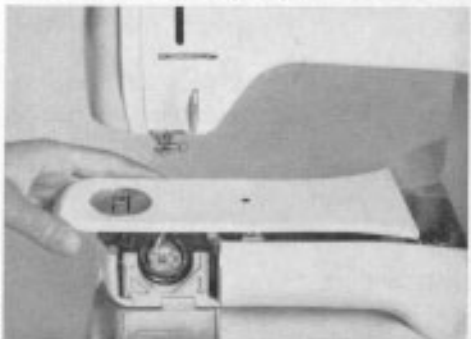


**Cleaning the machine.** During sewing pieces of thread and fluff collect under the needle plate and around the hook. The cover plate of the free arm should be removed from time to time so that the sewing fluff can be cleaned away.



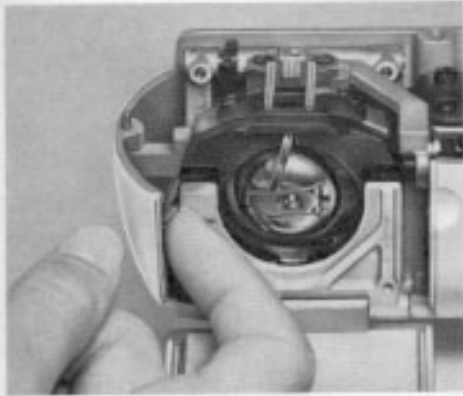
**To take off the open arm cover**

Remove sewing foot and needle. Open hinged shuttle cover. Loosen screw with the special screw driver.

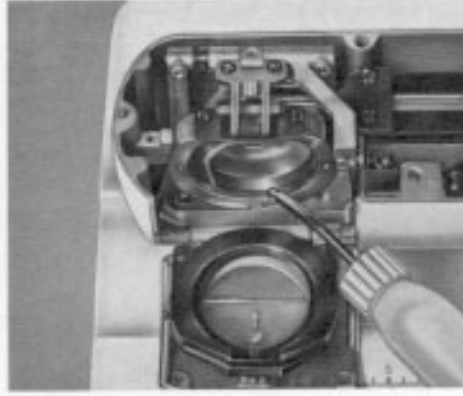


If the machine has been standing in a cold room, it should be brought into a warm room about an hour before use, so that it can warm up to room temperature and the oil in the bearings will again become fluid.

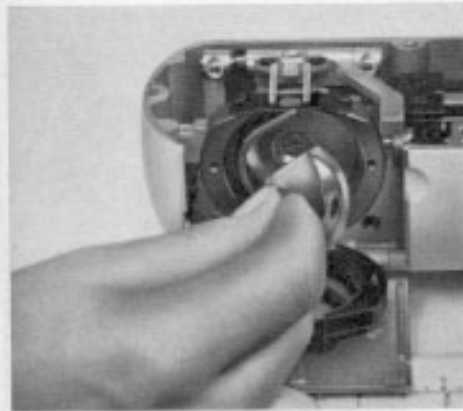
After removal of the cover the feed dog is exposed and can be easily cleaned. The under side of the needle plate can be cleaned at the same time.



**Cleaning and oiling the hook.** Remove bobbin case. With the forefinger of the right hand press latch to the left. The locking bridge together with the hook race cover can now be turned down.



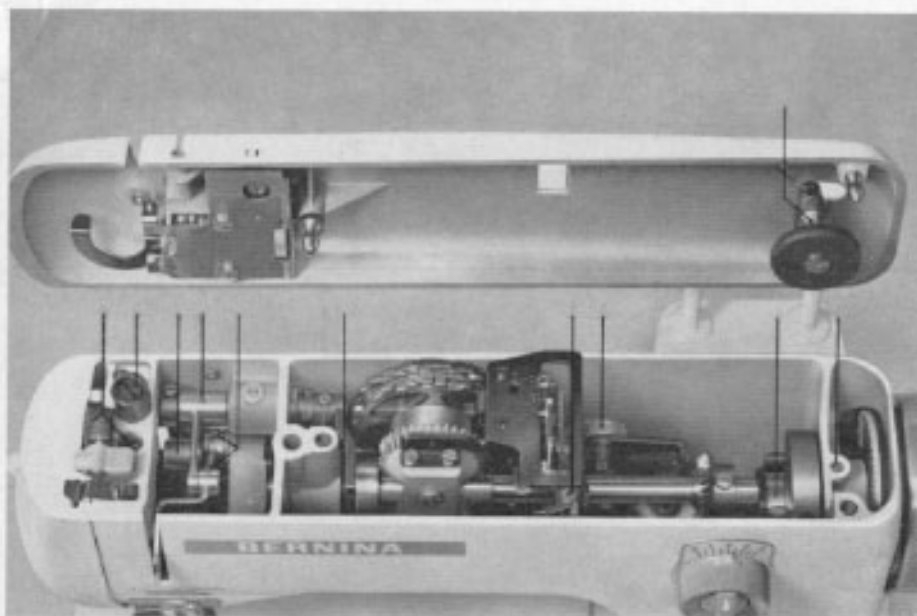
After cleaning pour a few drops of oil into the shuttle race. Insert the shuttle again with the left hand. Lock the bridge together with the shuttle race cover, making sure that the spring snaps back into position. Test by turning the hand-wheel as a precautionary measure. Replace arm cover and re-screw tightly. When the bobbin case is inserted the hinged shuttle cover can be closed.



Now the hook can be taken out and the hook race cleaned with a small brush and cotton duster. Never use hard tools such as screwdrivers and scissors for removing thread particles.

# Cleaning and oiling

Model 717



Oil the machine frequently but not too heavily (1-2 drops). If too much oil is applied the excess will drain off unused and stain machine and material.

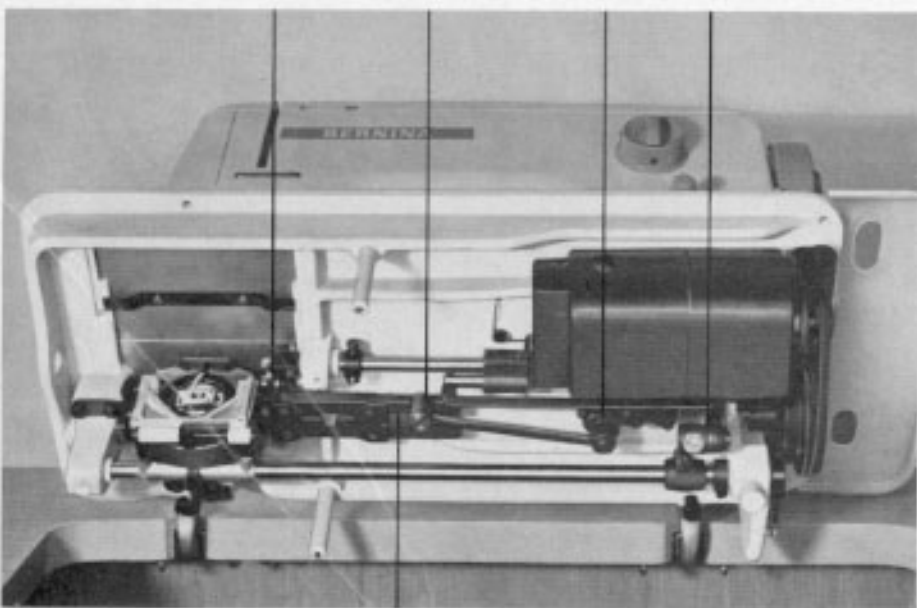
Always oil the machine **before use** and not afterwards. Use clear sewing machine oil only, free from resin and acid. Obtainable at all Bernina dealers.

Proper oiling of the machine assures its free running and long life.

All the oiling points on the machine are marked in red.

Unmarked points are provided with self-oiling bushings and thus need no oiling.

**Cleaning the machine.** During sewing pieces of thread and fluff collect under the needle plate and around the hook. The needle plate slide plate should be removed from time to time so that the sewing fluff can be cleaned away.



The main oiling points under the top cover of the machine.

The main oiling points under the base plate.

If the machine has been standing in a cold room, it should be brought into a warm room about an hour before use, so that it can warm up to room temperature and the oil in the bearings will again become fluid.



Address of my Bernina agency :