

NECCHI

523

**Instructions for the
use and maintenance**

NECCHI 523

Dear Madam,

this booklet contains instructions for the use and maintenance of the

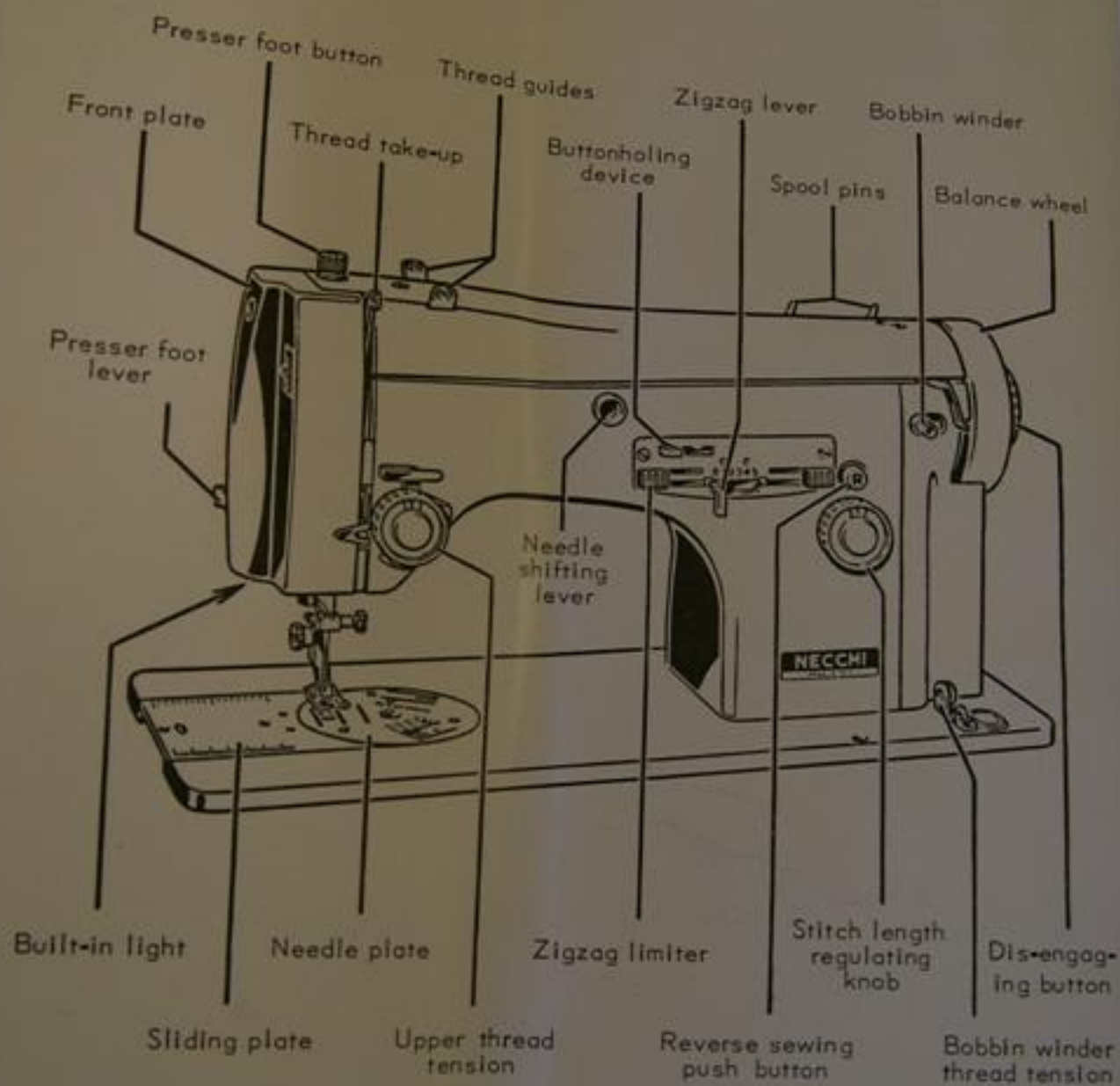
NECCHI 523

the very latest model designed by NECCHI to give women the world over a sewing machine which is at the same time simple and apt to solve all their sewing problems.

By following these instructions you will find it easy to use your NECCHI and achieve all the marvellous work it is able to perform.

By looking after its maintenance according to these instructions, you will be sure to have your machine smooth-running, accurate and ready-to-use at any moment. Furthermore, you will always have at your entire disposal, the most valuable help a woman could wish for: the NECCHI SERVICE. At all NECCHI shops, you can get at any moment assistance, advice, suggestions on the use of the sewing machine, new ideas in elegance and all the accessories indispensable to your needlework.

You too, like millions of women throughout the world, will be happy and proud to be able to say: «My sewing machine is a NECCHI!».



OSCILLATING SHUTTLE of the jam proof type, the movement of which is particularly silent thanks to the shuttle arrest ring in highly resistant plastic material.

UPPER THREAD TENSION adjustable with easy to read graduation knob.

PRESSURE OF PRESSER FOOT adjustable by means of a knurled button. A special index gives the pressure.

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

REVERSE SEWING PUSH BUTTON to reverse the direction of sewing. Just press push-button R placed above the stitch regulating knob. Its return is automatic.

DISCONNECTION OF BALANCE WHEEL to reload the bobbin, by turning the knurled coaxial button on the balance wheel.

MOTOR DRIVEN with speed adjustment by means of a rheostat pedal (the machine can be also treadle driven).

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

ZIGZAG WIDTH CONTROL by means of a practical lever easy to manipulate even for non-automatic embroidery.

ZIGZAG LIMITERS enable fixing the zigzag width lever in a pre-established position or to limit displacement.

CIRCULAR NEEDLE PLATE for three different working positions.

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

BOBBIN WINDER placed frontally, with automatic stop.

BUTTONHOLE DEVICE, built-in and controlled by means of a removable handle.

1. TO ENSURE PERFECT FUNCTIONING OF MACHINE

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

2. TO CONNECT MACHINE TO WALL OUTLET

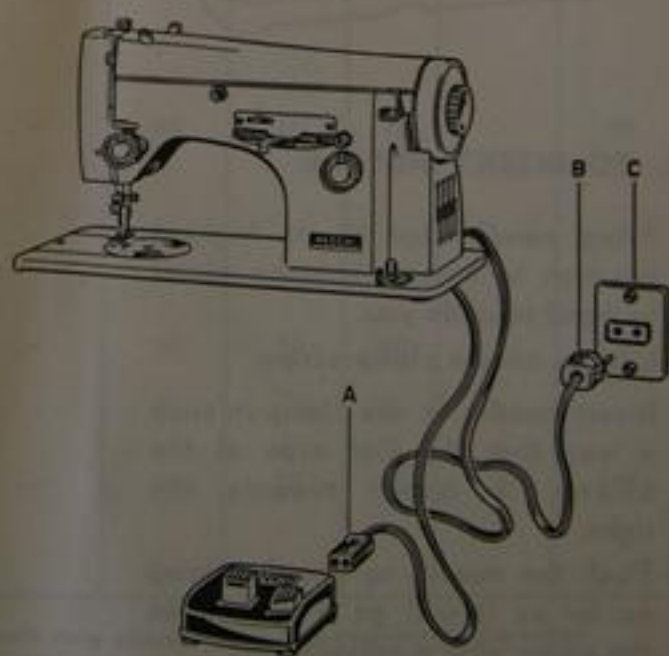
WARNING: Before connecting the machine to wall outlet, make sure that local mains voltage and frequency (which can be read on the plate of the meter) correspond to those indicated on the plate of the machine.

This point must be checked every time the machine is transferred from one house to another.

If the voltages are different, apply to a NECCHI dealer or an electrician.

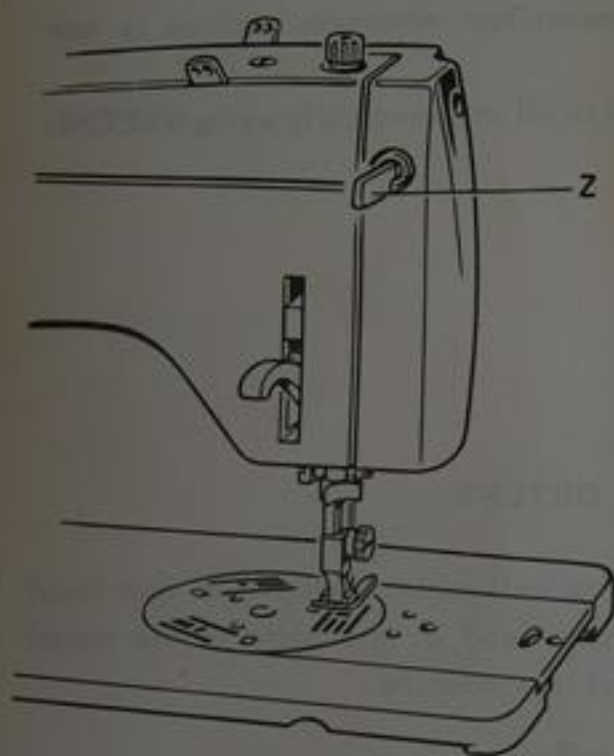
If the voltages agree, connect the machine to wall outlet as follows:

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



3. TO START THE MACHINE

- Start the machine by pressing the rheostat pedal. The sewing speed varies according to the pressure exercised on the rheostat.

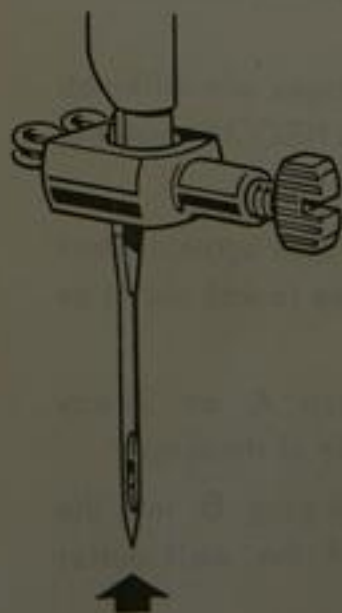


4. LIGHTING

- The light is switched on and off by means of switch Z.

5. TO INSERT NEEDLE

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



6. RECOMMENDED NEEDLE AND THREAD SIZES

ALWAYS USE NECCHI NEEDLES SYST. 705

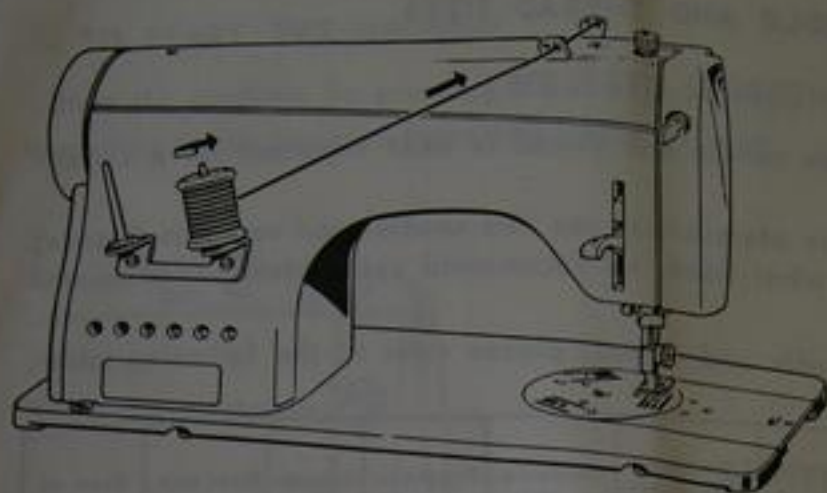
The choice of the suitable needle and thread is most important for a correct sewing.

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:

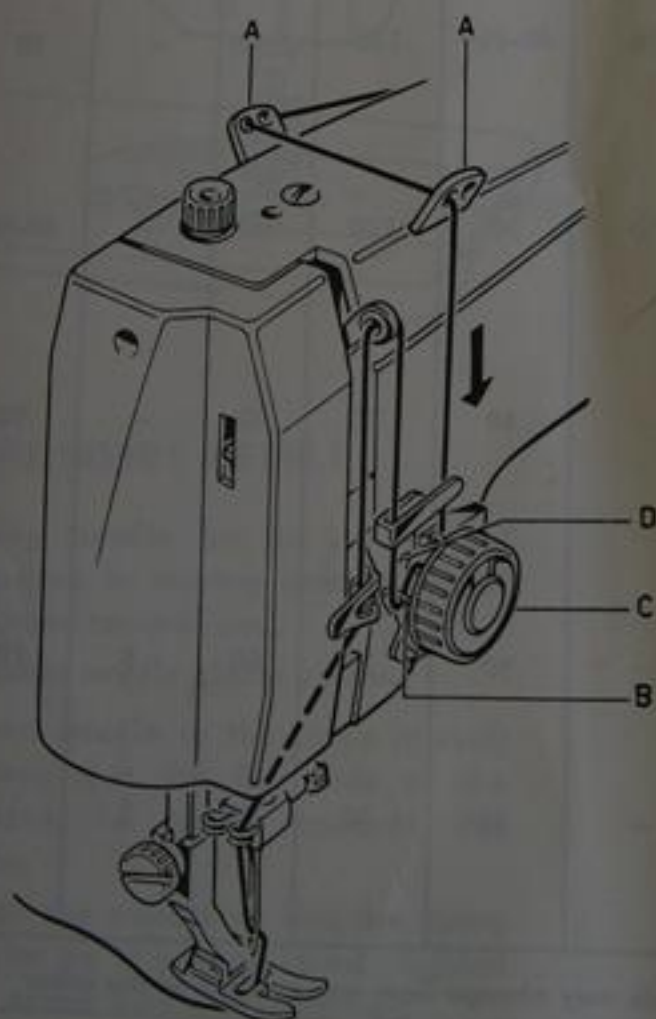
Types of fabric and classes of work	Machine embroidery cotton	Mercerized cotton	Synthetic thread	Schappe silk	Real silk, cordonnet	Size of needle
Very fine fabrics for lingerie: chiffon, batiste, muslin, etc.	50	80-100	140	—	—	70
Fine fabrics: for shirting, aprons, sheeting, pillows cases, summer dresses, 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

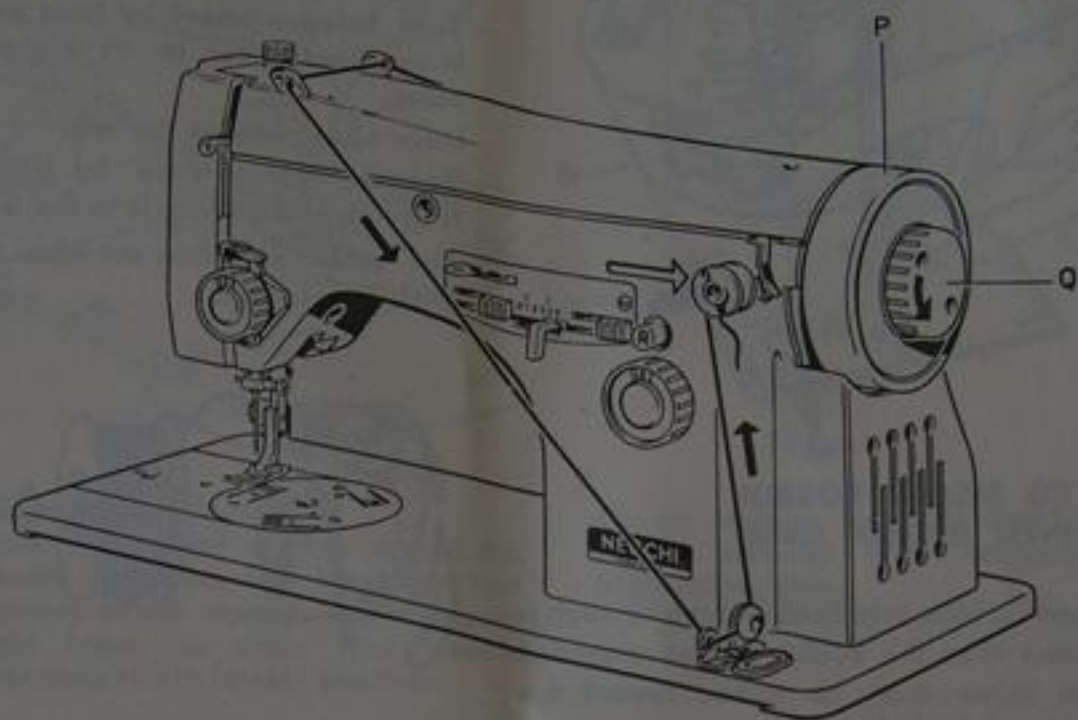
- Raise presser foot by lifting presser bar lever.
- Turn the balance wheel towards you by hand, bringing the needle bar to its highest position.
- Thread the machine by following the scheme shown on the figure.



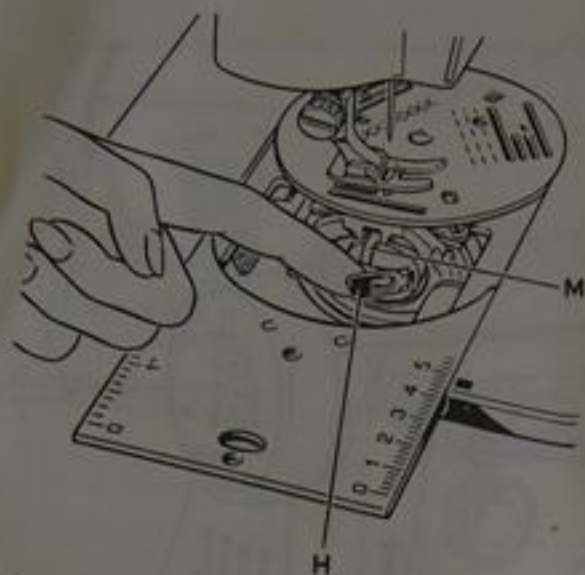
After having passed thread between tension discs housing, hold thread with right hand thumb against thread guide A while pulling thread with your left hand slightly upwards so that it pulls up spring B and places itself astride of hook D.

Pass thread through needle eye from left to right leaving about 10 cm. hanging free.

8. TO WIND EMPTY BOBBIN



- Disconnect balance wheel P by holding it with the left hand and by turning knob Q in the direction of the arrow.
- Pass thread through points indicated in illustration and insert it from the inside to the outside into one of the holes of the bobbin flange, leaving about 10 cm. of thread hanging free.
- Insert bobbin on bobbin-winder spindle taking care that the bobbin flange provided with holes is turned outwards.
- Push bobbin-winder spindle towards balance wheel and start the motor, while holding the ends of thread hanging free from bobbin flange in your fingers. After a few turns the thread in your hand will break.
- 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 INSERT BOBBIN INTO BOBBIN CASE

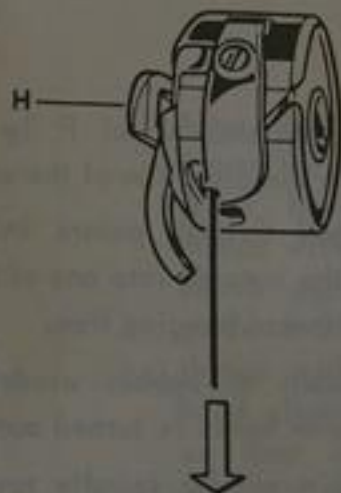
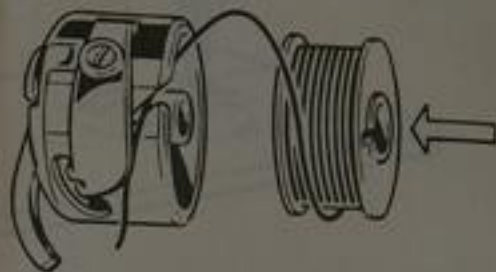
- Insert bobbin into bobbin case in such a manner that the bobbin flange provided with holes must be turned toward the inside of the bobbin case.
- Insert thread into groove of bobbin case.
- Lift latch H so that bobbin is blocked and draw thread under tension spring as indicated, leaving about 10 cm. of thread hanging out.

11. TO INSERT BOBBIN CASE INTO SHUTTLE

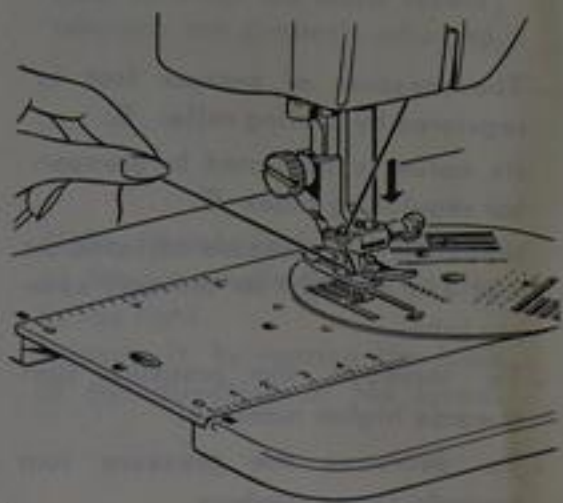
- By turning balance wheel by hand, bring needle bar to its highest point.
- Move slide plate to the left.
- Insert bobbin case by latch H on centre stud of shuttle. Finger M must go into notch of shuttle ring.
- Release latch H and press on bobbin case until a click is heard.
- Let about 10 cm. of thread hanging out.

9. 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.

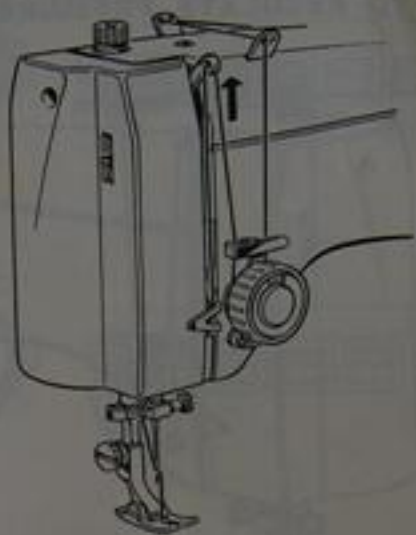


12. TO DRAW BOBBIN THREAD



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.



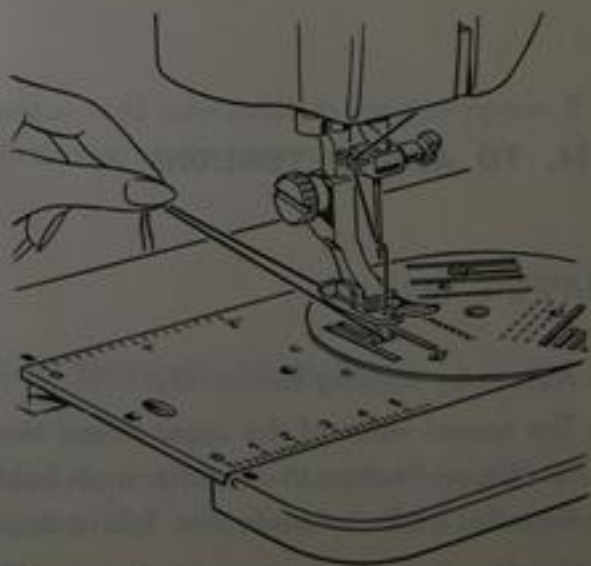
2

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



3

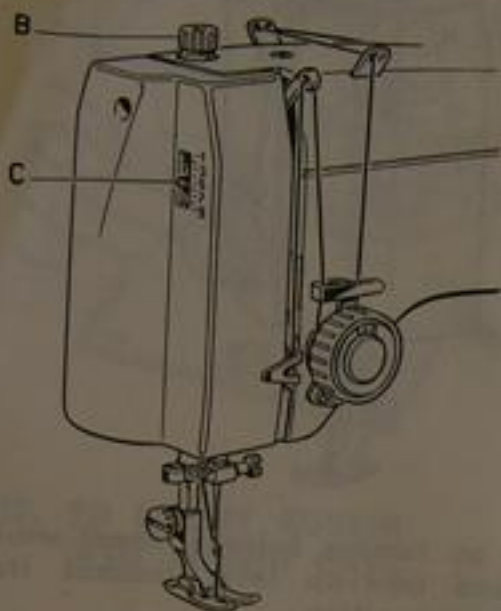
- Pull the thread held in your left hand until the lower thread comes out of the hole of the needle plate.



4

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

13. TO REGULATE PRESSURE OF PRESSER FOOT

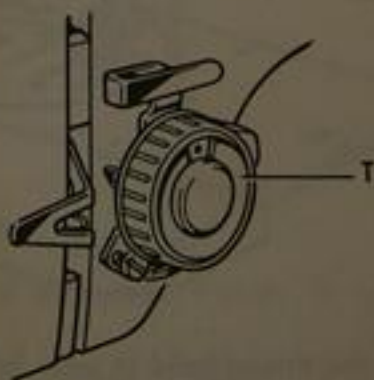


- The pressure of presser foot is regulated by turning roller B. Its value is indicated by presser-bar regulating index C. Normally the pressure adjusted on 4 or 5 is all right for ordinary sewing jobs.
- To increase the pressure turn towards higher numbers.
- To decrease the pressure turn towards lower numbers.

14. TO ADJUST TENSIONS

UPPER TENSION

- Adjust by turning button T.
- The normal value of the upper thread tension is obtained when the needle and bobbin 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.

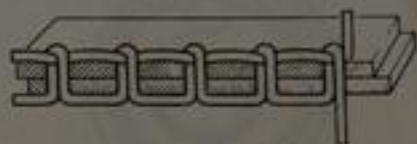


- If the needle and bobbin threads lock between the fabric layers: tensions are correctly adjusted.



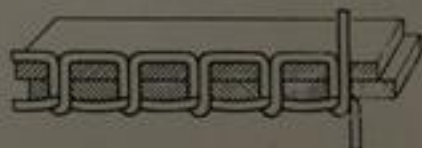
- If the threads lock on right side of fabric, needle thread tension is too tight.

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.

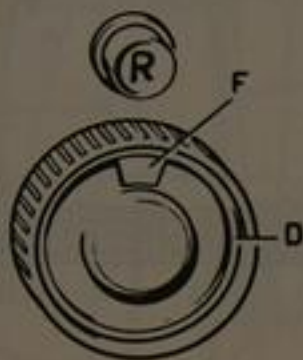


BOBBIN THREAD TENSION

- 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.

15. 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 indicated by a red square mark.

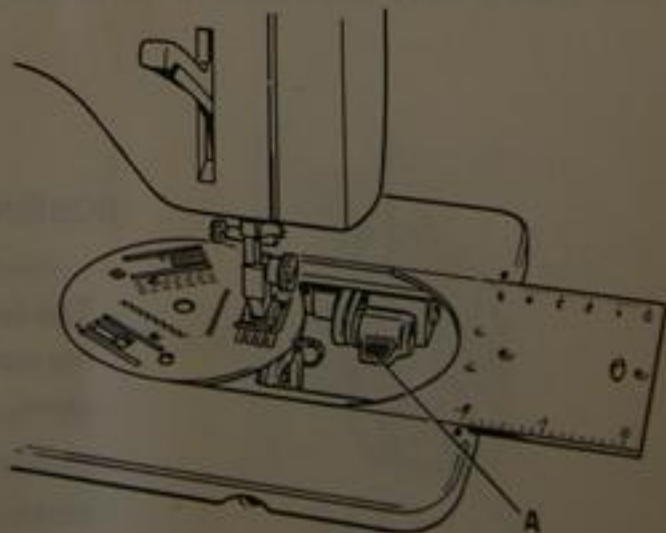


16. TO SEW IN REVERSE

- 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.

17. TO DROP FEED DOG

- Some special jobs require dropping the feed, for example darning and hoop embroidery.
- To do so, slide the needle plate as shown in the figure and lift lever A.
- To raise the feed, slide the plate to the left, press lever A and make a turn on the balance wheel.



18. 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 to the left and the presser foot for straight stitch.

Z: for twin needle sewing.

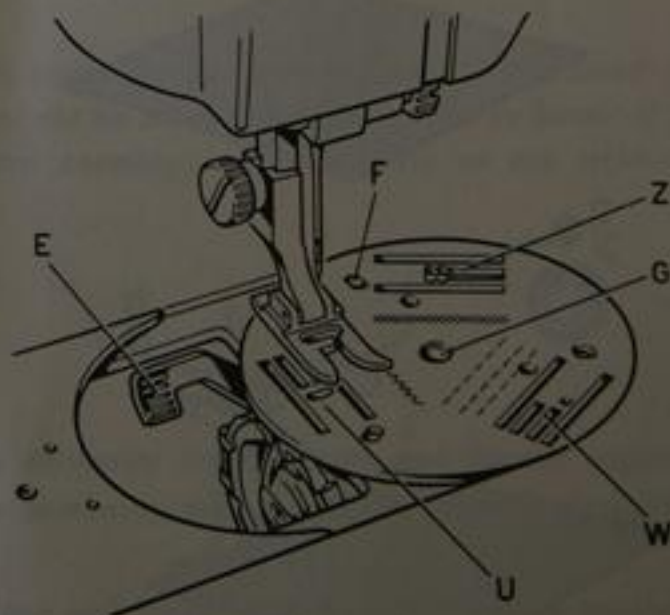
To fit needle plate in each one of the 3 positions:

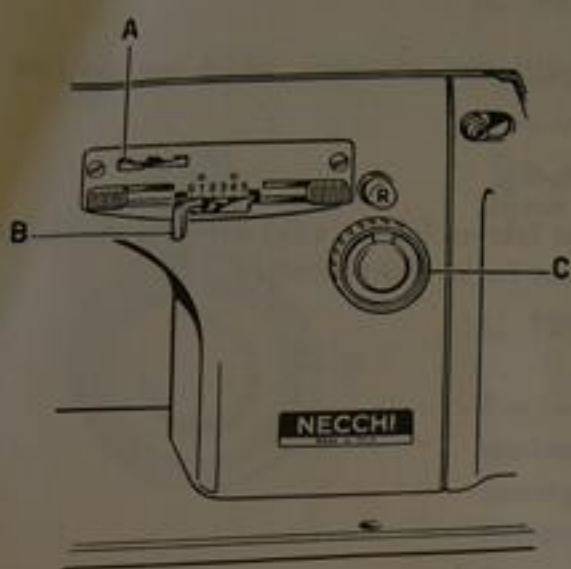
- Drop feed dog, bring needle to its highest position and move slide plate to the left.
- Press lever E and the needle plate will lift itself.
- Turn the needle plate around until the desired position is under needle.

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.





19. STRAIGHT STITCHING

*Zigzag width lever B: on the left.
Stitch length regulation knob C:
normally on n° 2.*

a) For normal work:

*Needle plate: position U (para. 18).
Needle position lever A: either
position.*

*Presser foot: metallic for zigzag
stitching (262313).*

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

Needle plate: position W.

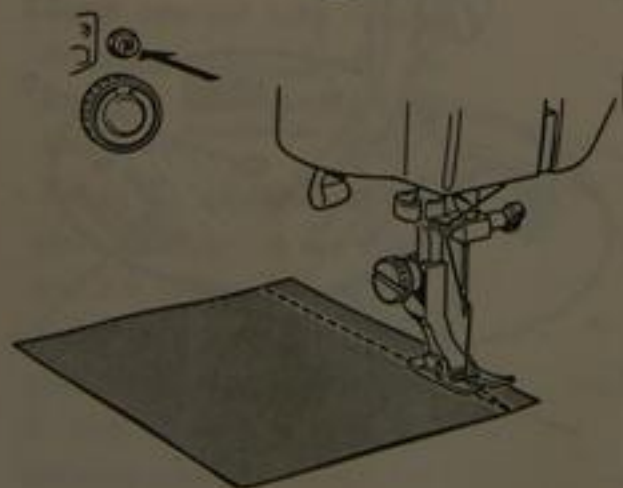
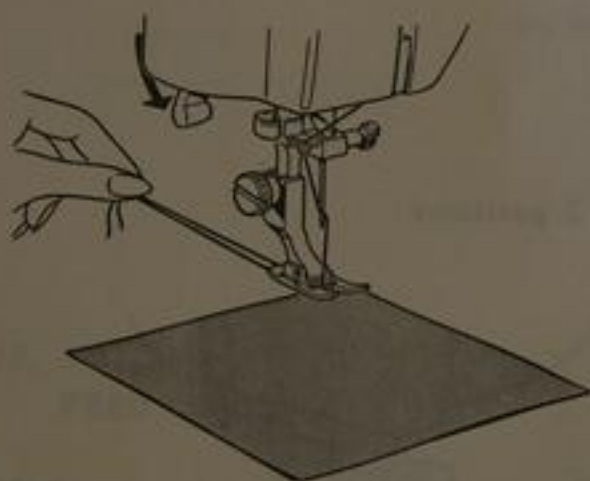
*Needle position lever A: on the
left.*

*Presser foot: metallic for straight
stitching (9560093).*

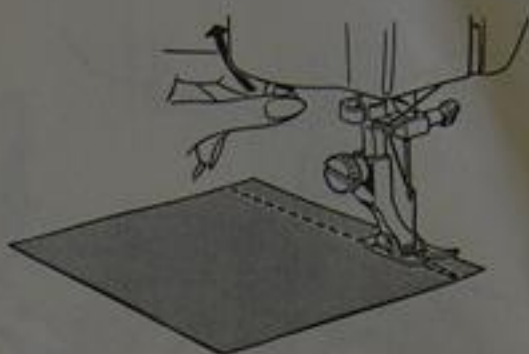
- Place the material under the foot
in such a way that the needle coin-
cides with the edge of the material
and lower the foot.

Whilst holding the two thread ends
of a few stitches, start sewing.

- At the beginning and end of sew-
ing, if you wish to close the seam,
press the reverse button and sew
back a few stitches.

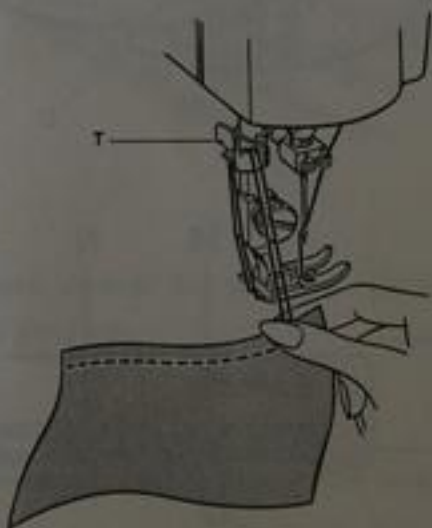


- Raise the presser foot.
- Turn the balance wheel by hand towards you until the thread take-up lever reaches its highest point.
- Remove the work.



The removal of the work is easy because, by raising the foot, the tensions release and the threads run freely.

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



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

20. 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.



21. ZIGZAG SEWING

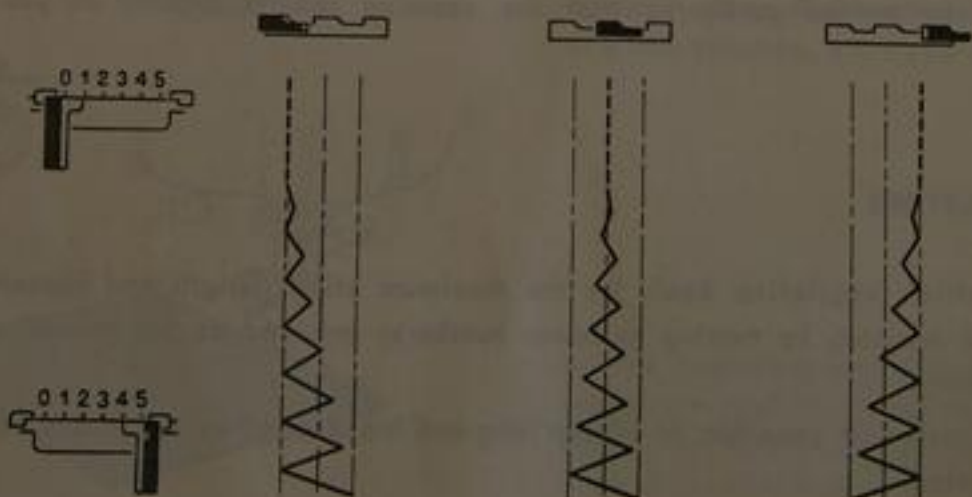
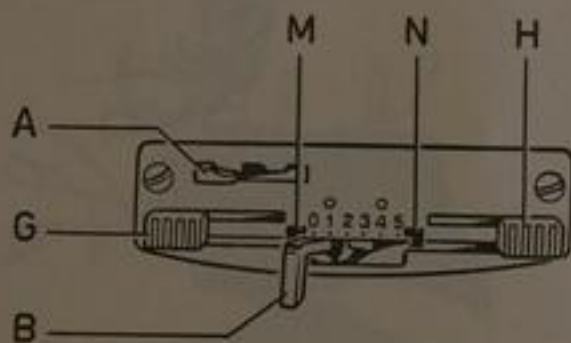
Needle plate: in position U (para. n° 18).

Presser foot: metallic for zigzag (262313) 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 fix it by 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 required.



22. ZIGZAG EMBROIDERY

The figure illustrates a few zigzag embroidery motifs.

Others can be combined at will.

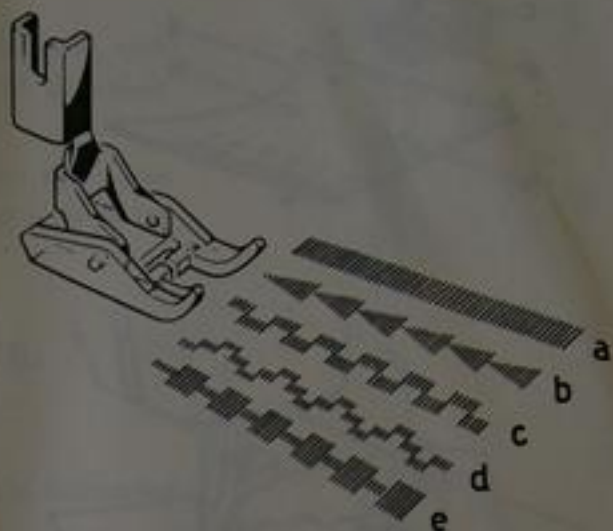
Prepare the machine as follows:

Presser foot: transparent for embroidery.

Thread tensions: the upper tension rather loose and the lower one rather tight: the upper thread must 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.



- Satin stitch: zigzag lever B. Adjust same according to the width required.
- Needle position lever A in the centre. Stud M (para.21) on n° 1. Move the zigzag lever slowly from n° 1 to n° 5 and flip it back quickly to n° 1.
- Zigzag lever on n° 2.5. Stud M on n° 2.5. Move the needle position lever alternatively left and right, without stopping in the centre and carry out a certain number of stitches on both positions.
- 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.
- 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.



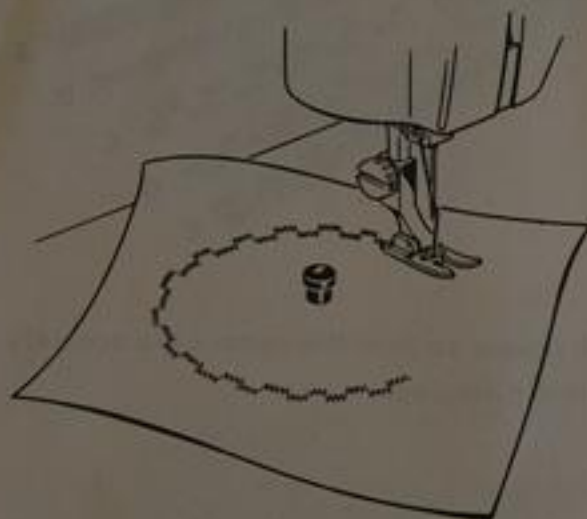
23. CIRCULAR SEWING

- Insert knob B in one of the holes H of slide plate A.
- Fix centre of fabric on knob B by means of pin C.
- Keep a finger on pin, when sewing, so that the fabric revolving around the centre point of design does not slip or become detached.

By moving slide plate A, circles of various sizes can be obtained (see scales in cm. and inches on edges of slide plate).

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

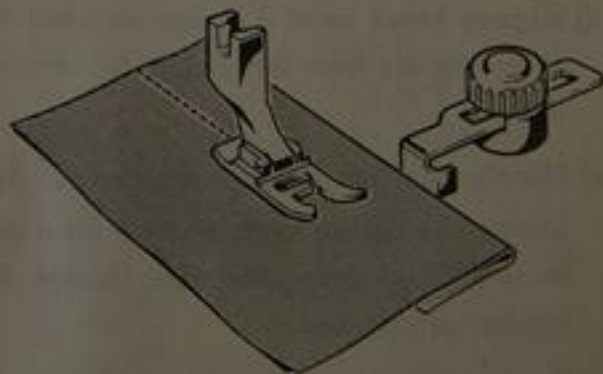
With lighter materials, use an embroidery hoop or place a piece of tissue paper under fabric.



24. 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 fixed by tightening the knob.



25. 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.

Needle plate: position Z (para. 18).

Presser foot: for twin needle (9550835).

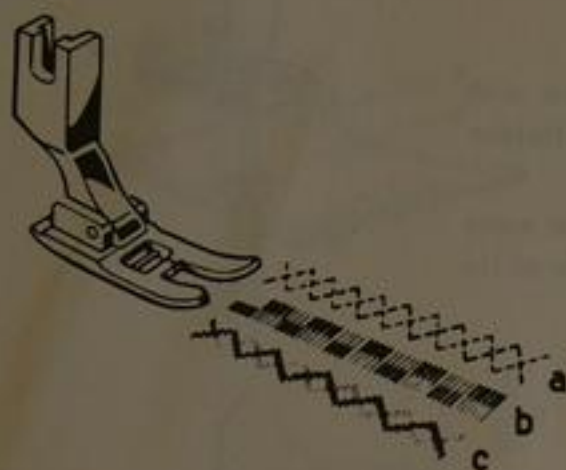
Lower thread: it must pass by the hole indicated in figure.



- Thread must pass by points indicated in figure.

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

Parallel seams can be made in straight or zigzag stitch; in consistent widths or varied as desired.



The figure illustrates some of the stitches which can be made with the twin needle:

a)

Needle position lever: in the centre.

Zigzag width lever: on n° 5.

Stitch length regulation button: on n° 3.

b)

Zigzag width lever: on n° 2.5.

Stitch length regulation button: on red square.

Switch the needle lever rhythmically from left to right and viceversa.

c)

Zigzag width lever: on n° 1.

Stitch length regulation button: on red square.

Switch the needle evenly from left to right and viceversa.

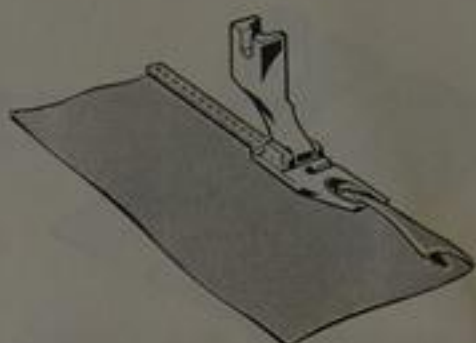
26. HEMMING

The making of hems is made easier by the use of special hemming feet. For the two hems we are describing hereunder use the hemming foot 9000125 with straight stitch.

- 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.
- Move fabric back and forth until hem forms itself into scroll.
- Lower presser foot and commence sewing, guiding fabric by hand in order to help its introduction in the scroll.

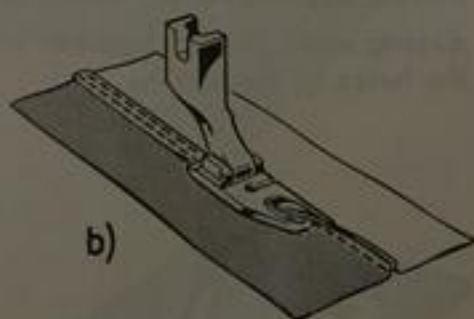
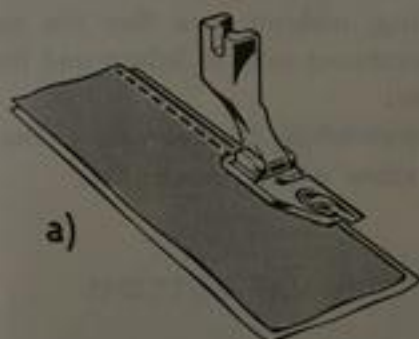
STRAIGHT STITCH HEMMING

Needle position lever: in the centre.
Zigzag width lever: to the left.
Stitch length regulation button: between n° 3 and n° 4.
Upper thread tension: normal.



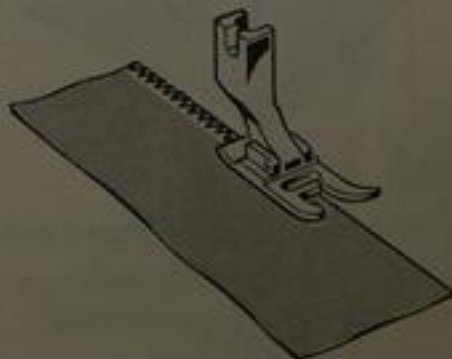
FLAT FELLED HEM

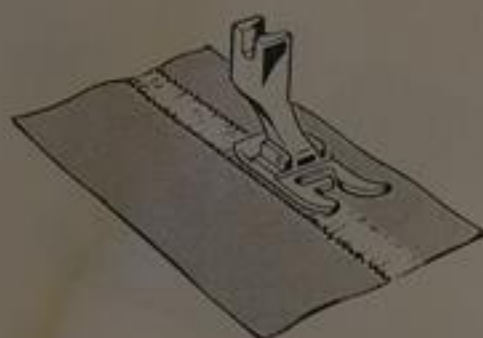
- Place a piece of fabric on top of the other so that their right sides face each other. Right edge of bottom piece should protrude about 3 mm. beyond right edge of top piece.
- Sew both pieces of fabric together, using the edge of hemming foot scroll as a guide (a).
- Open fabrics with their edges standing up.
- Insert edges in hemming foot scroll and sew as for normal straight stitch hem (b).



27. OVERCASTING

Needle position lever: in the centre.
Zigzag width lever: set for desired width.
Stitch length regulation button: as desired.
Upper thread tension: normal.
Presser foot: metallic for zigzag sewing (262313).
The stitches must be placed one into the material and one offside.





28. HEMSTITCHING WITH DRAWN THREADS

Needle position lever: in the centre.

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

Stitch length regulation button: between n° 1.

Upper thread tension: normal.

Presser foot: metallic for zigzag (262313).

- 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.

29. SEWING ON BUTTONS

Needle position lever: to the left.

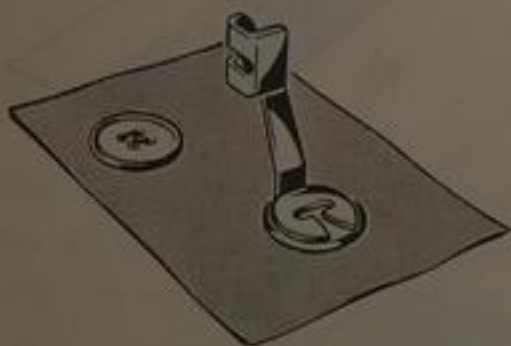
Zigzag width lever: between n° 4 and n° 5 according to the distance between the holes of the buttons.

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 slowly, checking that needle goes through left hole, then through right hole of button; if needle does not clear button, change zigzag width.



- Run machine at medium speed making about 6 to 7 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.

30. BLINDSTITCHING

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

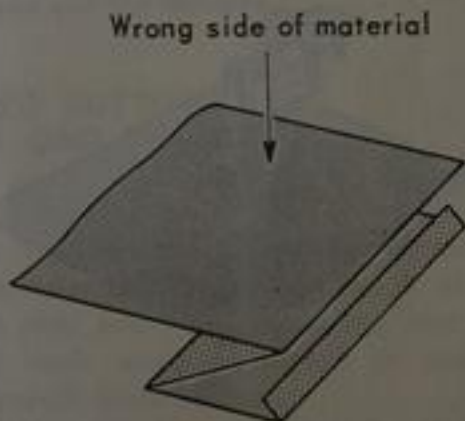
Needle position lever: in the centre.

Zigzag width lever: between n° 2 and n° 4.

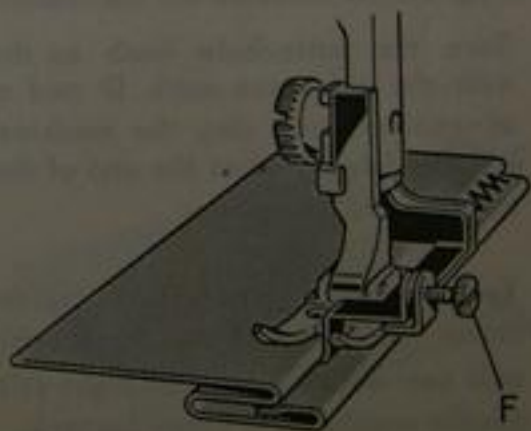
Stitch length regulation button: on n° 4.

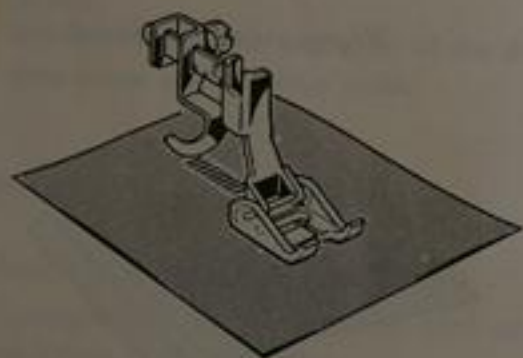
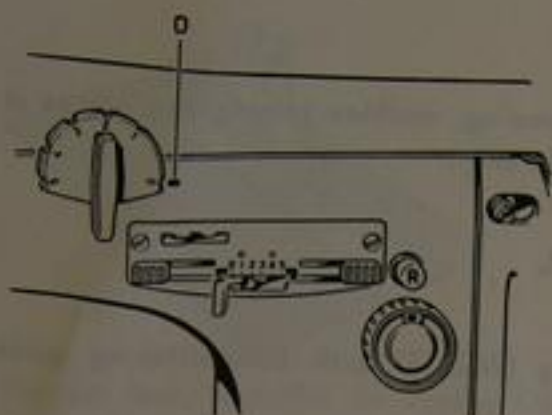
Presser foot: metallic for sewing zigzag (262313) with blindstitching guide (9450295).

- 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 for regulating sewing so that stitch remains always invisible on right side of fabric.





31. BUTTONHOLES

• Insert the buttonhole device, as illustrated in the diagram, with zero on reference mark D.

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

Needle position lever: on the left.

Zigzag width lever: on the left.

Stitch length regulation button: on red square.

Needle: for light materials n° 70, for heavy materials n° 90.

Threads: mercerised cotton n° 80 or n° 60, or embroidery n° 50.

Upper thread tension: on the red dot (normal setting).

Mark the length of the buttonhole desired directly on garment.

Place fabric under presser foot and adjust guide according to the length of the buttonhole.

With the thread take-up lever in its highest position turn the buttonhole knob to the right, so that n° 1 coincides with the reference mark D.

Make the upper bartack with 3 or 4 stitches and stop with the needle off the fabric.

Turn the buttonhole knob so that n° 2 coincides with the reference mark D and make the left row of stitches and stop the machine, with the needle off the fabric, when the end of the bartack reaches the presser foot guide.

Turn the knob until n° 3 coincides with the reference mark D and put the machine in motion. It will sew backwards in straight stitch. Stop when the needle reaches the upper bartack.



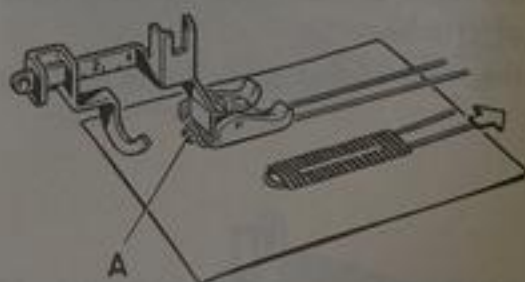
Turn the knob until n°4 coincides with the reference mark D and perform the right row of stitches, stopping, with the needle off the fabric, when the end of the bartack reaches the presser foot guide.



Turn the knob until n°5 coincides with the reference mark D and perform the second bartack with 3 or 4 stitches; the buttonhole is finished.



In order to close the stitching, turn n°3 on the knob to coincide with the reference mark D and slowing down the material slightly with your left hand, make a few stitches by turning the balance wheel by hand. Raise the presser foot, remove the material and cut the threads.



RAISED BUTTONHOLES WITH GIMP THREAD

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

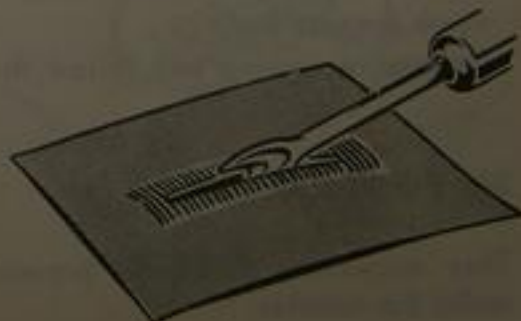
Lower the foot and make the buttonhole as pointed out above, taking care that the lateral rows of stitches cover the gimp thread.

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

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

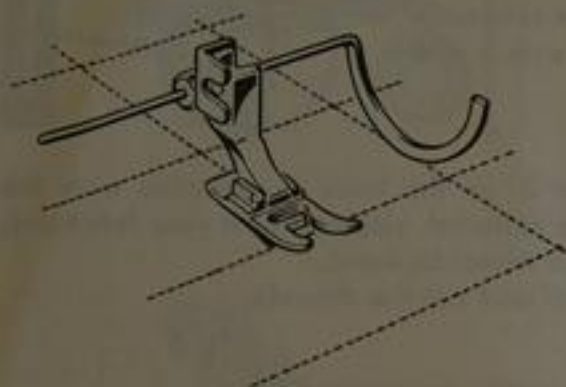
Finally cut the material between the two rows of stitches with NECCHI buttonhole cutter (9960454).

N.B. - The device is only used for buttonholes. For all other work it is advisable to remove same and put it in the accessory box.



NOTICE: The accessories, the use of which is described in paragraphs 32, 33, 34, 35, 36, 37, 38 do not come with the machine, but can be purchased in all **NECCHI** shops.

32. QUILTING



Zigzag width lever: on the left.

Stitch length regulation knob: as desired.

Upper thread tension: normal.

Presser foot: use metal zigzag stitch foot and attach it to machine together with adjustable quilting guide (9400055).

- 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.

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 button: on red square.

Upper thread tension: rather loose.

Presser foot: cording presser foot (9200125).

- 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. FINGER GUARD

This accessory (9963120) prevents you from distractedly putting your finger under the needle.

35. NARROW ROLLED HEM

Needle position lever: in the centre.

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

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

Upper thread tension: normal.

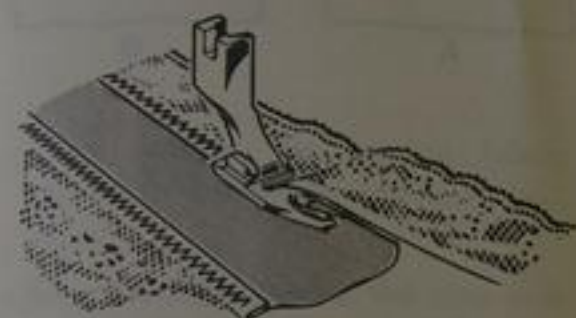
Presser foot: zigzag hemmer (9000485).



36. 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.



37. 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 the left.

Stitch length regulation button: on zero.

Upper thread tension: rather loose.

Feed dog: lowered.

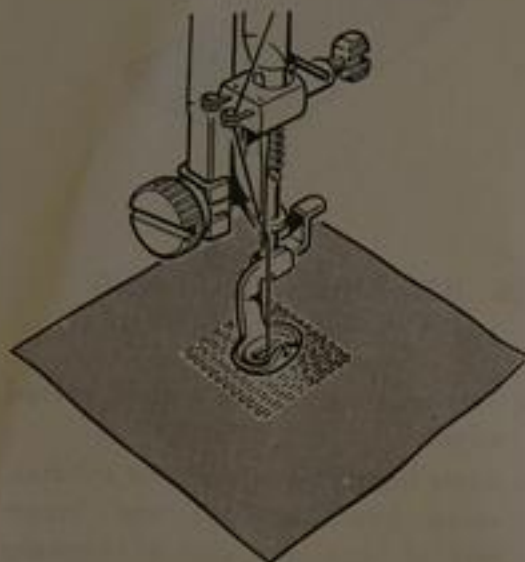
- Remove the foot and lower the needle bar lever.
- Sew at reduced speed, moving hoop by hand, according to the pattern to be performed.

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



38. DARNING

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



A



B

Needle position lever: in the centre.

Zigzag width lever: on the left.

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

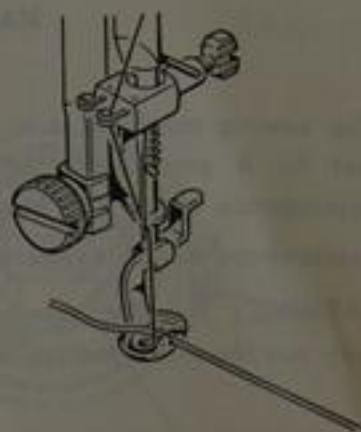
Woollen thread is useful for darning stretch fabrics and is essential for darning knitwear: socks, stockings, pullovers etc.

Thread machine with normal darning thread.

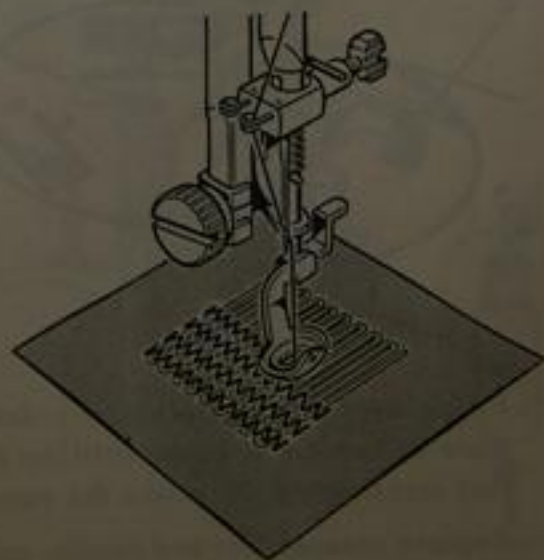
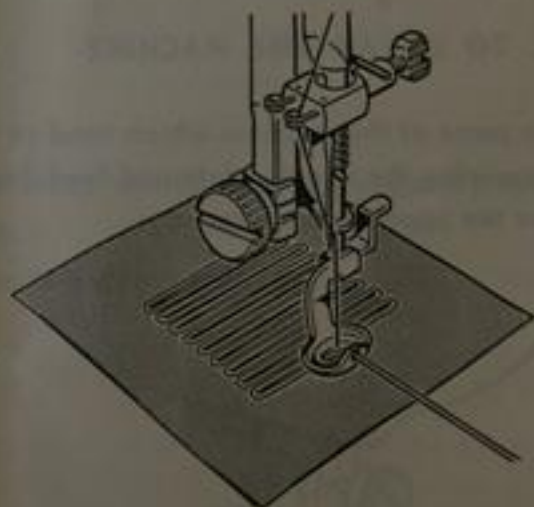
Zigzag width lever: on n° 4.

Feed dog: lowered.

- Insert a woollen thread into the special hole of presser foot and fix it with a few stitches at the upper lefthand 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.

MAINTENANCE OF MACHINE

The sewing machine is a product of high-precision mechanics and, to make it last for a great many years in perfect condition, it requires a periodical maintenance which can be carried out by you.

Maintenance means especially cleaning and oiling.

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

39. TO CLEAN THE MACHINE

The parts of the machine which need to be cleaned most frequently are: the area comprising the needle plate and feed dog, the shuttle area and, from time to time, also the upper thread tension.



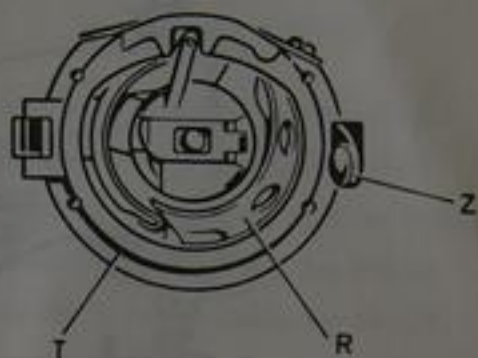
a) To clean the feed dog and the needle plate housing

- Remove needle and presser foot by means of a screwdriver.
- Open slide plate towards the 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.

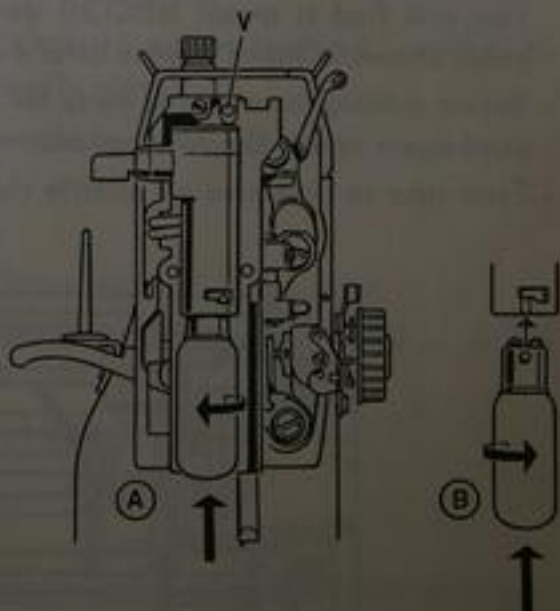
b) To clean the shuttle

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

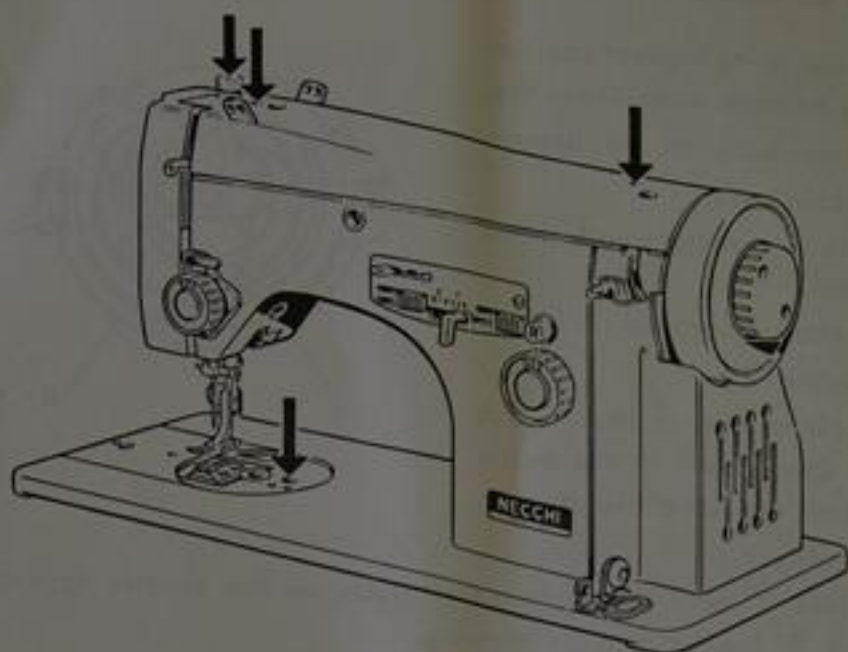


40. TO REPLACE LIGHT BULB

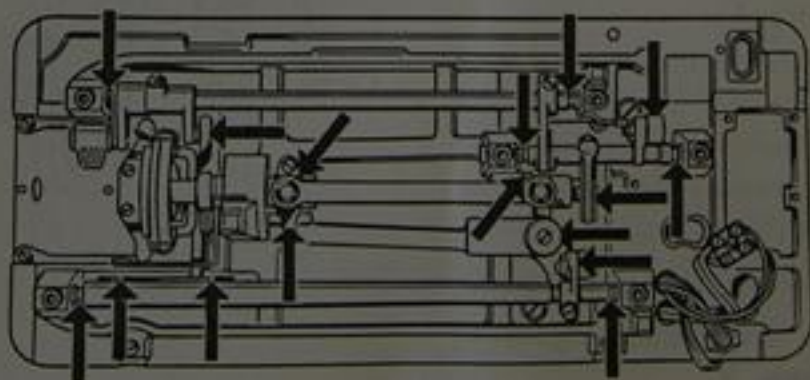
- Remove plug from wall outlet before changing light bulb, then open front plate by unscrewing screw V fastening it to the arm.
- Hold the bulb, press it upward, turn it in the direction of the arrow, and take it out (fig. A).
- Hold the new bulb in the same manner, insert its socket into the lamp holder,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



41. OILING



- Oiling makes the machine run smoothly, 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 into the holes shown in these figures after every cleaning are sufficient.
- Before putting the machine away for a long period clean and oil it; when to be used again repeat the lubrication.
- From time to time also oil shuttle rim and shuttle race.



42. 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 is damaged due to being hit by needle;
- m) shuttle seat 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) too short stitch;
- 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) The zigzag width lever is not completely on the left;

Heavy turning or jamming of machine

- a) The machine is not clean or unoiled, or oiled with unsuitable oil;
- b) the 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.

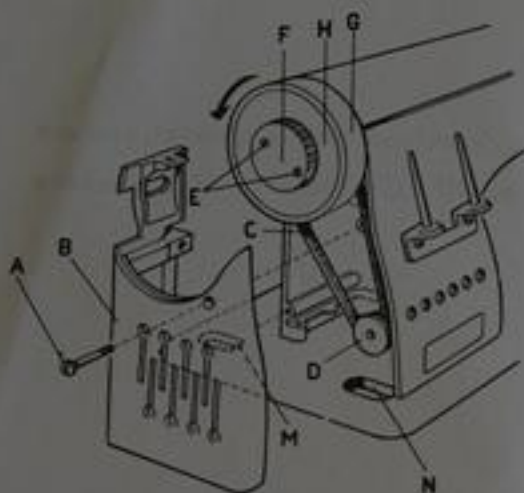
Overheating of motor and foot-control

All electrical equipments heat up when running without causing damage.

Excessive heating can only be due to overloading or heavy turning of machine.

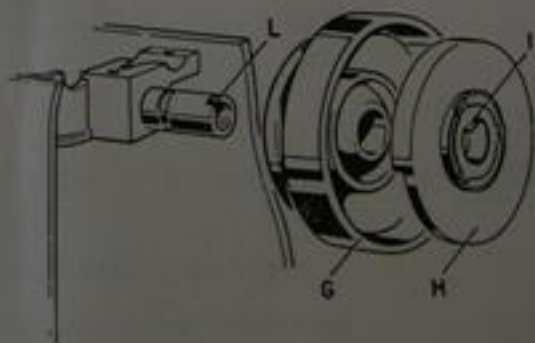
IMPORTANT - If, in spite of the instructions contained in this booklet, you are unable to resolve possible troubles, call for your NECCHI dealer. Your machine will be put back into perfect condition.

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 far enough to the left, without removing it completely, and disentangle the leather belt from the pulley.
- Since the leather belt runs in holes M and N, for complete removal take off end of belt fastening claw.
- Slip rubber belt C on balance wheel without inserting it in its race, but resting it on shaft.
- First slide belt on pulley of motor 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.

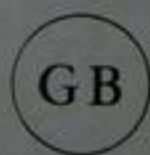
NOTE: When inverting this operation, (motordriven machine into treadle-machine) make sure leather belt enters in holes M and N of machine base before hooking belt fastening claw.



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