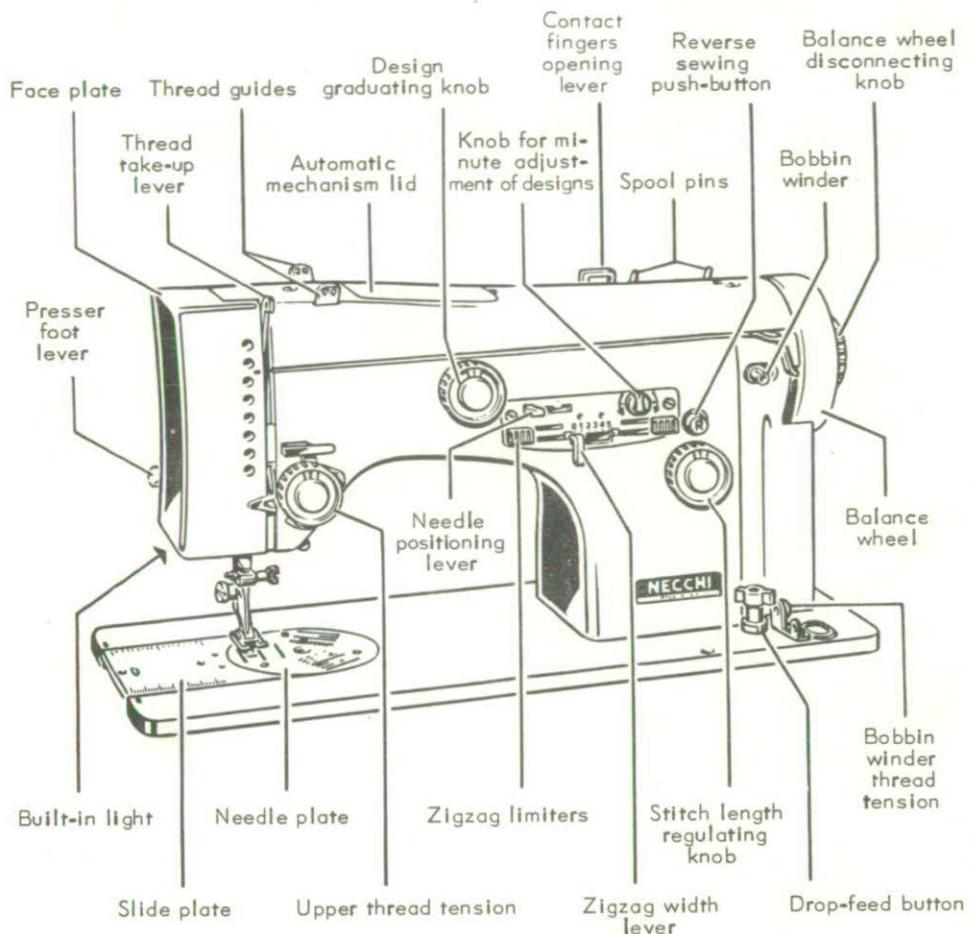




NECCHI

555

**Instructions for the
use and maintenance**



Jamproof OSCILLATING SHUTTLE, with particular silent movement due to the race plate in highly resisting plastic.

UPPER THREAD TENSION adjustable with easy to read graduation knob.

PRESSURE OF PRESSER FOOT adjustable with knob placed under face plate.

STITCH LENGTH REGULATION KNOB easy to turn, with clearly visible graduation.

REVERSE SEWING PUSH-BUTTON for sewing in reverse by pushing button R placed above stitch length regulation knob, which returns automatically.

DISCONNECTION OF BALANCE WHEEL for winding the bobbin, by rotating disconnecting knob.

BOBBIN WINDER placed frontally, with automatic stop.

TWO-SPEED MOTOR adjustable with switch and foot-control.

BUILT-IN LIGHT placed under the face plate to illuminate only working area.

ZIGZAG WIDTH CONTROL by means of a practical lever which is used also for non-automatic embroidery.

ZIGZAG LIMITERS to set the zigzag width lever in a pre-established position or to limit movement.

DOUBLE AUTOMATIC MECHANISM for ornamental designs, embroidery, darning, buttonholes etc.

BUTTONHOLE DEVICE controlled by means of a removable cam with handle.

DESIGN GRADUATING KNOB to lengthen and shorten designs without altering stitch density.

NEEDLE PLATE circular for three different types of stitches.

NEEDLE POSITION LEVER for three different sewing positions (left, centre, right).

KNOB FOR MINUTE ADJUSTMENT OF DESIGNS allows micrometrical adjustments of feed.

1. TO ENSURE PERFECT FUNCTIONING OF MACHINE

- Balance wheel must always be turned toward the operator.
- Do not operate the machine with presser foot resting on feed dog unless there is cloth in between.
- Keep a small piece of cloth underneath presser foot whenever the machine is not in use.
- Keep the machine clean and do not forget to lubricate it periodically using NECCHOIL only.

2. TO CONNECT MACHINE TO WALL OUTLET

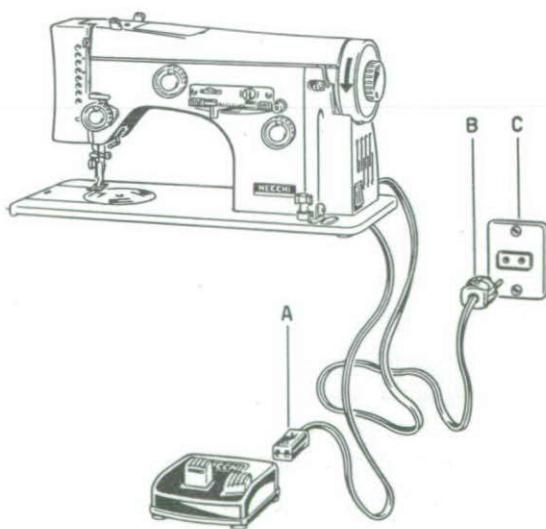
WARNING: Before connecting the machine to wall outlet, make sure that local voltage and frequency (which can be read on the electric meter) correspond to those appearing on the machine rating plate.

Check this whenever the machine is moved from a town to another.

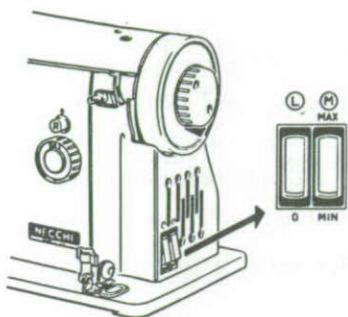
If voltages differ, apply to a NECCHI dealer or an electrician.

To connect the machine to wall outlet, proceed as follows :

- insert tap A into 2-way receptacle of rheostat,
- insert plug B into the socket of the wall outlet C.



3. TO START MACHINE



- The machine is provided with a double-switch to reduce the sewing speed without foot-control regulation.
Pushing switch M from one extreme to the other means changing from high (MAX) to low (MIN) sewing-speed.
- Start machine by pressing on foot control. The sewing-speed can be varied according to the pressure upon the foot-control.

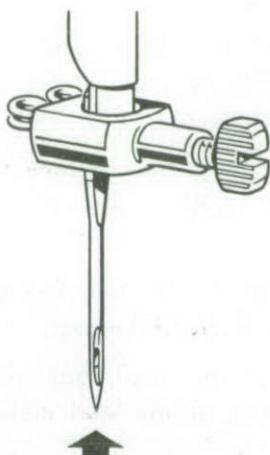
- In order to avoid the overheating of the foot-control, it is advisable to switch to MIN if low speed is desired during a longer sewing period.

4. LIGHTING

- The light is turned on and off by means of switch L situated beside the two-speed motor switch.

5. TO INSERT NEEDLE

- Bring needle bar to its highest position by turning balance wheel towards you.
- Loosen needle clamp screw.
- Insert needle into needle clamp in such a manner that the flat side of the shank is turned towards the right of the machine.
- Push needle up as far as it will go and tighten the screw with a screwdriver.



6. RECOMMENDED NEEDLE AND THREAD SIZES

ALWAYS USE NECCHI NEEDLES SYST. 130/705

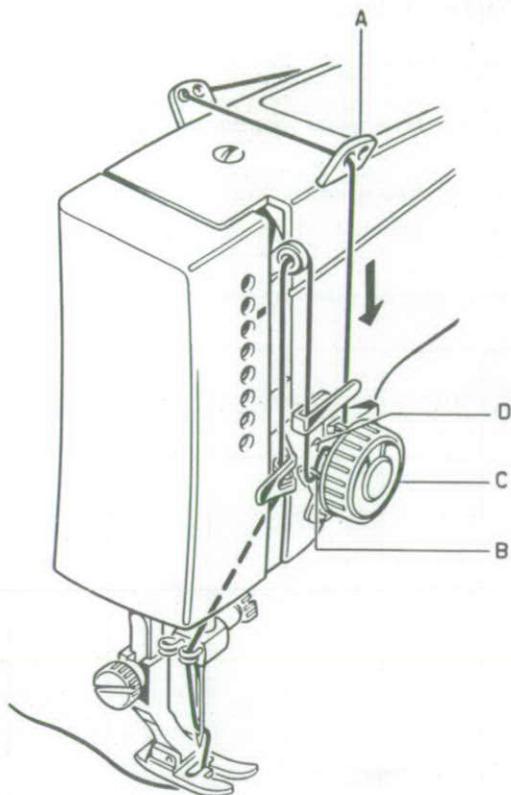
The choice of the suitable needle and thread is most important for a correct sewing.

For very light fabrics it is advisable to use fine needles and very fine threads; for heavy fabrics, on the other hand, we recommend using strong needles and threads.

For the choice of the needle and thread, please refer to the following table:

Types of fabric and classes of work	Machine embroidery cotton	Mercerized cotton	Synthetic thread	Schappe silk	Real silk, cordonnet	Size of needle
Very fine fabrics for lingerie: chiffon, batiste, muslin, etc.	50	80-100	140	-	-	70
Fine fabrics: for shirting, aprons, sheeting, pillow cases, summer dresses, etc.	30	50	120	100	-	80-90
Medium fabrics: for men's suiting, cretonne, brocade, quilts, upholstery.	-	40	70	70	-	90
Medium - heavy fabrics: overalls, smocks, trousers, blankets, bed ticking, awnings, closely woven fabrics, etc.	-	30	50	60	3	100
Heavy fabrics: canvas, sacks, bags, etc.	-	24	30	40	5	110

The numbers of the various threads may change from one country to the other



7. TO THREAD MACHINE

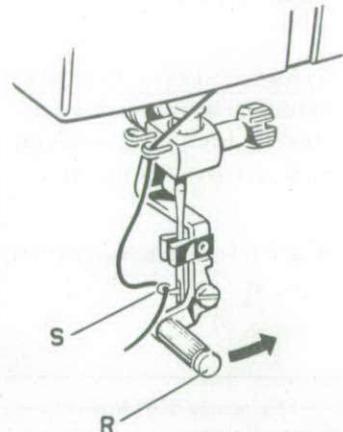
- Raise presser foot by lifting presser bar lever.
- Turn the balance wheel towards you by hand, bringing the needle bar to its highest position.
- Thread the machine by following the scheme shown on the figure.

After having passed thread between tension discs housing, hold thread with right hand thumb against thread guide A while pulling thread with your left hand slightly upwards so that it pulls up spring B and places itself astride of hook D.

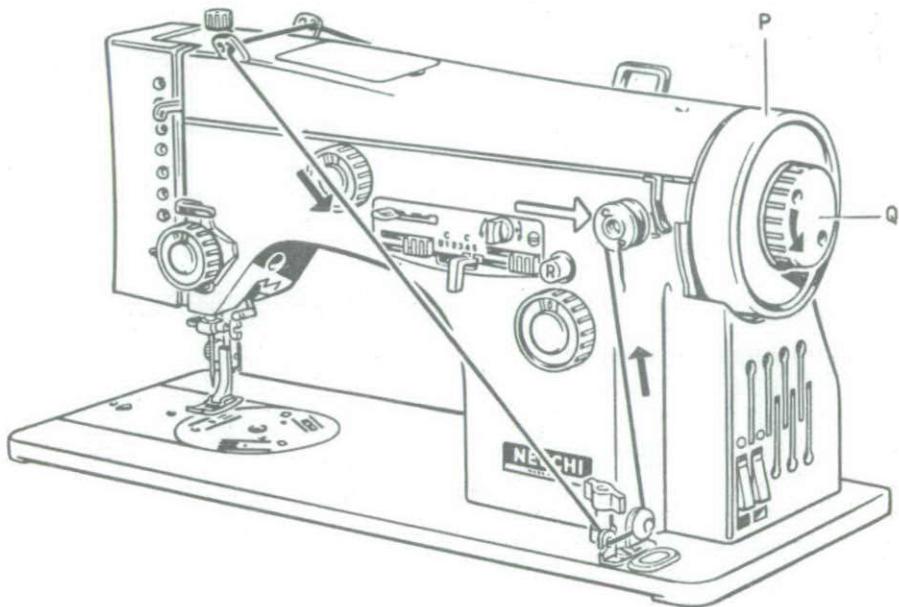
Pass thread through needle eye from left to right leaving about 4 inches hanging free.

8. TO THREAD NEEDLE WITH THREADER

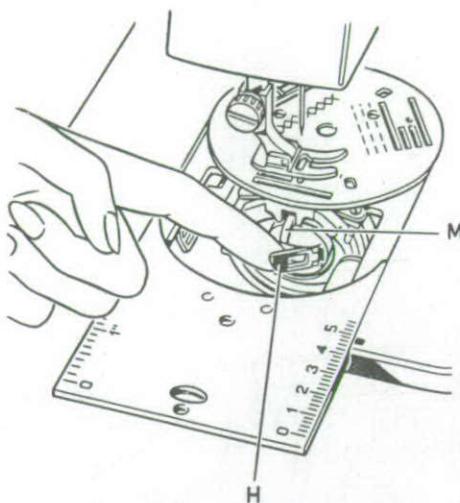
- Bring the needle to its highest position and the take-up lever in correspondence with guide line on face plate.
- Bring knob R downward until hook S passes through the eye of the needle.
- Place the thread on hook S and move knob R away from needle; the hook will pull the thread through the needle eye while the needle threader, having accomplished its task, will be dragged upward by a spring.



9. TO WIND EMPTY BOBBIN

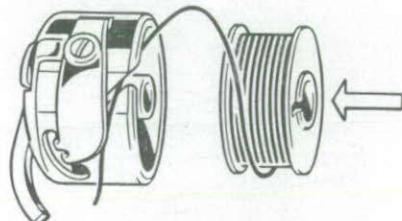


- Disconnect balance wheel P by holding it with a hand and by turning knurled knob Q in the direction of the arrow.
- Pass thread through points indicated in the illustration.
- Insert bobbin on bobbin-winder spindle.
- Wind a few turns of thread on the bobbin.
- Push bobbin-winder spindle towards balance wheel and start the motor.
- Bobbin will stop automatically when filled.
- Push bobbin-winder spindle to the left, remove bobbin and reconnect balance wheel by fastening knob Q.



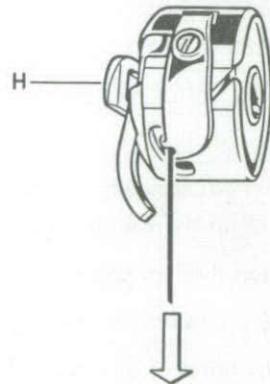
10. TO REMOVE BOBBIN CASE

- Lift presser foot.
- Turn balance wheel by hand and bring needle bar to its highest point.
- Move slide plate to the left.
- Remove bobbin case by lifting latch H and pulling it to the left.
- The bobbin will drop out when the latch is released.



11. TO INSERT BOBBIN INTO BOBBIN CASE

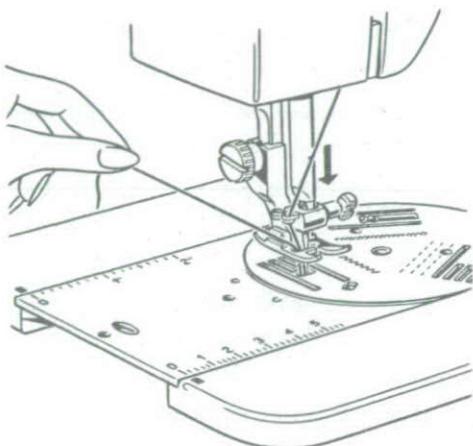
- Insert bobbin into bobbin case in such a manner that the bobbin flange provided with holes is turned toward the inside of the bobbin case.
- Insert thread into groove of bobbin case.
- Lift latch H so that bobbin is blocked and draw thread under tension spring as indicated, leaving about 4 inches of thread hanging out.



12. TO INSERT BOBBIN CASE INTO SHUTTLE

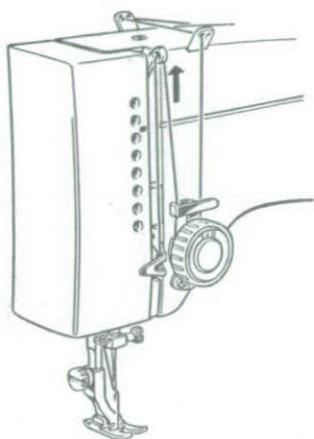
- By turning balance wheel by hand, bring needle bar to its highest point.
- Move slide plate to the left.
- Insert bobbin case by latch H on centre stud of shuttle. Finger M must go into notch of shuttle ring.
- Release latch H and press on bobbin case until a click is heard.
- Let about 4 inches of thread hanging out.

13. TO DRAW BOBBIN THREAD



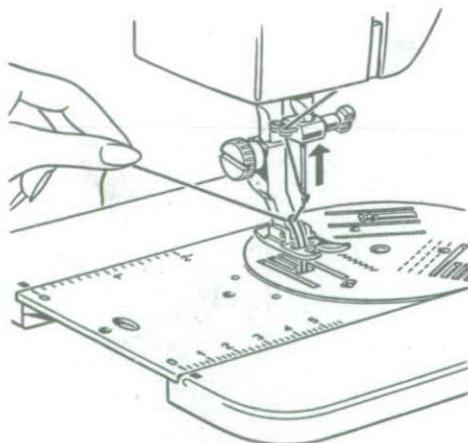
1

- Raise presser foot.
- Hold the thread coming out of the needle with your left hand, and turn balance wheel towards you with your right hand, in order that needle descends to its lowest position.



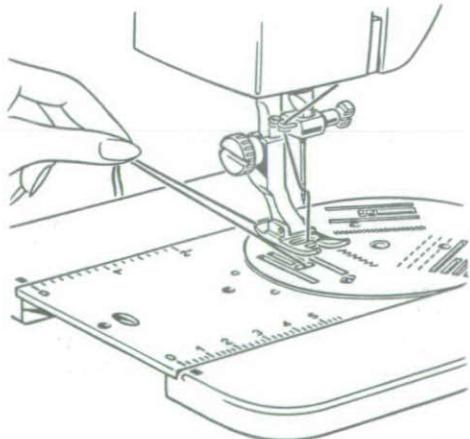
2

- Keep turning balance wheel until thread take-up lever reaches its highest position.



3

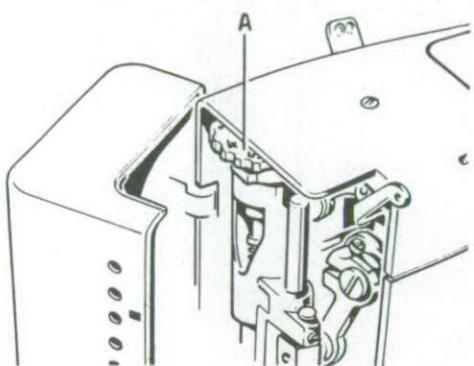
- Pull the thread held in your left hand until the lower thread comes out of the hole of the needle plate.



4

- Carry the ends of both threads underneath and behind the foot.

14. TO REGULATE PRESSURE OF PRESSER FOOT



- The pressure of presser foot is regulated by turning dial A.
- The number visible towards face plate indicates pressure value.
- Normally the pressure adjusted on 4 or 5 is about right for ordinary sewing.
- To increase the pressure turn towards higher numbers.
- To decrease the pressure, turn towards lower numbers.

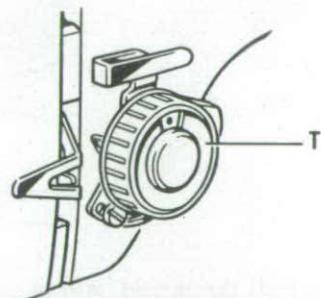
15. TO ADJUST TENSIONS

UPPER TENSION

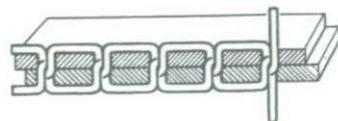
- Adjust by turning button T.

The normal value of the upper tension is obtained when the threads lock between the fabric layers.

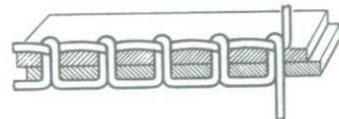
- Needle thread tension is increased by turning button towards higher numbers.
- It is loosened by turning in the opposite direction.



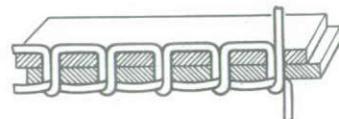
- If the needle and bobbin threads lock between the fabric layers: tensions are correctly adjusted.



- If the threads lock on right side of fabric, needle thread tension is too tight.
Loosen it by turning the knob in the direction of the arrow.



- If threads lock on wrong side of fabric, tension is too loose.
Tighten it by turning knob in the direction of the arrow.



NOTE: When sewing on hard or thick fabrics, it is advisable to loosen screw E and slightly move small plate P in the direction of the arrow.

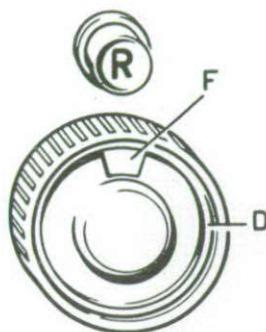


BOBBIN THREAD TENSION

- The lower tension is increased by tightening screw G, it is decreased by loosening same.
- Lower tension should be adjusted carefully since small rotations of screw G may considerably vary tension value.

16. TO REGULATE STITCH LENGTH

- Turn button D: the stitch length expressed in mm. is visible through small window F.
- The stitch length normally required for satin stitch is normally found about the red square mark.



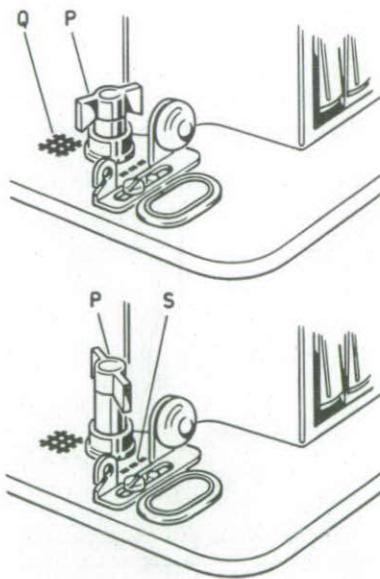
17. TO SEW IN REVERSE

- For reverse sewing press the push-button marked R. The machine returns to straight sewing as soon as you cease pressing this button.
- Reverse sewing is used in general for reinforcing beginning or end of seams.

18. TO DROP FEED DOG

- The feed dog must be dropped for hoop embroidery, darning and sewing on buttons.
- Turn button P so that one of its prongs faces the square mark Q.
- Push button P down; it will remain in this position.
- To raise feed dog, turn button P so that one of its prongs faces the opposite alignment mark S. The feed dog will raise by itself at the first stitch.

NOTE: In this position push button P acts as an instant switch which disengages the feed dog when pressed flat and engages it again when released.



19. THREE POSITION NEEDLE-PLATE

- The needle plate can be fitted in 3 different positions which are used as follows:

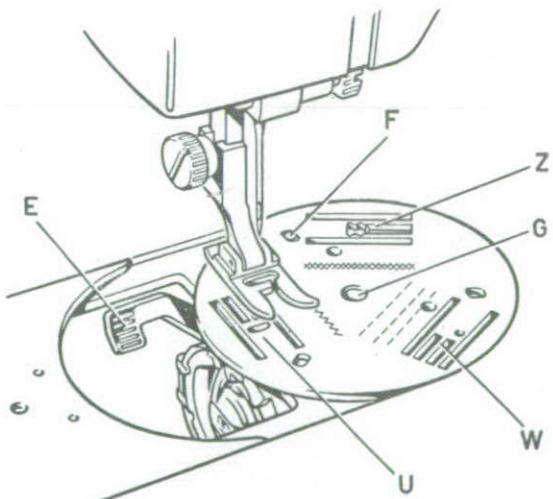
U: for straight and zigzag sewing.

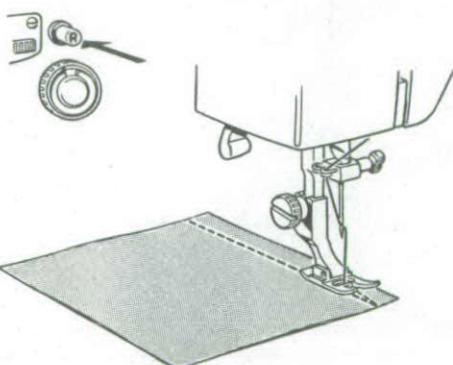
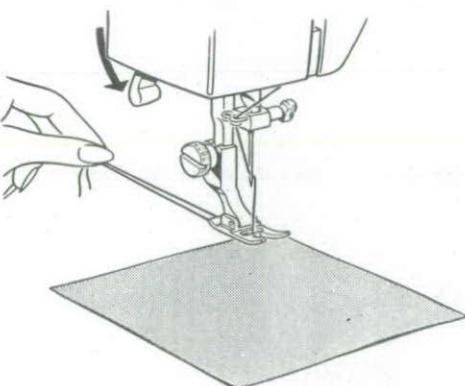
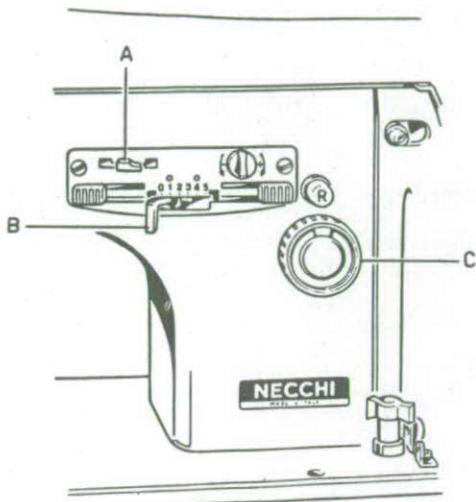
W: for straight stitch on light fabrics (nylon, silk) with the needle position lever B in left notch and straight stitch presser foot.

Z: for twin needle sewing.

To fit needle plate in each one of the 3 positions:

- Drop feed dog, bring needle to its highest position and move slide plate to the left.
- Press lever E and the needle plate will lift itself.
- Turn the needle plate around until the desired position is under needle.
Make sure that locating pin F enters the corresponding hole in the plate.
- Press central pin G. The plate will block itself automatically.
- Raise feed dog.





20. STRAIGHT STITCHING

Zigzag width lever *B*: on zero.

Stitchlength regulation knob *C*: normally on no 2.

a) For normal work:

Needle plate: position U.

Needle position lever *A*: any position desired.

Presser foot: metallic for zigzag stitching (1376393).

b) For light or very light materials or for sewing on borders, a better result is obtained as follows:

Needle plate: position W.

Needle position lever *A*: on left.

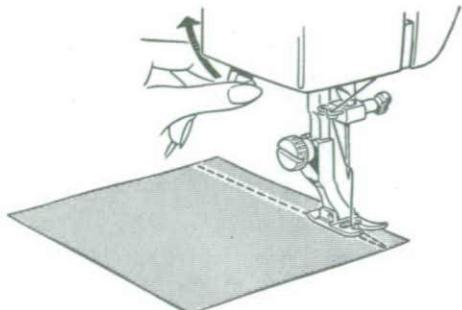
Presser foot: metallic for straight stitching (9560093).

- Place the material under the foot in such a way that the needle coincides with the edge of the material and lower the foot.

- Hold the two thread ends for a few stitches, when sewing.

- To lock the stitch at the beginning and end of the seam, press the reverse button and sew back a few stitches.

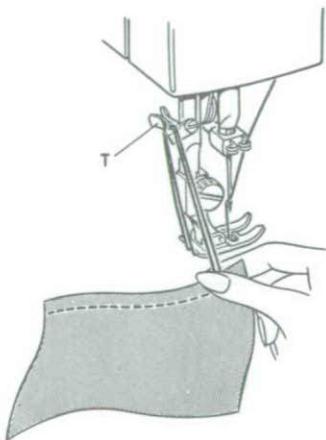
- Turn the balance wheel by hand towards you until the thread take-up lever reaches its highest point.
- Raise the presser foot.
- Remove the work.



- By raising the foot, the tensions release and the threads run freely.

Removing the work comes easy.

Threads can be cut with thread-cutter T existing on the needle bar.

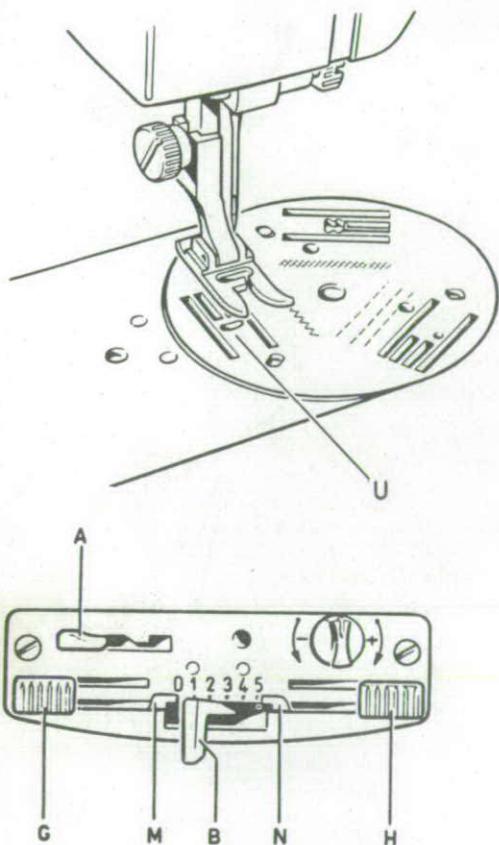


N.B. - The material feeds automatically under the foot with the speed corresponding to the stitchlength chosen. It must not be held down or pulled by hand; it should be guided gently so that the seaming results exactly as you wish.

21. BASTING

- Set stitch regulation knob for the maximum stitch length and loosen upper thread tension, by turning to lower numbers; proceed as for normal straight stitching.

This makes it possible to effect long and loose stitches which can be easily unraveled.



22. ZIGZAG SEWING

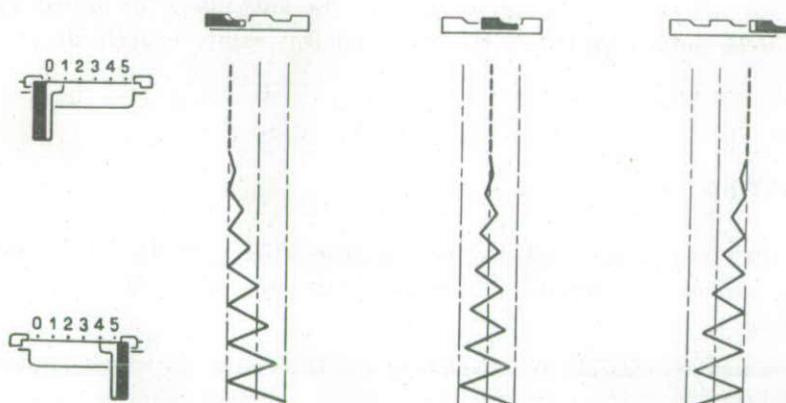
Needle plate : in position U (para. n° 19).

Presser foot : metallic for zigzag (1376393) or transparent foot for embroidery (9550865).

Needle position lever A : the line of stitching corresponds to the lever position (left, centre or right) - see diagram below.

Zigzag width lever B : place it in the position corresponding to the zigzag width desired and fasten it with studs M and N, at the same time pressing the limiters G and H into position.

Stitch length regulation knob C : adjust according to length desired.



23. ZIGZAG EMBROIDERY

The figure illustrates a few zig-zag embroidery motifs.

Others can be combined at will.

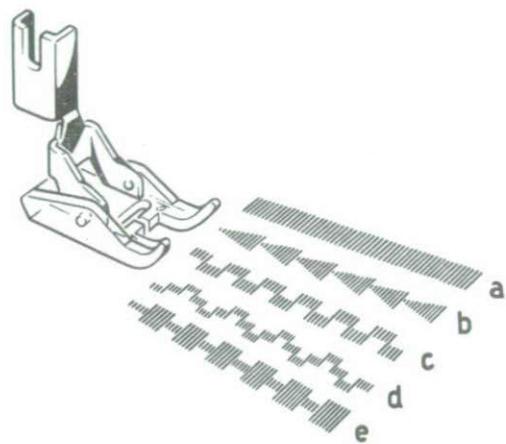
Prepare the machine as follows:

Presser foot: transparent for embroidery.

Thread tensions: loosen upper tension and tighten lower one: the upper thread should be visible also on the wrong side of the material.

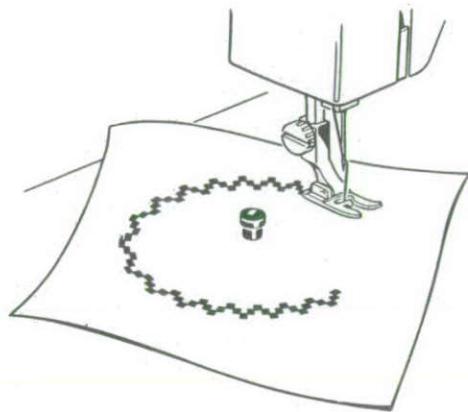
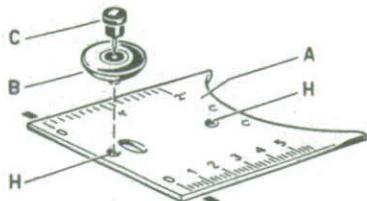
Stitch length regulation knob: near the red square so that the material is scarcely fed and the stitches touch each other without piling up.

Threads: embroidery thread n° 50.



- a) Satin stitch: zigzag lever B. Adjust it according to the width required.
- b) Needle position lever A in the centre. Stud M (para. 22) on n° 1. Move the zigzag lever slowly from n° 1 to n° 5 and flip it back quickly to n° 1.
- c) Zigzag lever on n° 2.5. Stud M on n° 2.5. Move the needle position lever alternately left and right, without stopping in the centre and carry out a certain number of stitches on both positions.
- d) Zigzag lever on n° 1.5 approx. Stud M on n° 1.5. Switch the needle position lever rapidly from left notch to centre notch and then to right notch and vice-versa.
- e) Needle position lever in the centre. Stud M on n° 1. Stud N on n° 4. Leave the zigzag lever on n° 1 for a certain number of stitches and then move on to n° 5, skipping the right limiter N, and leave it there for about the same number of stitches.

Continue thus, alternating the two positions described.



With lighter materials, use an embroidery hoop or place a piece of tissue paper under fabric.

24. CIRCULAR SEWING

- Insert button B in one of the holes H of slide plate A.
- Place centre of fabric on knob B by means of pin C.
- Keep a finger on pin, when sewing, so that the fabric revolving around it at the centre of the design does not detach it.

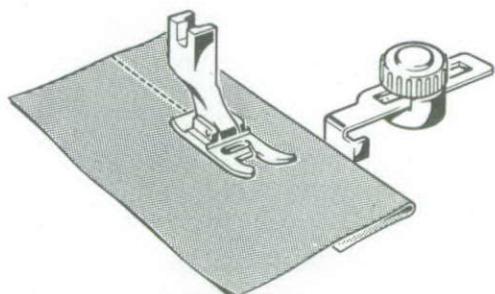
By moving slide plate A, circles of various sizes can be obtained. The scales engraved on its edges and the indexes engraved along the sides of its seat are useful as references to make circular sewings of equal sizes.

Circular sewing should be done only with materials possessing a certain body.

25. SEAMS PARALLEL TO EDGE OF FABRIC

The straight guide (9450305) is used for executing seams parallel to edge of fabric.

This guide is fitted on the machine at the desired distance from needle as shown in the figure, and it is fastened in place by tightening the knob.



26. TWIN NEEDLE SEWING

The twin needle makes it possible to sew with two threads of the same colour or of different colours.

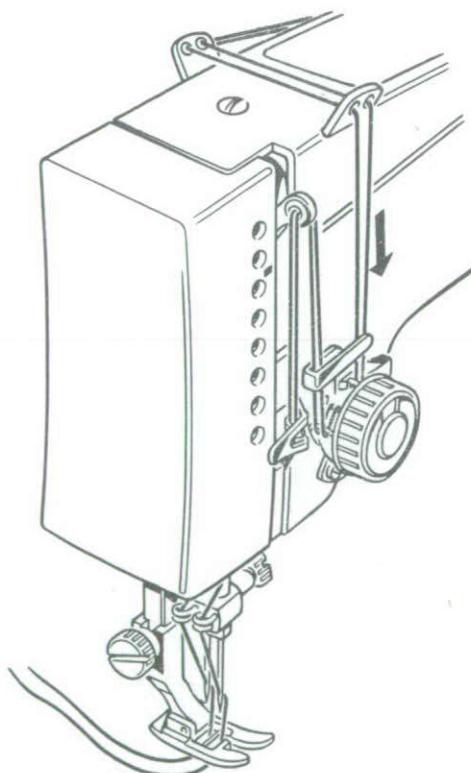
The twin needle is to be inserted in the same manner as the normal one with the flat side of its shank toward the right.

Presser foot: for twin needle (9550835).

Needle plate: in position Z (para. 19).



Lower thread: it must pass through the hole indicated in figure.



Thread must pass at the points indicated in figure.

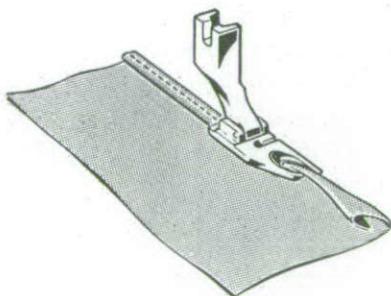
The tension device has three discs and one of the threads must pass in front and the other behind the larger disc.

27. HEMMING

Hems are more easily made by means of special hemming feet.

The two hems we are going to illustrate are made with straight stitch by means of hemming foot symb. 9000125.

- Fold over edge of fabric about 3 mm. for a length of about 5 cm., and insert the fold from beneath into the scroll of presser foot.
- Make sure that the beginning of the hem, correctly folded, enters the scroll well, by moving fabric back and forth.
- Lower presser foot and start sewing, guiding fabric by hand in order to help the material to feed through scroll properly.



Straight Stitch Hemming

Needle position lever: in the centre.

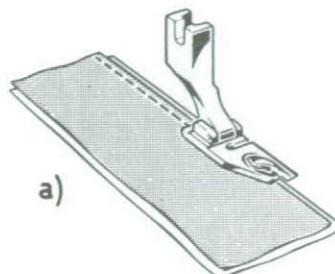
Zigzag width lever: on zero.

Stitch length regulation knob: between 3 and 4.

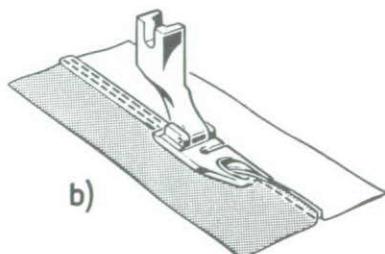
Upper thread tension: normal.

FLAT FELLED HEM

- Place a piece of fabric on top of the other so that their right sides face each other. Right edge of bottom piece should protrude about 3 mm. beyond right edge of top piece.
- Sew both pieces of fabric together, using the edge of hemming foot scroll as a guide (a).

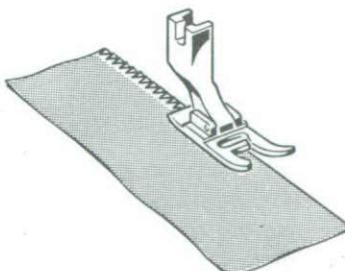


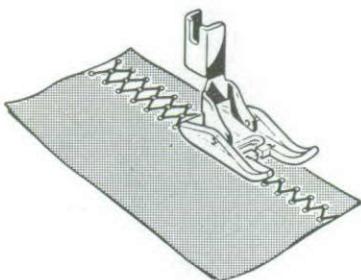
- Open fabrics with their edges standing up.
- Insert edges in hemming foot scroll and sew as for normal straight stitch hem (a).



28. OVERCASTING

Needle position lever: in the centre.
Zigzag width lever: set for desired width.
Stitch length regulation knob: as desired.
Upper thread tension: normal.
Presser foot: metallic for zigzag sewing (1376393).
The stitches must be placed one into the material and one offside.





29. PICOT HEM

Needle position lever: in the centre.
Zigzag width lever: between n° 1 and n° 2.
Stitch length regulating knob: between n° 1 and n° 1.5.
Upper tension: normal.
Needle: syst. n° 130.
Make first row of stitches at about 12 mm. from edge of fabric.

Make second row in such a way that needle stitches into the outer holes of first row of stitches. With sharp scissors, cut right in the middle of the two rows.

NOTE: This kind of work is best done on organdy.

30. APPLIQUE WORK

a) CUT-OUT WORK

Baste fabric on which design (flower etc.) is sketched to fabric to which it will be sewn.

Start straight sewing (stitch length regulating knob on no. 1), following the outline of design and cut away surplus material, as close as possible to the outline of design. Set machine as for satin stitch (para. 23a) and sew following the outline of design covering the edge and straight stitches.

b) LACE EDGING

Lever A: in centre notch.

Lever B: set for desired zigzag width.

Stitch length regulating knob: set for desired stitch length.

Upper tension: normal.

Place lace edging to the hem of the fabric on which it is to be sewn.

Start sewing making sure that needle, while zigzagging, stitches through both fabric and lace.

31. HEMSTITCHING WITH DRAWN THREADS

Needle position lever: in the centre.

Zigzag width lever: between n° 1 and n° 2.

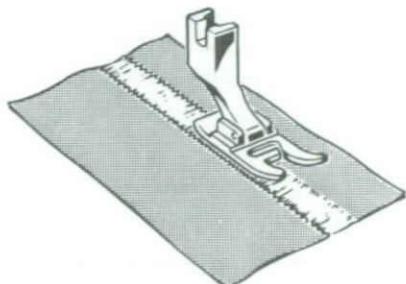
Stitch length regulation knob: between n° 1 and n° 2.

Upper thread tension: normal.

Presser foot: metallic for zigzag (1376393).

- Draw desired number of threads from the fabric to be hemstitched and commence sewing, making sure that the needle bites alternately close to the edge into the undrawn side of fabric and then into the space where the threads have been drawn.

After stitching on one side of the drawn space has been finished, repeat same procedure on the other side.



32. SEWING ON BUTTONS

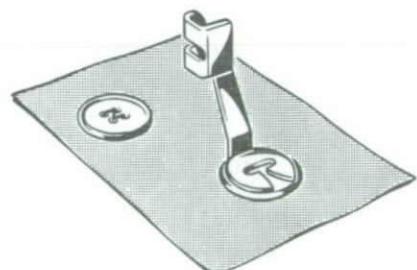
Needle position lever: on left.

Zigzag width lever: between n° 4 and n° 5 according to the distance between the holes of the buttons.

Feed dog: lowered.

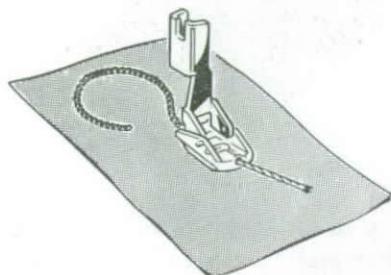
Presser foot: for sewing on buttons (9550075).

- While lowering presser foot, place the button on the fabric in order that its holes are in proper position for zigzag stitch.
- Turn balance wheel by hand, checking that needle goes through holes of button; if needle does not clear button, change zigzag width.
- Run machine at medium speed making about 5 stitches.
- Bring the zigzag width lever to the left and make some stitches in the same hole in order to tie up stitches.



If the button is a four-holed one, repeat the operation for the other two holes.

NOTE: The accessories used in the sewing processes described below in paras. 33, 34, 35, 36, 37, 38, 39, 40, 41, are not included in the accessory box and can be purchased through all NECCHI dealers.



33. RAISED STITCH APPLIQUE

Needle position lever: in the centre.

Zigzag width lever: adjust zigzag according to the thickness of the cord being used.
Stitch length regulating knob: about red square.

Upper thread tension: rather loose.

Presser foot: cording presser foot (9200385).

- Insert cord into the hole of cording foot,

then guide it from front to back underneath presser foot.

Commence sewing and follow the design carefully.

34. CONTRAST WORK APPLIQUE

Proceed as for raised stitch applique, with the exception of stitch length knob which can be regulated at will so that the zigzag stitches are spaced wide apart so as to let cord appear in between.

To obtain the desired contrast, the colour of the cord must be different from the colour of needle thread.

35. QUILTING

Zigzag width lever: on zero.

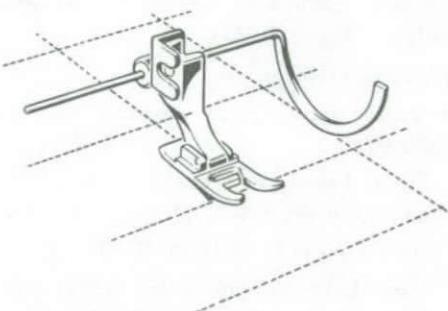
Stitch length regulation knob: set for desired length.

Upper thread tension: normal.

Presser foot: use metal zigzag stitch foot (1376393) and attach it to machine together with adjustable quilting guide (9400055 not included in accessory box).

Regulate position of quilting guide in accordance with the desired distance between two parallel lines of stitches.

Sew first left line, then move fabric toward the right so that guide bar is directly over first line.



36. FINGER-GUARD

This accessory (9963120) prevents you from putting inadvertently your fingers under the needle.

37. NARROW ROLLED HEM

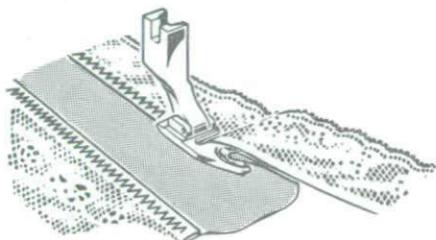
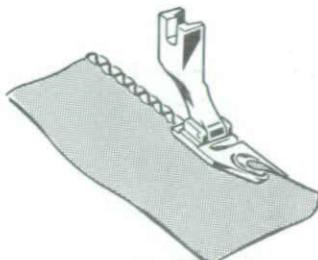
Needle position lever: in the centre.

Zigzag width lever: between n° 1 and n° 3.

Stitch length regulation knob: between n° 1 and n° 2.

Upper thread tension: normal.

Presser foot: zigzag hemmer (9000485).



38. HEMMING AND SEWING ON LACE

- Set machine as for narrow rolled edges.
- After having made the first stitches, raise hemming foot and insert end of lace into slot of hemming foot.
- Needle must always stitch both through lace and hem.

39. MONOGRAM AND EMBROIDERY WITH HOOP

The hoop is used for perfect stretching of the fabric.

Needle position lever: in the centre.

Zigzag width lever: on zero.

Stitch length regulation knob: on zero.

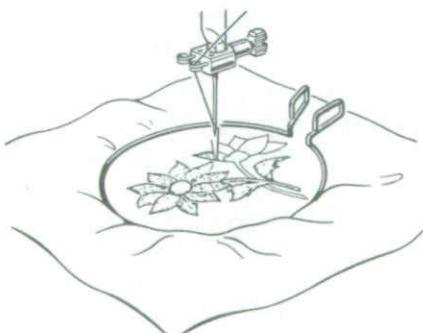
Upper thread tension: rather loose.

Feed dog: lowered.

- Remove the foot and lower the needle bar lever.

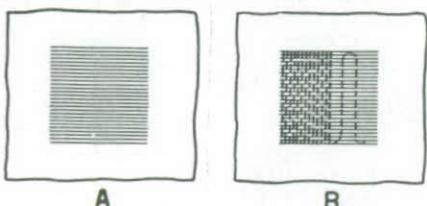
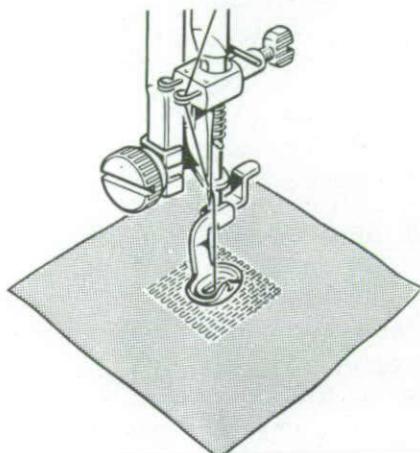
- Sew at reduced speed, moving hoop by hand, according to the pattern to be performed.

The hoop is to be moved with the needle out of fabric.



40. DARNING

Darning is facilitated by the use of the special foot (9350015) which is used in place of the normal presser foot.



Needle position lever: in the centre.

Zigzag width lever: on zero.

Upper thread tension: normal.

Feed dog: lowered.

- Start machine and move the fabric by hand from right to left and viceversa alternately, so as to cover the whole area to be darned with a weft of a great density of stitches (fig. A).

- Then moving the fabric back and forth alternately add a second dense transversal weft of stitches (fig. B).

N.B. - It is essential to maintain the fabric firmly stretched under the presser foot when darning.

If large tears are to be darned, it is advisable to use an embroidery hoop.

DARNING WITH WOOLLEN THREAD

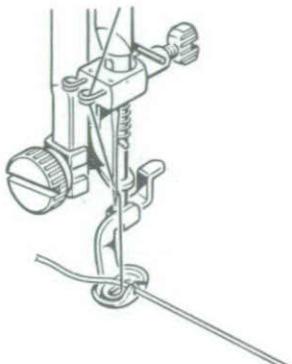
Woollen thread is useful for darning stretch fabrics and is essential for darning knitwear: socks, stockings, pullovers etc.

Thread machine with normal darning thread.

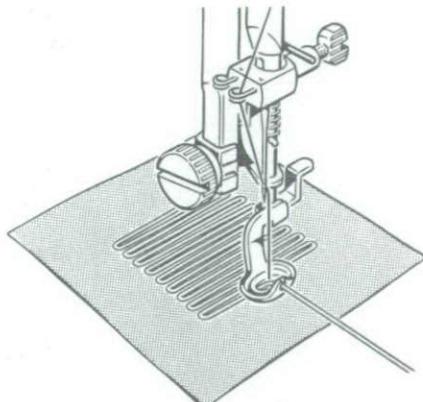
Zigzag width lever: on n° 4.

Feed dog: lowered.

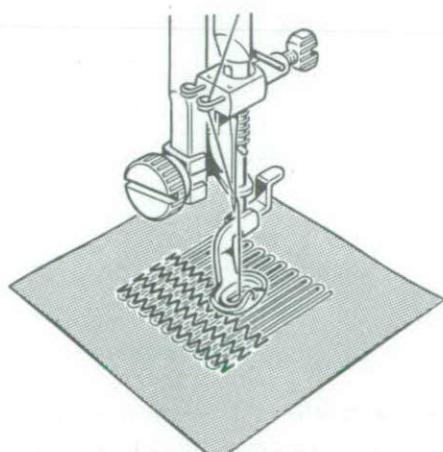
- Insert a woollen thread into the special hole of presser foot and fix it with a few stitches at the upper lefthend corner of the area to be darned.



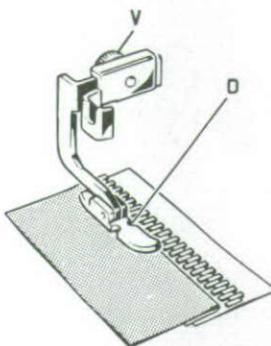
- Start darning by moving fabric slowly from right to left and vice-versa.
- After having covered the area with woollen thread, reinforce with a few stitches and cut it.



- With normal thread, slowly execute a series of zigzag rows moving fabric slowly back and forth.



41. TO ATTACH ZIPPERS



For attaching zippers, use the special foot (9200215).

Needle position lever: in the centre

Zigzag width lever: on zero.

Stitch length regulation button: set on desired stitch length.

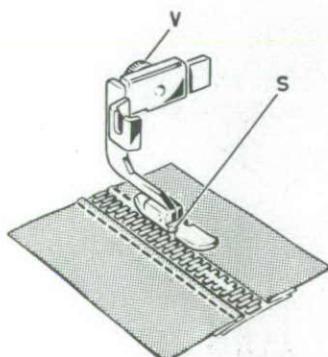
Needle plate: set on position U (see para. 19).

- Attach zipper-foot.

- By loosening screw V adjust presser foot sideways until needle enters in right cut-out D, then fasten screw V.

- Place the zipper on the right of the needle. Place fabric with folded edge on zipper edge as shown in the figure; then execute the first seam.

- Again loosen screw V, adjust presser foot sideways until needle enters in left cut-out S, then fasten screw V.



- Move fabric in order to have zipper on the left of the needle, place on zipper the other folded edge and execute the second seam.

42. AUTOMATIC SEWING

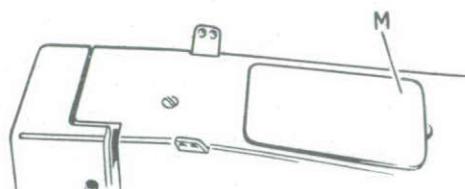
HOW TO USE THE CAM-GROUPS

These cam-groups are already formed, and you have only to insert them onto the automatic device according to the instructions given in the following paragraphs to obtain the desired embroideries.

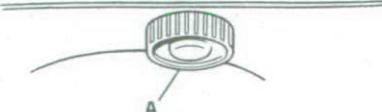
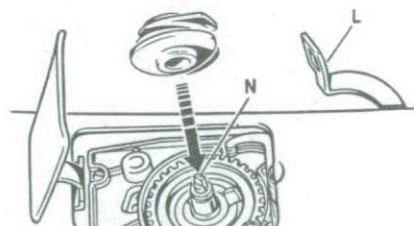


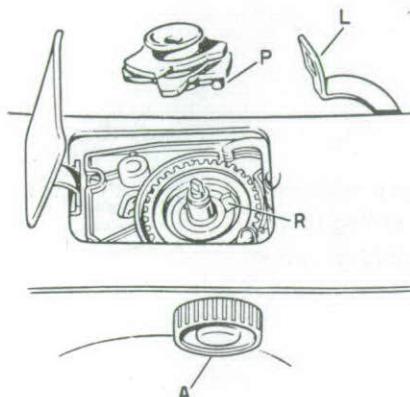
TO INSERT CAM GROUPS INTO MACHINE

- Open lid M.
- Bring needle-bar to highest position.
- Move lever L to the left.
- Slip cam group on cam driving pin N.



If the cam group has a rectangular hole, make sure that the top end of pin N enters it entirely.





If, instead, the hole of the cam group is circular, be sure that prong P of lower cam enters in slot R of the automatic device.

- Lower the lid.
- Move lever L to the right so that it is flat on the machine arm.
- Turn knob A on desired mark.

TO REMOVE CAM GROUPS FROM MACHINE

- Open the lid.
- Bring needle-bar to highest position.
- Move lever L to the left and remove cam group.
- Move lever L back to the right.

NEVER FORGET TO BRING LEVER L TO THE RIGHT AFTER THE EXTRACTION OF THE CAM GROUP.

KNOB FOR MINUTE ADJUSTMENT OF DESIGN

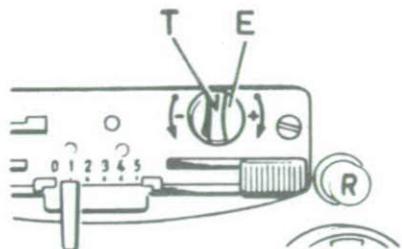
To obtain automatically certain stitches (like Turkish hemstitch, Paris stitch, etc.) for which the machine has to sew both forward and reverse, it is necessary to make sure that the length of the forward stitches is absolutely identical to that of the reverse stitches.

This is done by turning knob E.

Knob E is in its normal position when index T is set upwards as shown in the figure.

To decrease the forward stitch length and increase the reverse stitch length, turn knob E towards «-».

To increase the forward stitch length and decrease the reverse stitch length, turn knob E towards «+».



DESIGN GRADUATING KNOB

Knob A permits to change the length of the designs.

This effect is obtained without variations in the stitch density which remains unaltered.

Designs are lengthened by turning the knob from 1 to 4.

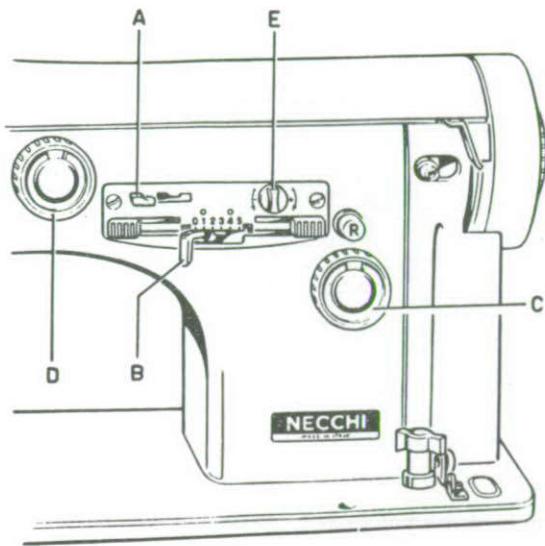
Knob A also allows to cut off the automatic mechanism, when sewing straight or zigzag.

TO EXCLUDE AUTOMATIC MECHANISM



- Bring take-up lever to highest position by turning balance wheel towards you.
- Turn knob A completely to the right until triangular mark T appears through the small window.

To engage the automatic mechanism again, just turn knob A on desired number (1 to 4).



43. EMBROIDERIES AND SPECIAL STITCHES

The following paragraphs show the remarkable performances obtainable with some of the cam-groups supplied with the machine and instruction on how to set the needle positioning lever A, the zigzag width lever B, the stitch length regulating knob C, the design graduating knob D and knob E for minute adjustment of designs.

44. GREEK KEY

Insert cam group I (9660632).

Design graduating knob: on No. 1.

Needle position lever: on the left.

Zigzag width lever: on 0.

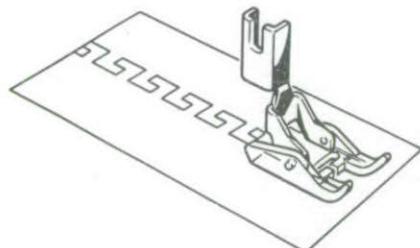
Stitch length regulating knob: on No. 4.

Needle plate: in position U (see paragraph 19).

Presser foot: transparent for embroidery (9550865).

Thread: embroidery thread No. 30 or 50.

Knob for minute adjustment of designs: rotate towards left or right until proper forth-and backward movement of the fabric is obtained.



45. BUTTONHOLES

The special cam-group for buttonholes may be turned in respect of its handle in two different positions: one for buttonholes on heavy fabrics (marked by a large buttonhole) and the other for buttonholes on light fabrics (marked with a small buttonhole).

To change from one position to the other:

- Press cam-group as shown in the figure and bring index G in correspondence with the desired buttonhole.
- When it is in the correct position, a click will be heard and the cam group will lock.

Set machine as follows:

Design graduating knob: on triangle.

Needle position lever: on the left.

Zigzag width lever: on 0.

Stitch length regulating knob: between 0.5 and the red mark.

Upper tension: normal.

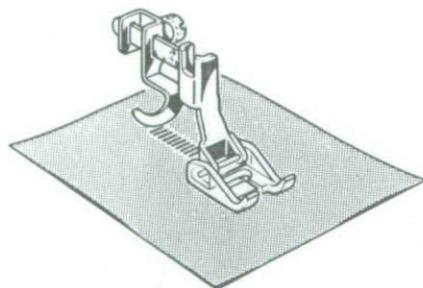
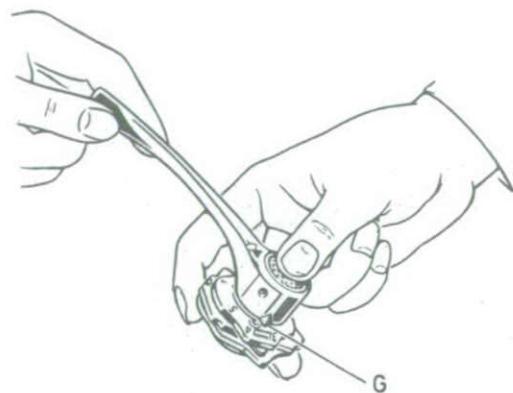
Knob for minute feed adjustment of designs: in normal position.

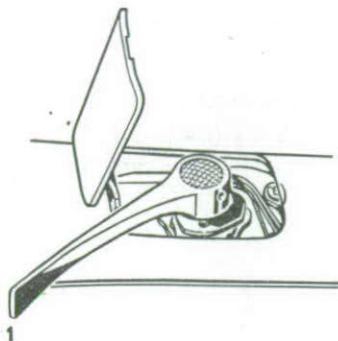
Needle plate: in position U (see paragraph 19).

Presser foot: transparent for embroidery with guide for buttonholes (9310273).

Needle: for light fabrics No. 70; for heavy fabrics No. 90.

Thread: mercerized cotton No. 80 or No. 60 or embroidery thread No. 50.

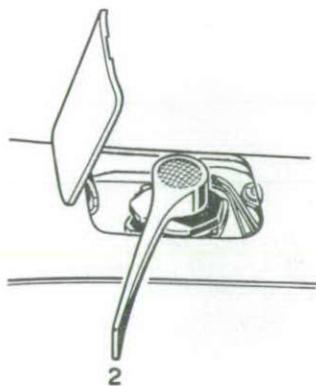




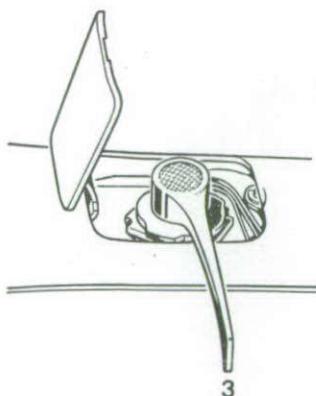
- Regulate position of presser foot guide in accordance with the desired length of buttonholes.

- Insert cam group into machine and, with the needle in its highest position, bring handle completely to the left (position 1).

- Start machine and make upper bar tack with 6 or 7 stitches.



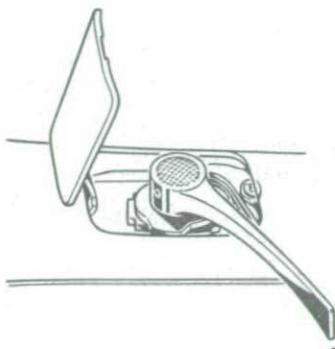
- With needle at highest position, move handle to position 2 and make first row of stitches; stop when upper bar tack is in contact with presser foot guide.



- With needle at highest position, move handle to position 3; machine will sew in reverse with straight stitches.

Stop when needle reaches upper bar tack.

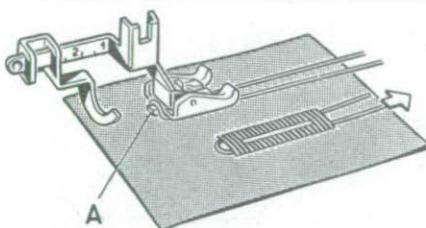
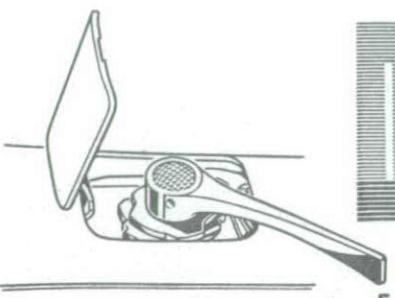
- With needle at highest position, move handle to position 4 and make second row of stitches stop with needle out of fabric when reaching the end of the first row of stitches.



- With needle at highest position, move handle to position 5 and make lower bar tack with 6 or 7 stitches. Buttonhole is then completed.

To lock stitches move handle back to position 3 and, holding slightly the fabric with left hand, sew a few stitches turning balance wheel by hand.

- Lift presser foot, remove work and cut the threads.



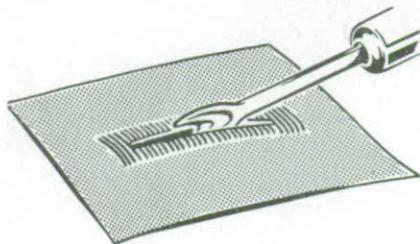
RAISED BUTTONHOLES WITH A GIMP THREAD

Set the machine as indicated above. Then hook the gimp thread (pearled cotton n° 8 or a similar one) over pin A situated in rear end of buttonholing foot and bring both ends of thread in parallel underneath base of foot.

Lower the foot and make the buttonhole as pointed out above, taking care that the lateral rows of stitches cover the gimp thread.

When buttonhole is finished, pull one end of the gimp in order that the loop on pin A appears under the bar-tack.

Finally knot the two ends of gimp thread under the bar-tack and cut off loose ends.



- Cut fabric between the two rows of stitches with NECCHI buttonhole cutter (9960454).

46. SCALLOPS

Insert cam group no. VI.

Design graduating knob: from 2 to 4 according to desired length of scallop.

Needle position lever: in left notch.

Zigzag width lever: on 2 or more.

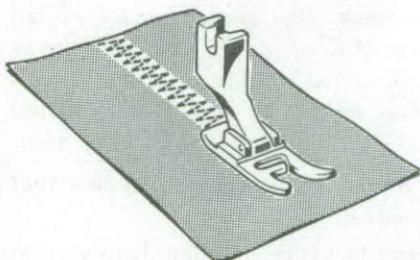
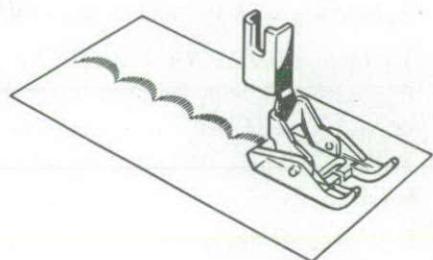
Stitch length regulating knob: between 0.5 and the red mark.

Needle plate: in position U (see paragraph 19).

Presser foot: transparent for embroidery (no. 9950865).

Tension: normal.

Thread: embroidery thread no. 30 or 50.



47. STRETCH STITCH

The stretch stitch is a must for sewing on elastic or knitted fabric.

Insert cam group no. XXI.

Design graduating knob: on No.1.

Needle position lever: in left notch.

Zigzag width lever: on 0.

Stitch length regulating knob: on red mark.

Needle plate: in position U (see paragraph 19).

Presser foot: metal zigzag foot (1376393).

Tension: normal.

48. TURKISH HEMSTITCH

Insert cam group XXXI.

Design graduating knob: on triangular mark.

Needle position lever: in left notch.

Zigzag width lever: on 0.

Stitch length regulating knob: on 4.

Upper tension: normal.

Lower tension: tighter than upper tension.

Needle: in order to obtain a perfect stitch, it is recommended to use a large diameter needle.

Presser foot: transparent for embroidery (no. 9950865).

Knob for minute adjustment of designs: turn slightly towards + or - until forward and reverse stitches have exactly the same length.

This condition is obtained when the needle always enters the holes already made. It is recommended that the correct position of the knob be found by making a trial on a scrap of fabric similar to the one in use.



49. FOUR POINTS STITCH

Insert cam group XLI.

Set machine as indicated in preceding paragraph (Turkish Hemstitch).



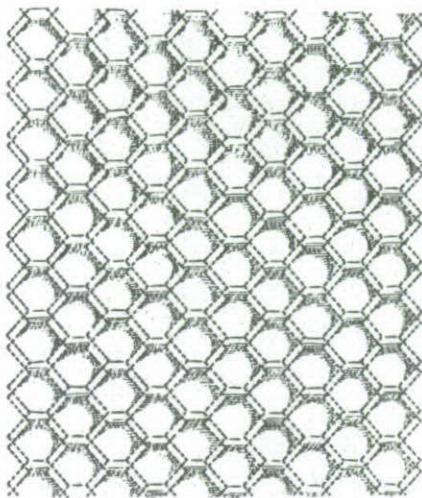
50. PARIS STITCH

Insert cam group XXXIII.

Set machine as indicated in paragraph no. 48 (Turkish Hemstitch).

The Turkish Hemstitch, the Four Points Stitch and the Paris Stitch are elegant motifs when used for decorative or practical purposes, such as application of lace.





51. SMOCK STITCH

This stitch gives the best results on light fabrics.

Set the machine as for sewing with twin needle (see para. 26). Cam group IV.

Design graduating knob: on 1.

Needle positioning lever: in left notch.

Zigzag width lever: on 0.

Stitch length regulating knob: on 0.5.

Upper tension: rather tight (4 and 5).

Lower tension: rather tight.

Embroidery thread: No. 50.

Make parallel sewings managing that every extremity of same be lined up with all the previous ones. If necessary, correct the direction of sewing guiding the fabric by hand.

52. BLINDSTITCHING

Blindstitching, particularly used for hemming, enables to join two pieces of material so that stitches appear on one side only.

Insert cam group XXXII.

Design graduating knob: on triangular mark.

Needle position lever: in left notch.

Zigzag width lever: on 0.

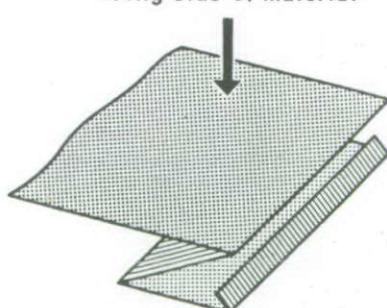
Stitch length regulating knob: at your discretion.

Needle plate: in position U (see paragraph 19).

Presser foot: metal zigzag foot (1376393) with blindstitching guide (9450295).

Tension: normal.

Wrong side of material



- Fold the fabric as shown in the figure; the distance between the two folded edges must be of 2 to 3 mm.

- Sew at medium speed so that the upper edge remains in contact with the guide. Screw F of the guide is used to regulate depth of bite so that stitch remains always invisible on right side of fabric.

53. SHELL STITCH

Insert cam group XXXII.

Design graduating knob: on triangular mark.

Needle position lever: in left notch.

Zigzag width lever: on 0.

Stitch length regular knob: from 1 up to 2.5, thus allowing different lengths of scallops.

Needle plate: in position U (see para.19).

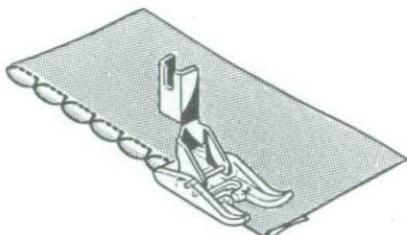
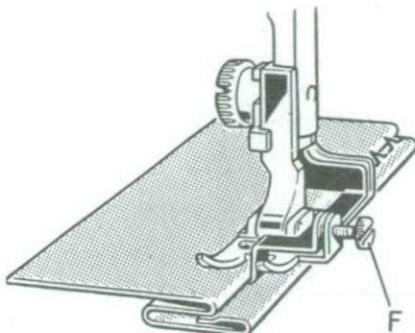
Presser foot: transparent for embroidery (9550865).

Upper tension: rather tight.

Lower tension: very tight.

Place fabric under presser foot so that the portion to be hemmed is on your left.

Guide fabric by hand making sure that the stitches on the left interlock off the edge of the hem.

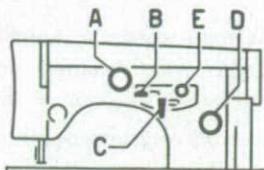


54. CAM GROUPS

The following illustrations show the designs obtainable with some of the cam groups supplied with the machine.

The relevant machine setting is given next to each design.

The designs marked by an asterisk (*) are illustrated in the preceding paragraphs.



Camme N°	A	B	C	D	E	
I	1	■■■■	0	4		*
II	▲	■■■■	0	■		*
III	1	■■■■	0	4		○○○○○○○○○○○○○○○○
IV	1	■■■■	2	■		~~~~~
VI	2,5	■■■■	2	■		*
VII	1+4	■■■■	0	4		■■■■■■■■■■■■■■■■■■■■
IX	2	■■■■	0	■		~~~~~
X	1	■■■■	0	1		~~~~~
XI	2	■■■■	0	4		~~~~~
XII	1	■■■■	0	1,5		~~~~~
XIII	1	■■■■	0	1		~~~~~
XIV	3	■■■■	0	4		~~~~~
XVII	1	■■■■	0	■		~~~~~
XXI	1	■■■■	0	■		*
XXII	3,5	■■■■	0	■		~~~~~
XXIII	3,5	■■■■	0	■		~~~~~
XXXI	▲	■■■■	0	4	- - ~ +	*
XXXII	▲	■■■■	0	2		*
XXXIII	▲	■■■■	0	4	- - ~ +	*
XL	▲	■■■■	0	4		~~~~~
XLI	▲	■■■■	0	4	- - ~ +	*
XLIII	2	■■■■	0	■		~~~~~
XLIV	2	■■■■	0	■		~~~~~
XLV	3	■■■■	0	■		~~~~~
XLVI	2,5	■■■■	0	4		~~~~~
XLVII	2	■■■■	0	4		~~~~~
XLVIII	3,5	■■■■	0	4	- - ~ +	~~~~~

MAINTENANCE OF MACHINE

The sewing machine is a product of high-precision mechanics and, to make it last for many years in perfect condition, requires a periodical maintenance which you as a user can take care of.

Maintenance means especially cleaning and oiling.

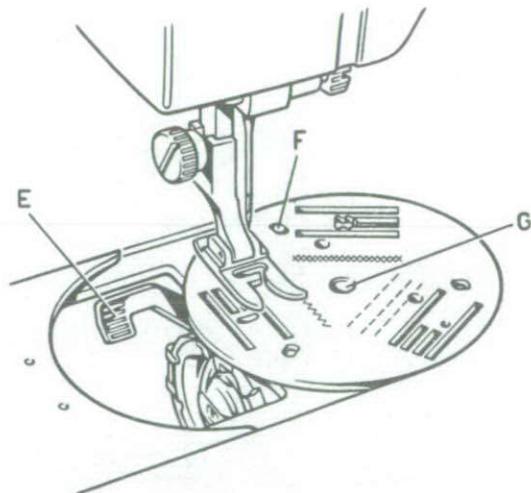
WARNING: Always remove plug from wall outlet whenever you are going to carry out the maintenance of your machine.

55. TO CLEAN THE MACHINE

The parts of the machine which need to be cleaned most frequently are: the area around the needle plate and feed dog, and the shuttle area.

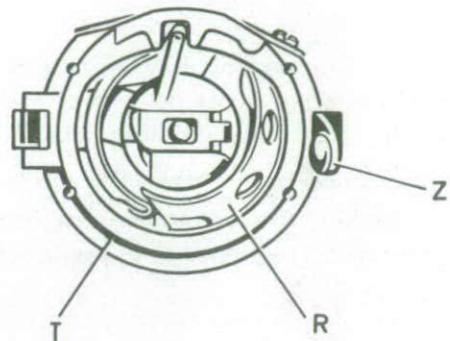
a) To clean the feed dog and the needle plate housing

- Remove needle and presser foot.
- Open slide plate towards left.
- Press lever E completely and remove needle plate with central pin G.
- Carefully clean with a small brush feed-dog teeth and feed-dog support as well as needle plate housing.
- Press lever E completely, in order to hook central pin G, and replace needle plate by turning it around until the desired position is under needle.
- Make sure that locating pin F enters the corresponding hole in the plate.
- Replace presser foot and needle, and close slide plate.

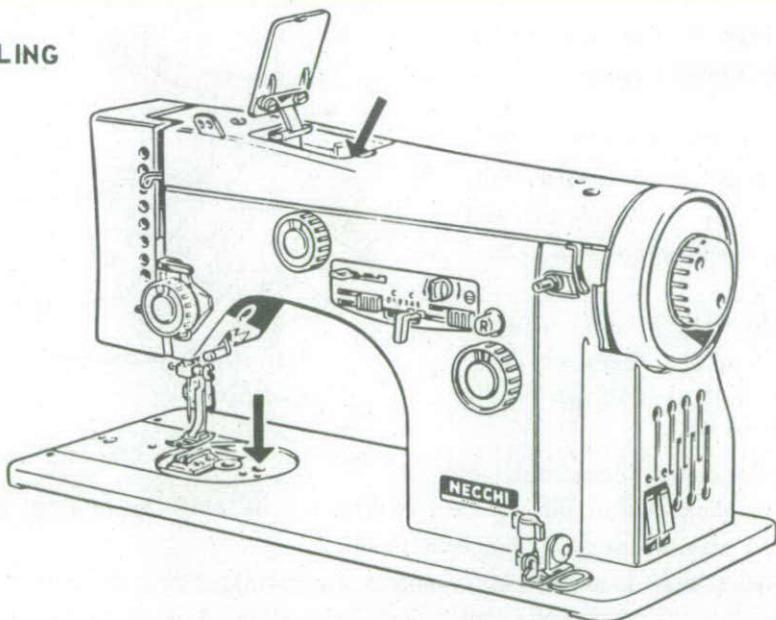


b) To clean the shuttle

- Bring needle to its highest position.
- Tilt machine back on its hinges.
- Extract bobbin case.
- Push spring Z sideways with thumb of right hand.
- Swing hinged race plate T open.
- Extract shuttle R.
- Carefully clean the shuttle race with a small brush and put a drop of oil in. Also oil the rim of the shuttle.
- Replace shuttle.
- Fit race plate onto the three short positioning studs on the shuttle race and press until the spring blocks it in its housing.
- Replace bobbin case and lower machine to working position.

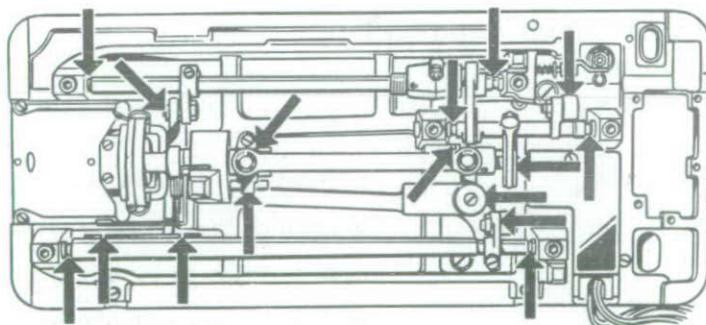
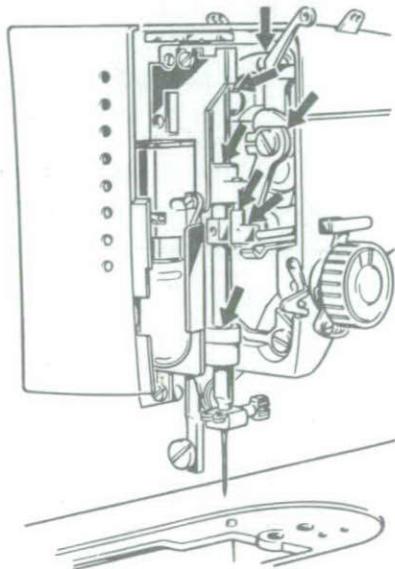


56. OILING



- Oiling makes the machine run smoother, faster and noiselessly and protects the moving parts from wear, provided the oil used is of a suitable type.
- Always use NECCHIOIL, especially created for the NECCHI sewing machines.

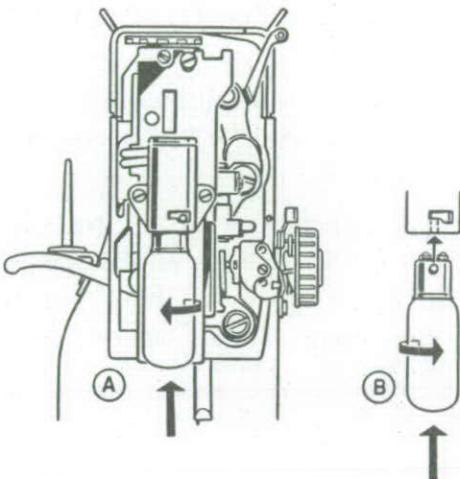
You will find it at all NECCHI dealers. A few drops of NECCHIOIL at points shown in these figures after every cleaning are sufficient.



- Before storing the machine away for a long period clean and oil it; when you use it again repeat the lubrication.
- From time to time oil shuttle rim and shuttle race.

57. TO REPLACE LIGHT BULB

- Remove plug from wall outlet before changing light bulb, then open front plate.
- Hold the bulb, press upward, turn it in the direction of the arrow, and remove it (fig. A).
- Hold the new bulb in the same manner, insert the socket into the lamp holder, making the prongs enter the two grooves (fig. B).
- Push the light bulb upward.
- Turn it in the direction of the arrow.
- Then close front plate again.



58. CAUSES OF MINOR TROUBLES

Troubles	Possible causes
Upper thread breaks	a) Needle is inserted incorrectly; b) machine is improperly threaded; c) thread tension is too tight or too loose; d) thread is not suitable for fabric; e) needle is not suitable for thread; f) needle eye is rough or sharp; g) needle point is damaged; h) machine is started at full speed;

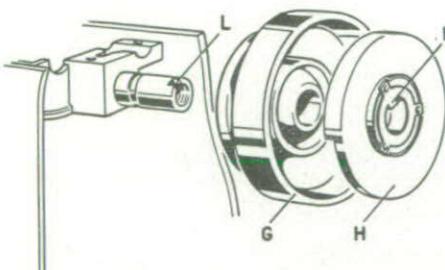
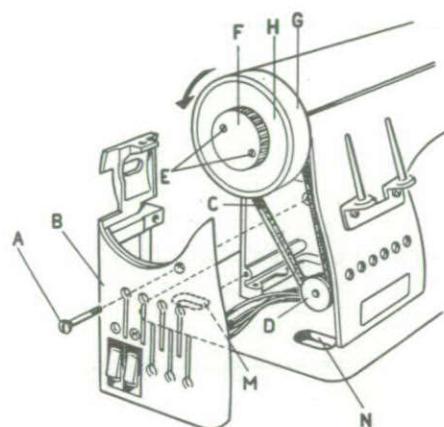
- i) sewing is started with thread take-up lever not in its highest position;
 - l) shuttle has burr due to being hit by needle;
 - m) shuttle race damaged.
- Needle breaks
- a) Fabric is pulled by hand: needle hits needle plate;
 - b) needle is bent or blunt.
- Lower thread breaks
- a) Thread tension is too tight;
 - b) bobbin is not evenly filled or is too full;
 - c) dirt or lint in bobbin case.
- Imperfect stitches
- a) Insufficient pressure of foot on fabric;
 - b) feed dog too low;
 - c) fabric is pulled by hand;
 - d) stitch is too short;
 - e) needle not suitable for thread.
- Skip stitches
- a) Needle is inserted incorrectly;
 - b) needle is bent or blunt;
 - c) thread is too heavy for the size of needle;
 - d) needle is of wrong size for thread in use.

- | | |
|---------------------------------------|---|
| Machine does not sew straight stitch | a) Zigzag width lever is not set completely on zero;
b) cam group has not been removed from machine, |
| Heavy turning or jamming of machine | a) Machine is not clean, or not lubricated, or lubricated with wrong type of oil;
b) motor belt is too tight. |
| Light does not go on | a) Line has no current (check fuses and master switch);
b) plug is not well inserted in its receptacle;
c) filament of bulb is broken. |
| Motor turns too slowly | a) A piece of thread is caught in shuttle race;
b) motor belt is too tight;
c) machine is not lubricated. |
| Overheating of motor and foot-control | All electrical equipments heat up when running without causing damage.
Excessive heating can only be due to overloading or heavy turning of machine. It can be eliminated by making the machine run more smoothly. |

IMPORTANT: It is possible that, after considerable use, the mechanical parts of the machine will require adjustment. If by referring to the aforementioned causes of trouble, you cannot bring your machine into good condition, call for your NECCHI dealers. He will put the machine into perfect working order.

APPENDIX: HOW TO TRANSFORM TREADLE-MACHINE INTO MOTORDRIVEN MACHINE, AND VICEVERSA

- Unscrew completely screw A and remove plate B.
- Loosen both screws E.
- Unscrew knob F, turning in direction of arrow.
- Move balance wheel G with counterweight H to the left, without removing it completely, and retrieve the leather belt from the pulley.
- Since the leather belt runs in holes M and N, for complete removal unhook fastening claw at end of belt.
- Slip rubber belt C on balance wheel without inserting it in its race, but resting it on shaft.
- First slide belt on motor pulley D then on balance wheel which is turned with one hand while the other forces belt in its race.
- Push balance wheel G and counterweight H completely towards machine and make sure that tongue I enters in cut-out L of shaft.
- Fasten knob F and tighten screws E completely.
- Reassemble plate B and tighten screw A.



NOTE: When inverting this operation (motordriven machine into treadle-machine) make sure leather belt enters in holes M and N of machine base before hooking belt fastening claw.

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