

Procedure: While lowering presser foot, place button between presser foot and fabric so that holes of button are in line with zig-zag stitch.

Turn balance by hand slowly toward you so that needle goes through left hole of button.

Continue turning balance wheel by hand, making certain that needle enters right hole of button properly and does not hit button. If needle does not clear button, change throw of needle by readjusting zig-zag stitch lever.

Run machine at medium speed, making about five to six stitches.

Bring zig-zag stitch lever to extreme left, making a few straight stitches in the same holes (to tie up zig-zag stitch and thus prevent unraveling).

NOTE: Buttons may also be sewed on with the zig-zag stitch hinged foot, by following the same procedure.



Fig. 59

Fig. 60



b) Four-Hole Buttons with Parallel-Stitching

Machine setting and procedure are the same as for sewing on «Two-Hole» Buttons.

After stitching between first two holes of button, lift button sewing foot slightly and move fabric underneath foot to line up remaining two holes with needle, then stitch between second pair of holes (Fig. 59).

c) Four-Hole Buttons with Cross-Stitching

Machine setting and procedure are the same as for sewing on «Two-Hole» Buttons.

After stitching between first two holes of button, lift button sewing foot slightly, then turn fabric at a right angle so that remaining two holes are in proper position under the needle.

Proceed to stitch between remaining two holes (see Fig. 60), then bring the zig-zag stitch lever to the extreme left, making a few straight stitches through the same hole.

17. DARNING (MENDING)

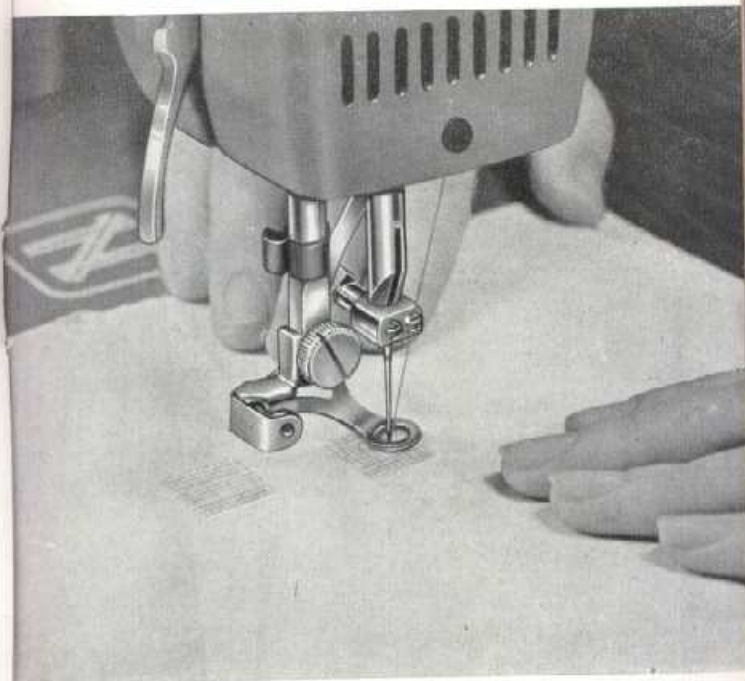


Fig. 61

Machine Setting:

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Move to extreme left.

Upper Tension: Normal.

Feed Dog: To be dropped (see instruction, page 19).

Presser Foot: Remove zig-zag stitch hinged foot and attach darning foot to presser foot bar.

Needle Plate: Remove zig-zag stitch needle plate and replace it with darning needle plate.

Sewing Thread: Use thread suitable for article to be darned.

Procedure: Place portion of fabric, to be darned, under darning foot and lower the foot (see Fig. 61). Commence sewing (starting just at the outside edge of the hole) and sew across the hole, moving the fabric from left to right, and from right to left, until the hole is filled with parallel lines of stitches (see Fig. 62). Next, starting again at the edge of the hole, move the fabric gradually forward and backward until the first lines of stitches are fully covered crosswise with the other lines of stitches, as shown in Fig. 63. The hole is then fully darned.

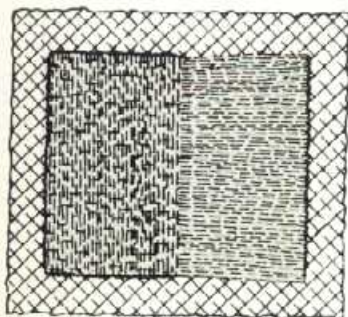


Fig. 62



Fig. 63

Darning can also be done with the regular zig-zag stitch hinged foot and zig-zag stitch needle plate, by following the same procedure as described above, after the feed dog has been dropped below the needle plate.

NOTE: If larger holes have to be darned, it is advisable to keep the fabric stretched by clamping it in an embroidery hoop. This hoop can be purchased from your NECCHI Dealer.

An excellent means for darning toes and heels on ladies' stockings, men's socks, etc., is the NECCHI Stocking-Darner which is also obtainable at your local NECCHI Dealer.

18. BIAS BINDER (Fig. 64)



Fig. 64

Machine Setting:

Needle Position Lever: In left notch.

Zig-Zag Stitch Lever: For straight stitch binding: move to extreme left.

For zig-zag stitch binding: set to desired width, but not larger than «3», since otherwise needle will hit binder and break.

Stitch Length Lever: Set at desired length.

Upper Tension: Normal.

Presser Foot: Remove zig-zag stitch hinged foot and attach Bias Binder to presser foot bar.

Procedure: Use size No. 5 unfolded binding and clip its end to a slender point (see Fig. 65) so that it can easily be drawn through the scroll in the binder. By using a long, strong pointed pin, the binding can be drawn more easily through the scroll of the binder toward the needle. Now sew for a few inches to determine the setting of the binder at the edge of the binding.

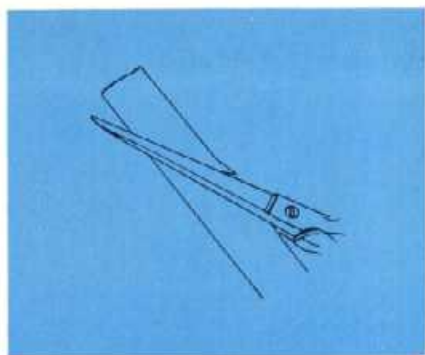


Fig. 65

After the binder has been properly adjusted, to have the stitches on the binding placed where desired, insert the fabric to be bound between both halves of the binder scroll (see Fig. 64). Keep the fabric well in the binder, close to the needle. This is a point to be considered especially on small scallops or curved edges. Use the third finger of the left hand for this work and note how simply a curve can be bound while the finger rests on the fabric above the apron of the binder.

19. RUFFLING AND PLEATING WITH THE RUFFLER

Fig. 66 indicates the principal parts of the ruffler with the use of which the operator should be thoroughly acquainted. These parts are as follows:

- A - SHANK - to be attached to presser foot bar.
- B - FORK ARM - to be placed astride the needle clamp.
- C - ADJUSTING SCREW - regulates and then holds the fullness (size) of gathers and pleats, after pointer «F» has been set to desired position on dial «G».
- D - PROJECTION - goes through slots in Adjusting Lever «E».

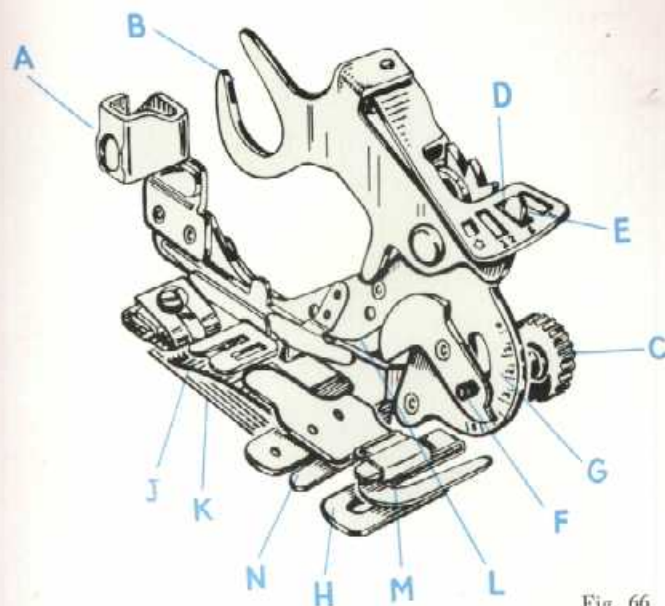


Fig. 66

E - ADJUSTING LEVER - to set Ruffler for gathers or pleats, also for disengaging ruffler when neither gathers nor pleats are required.

F - POINTER - for setting the fullness (size) of gathers and pleats.

G - DIAL - numbered from «1» to «8» and used for setting the fullness of gathers and pleats.

H - SEAM GUIDE - guide on bottom part of ruffler, containing slots into which edge of material is placed to keep heading of ruffle even; also for separating material to be ruffled from material to which ruffle is to be attached.

J - RUFFLING BLADE (FEED BLADE) - the upper blue steel blade with teeth at end, to push material in pleats toward the needle.

K - SEPARATOR BLADE - the lower blue steel blade without teeth, which prevents the feed dog of the machine from coming into contact with feed blade of ruffler, or with material to which ruffle or pleating is to be applied.

L - **HEADING GUIDE** - can be adjusted for different sizes of heading.

M - **SLIDING GUIDE** - can be adjusted for various widths of seams or headings.

N - **SEPARATOR GUIDE** - for separating material to be ruffled from material to which ruffle is to be attached.

INSTRUCTIONS FOR USE

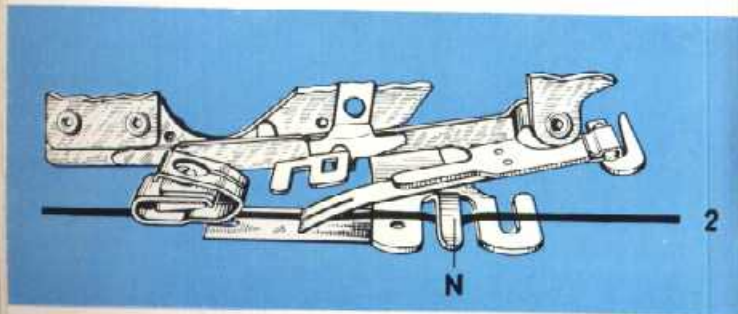
To Attach Ruffler to Machine:

Raise needle to highest position and remove presser foot. Place fork arm of ruffler astride the needle clamp, and at the same time attach shank of ruffler to the presser bar. Tighten thumb screw firmly. See that needle enters center of needle hole in ruffler.

To Ruffler (Gather):

- 1) Raise adjusting lever «E» (Fig. 66) and move it to the left until projection «D» enters in slot marked «1».
- 2) By loosening and moving plastic adjusting screw «C», set pointer «F» to desired number on dial «G», to obtain the fullness of ruffle desired. Tighten firmly screw «C» after setting. The ruffling blade «J» will now move forward and backward once at every stitch.
- 3) Insert material to be ruffled between the two blue blades (LINE 2, Fig. 67).
- 4) Draw material slightly back of needle, lower presser bar and sew. Fig. 68 shows the ruffle being made by the ruffler.

Fig. 67



- 5) For fine gathering, set machine for a shorter stitch; for full gathering set it for a longer stitch.

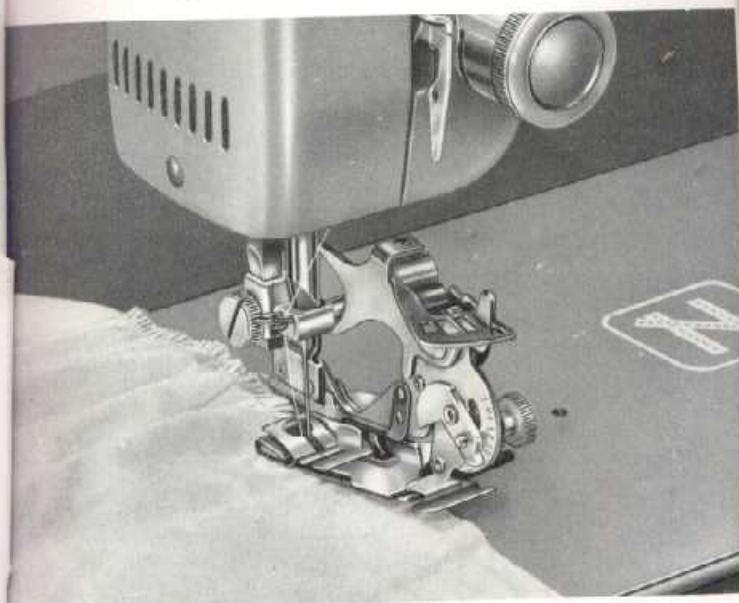
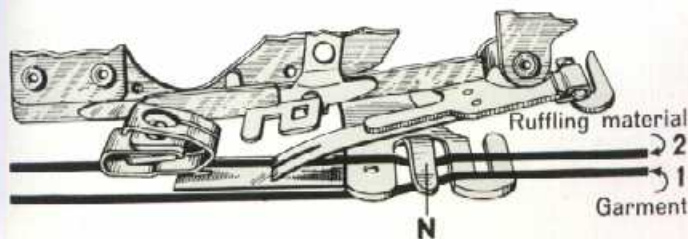


Fig. 68

To Make Ruffle and Sew it to Garment in One Operation:

- 1) Insert material to be ruffled between the two blue blades and under the separator guide «N» (LINE 2, Fig. 69).
- 2) Place material (garment, etc.) to which ruffle is to be attached under separator blade «K» and under separator guide «N» (LINE 1, Fig. 69).
- 3) Proceed as for plain ruffling (gathering). Fig. 70 shows how to make a ruffle and to attach it in one operation.

Fig. 69



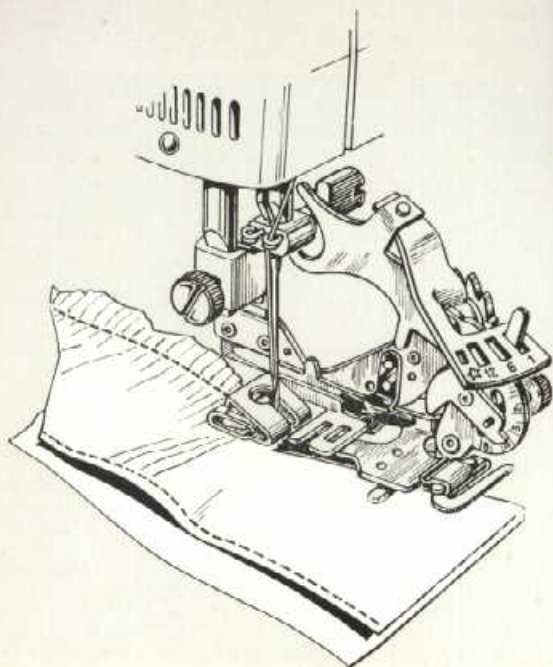


Fig. 70

To Make Ruffle and Attach it With a Facing to Garment:

- 1) Insert material to be ruffled between the two blue blades and under the separator guide «N» (LINE 2, Fig. 71).
- 2) Place material (garment) to which ruffle is to be

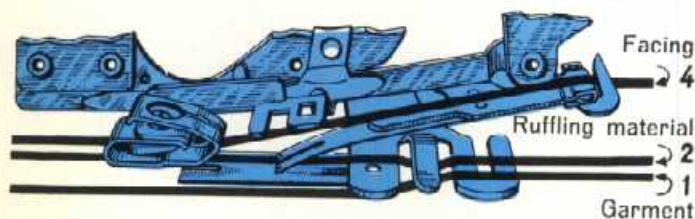


Fig. 71

- 3) Place facing material over upper blade (LINE 4, Fig. 71).
If facing is to be on *right* side of garment, place wrong sides of garment and ruffle together.
If facing is to be on *wrong* side of garment, place right sides of garment and ruffle together.
- 4) Lower presser bar and sew. Fig. 72 shows the procedure described above.

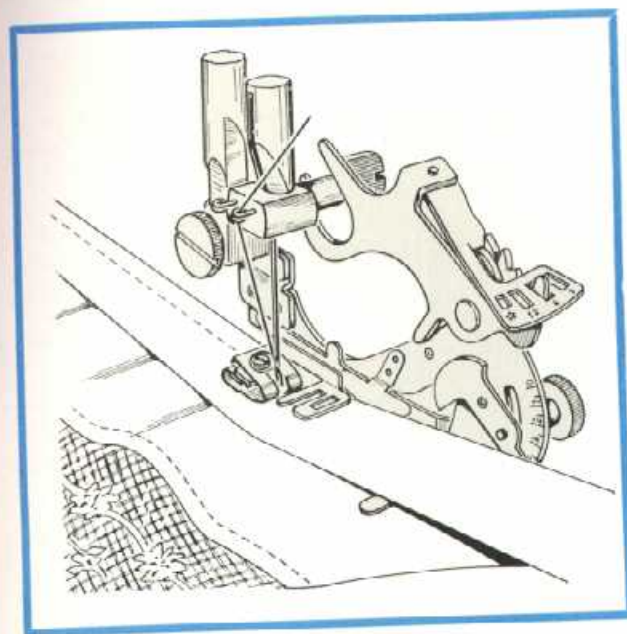


Fig. 72

To Pipe a Ruffle and Attach it to Garment:

- 1) Insert material to be ruffled between the two blue blades (LINE 3, Fig. 73).
- 2) Place piping material in ruffler (LINE 5, Fig. 73), with folded edge of piping to right.
- 3) Fold edge of material to which piping and ruffling are to be attached and insert it in ruffler (LINE 6, Fig. 73).
- 4) Lower presser bar and sew. Fig. 74 shows the procedure described above.

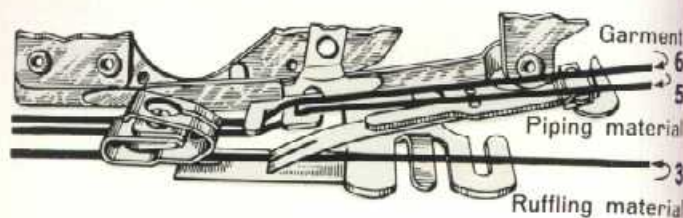


Fig. 73

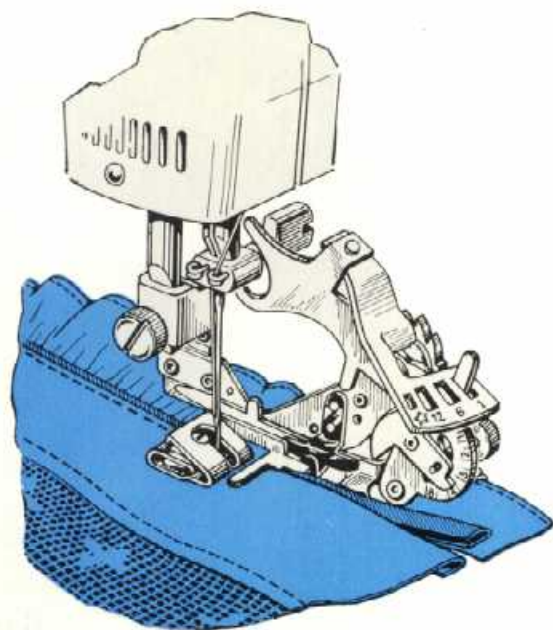


Fig. 74

To Make a Pleat Once Every Six Stitches:

- 1) Raise adjusting lever «E» (Fig. 66) and move it to the right until projection «D» enters in slot marked «6».
- 2) By loosening and moving plastic adjusting screw «C», set pointer «F» to a number between «3» and «8» on dial «G», depending upon depth of pleat desired.

- 3) Insert material to be pleated between the two blue blades.
- 4) Draw material slightly back of needle, lower presser bar and sew.

To Make a Pleat Once Every Twelve Stitches:

- 1) Raise adjusting lever «E» (Fig. 66) and move it so that projection «D» enters in slot marked «12».
- 2) Follow same procedure as described in preceding chapter.

To Do Group Pleating:

The ruffler can be adjusted for group pleating by lifting the adjusting lever «E» (Fig. 66) and moving it to the right until the top of the projection «D» enters the short slot indicated by a star.

This should be done at those sections of the material where it is desired to make a space between the pleats. The ruffler will then stop pleating and only plain stitching will be done.

When the desired space has been made, move the adjusting lever «E» until the projection «D» enters either of slots «6» or «12», as desired.

20. BLINDSTITCHING

(Without attachment)

Illustrations Figs. 75, 76, 77, 78, and 79 show how to fold material properly for blindstitching.

Machine Setting:

Needle Position Lever: In right notch.

Zig-Zag Stitch Lever: Set at «4».

Stitch Length Lever: Set at «4».

Upper Tension: Normal.

Presser Foot: Regular zig-zag stitch hinged foot.

Procedure:

- 1) When using lighter fabrics (linen, cotton, percales, etc.), fold over raw edge of fabric $\frac{1}{4}$ " toward wrong side of fabric, as indicated in Fig. 75. When using heavier fabrics (woolens, heavy rayons, etc.), seam binding (about $\frac{3}{8}$ " wide) should be

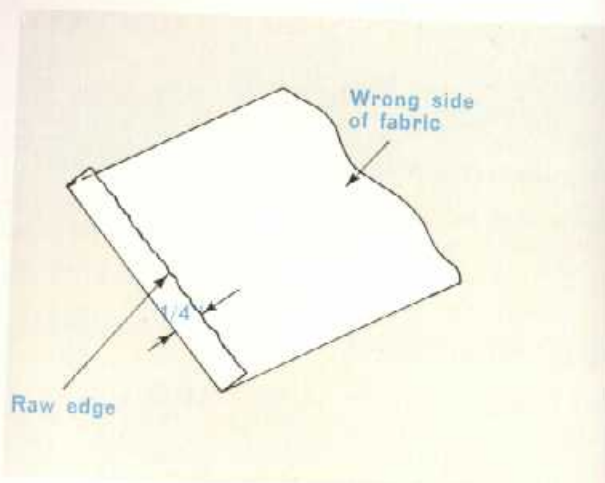


Fig. 75

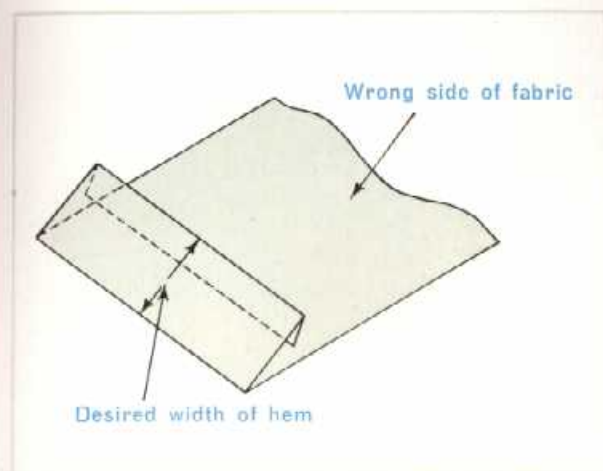


Fig. 77

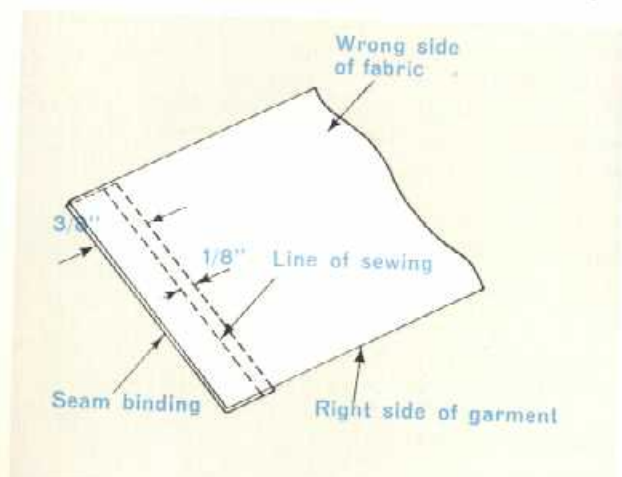


Fig. 76

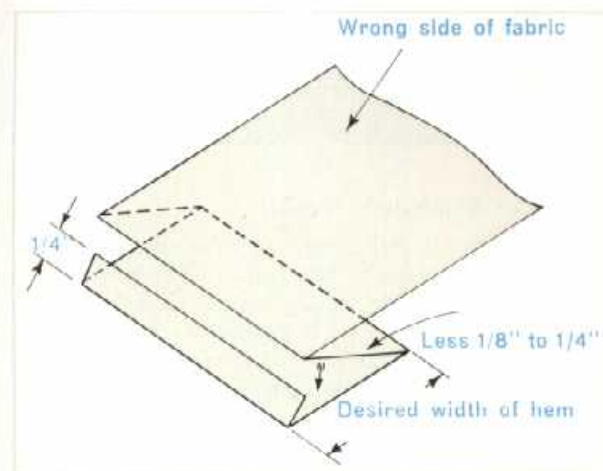


Fig. 78

sewn to raw edge of right side of fabric (see Fig. 76), instead of folding over raw edge. The sewing should be done $\frac{1}{8}$ " away from the inside edge of the seam binding.

- 2) Fold desired width of hem toward wrong side of fabric, as shown in Fig. 77. Follow this step for all types of fabric.
- 3) Fold almost the entire width of the hem toward the right side of the garment (see Fig. 78), leaving only about $\frac{1}{8}$ " to $\frac{1}{4}$ " of hem exposed. The

blindstitching will then be done on this exposed area.

- 4) Lift presser foot and place fabric under the needle in such a manner that the exposed area of hem faces upward, and is at the right of the needle (see Fig. 79).
- 5) Lower presser foot and start sewing at a moderate speed. Guide fabric so that the needle, when stitching left, just « bites » into the very edge of the fold, as shown in Fig. 79.



Fig. 79

Using the Blindstitch Guide:

To facilitate blindstitching, a *Blindstitch Guide* is available which, when attached to the presser bar alongside the regular zig-zag stitch hinged foot (as shown in Fig. 79), makes it possible to guide the material easily and accurately along the guiding edge «E» of this guide, when the aforementioned operation No. 5 is being performed.

21. TUCKING

(Without attachment)

Plain Tucking can be done by proceeding in the following manner:

- 1) From a piece of stiff cardboard, cut a strip $\frac{3}{4}$ " wide and approximately $3\frac{1}{2}$ " long, as shown in Fig. 80. This strip will be used as a gauge when marking the tucks to be made on the material. The length of the strip may vary, depending on the widths of the tucks to be made and the desired distance between the tucks.

- 2) At a distance from the top end of the gauge equal to twice the width of the desired tuck, cut a notch into the edge of the gauge, as indicated in Fig. 80. If, for instance, the width of the finished tuck is to be $\frac{1}{4}$ ", the distance of the notch from the top end of the gauge will be twice $\frac{1}{4}$ " ($\frac{1}{2}$ ").
- 3) Below the first notch, cut a second notch into the gauge at a distance equal to the desired distance between the tucks (Fig. 80).

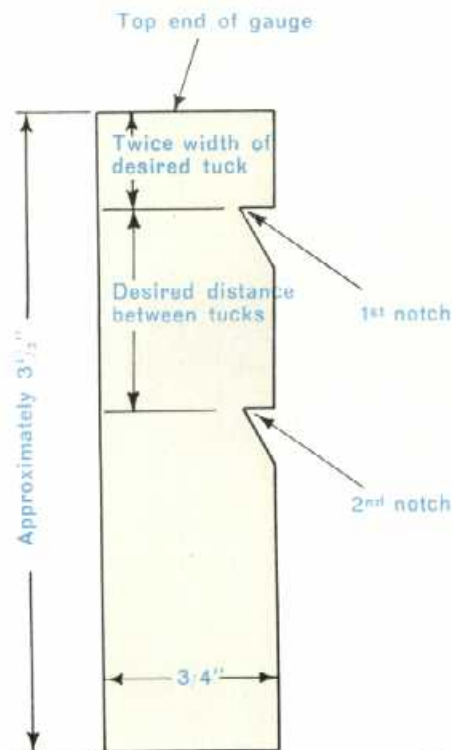


Fig. 80

- 4) Spread the material, right side up, on the working table, then mark a guide line on the material, 1" away from and parallel with the raw edge of the material (see Fig. 81). For marking use white tailor's chalk on dark materials, and colored tailor's chalk on light materials.
- 5) Place the top end of the gauge at the guide line on the material, with the gauge resting flat on the

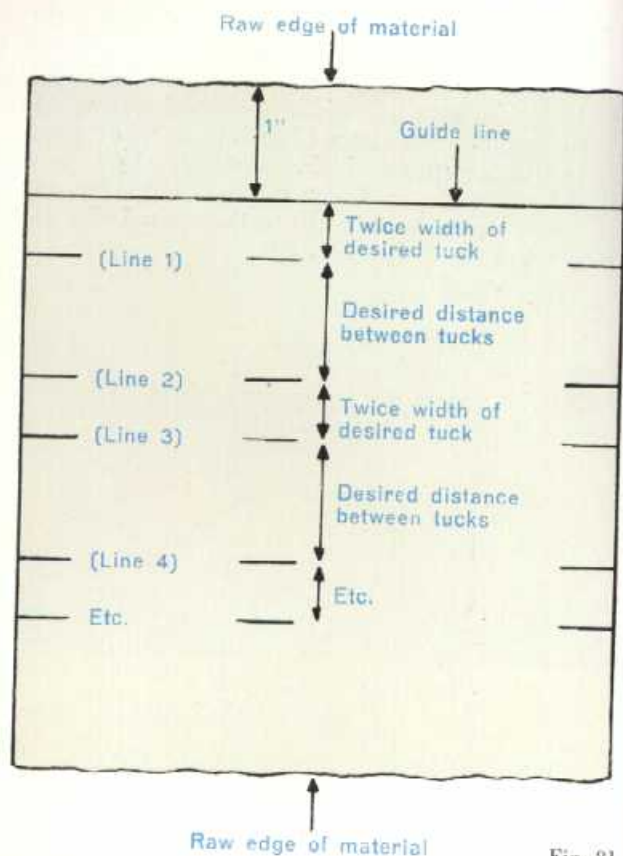


Fig. 81

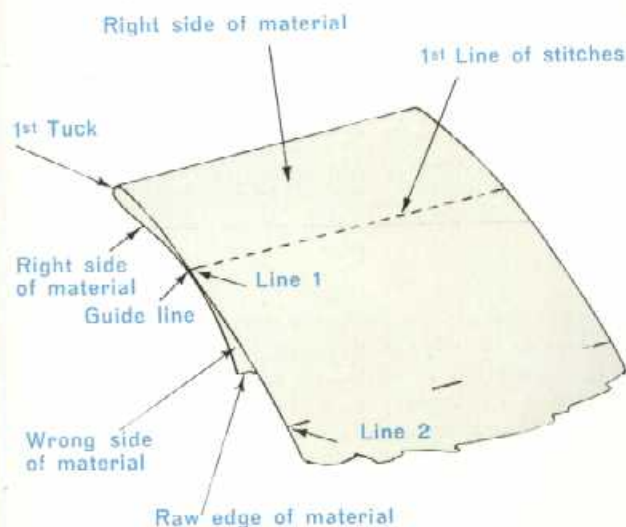
material and extending below the guide line. Placing the gauge in this manner at the left edge, at the center and at the right edge of the material, draw short marking lines on the fabric, using the upper edges of both notches as guides. (See Lines 1 and 2 in Fig. 81). Imaginary lines going from the mark at the left edge through the mark in the center to the mark at the right edge are parallel with the guide line.

- 6) Slide the gauge down so that its top end will be at the short marking lines « 2 ». The upper edges of the two notches will indicate the places where new markings (Lines 3 and 4 - see Fig. 81) are to be made for additional tucks. Continue this procedure until the material is completely

marked and each desired tuck is thus indicated by its corresponding short lines.

- 7) Starting from the original guide line, fold back the top side of the material so that the wrong sides of the fold face each other, and the guiding line (which is now underneath the fabric) falls directly under the first set of marked short lines (Line 1). This will give a tuck of the desired width.
- 8) Pin the material together to prevent slipping of the fold.
- 9) *For sewing the tuck, set machine as follows:*
Needle Position Lever: In center notch.
Zig-Zag Stitch Lever: At extreme left (straight stitching).
Sitch Length Lever: Set between « 1 » and « 2 » (forward sewing).
Upper Tension: Normal.
Presser Foot: Regular zig-zag stitch hinged foot.
- 10) Place material, right side up, underneath presser foot and sew along the line formed by the three marked short lines and the original guide line. The first tuck is now finished (see Fig. 82).

Fig. 82



- 11) After this tuck has been sewn, you are now ready to make the second tuck.
- 12) Turn the raw edge up so that the right side of its material faces upwards again.
- 13) Now again fold back the top side of the material so that Line 2 comes directly under and in back of Line 3.
- 14) Again, pin the new tuck, sew it, etc.
- 15) Continue the above procedure for as many tucks as are desired.

22. ADJUSTABLE CLOTH STITCHING GUIDE

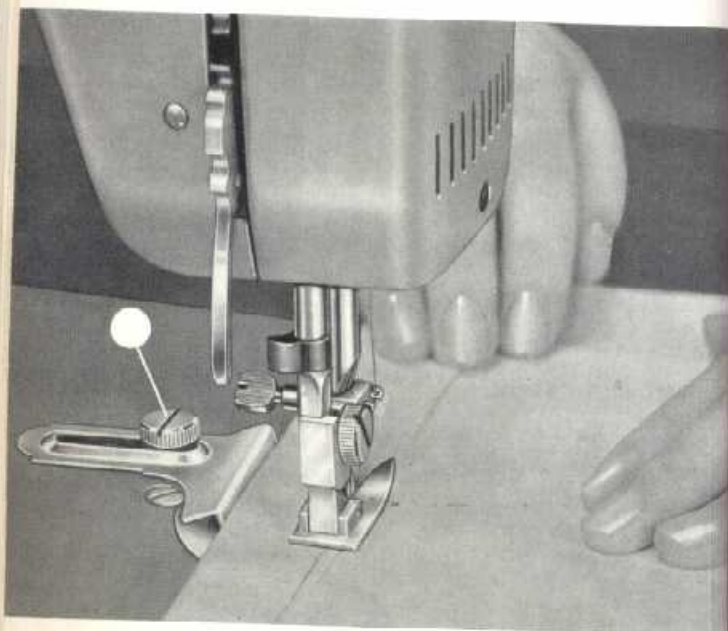


Fig. 83

With the aid of this guide the operator is able to sew as close to the edge of the material as desired, and to keep the stitches at a uniform distance from the edge.

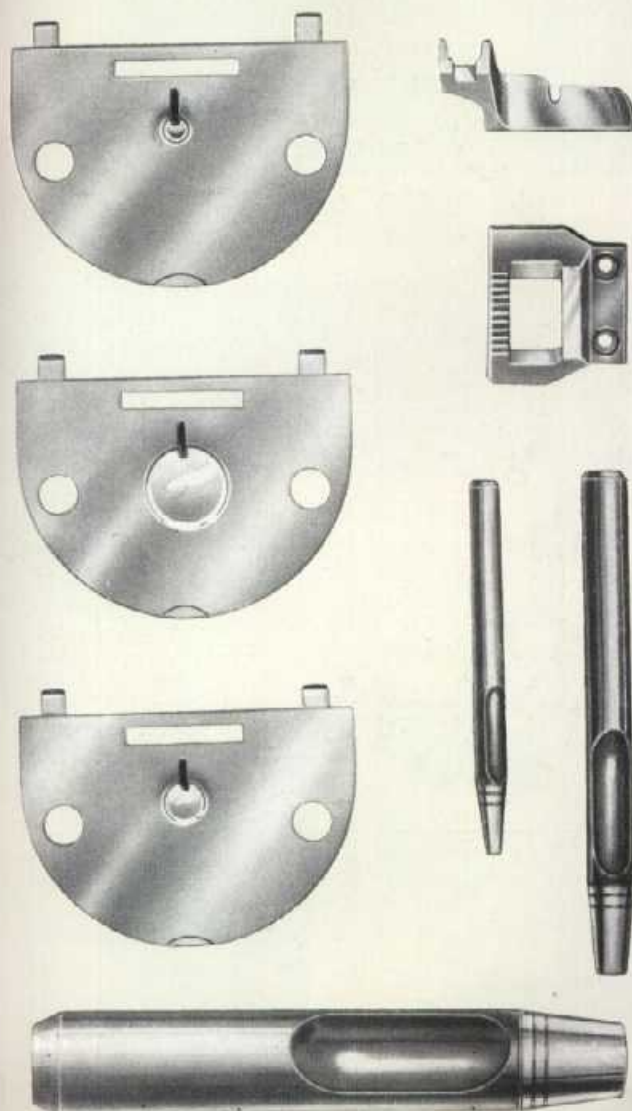
- 1) Attach cloth guide to bed of machine by means of a thumb screw which fits into one of the screw holes in the bed of the machine (Fig. 83).
- 2) After having adjusted cloth guide to desired distance, tighten thumb screw securely and commence sewing.

AVAILABLE EXTRA ACCESSORIES

(See Illustrations Fig. 84)

These *extra* accessories are not included in the price of the machine. They can be purchased from your Authorized NECCHI Dealer.

Fig. 84



Eyelet Buttonhole Set



Keyhole Buttonhole Cutter

Festoon Foot



Blindstitch Foot

Adjustable Right and Left Cording and Zipper Foot



Patent (Gauge) Feet



Round Swirl Stitch and Embroidery Foot



Cording (Zipper) Foot



Shirring Foot (Gatherer)



Hinged Grooved Presser Foot



MAKING OF EYELETS

An Eyelet Buttonhole Set is required for easy production of eyelets. This eyelet buttonhole set consists of three special needle plates (for three different sizes of eyelets), one special feed dog, one special presser foot (Eyelet Foot) and three eyelet punches (for the different sizes of eyelets).

To Prepare Machine:

- 1) Remove zig-zag stitch hinged foot from presser bar.
- 2) Remove zig-zag stitch needle plate.
- 3) Remove regular feed dog by removing screws holding this feed dog.
- 4) Install special feed dog. Tighten screws firmly so that feed dog is not loose.
- 5) Select one of the three needle plates (included in the Eyelet Buttonhole Set) according to the size of eyelet to be made. Insert this needle plate into the machine.
- 6) Attach special Eyelet Foot to presser foot bar.

Machine Setting for Eyelet Making:

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set between « 3 » and « 4 ».

Stitch Length Lever: Set for « Satin Stitch ».

Upper Tension: Normal.

Procedure:

- 1) With tailor's chalk, mark location of eyelets on garment.
- 2) Take one of the three eyelet punches (according to desired size of eyelet), then place the chalk mark on garment over a flat piece of wood and set punch over chalk mark. Hit punch with a heavy object (hammer) to cut through cloth.
- 3) Place perforated portion of cloth over raised portion of eyelet needle plate.
- 4) Bring presser foot down and commence sewing. The cloth will *automatically* be fed clockwise, pivoting around the raised portion of the eyelet needle plate. If cloth should stick, help by guiding it around this raised portion. Stitching may be gone

over as many times as required until desired effect is obtained. Fig. 85 shows a finished eyelet.

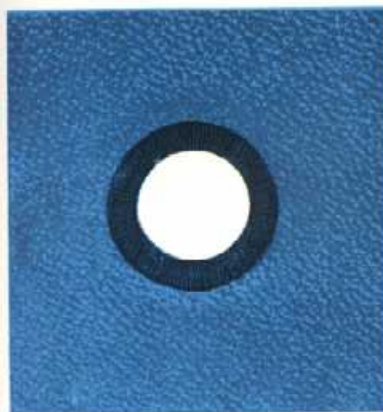


Fig. 85



MAKING KEYHOLE BUTTONHOLES

If it is desired to make keyhole buttonholes (see Fig. 86) in heavy materials, it is advisable to obtain a keyhole buttonhole cutter (see Fig. 87) from your Authorized NECCHI Dealer.

With this cutter, which is adjustable for different sizes of buttonholes, cut the desired holes into the cloth at the proper places.

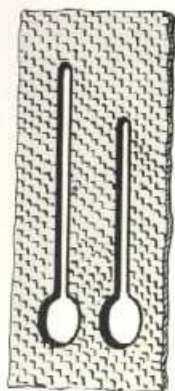


Fig. 86



Fig. 87

Set machine as if for regular «Buttonhole Making» (see page 57) and proceed sewing around the cut out hole in same manner as described in the chapter «Making of Buttonholes». Guide the material carefully around the cut out hole to obtain a neatly finished keyhole buttonhole.

SHIRRING (GATHERING) (Fig. 88)

Machine Setting:

Presser Foot: Remove Zig-Zag Stitch Hinged Foot and attach Shirring Foot (Gatherer) to presser foot bar.

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Move to extreme left.

Stitch Length Lever: Position will be determined by the fullness of gathers desired.

Upper Tension: Will be determined by the fullness of gathers desired.

NOTE: The fullness of the gathers will be increased by lengthening the stitch and tightening the upper tension.



Fig. 88

Procedure: Place material under shirring foot, lower the foot and commence sewing. Check gathers and adjust stitch length and upper tension, if necessary.

CORDING AND ZIPPER OPERATIONS

Several types of special presser feet are available for cording work and for sewing on zippers. These presser feet are very useful for slip cover work (sewing on cords) and for attaching zippers to garments, etc. These feet will enable you to work very close to the cord or zipper, as shown below.

Figs. 84 show Regular Cording and Zipper Feet (right and left) and also the Adjustable Right and Left Cording and Zipper Foot.

Machine Setting:

Presser Foot: Remove Zig-Zag Stitch Hinged Foot and

attach Cording (Zipper) Foot to presser foot bar.

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Move to extreme left.

Stitch Length Lever: Set at position desired.

Upper Tension: Normal.

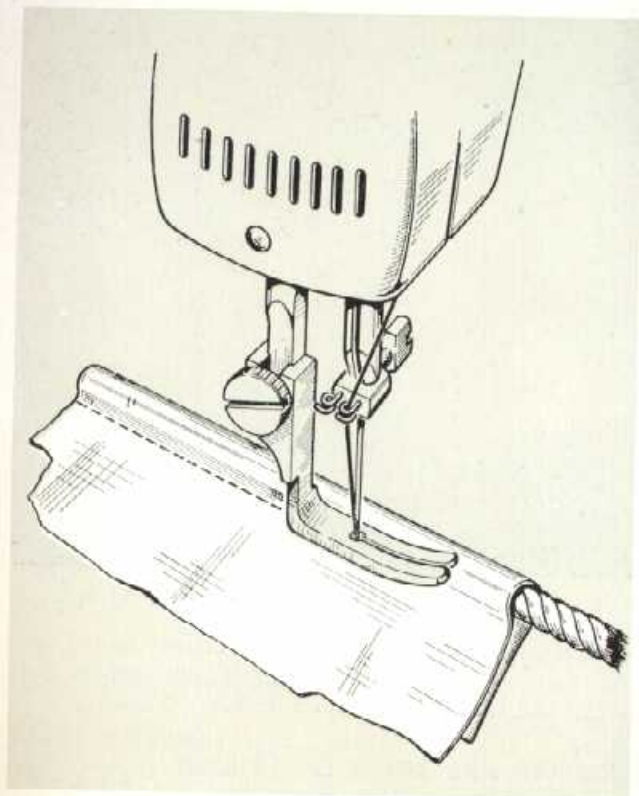


Fig. 89

Procedure: Place fabric and cord underneath presser foot (see Fig. 89), lower the presser foot and commence sewing.

PATENT FOOT (GAUGE FOOT) (See Fig. 84)

This foot is equipped with four adjustable graduated guides and will enable you to sew straight seams parallel to the edge of the material at any distance desired.

GROOVED ZIG-ZAG STITCH HINGED FOOT

(See Fig. 84)

This foot, which is provided with a groove (recess) on its bottom face, is especially suitable for fine embroidery work (like « cut-out » work) and when working with the NECCHI-MATIC.

ROUND SWIRL STITCH AND EMBROIDERY FOOT

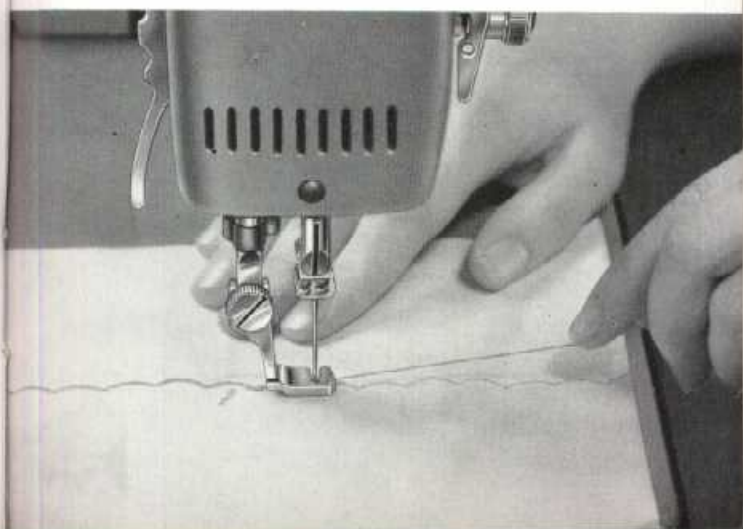
(See Fig. 84)

This foot, which provides good visibility of the working space below the needle, can to great advantage be used for swirl stitching, making of raised satin dots, leather designs, snowflakes, and other varieties of fancy embroidery.

FESTOON FOOT

This foot will enable you to make designs easily, such as shown in Fig. 90, whereby a string of pearl cotton, guided by a hole in the presser foot, can be attached to the fabric by means of zig-zag stitches. The design, to be followed, must first be marked on the fabric. The *machine setting* is as follows:

Fig. 90



Needle position lever in center notch, zig-zag stitch lever at « 1 » (thickness of pearl cotton must just be covered by the zig-zag stitches), stitch length lever adjusted for « satin stitch ».

BLINDSTITCH FOOT

The NECCHI Blind Stitch Foot (see Fig. 91) is a new, improved special presser foot, used for sewing invisible hems into garments.

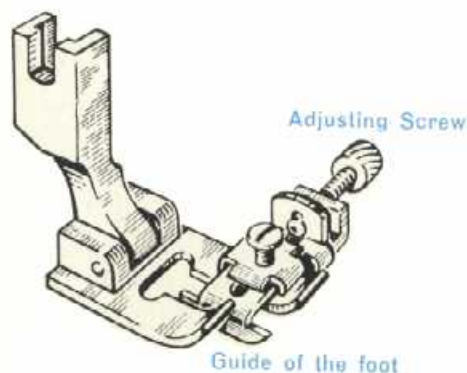


Fig. 91

Machine Setting:

Presser Foot: Remove zig-zag stitch hinged foot and attach Blindstitch Foot to presser bar. Tighten screw firmly with screw driver.

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set at « 4 ».

Stitch Length Lever: Set at « 4 ».

Procedure: Prepare hem as explained in chapter « Blindstitching » (page 73), then continue as follows:

- 1) Place hem of garment under the Blindstitch Foot (see Fig. 92), then lower the Blindstitch Foot and

operate the machine by hand to make sure that the needle just catches the edge of the fold. If needle does not catch edge of fold, move Guide by turning Adjusting Screw away from you.

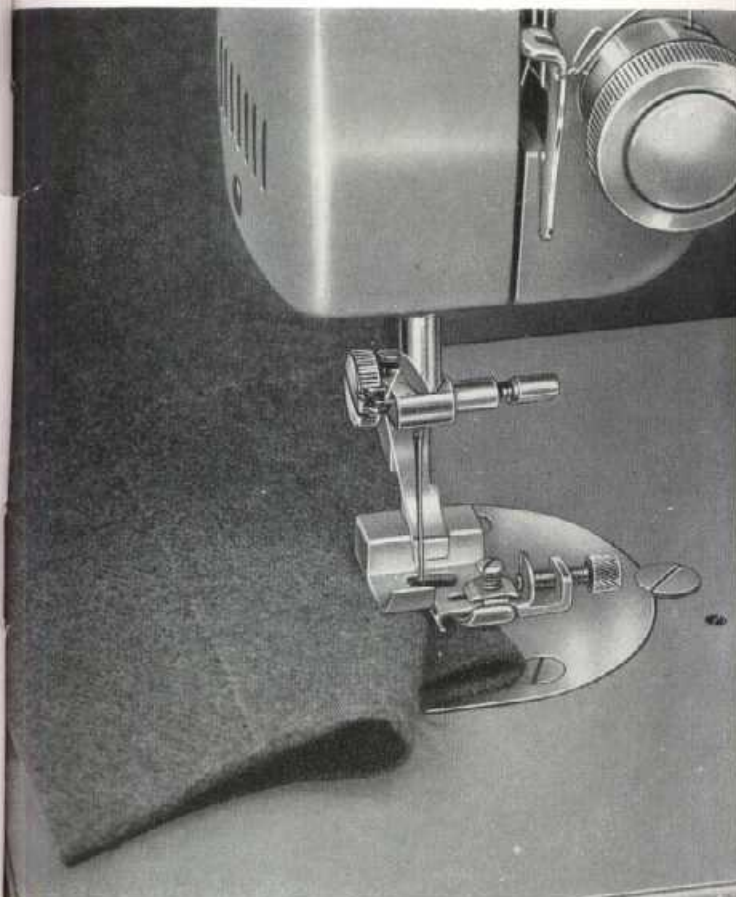


Fig. 92

If needle catches too much of fold, turn Adjusting Screw toward you.

- 2) After having adjusted Blindstitch Foot, commence sewing while holding fold of fabric against the Guide of the foot.

The Blindstitch Foot can also be used as a guide when making Tucks.

WORKING WITH THE WONDER WHEEL NECCHI-MATIC

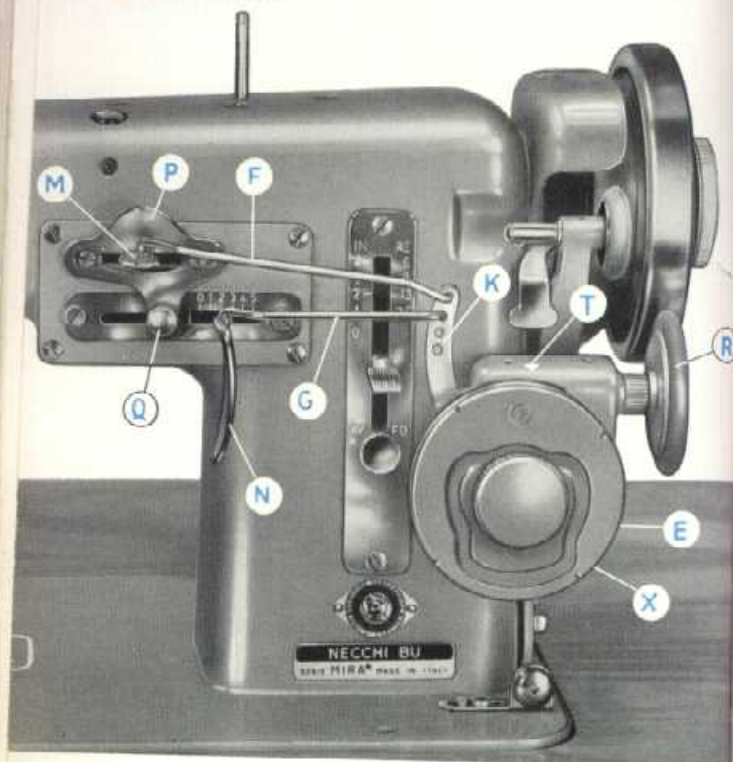


Fig. 93

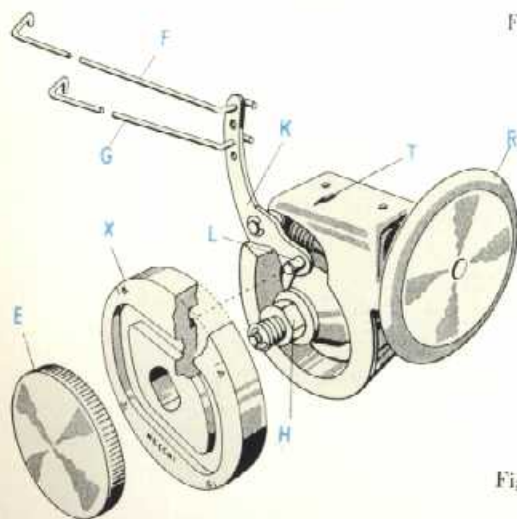


Fig. 94

This device offers the possibility for completely *auto-*
matic sewing with a cabinet machine. Both of your
hands are free to move the fabric at will, while the
machine directs the needle automatically and accurately
to make the most fanciful decorative designs.
Fig. 93 shows the Wonder Wheel NECCHI-MATIC as
it is mounted on the machine. The NECCHI-MATIC is
furnished with a set of four plastic discs «X» (see
Figs. 93 and 94) and two connecting rods «F» and
«G».

PLACING THE DISCS ON THE NECCHI-MATIC

The discs are numbered «1-2», «3-4», «5-6» and
«7-8». On each side of every disc is a groove of a
particular shape which corresponds to a certain design
that will automatically be made by the machine. Each
face of these discs bears an emblem, showing the
basic design obtainable with this face. To install
the desired discs in the NECCHI-MATIC, remove
the knurled knob «E» (see Figs. 93 and 94), then
place the disc on the center stud «H». The side
of the disc which contains the design to be made,
must face the machine. In placing the disc on the
NECCHI-MATIC, turn the balance wheel by hand, if
necessary and move the lever «K» (see Figs. 93 and
94) slightly back and forth until the pin «I.» (see
Fig. 94) finds its way into the groove of the disc.
Replace the knurled knob «E» and tighten it firmly.

THE CONNECTING RODS «F» AND «G»

The purpose of these rods is to connect the lever «K»
of the NECCHI-MATIC with the Needle Position Le-
ver «M» and the Zig-Zag Stitch Lever «N» of the
machine (see Fig. 93) and thus to control these two
levers. The longer connecting rod «F» controls the
needle position lever «M», whereas the shorter con-
necting rod «G» controls the zig-zag stitch lever «N».
The S-shaped end of the longer rod «F» is always
inserted into the uppermost hole of lever «K», whe-
reas the hook-shaped (split) end of this rod goes into
the corresponding hole of the needle position lever
«M». The S-shaped end of the shorter rod «G»
shall be inserted into either of the three lower holes
of lever «K» (depending on the desired width of the
zig-zag stitches in the design), whereas the hook-shaped

(split) end of this rod is inserted into the corresponding hole of the zig-zag stitch lever «N».

To prevent the rods «F» and «G» from coming out of the levers «M» and «N» while the NECCHI-MATIC is in operation, the *split* ends of these rods can be spread slightly, if necessary, with a knife or small screw driver.

ADJUSTING THE STITCH LENGTH LEVER

Sewing with the NECCHI-MATIC must always be done in the *forward* direction only.

It has been found best to adjust the stitch length lever so as to obtain a «satin stitch».

DISENGAGING THE NEEDLE POSITION LEVER «M» FROM THE NOTCHES

For making designs which require *automatic* operation of the needle position lever «M» (see Fig. 93) by means of the longer connecting rod «F», this lever «M» must be prevented from snapping into the notches of the corresponding plate in front of the machine arm. To accomplish this, the machine is provided with a small frame «P» (see Fig. 93) which is held to the machine arm with the aid of the nut «Q». This nut must always be in its extreme right position when the NECCHI-MATIC is operated.

OPERATING INSTRUCTIONS

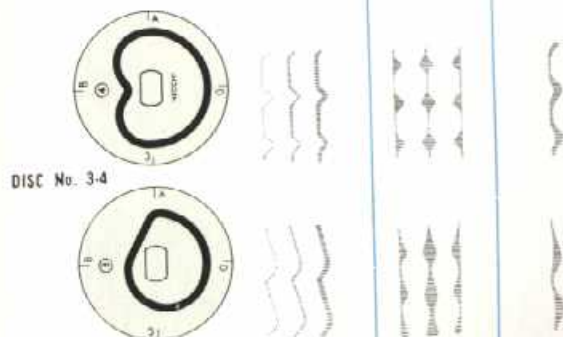
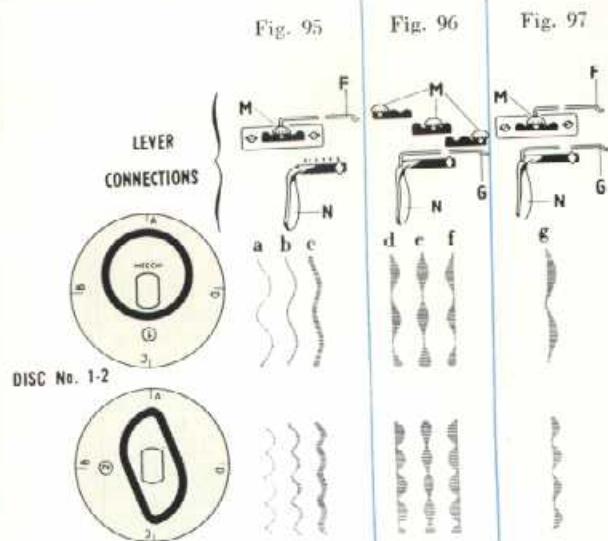
To bring the NECCHI-MATIC into action the rubber covered wheel «R» (see Fig. 93) must be pressed firmly against the balance wheel of the machine. To disengage the NECCHI-MATIC, the wheel «R» must be pushed away from the balance wheel.

When using the NECCHI-MATIC, always move the speed switch on the transformer to the HI position.

Figs. 95, 96, 97, 98, 99 and 100 show the basic designs which can be obtained with the four standard discs furnished with the machine. The illustrations at the right of each disc face show the designs obtainable with this disc face when operating the needle position lever and the zig-zag stitch lever in the manner described in the following. The disc must thereby be

installed in the NECCHI-MATIC so that the disc face *in use* faces the sewing machine.

All designs referred to in the following are made with very light upper thread tension (almost zero) and with the zig-zag stitch hinged foot. Stitch length lever is set for «Satin Stitch».



Machine Setting for Designs Figs. 95 and 98:

Needle Position Lever: Operated *automatically* (connected by means of longer rod «F» with lever «K» of NECCHI-MATIC). Small frame «P» (Fig. 93) must be attached to machine.

Zig-Zag Stitch Lever: Operated by hand. Designs «a», «b» and «c» are obtained at three different positions of zig-zag stitch lever.

Machine Setting for Designs Figs. 96 and 99:

Needle Position Lever: Operated by hand. Small frame «P» (Fig. 93) *not* to be attached to machine.

Needle position lever in left notch gives design «d».

Needle position lever in center notch gives design «e».

Needle position lever in right notch gives design «f».

Zig-Zag Stitch Lever: Operated *automatically* (connected by means of short rod «G» with lever «K» of NECCHI-MATIC).

Width of zig-zag stitch can be varied by inserting S-shaped end of short rod «G» into one of three lower holes of lever «K» (see Fig. 93).

Machine Setting for Designs Figs. 97 and 100:

Needle Position Lever: Operated *automatically* (connected by means of longer rod «F» with lever «M» of NECCHI-MATIC). Small frame «P» (Fig. 93) must be attached to machine.

Zig-Zag Stitch Lever: Operated *automatically* (connected by means of short rod «G» with lever «K» of NECCHI-MATIC).

Width of zig-zag stitch can be varied by inserting S-shaped end of short rod «G» into one of three lower holes of lever «K» (see Fig. 93).

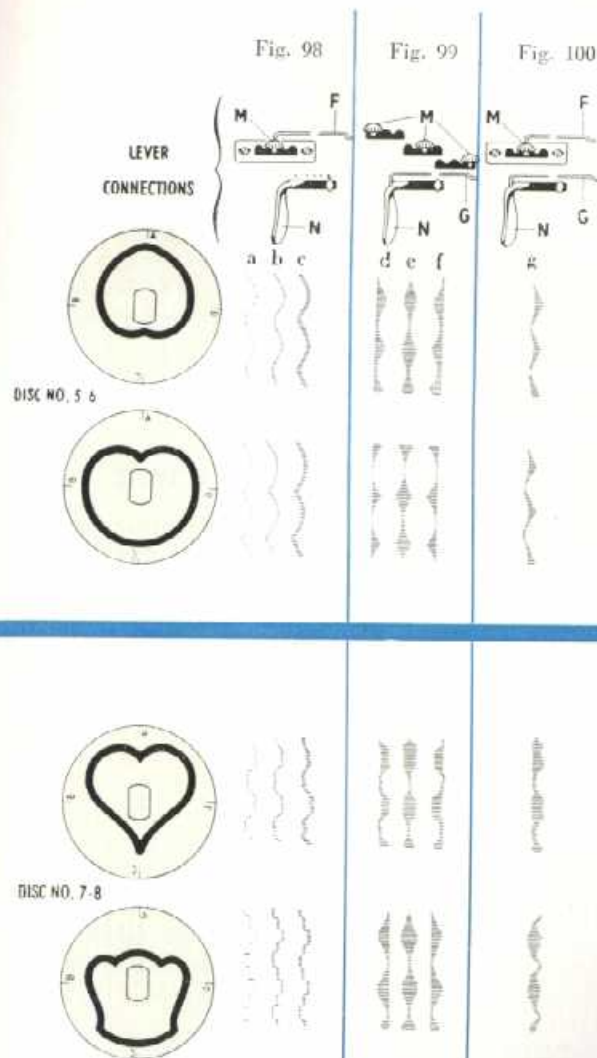
To obtain fancy designs (eventually in various colors), it is also possible to combine each of the simple basic designs, described in the preceding paragraphs, with other designs made with the aid of one or several discs.

In the following pages are described a few of the many combined designs which can be made with the aid of the NECCHI-MATIC.

When making such combined designs, it is essential to line up the fabric by hand so that these designs will match each other. For more complicated designs, it is advisable to use the *transparent presser foot No.*

A 24/10 which can be purchased from an Authorized NECCHI Dealer.

To guide you, when making combined designs, every disc has four position marks (timing marks) A, B, C, and D on each side, which are spaced at 90 degrees from each other. Another position mark (timing



mark) «T» (see Figs. 93 and 94) has been placed on the frame of the NECCHI-MATIC.

Whenever any of the timing marks (A, B, C or D) on the disc lines up with the timing mark «T» on the NECCHI-MATIC, it is an indication that the desired cycle of the design (90, 180, 270 or 360 degrees) has been completed and that another cycle is about to begin.

When the selected timing mark on the disc lines up with that on the NECCHI-MATIC (T), cease sewing by stopping the balance wheel by hand (so that the needle is out of the fabric), then move by hand that lever (needle position lever, or zig-zag stitch lever) which is not connected with the NECCHI-MATIC by means of the aforementioned rods «F» or «G», and resume sewing until the timing marks on disc and NECCHI-MATIC line up again. In this manner a practically unlimited variety of ornamental designs can be obtained. As you become more experienced with the performance of the NECCHI-MATIC, you will discover many new possibilities of increasing the variety of designs that can be made with its aid.

BREAKING OF THREAD DURING SEWING

If, while making combined designs, thread breaking occurs, it is advisable to unravel all stitches that were made since the end of the preceding design (cycle) and to start the new cycle all over again. It is thereby necessary to bring the rubber wheel «R» (see Fig. 93) of the NECCHI-MATIC out of contact with the balance wheel of the machine and to turn wheel «R» by hand until the timing mark «A» on the disc lines up with the timing mark «T» (see Fig. 93) of the NECCHI-MATIC.

SEWING VERY THIN FABRICS

When sewing very thin fabrics, it is expedient to place a piece of thin paper underneath the fabric which should then be removed after the work is completed. Thus sewing is made easier.

MAINTENANCE OF THE NECCHI-MATIC

The NECCHI-MATIC should be cleaned from time to

time of lint and dirt, and lubricated with regular NECCHI oil. The oil holes on the NECCHI-MATIC are indicated in red. Prevent oil from getting on the rubber ring of the pulley. Wipe off thoroughly all oil that may have dropped on this rubber ring.

VARIOUS DESIGNS MADE WITH THE NECCHI-MATIC

In the following are explained a few of the many designs that can be made with the aid of the Wonder Wheel NECCHI-MATIC:

1. NECCHI-MATIC BORDERS (Fig. 101)

To prevent unnecessary changing of the colored threads, the center row of this border design should be made first.

Use regular or grooved zig-zag stitch hinged foot.

Machine Setting for Center Row:

Disc Face: No. 2 (must face machine).

Needle Position Lever: In center notch.

Zig Zag Stitch Lever: Operated *automatically* (connected by means of short rod «G» with lever «K» of NECCHI-MATIC).

Stitch Length Lever: Set for (close) «satin stitch».

Machine Setting for Rows on Either Side of Center Row:

Bring NECCHI-MATIC out of action by moving rubber-covered wheel «R» (Fig. 93) away from balance wheel of machine.

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set at «2».

Stitch Length Lever: Set between «0» and «1».

Machine Setting for Outside Rows:

Disc Face: No. 3 (must face machine).

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Operated automatically (connected by means of short rod «G» with lever «K» of NECCHI-MATIC).

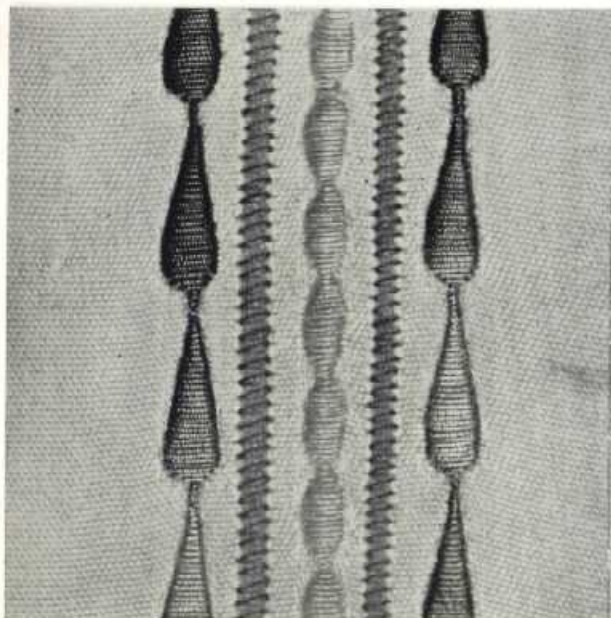


Fig. 101

Stitch Length Lever: Set for (close) «satin stitch».
To obtain most pleasing effects, threads of various colors should be used for these designs.
Border designs can be used on: collars, cuffs, belts, pockets, yokes, towels, sheets, pillow cases, table linen, etc.

2. NECCHI-MATIC FLOWERS (Fig. 102)

Machine Setting:

Disc Face: No. 3 (must face machine).

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Operated automatically (connected by means of short rod «G» with lever «K» of NECCHI-MATIC).

Stitch Length Lever: Set for «satin stitch».

Presser Foot: Use grooved zig-zag stitch hinged foot.



Fig. 102

Procedure: Mark design on fabric.

Petals and leaves are all successively made by using just one form of design. Allow machine to run until one unit has been finished. Stop machine. Complete next unit, and proceed until all petals and leaves have been formed.

For Stem of Flower: Disconnect NECCHI-MATIC, then sew stem with close «satin stitch».

For Center of Flower: Disconnect NECCHI-MATIC, then sew center dots with close «satin stitch». Run machine until one small dot has been formed. Stop machine. Repeat until all center dots have been formed. Pull threads to wrong side of fabric and knot ends.

Flowers, or flower sprays may be used on clothing, linens, gift items, etc.

3. NECCHI-MATIC SCALLOPING ON RAW EDGES OF FABRIC

Machine Setting:

Disc Face: No. 2 (must face machine).

Needle Position Lever: Operated *automatically* (connected by means of long rod «F» with lever «K» of NECCHI-MATIC). Small frame «P» (Fig. 93) must be attached to machine.

Zig-Zag Stitch Lever: Set at «2».

Stitch Length Lever: Set for «satin stitch».

Presser Foot: Use grooved zig-zag stitch hinged foot.

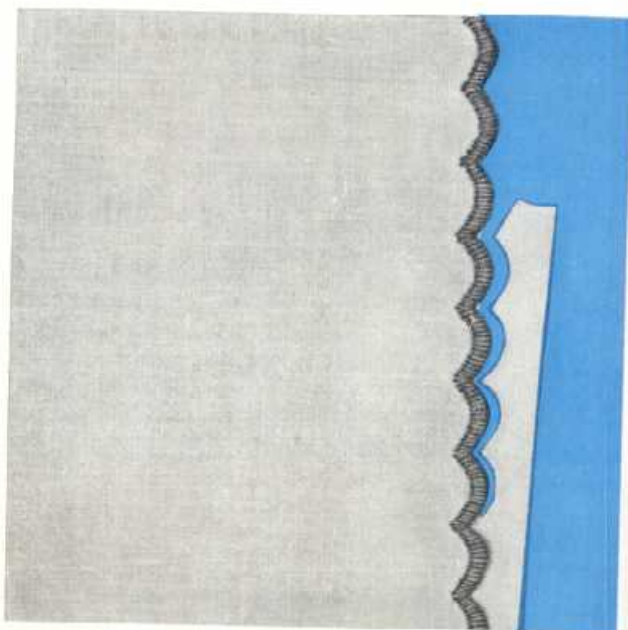


Fig. 103

Procedure: Take strip of heavy paper of sufficient length and place raw edge of fabric over the paper, as shown in Fig. 103. The edge of the fabric to be scalloped should be backed by the heavy paper. Place fabric and paper under the presser foot, then lower presser foot and commence sewing, guiding the fabric carefully so that the scallops just catch the raw edge of the fabric. Scalloped edges can be used on linens, dresses, belts, curtain ruffles, etc.

4. RAISED SATIN DOTS (Fig. 104)

NOTE: The making of raised satin dots does not require the use of the NECCHI-MATIC. Since, however, raised satin dots are an essential part of combined designs, it has been found best to explain the making of these dots at this point.

Machine Setting:

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set at any desired position between «1» and «5».

Stitch Length Lever: Set for «Satin Stitch».

Presser Foot: Remove zig-zag stitch hinged foot and attach round swirl stitch and embroidery foot to presser foot bar.

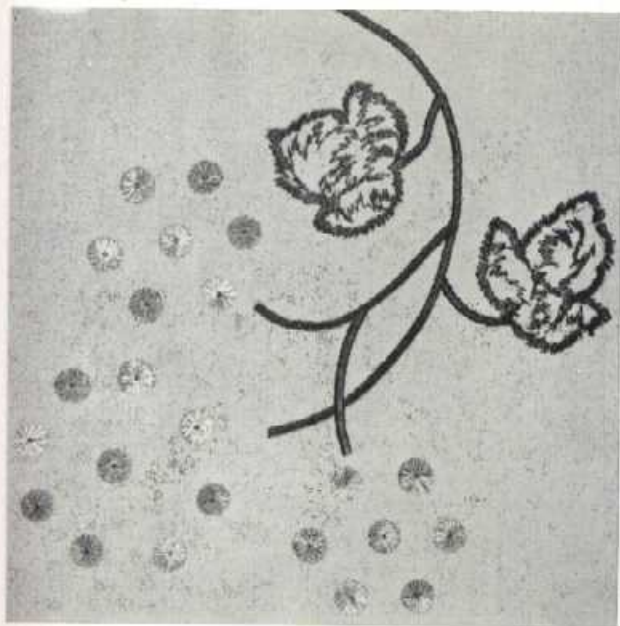


Fig. 104

Procedure: Place fabric under presser foot, then lower presser foot. Turn balance wheel by hand, and, every time the needle is in the fabric, turn fabric slightly counter-clockwise, using needle as a pivot until circle is completed. Continue turning fabric until the desired thickness of the dot is obtained. For flat dots, complete the circle only once.

5. NECCHI-MATIC SNOW FLAKES (Fig. 105)

For center of snow flake, follow procedure as outlined for « Raised Satin Dots ». To make arms (points) of snow flake, proceed as follows:

Machine Setting:

Disc Face: No. 7 (must face machine).

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Operated automatically (connected by means of short rod « G » with lever « K » of NECCHI-MATIC).

Stitch Length Lever: Set for « Satin Stitch ».

Presser Foot: Use grooved zig-zag hinged foot.

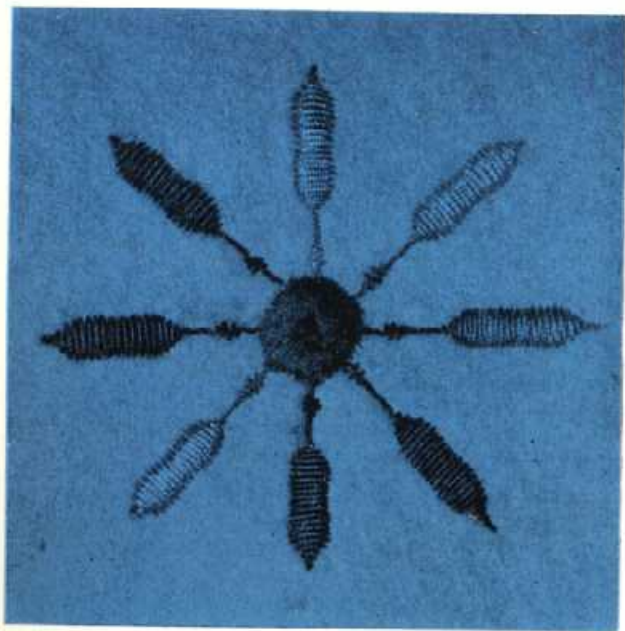


Fig. 105

Procedure:

Mark design on fabric.

Place fabric under presser foot, lower the presser foot and run machine until one point (arm) of snow flake has been completed. Stop machine. Lift presser foot and line up (turn) fabric to make next point (arm) of snow flake. Proceed in this manner until all points of design have been completed.

SWIRL STITCHING (Fig. 106)

This form of stitching, which does not require the aid of the NECCHI-MATIC, can be done as follows:



Fig. 106

Machine Setting:

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set at any desired position between « 1 » and « 5 ».

Stitch Length Lever: Set for « Satin Stitch ».

Upper Tension: Normal.

Presser Foot: Remove zig-zag stitch hinged foot and attach round swirl stitch and embroidery foot to presser foot bar. Adjust for low pressure upon presser foot.

Procedure: Place fabric under presser foot and lower the presser foot. Commence sewing, swinging the fabric quickly left and right in semi-circular motions. Keep fabric moving at regular, even speed while turning

it in the aforementioned manner, to create swirled stitch effect.

Felt, heavy woolen fabrics, heavy faille silk, cotton gabardine, butcher linen are suitable fabrics for swirl stitching.

If fine fabrics are desired for this type of work, use paper or chemicalized buckram underneath fabric.

Swirl stitches, as decorations, may be used in certain areas of a garment. A large piece of fabric may also be covered with swirl stitches, then cut and made into collars, cuffs, yokes, belts, pockets, etc.

SEWING WITH THE DOUBLE NEEDLE

The Double Needle makes it possible to sew on the BU MIRA with two threads of the same color, or of different colors, at the same time, thereby increasing the variety and attractiveness of decorative seams that can be made with this sewing machine.

To sew with the Double Needle, the machine must be prepared as follows:

- 1) Insert Double Needle (Fig. 107-B) in the same manner as the regular single needle. Bring needle bar to its highest position by turning balance wheel toward you, then loosen needle clamp screw, remove single needle and insert Double Needle (with flat side of shank toward the right) into groove of needle bar. Push Double Needle up into clamp, as far as it will go, then tighten needle clamp screw firmly. Do not bend needles when inserting them into needle bar.
- 2) Substitute regular hinged presser foot with hinged double needle presser foot (Fig. 107-C).
- 3) Substitute regular needle plate with needle plate for double needle (Fig. 107-D).

The above parts are standard equipment with all BU MIRA machines, and can be found in the accessory box.

- 4) When sewing with the Double Needle, the lower thread, after having passed below the tension spring of the bobbin case, must go through the hole in the positioning finger of the bobbin case (Fig. 107-F).

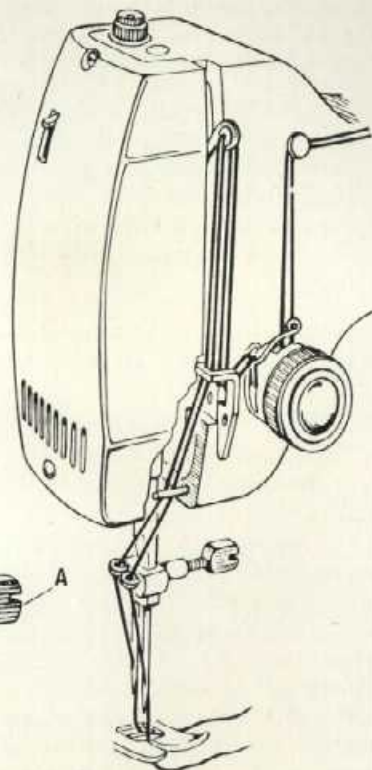


Fig. 108

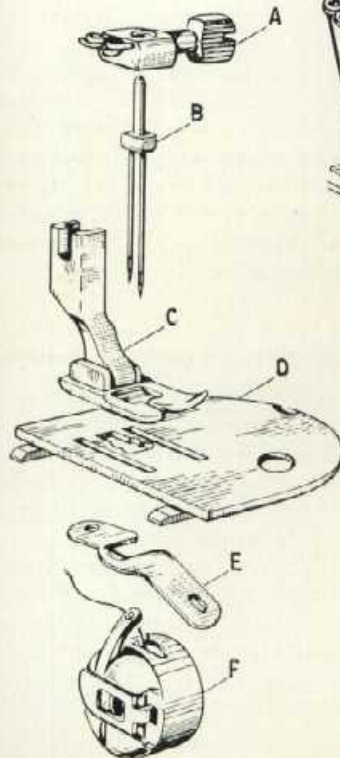


Fig. 107

The needle clamp (Fig. 107-A), the race cover plate (Fig. 107-E) and the bobbin case (Fig. 107-F) can also be used for sewing with a single needle only.

- 5) For double needle sewing, the upper and lower thread tensions must be adjusted very carefully, as indicated in our instruction booklet. If the stitching is imperfect, even after careful adjustment of the thread tensions, the rear needle should be pushed slightly with a finger from left to right.

- 6) When sewing with the double needle, the machine must be threaded as illustrated in Fig. 108.

CAUTION: When sewing with the double needle, never use the largest width of the zig-zag stitch. Also, never move the stitch length lever to the position that gives the longest stitch.

If it is necessary to turn the material, make sure, before doing so, that the two needles are completely out of the fabric.

Sewing with the Double Needle can be performed without the aid of the NECCHI-MATIC (regular sewing) and in connection with the NECCHI-MATIC (automatic sewing). Some of the decorative stitches made by means of regular and automatic sewing are shown on the following pages. Instructions are also given pertaining to the manipulation of the various levers in order to obtain these decorative stitches.

Threads to be used for Sewing with the Double Needle:

For regular sewing of decorative stitches as well as for sewing of decorative stitches with the aid of the NECCHI-MATIC, embroidery thread No. 50 should be used for the upper and the lower thread. For certain decorative stitches, embroidery thread No. 50 should be used for the upper thread and pearl cotton No. 8 for the lower thread. In these instances the desired decorative seam appears on the underside of the fabric and, considering this fact, the material to be sewn should be placed on the machine accordingly.

Types of Decorative Stitches Obtainable with the Double Needle:

In the following are illustrated some of the decorative stitches which can be made with the aid of the Double Needle. It must, of course, be realized that the actual work, being made on fabric and with differently colored threads, will represent the beauty of these decorative stitches much more vividly than the simple illustrations shown below:

Regular Sewing:

Use embroidery thread No. 50 for upper and lower threads.

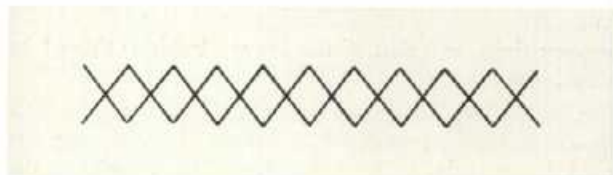


Fig. 109

Machine Setting: (for Fig. 109)

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Between « 2 » and « 3 ».

Stitch Length Lever: Set at « 3 ».

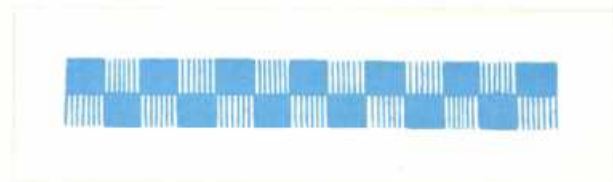


Fig. 110

Machine Setting: (for Fig. 110)

Needle Position Lever: Move rhythmically back and forth between right and left notch.

Zig-Zag Stitch Lever: Set at « 2 ».

Stitch Length Lever: Set for « Satin Stitch ».

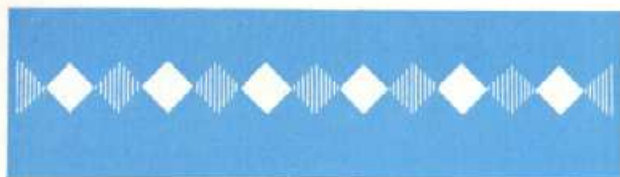


Fig. 111

Machine Setting: (for Fig. 111)

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Move *slowly* back and forth from left to right.

Stitch Length Lever: Set for «Satin Stitch».

For the following stitches, use embroidery thread No. 50 for upper threads and pearl cotton No. 8 for lower thread. The tension of the upper threads should be very tight, and that of the lower (bobbin) thread be very loose.

The decorative stitches Figs. 112, 113 and 114 will appear on the underside of the fabric. Considering this fact, the material to be sewn should be placed on the machine accordingly.

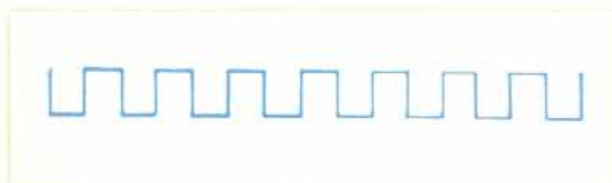


Fig. 112

Machine Setting: (for Fig. 112)

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set at «5».

Stitch Length Lever: Set at «4».

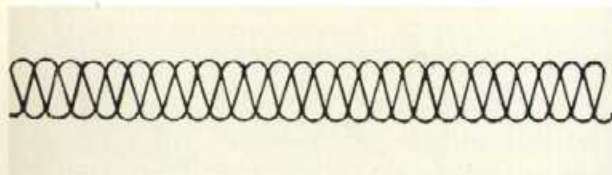


Fig. 113

Machine Setting: (for Fig. 113)

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set at «5».

Stitch Length Lever: Set slightly below «1» (about 3/4").

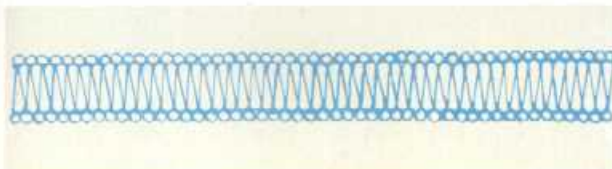


Fig. 114

Machine Setting: (for Fig. 114)

Needle Position Lever: In center notch.

Zig-Zag Stitch Lever: Set at «5».

Stitch Length Lever: Set at «1».

SEWING WITH DOUBLE NEEDLE AND NECCHI-MATIC

Use embroidery thread No. 50 for upper and lower threads.

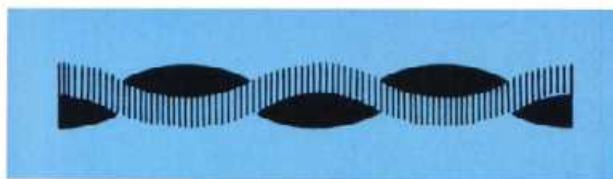


Fig. 115

Machine Setting:

Needle Position Lever: Operated *automatically* (connected by means of long rod with NECCHI-MATIC).

Zig-Zag Stitch Lever: Set between «1» and «2».

Stitch Length Lever: Set for «Satin Stitch».

Design (Fig. 115) with groove «1» of disc No. 1-2.



Fig. 116

Design (Fig. 116) with groove «2» of disc No. 1-2.

Design (Fig. 117) with groove «3» of disc No. 3-4.

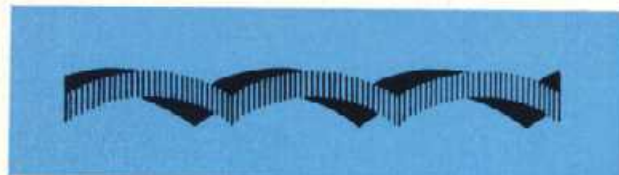


Fig. 117

Design (Fig. 118) with groove «4» of disc No. 3-4.

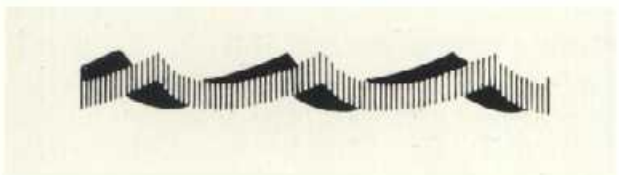
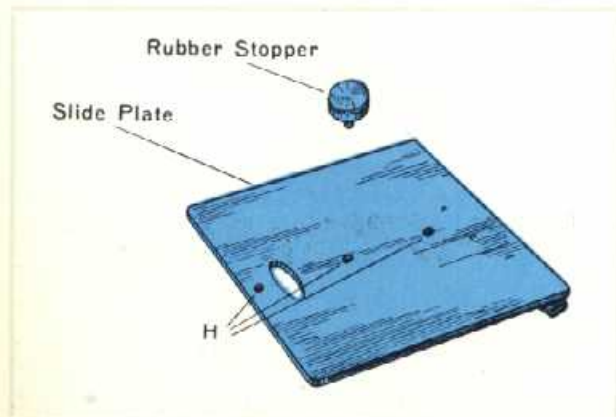


Fig. 118

CIRCULAR SEWING

The slide plate of the machine is provided with three holes «H» (see Fig. 119) which make it possible to perform circular sewing. Illustration Fig. 121 shows the type of work done by circular sewing. Illustration Fig. 120 shows a cross-section through the fabric to be sewn, the slide plate and a small rubber stopper which is included in the accessory box of the machine.

Fig. 119



To do circular sewing, proceed as follows:

Insert the small rubber stopper into one of the three holes «H» of the slide plate. The choice of the hole «H» depends on the diameter of the circle to be sewn. The farther away the rubber stopper is from the needle, the larger will be the circle sewn.

Place the fabric under the presser foot, then take an ordinary thumb tack and push it, through the center of the circle to be sewn, into the rubber stopper (as indicated in Figs. 120 and 121).

Fig. 120

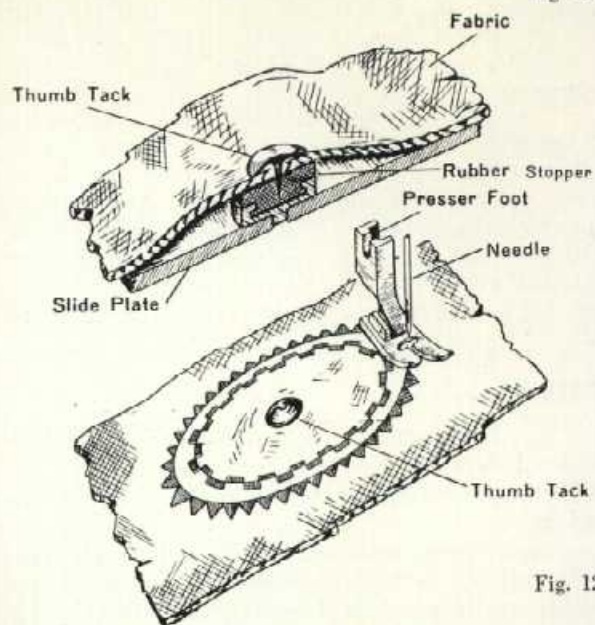


Fig. 121

While sewing keep a finger placed on the thumb tack so that the fabric, revolving around the center point of the design, does not slip or become detached (which may cause irregularities in the embroidered design). Circular sewing should be done only with materials possessing a certain consistency such as corduroy, stiff woolens, leather, etc. Lighter materials, for the purpose of circular sewing, should be placed in an ordinary embroidery hoop.

FOR BEST RESULTS IN YOUR HOME SEWING WITH NYLON FOLLOW THESE SUGGESTIONS:

When cutting nylon fabric, use well sharpened shears. Leave generous allowance for seams.

Needles, Pins, Basting: Needles, for both machine and hand sewing, should be small and sharp. Select the finest needle that will accommodate the thread. Numbers 11 and 00 or their equivalents are best for most nylon fabrics. Sharply pointed pins and sharp, fine needles penetrate through nylon easier and give better results in basting.

THREAD:

Nylon thread is recommended for nylon fabrics. Seams sewn with nylon thread are durable, dry quickly when washed, and will not shrink. Other threads, however, may be used. Always cut nylon thread with scissors rather than attempting to break it by hand. This will avoid « pulled » seams, and give a clean-cut end that is easier to put through the eye of the needle.

TESTING:

It is very important to test your stitching on all nylon fabrics before starting any permanent seams. This will help you determine the proper sewing machine settings.

Stitching: Fewer stitches per inch can be made when sewing nylon. Better seams will generally result when stitches are larger than those used on other fabrics. If you prefer smaller stitches for top stitching, your own experimentation on the fabric itself will help you select the proper machine adjustments.

When sewing on tightly woven fabrics as few as seven stitches to an inch may be used, particularly for inside seams. Nylon's strength allows this large stitch to be possible.

Tensions: Test stitch on the straight of the goods, lowering tensions until a well-formed but loose stitch is made.

Because of nylon's great strength and elasticity, sewing with tensions normally used with other threads may

cause seams sewn with nylon thread to pucker. When sewing with threads other than nylon, use loose tensions and large stitches, too.

The use of tissue or ordinary shelf paper under your material often gives smoother seams when sewing sheer and tightly woven fabrics.

FINISHING:

Seams on nylon fabrics, as on all fine fabrics, should be carefully made without raw edges. Bound, French, edgestitched, or overcast seams help assure resistance to raveling. Pinking the edges will be sufficient for some tightly woven fabrics. Your decision on finishing should be based on whether or not your particular fabric tends to ravel. Most nylon tricot fabrics will not ravel. Finishing without raw edges is not as necessary on these as it is on some other fabrics.

When finishing seams with bindings, be sure they are nylon or of preshrunk material. Well finished seams will help preserve the beauty and durability of nylon articles.

Fasten stitches at the beginning and end of each seam by retracing for several stitches or tying thread ends.

PRESSING:

As with other fabrics, each seam should be pressed after stitching. It is important to use a low temperature—the « nylon » or « rayon » setting on automatic irons. Pressing with a damp cloth may give superior results or, if you have a steam iron, it too may be used.

HOW TO USE THE OIL FEEDER



Filling

1. - Hold oil container in left hand and unscrew lower cover A. Remove covers A and B with oiling tube.
2. - Fill the oil container.
3. - Replace covers A and B with oiling tube, and tighten lower cover A firmly.



Adjusting the length of the oil tube

1. - Unscrew the upper cover B by about $1/8$ turn (Fig. a).

Fig. a

2. - By gripping the stopper, draw out the oil tube to the desired length (Fig. b).

3. - Tighten upper cover B firmly to maintain desired length of oil tube.

Fig. b



Oiling

Unscrew stopper at end of oil tube and press oil container to lubricate desired portion of machine (Fig. c).

Fig. c



ALPHABETICAL INDEX

ALPHABETICAL INDEX

	Page
A Accessories, Extra	81 to 83
Accessories, List of Standard	10, 11
Adjustable Cloth Stitching Guide	80
Adjusting the Tensions	25 to 27
Alternating Current	9
Applique Work	46 to 48
 B Balance Wheel, Rotation of	14
Basting	35
Bias Binder	65, 66
Binder (Bias Binder)	65, 66
Binding (Jamming) of Machine	38
Blindstitch Foot	82, 90, 91
Blindstitch Guide	76
Blindstitching (without attachment)	73 to 76
Bobbin, Inserting into Bobbin Case	29, 30
Bobbin, Winding the empty	28, 29
Bobbin Case, Inserting the	31
Bobbin Case, Removing the	30
Buttonholes, Making of	57 to 61
BU MIRA, Running the	23, 24
Button Sewing	61 to 63
 C Changing the Needle Position	35
Circular Sewing	112, 113
Cleaning the Upper Tension	27, 28
Cloth Stitching Guide (adjustable)	80
Commencing Sewing	25
Contents, List of	5, 6
Contrast Work Applique	47
Cording (Zipper) Foot	83
Cording and Zipper Operations	87, 88
Corner, Turning a	25
Current, Alternating	9
Current, Electric	9
Cut-Out Work	48

Page

D	Daisies, Embroidered	45, 46
	Darning (Mending)	63 to 65
	Difficulties, Minor	37, 38
	Dots, Raised Satin	103
	Double Needle (Twin Needle),	
	Sewing with	106 to 112
	Dropping the Feed Dog	19

E	Electric Bulb, Removing and Rep-	
	lacing the	35, 36
	Electric Current, Required	9
	Electric Light, Removing and Rep-	
	lacing the	35, 36
	Embroidered Daisies	45, 46
	Embroidery	41 to 46
	Embroidery and Monogramming	
	with Dropped Feed	44, 45
	Extra Accessories	81, 82
	Eyelet Buttonhole Set	81
	Eyelets, Making of	84, 85

F	Features of MU MIRA	8, 9
	Feed Dog, Dropping the	19
	Felled Seams, Flat	52, 53
	Festoon Foot	82, 89, 90
	Flat Felled Seams	52, 53

G	Gathering (Ruffling, Shirring) ...	66 to 73, 83, 86, 87
	Gathering (Shirring) Foot	83
	Gauge Foot (Patent Foot)	83, 88
	Gimp (Cord) Buttonhole	60, 61
	Grooved Zig-Zag Stitch Hinged Foot	
	(Satin Stitch Foot)	83, 89
	Guarantee Bond	4

Page

H	Hemming (Narrow Straight Stitch	
	Hem)	51, 52
	Hemming and Sewing on Lace ...	54, 55
	Hemstitching	48 to 50
	Hook (Shuttle), Removing and	
	Replacing the	32, 33

I	Inserting a Needle	17
	Inserting Bobbin into Bobbin Case	29, 30
	Inserting the Bobbin Case	31

J	Jamming (Binding) of Machine ...	38
----------	----------------------------------	----

K	Keyhole Buttonholes	85, 86
	Keyhole Buttonholes Cutter	46

L	Lace Edging	82
	Lace, Sewing on	54, 55
	Length of Stitch, Regulating the .	33, 34
	Light Bulb, Removing and Replac-	
	ing the	35, 36
	Light Switch	23, 24
	List of Contents	5, 6

M	Mending (Darning)	63 to 65
	Monogramming	44, 45

N	Narrow Rolled Edges	53, 54
	Narrow Straight Stitch Hem	51, 52
	Necchi Automatic Needle Threader	21, 22
	Necchi-Matic (Wonder Wheel),	
	Working with	92 to 102, 104, 111, 112

	Page
N Needle and Thread Sizes	12, 13
Needle Breaking	37
Needle, Inserting a	17
Needle Plate, Changing the	18
Needle Position, Changing the	35
Needle Threader, Necchi Automatic	21, 22
Nylon, Sewing with	114, 115
O Oil	39
Oiler (Necchi-Oiler)	116, 117
Oiling the Machine	14, 15
Overcasting a raw edge (Overlock Stitch)	50
Overlock Stitch (Overcasting a raw edge)	50
P Patent (Gauge) Foot	83, 88
Pearl Stitch Buttonhole	57 to 60
Picot Edge (Hemstitching)	49, 50
Pinking Shears	39
Pleating (Ruffling) with Ruffler	66 to 73
Preparing Machine for Sewing	22
Press Cloth	39
Presser Foot, Changing the	18, 19
Press Mitt	39
Q Quilting	56, 57
R Raised Satin Dots	103
Raised Stitch Applique	46
Regulating the Length of Stitch	33, 34
Regulating Width of Zig-Zag Stitch	35
Removing and Replacing the Shuttle (Hook)	32, 33
Removing the Bobbin Case	30
Removing Work from Machine	25
Rolled Edges, Narrow	53, 54
Ruffling (Gathering)	68 to 73
Ruffling (Pleating) with Ruffler	66 to 73
Running the BU MIRA	23, 24

	Page
S Satin Stitch	41 to 44
Satin Stitch Foot (Grooved Zig-Zag Stitch Hinged Foot)	83, 89
Sewing Chair	38
Sewing on Lace	54, 55
Shell Stitch	55, 56
Shirring Foot (Gatherer)	83
Shirring (Gathering)	86, 87
Shuttle (Hook), Removing and Replacing the	32, 33
Skip Stitching	37
Skirt Marker	39
Sleeve Board	39
Speed Switch	7, 8, 23
Standard Accessories, List of	10, 11
Stitch Length, Regulating the	33, 34
Stop Motion	28
Straight Stitching	40
Straight Stitch Hem (Narrow)	51, 52
Swirl Stitch and Embroidery Foot	83, 90
Swirl Stitching	105, 106
T Tacking	34
Tape Measures	38
Tensions, Adjusting the	25 to 27
Thimbles	38
Thread (and Needle) Sizes	12, 13
Thread Breaking	37
Threading the Machine	19 to 21
Tracing Wheel	39
Troubles, Minor	37, 38
Tucking (without attachment)	76 to 80
Turning a Corner	25
Twin Needle (Double Needle) Sewing with	106 to 112
U Uneven Stitching	38
Upper Tension, Cleaning the	27, 28

Page

W	What your BU MIRA offers you ...	7, 8
	Width of Zig-Zag Stitch, Regulat- ing the	35
	Winding the empty Bobbin	28, 29
	Wonder Wheel (Necchi-Matic),	
	Working with	92 to 102, 104, 111, 112

Z	Zig-Zag Stitching	41
	Zig Zag Stitch, Regulating the	
	Width of	35
	Zipper and Cording Foot (adju- stable)	82
	Zipper and Cording Operation ...	87, 88
	Zipper (Cording) Foot	83