

NECCHI

Julia

534

**Instructions for the
use and maintenance**

7. Stern

NECCHI *Julia* 534

Instructions for the
use and maintenance

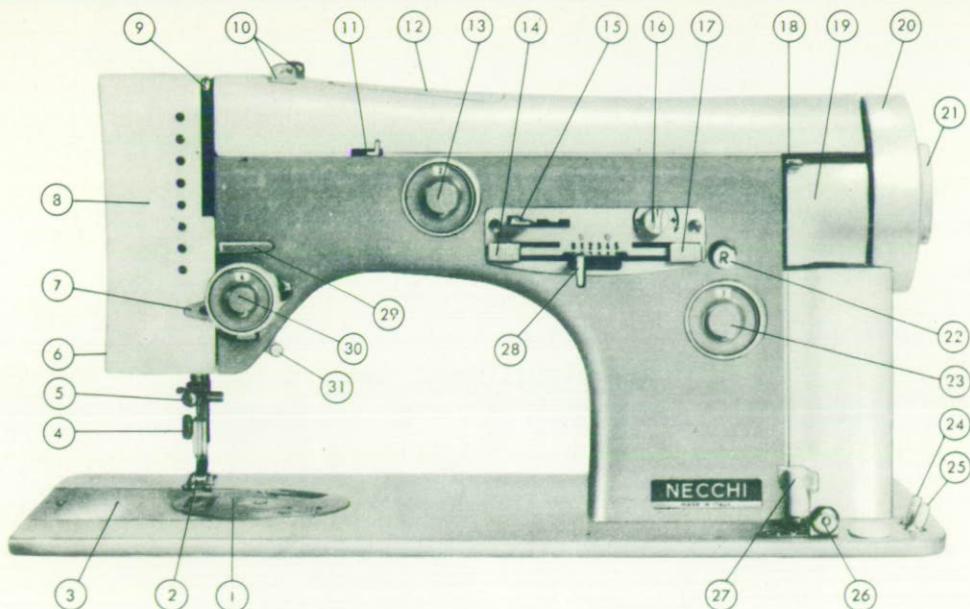


Fig. 2

NAME OF PARTS

1. Needle plate
2. Presser foot
3. Slide plate
4. Presser foot thumb screw
5. Needle clamp push-button
6. Red signal light
7. Upper tension thread guide
8. Face plate
9. Thread take-up lever
10. Thread guides
11. Micro-electro control
12. Automatic mechanism lid
13. Design graduating knob
14. Left push-button zig-zag stop
15. Needle positioning lever
16. Knob for minute adjustment of designs
17. Right push-button zig-zag stop
18. Bobbin winder upper thread guide
19. Bobbin winder cover
20. Balance wheel
21. Balance wheel disconnecting knob
22. Reverse sewing push-button
23. Stitch length regulating knob
24. Speed regulating switch
25. Motor and light switch
26. Bobbin winder lower thread guide
27. Drop-feed button
28. Zig-zag stitch lever
29. Guiding hook
30. Upper thread tension
31. Button for automatic threader

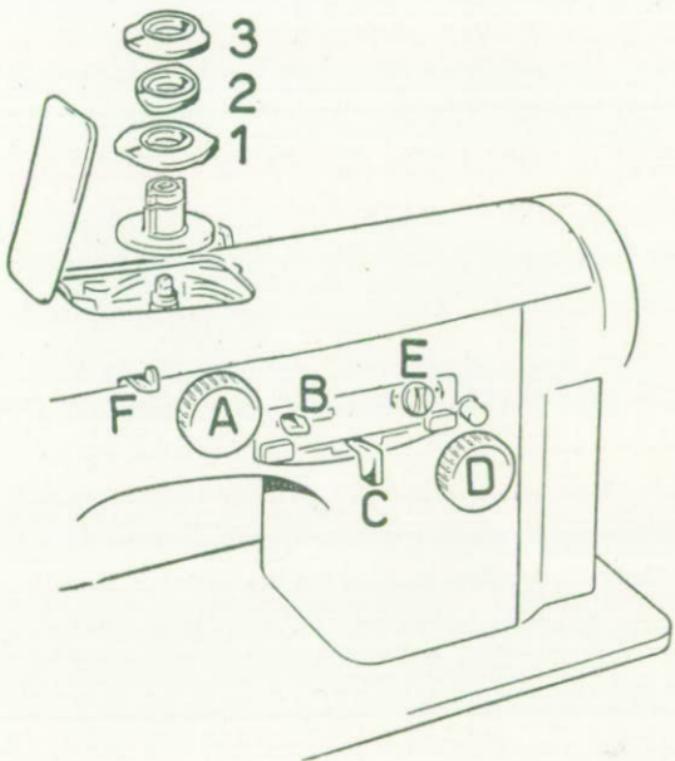


Fig. 1

NOTE

This booklet is supplied with the SUPERNOVA JULIA 534 and with the SUPERNOVA JULIA 532 sewing machines, the latter being without the automatic device. In this second case, only the instructions contained in Chapters 1 and 2 apply.

This booklet contains the instructions for the use and maintenance of the NECCHI

supernova Julia 534

sewing machine.

The « Supernova Julia 534 » solves all sewing and embroidery problems that the modern woman who cares about her elegance and her house has to face daily.

All that a woman may desire, all that she may wish to sew or embroider, even those jobs which until recently could be made only by hand, the « Supernova Julia 534 » does, in a fully automatic and perfect way.

By following these instructions, both simple and detailed, it will be very easy to use the « Supernova Julia 534 » and maintain it always in good order and in perfect operating condition.

At all Necchi shops, or when applying directly to Necchi S.p.A. - Sewing Machines - Parma (Italy), the « Necchi Service » is available, at any time, to give assistance, advice and suggestions as to the use of the « Supernova Julia 534 » and of all the other models of Necchi production.

N E C C H I

*the world-wide best selling
Italian sewing machine.*

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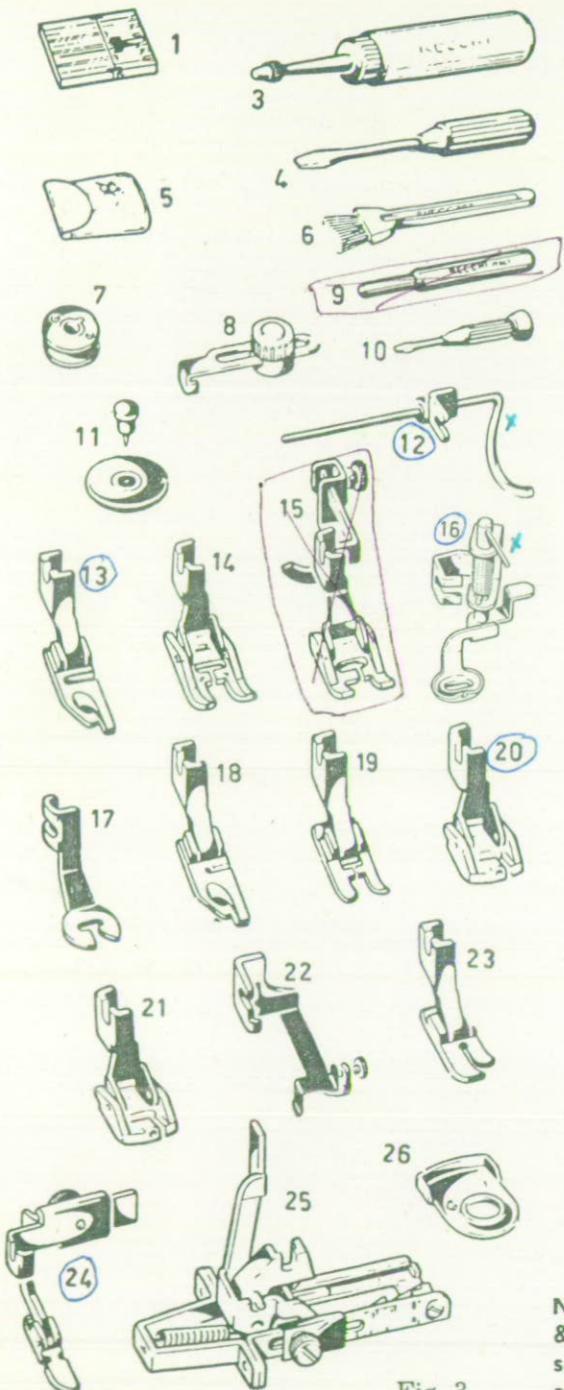


Fig. 3

LIST OF ACCESSORIES

- 1 Case with 4 needles and one twin needle
- 2 Oil feeder
- 3 Screwdriver (large)
- 4 Spare hooks for needle threader and cutter for buttonholing foot no. 25
- 5 Small brush
- 6 Bobbins (3)
- 7 Straight guide with screw
- 8 Buttonhole cutter
(only for Supernova Julia 532)
- 9 Screwdriver (small)
- 10 Stopper for circular sewing
- 11 Quilter wire with clamp
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NOTICE Parts nos. 12, 13, 16, 20 & 24 are supplied, as special accessories, on request, against payment at all Necchi Sales Organizations.

GENERAL INSTRUCTIONS

IMPORTANT: Any part of this booklet referring to the voltage tap-changer does not concern the sewing machine sold in the U.S.A. Such machines are provided with a special electrical equipment designed and built in conformity with the U.S. electrical requirements.

Minor innovations to the sewing machine mechanisms against the description given in this book may depend on continuous improvements in the production cycles.

1. TO ENSURE PERFECT FUNCTIONING OF MACHINE

Always bear in mind the following rules:

- Balance wheel must always be turned toward the operator;
- Do not try to help feeding by pulling fabric, since this action would bend needle. The machine automatically feeds the fabric without assistance;
- 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. This will prevent damage to feed dog teeth and presser foot;
- Always bring presser bar lever to its lowest position before starting to sew.

2. RECOMMENDED NEEDLE AND THREAD SIZES

NECCHI machines use Syst.
15 x 1 or Syst. 705 needles

<i>Types of Fabric and Classes of Work</i>	<i>Sizes of Thread</i>		<i>Sizes of Needles</i>	
	<i>Mercerized Cotton</i>	<i>Silk</i>	<i>Syst. 15x1</i>	<i>Syst. 705</i>
Very thin fabrics like muslin, chiffon, batiste, fine linen cambrics. For lingerie, infants' wear and delicate lace work.	80 to 150	0 and 000 Twist	10	70
Shirtings, sheetings, calicoes, silk and cotton, light weight woollens. For general household sewing and all classes of general work.	60 to 80	A & B Twist	12	80
Heavy calicoes and silk, light weight woollens, heavy cretonnes, muslin, brocades and quilts. For men's work shirts, smocks and aprons, quilting and fabric furnishing.	40 to 60	C Twist	14	90
Bed tickings, upholstery and awning material, slip cover fabric, woolen goods, heavy woven coating, light weight canvas. For trousers, boys' clothing, work uniforms, awning and slip covers.	30 to 40	D Twist	16	100
Heavy tickings and woollens, heavy woven suiting and coating, canvas and sacking. For heavy clothing in general, such as heavy uniforms, coats, trousers, bedding supplies, bags etc.	24 to 30	E Twist	18	110

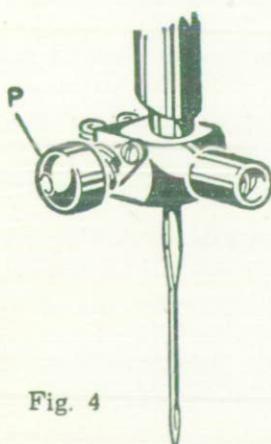


Fig. 4

3. TO INSERT NEEDLE

- Bring needle clamp to its highest position by turning balance wheel towards you;
- Push button « P » (Fig. 4);
- Push needle up into needle-clamp as far as it will go and release button « P »;

IMPORTANT: flat side of needle shank must be turned toward the right.

4. TO THREAD MACHINE

Pass thread through points shown in Fig. 5. After having passed thread between tension discs housing « C », hold thread between the two thread guides « A » at the same time slightly pulling thread towards the right so that it pulls up spring « M » and places itself astride of hook « D ». The threading of spring « M » is automatically performed after the first stitches are made on the condition that tension regulating knob be at least on « 4 ». Pass thread through needle eye from left to right leaving about 4 inches hanging free.

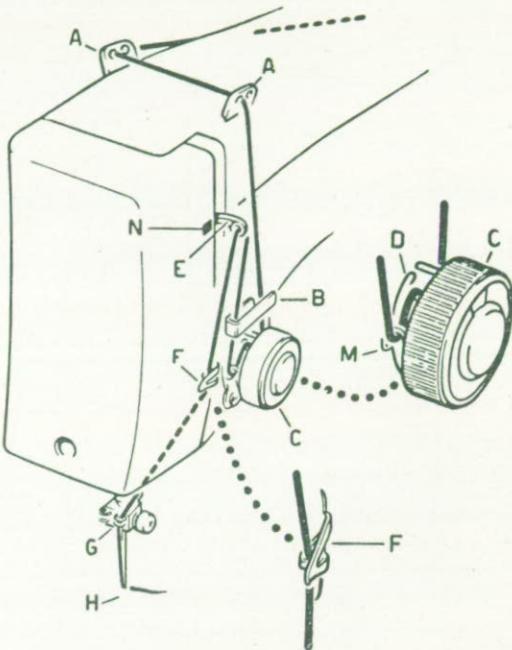


Fig. 5

5. TO THREAD NEEDLE WITH THREADER

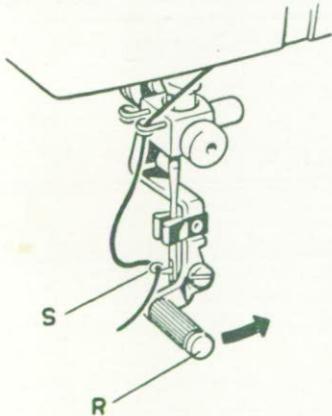


Fig. 6

The threading is carried out without any pre-arrangement of the control levers.

- Bring the needle to its highest position and the thread take-up lever « E » in correspondence with mark line « N » on face plate, as shown in fig. 5;
- Bring knob « R » downward until hook « S » will pass through the eye of the needle (fig. 6);
- Pass the thread on hook « S » and draw knob « R » away from the needle; the hook will drag the thread through the eye of the needle and the threader will be pulled upward by a spring.

6. TO WIND EMPTY BOBBIN

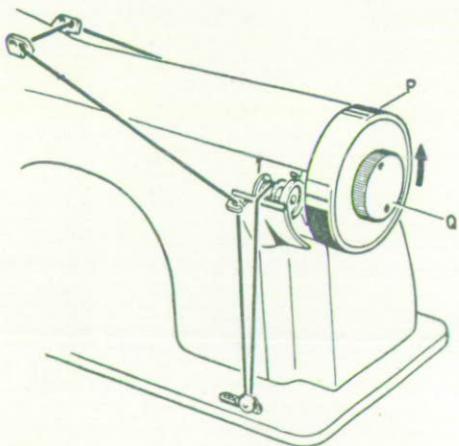


Fig. 7

- Open cover « F » (Fig. 8), bring lever « G » down and insert bobbin, with its flange provided with holes towards the left, on spindle « E ». Push spindle « E » towards the right and cover « F » will remain open.
- Hold with the left hand the end of the thread hanging from the hole and run machine: after a few turns the thread, held by the hand, will be automatically cut.
When bobbin is full, the bobbin winder automatically stops and cover « F » snaps back into place.
- Open cover « F », press on lever « G » and remove filled bobbin.
- Then tighten the balance wheel knob « Q ».

— Disconnect balance wheel « P » by holding it with the left hand and by turning knob « Q » in the direction of the arrow (Fig. 7)

— Pass thread through points indicated in illustration and insert it from the inside to the outside into one of the two holes of the bobbin flange, leaving about 4 inches of thread hanging free.

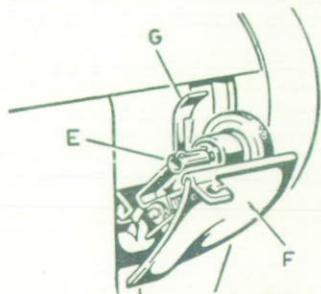


Fig. 8

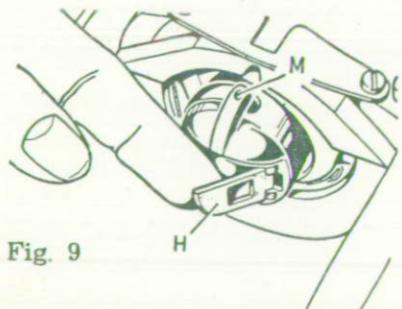


Fig. 9

7. TO REMOVE BOBBIN CASE

- Bring needle to its highest position and move slide plate to the left.
- Remove bobbin case by lifting latch « H » and pulling it to the left.

NOTE: The bobbin will drop out when latch is released.

8. TO INSERT BOBBIN INTO BOBBIN CASE

- Insert bobbin into bobbin case; thread must be wound around bobbin as indicated in Fig. 10a.
- The bobbin flange provided with holes must be turned toward the outside of the bobbin case, in order that the right direction of rotation should be ensured.
- Insert thread into groove of bobbin case.
- Lift latch « H » so that bobbin is blocked and draw thread under tension spring as indicated by Fig. 10b.

Let about 4 inches of thread hanging out.

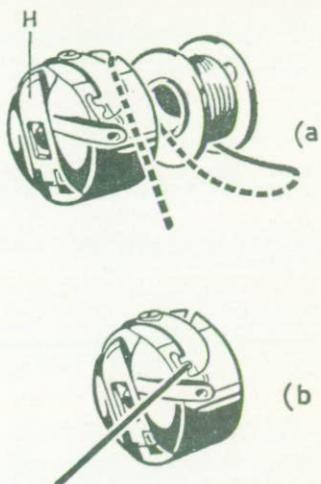


Fig. 10

9. TO INSERT BOBBIN CASE

- Bring needle to its highest position and move slide plate to the left;
- Insert bobbin case by latch « H » (Fig. 9) and place it 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.

10. TO REGULATE PRESSURE OF PRESSER FOOT

- Open face plate.
- Turn knob « A » encased in the machine (Fig. 11); the number visible towards face plate indicates pressure value.

Normally the pressure adjusted on 4 or 5 is all right for ordinary sewing jobs.

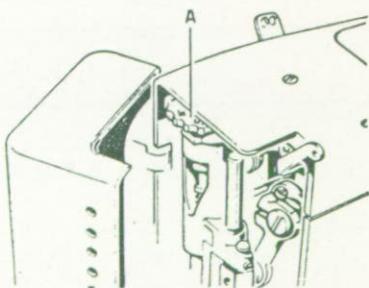


Fig. 11

11. TO ADJUST TENSIONS

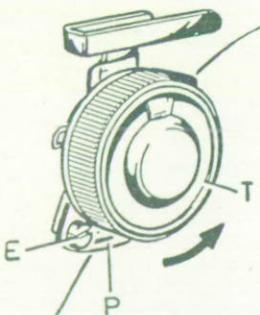


Fig. 12

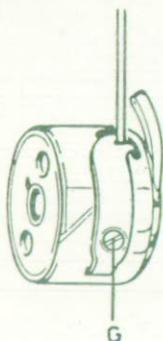


Fig. 13



Fig. 14



Fig. 15



Fig. 16

The normal value of the upper thread tension is indicated on the knob by a small red disc.

- To loosen the upper thread tension, turn button « T » (Fig. 12) in the direction of the arrow. By turning button « T » in the opposite direction the tension will be increased.
- The lower tension is increased by tightening screw « G » (Fig. 13); it is decreased by loosening same.

The upper and lower threads must lock in the centre of the fabric (Fig. 14), that is, their tensions must be even. In this condition, two faults may occur:

- 1) Even tensions, loose. The stitches are too loose. It is then necessary to increase both tensions.
- 2) Even tensions, tight. The fabric ruffles or the thread breaks. It is necessary to loosen both tensions.

If the upper tension is tighter than the lower, the upper thread will lie flat on top of fabric and the lower thread will be pulled to the upper surface (Fig. 15) and be visible there in small knots. Adjust tensions by tightening the lower tension and loosening the upper one.

If the lower tension is too tight, the lower thread will lie flat on the underside of the fabric (Fig. 16); therefore tighten the upper tension and loosen the lower.

NOTE: When sewing on hard or thick fabrics, it is advisable to loosen screw « E » (Fig. 12) and slightly move small plate « P » in the direction opposite to that of the arrow.

12. TO REGULATE STITCH LENGTH

- Turn button « D » (Fig. 17); the stitch length expressed in mm. is visible through small window « F ».

The normal stitch length is no. 2.

The stitch length normally required for satin stitch (see Para. 27) is indicated by a red square mark.

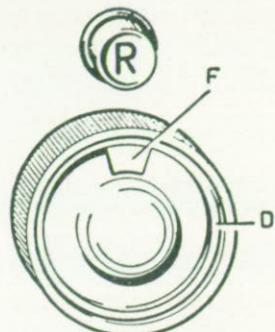


Fig. 17

To reverse direction of sewing

- Push button « R » completely (Fig. 17); the machine will sew in reverse with the stitch length regulated by button « D ».
- The machine resumes sewing forward as soon as button « R » is left free.

13. TO START SEWING

- Holding the thread hanging out of the needle eye, turn balance wheel to bring needle to its highest position.
- Draw the upper thread; the lower thread will be pulled up through the hole of needle plate.
- Place both threads under and behind presser foot.

Start sewing slowly, holding the threads for the first 4-5 stitches.

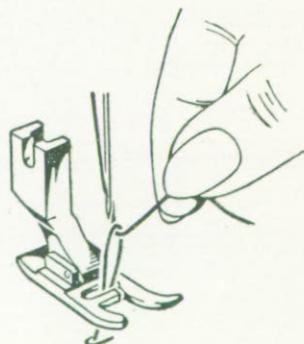


Fig. 18

14. 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 » (Fig. 19).
- Push button « P » down; it will remain in this position.

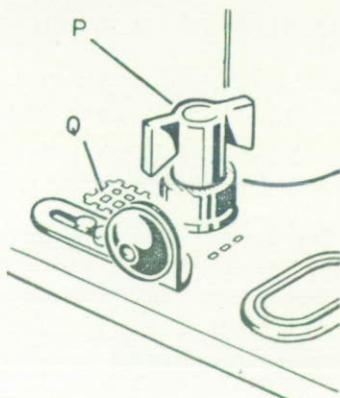


Fig. 19

To raise feed dog, turn button « P » so that one of its prongs faces the opposite alignment mark « S » (Fig. 20). When rotating the balance wheel, feed dog will come out by itself.

NOTE: The feed dog can be dropped from time to time, by leaving one of the prongs of button « P » facing alignment mark « S ».

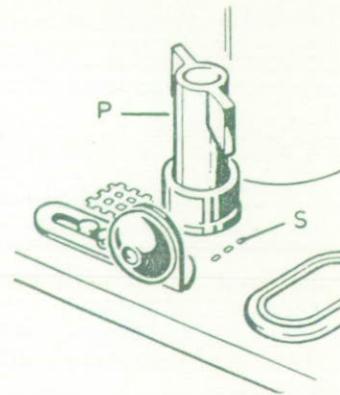
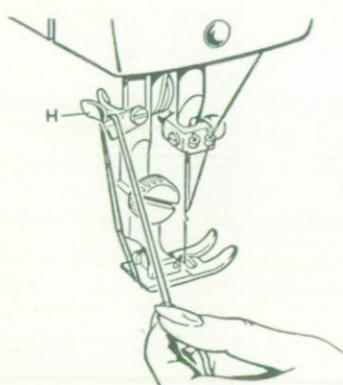


Fig. 20

Fig. 21



15. TO REMOVE WORK FROM MACHINE

- Bring needle and thread take-up lever to their highest position and raise presser foot.
- Draw fabric away from presser foot and draw threads, keeping them taut, through thread-cutter « H » (Fig. 21).
- Cut threads and remove fabric.
The ends of both threads will be held by the thread cutter and the machine will be ready to perform another seam without requiring that the threads be held by the operator during the first 4 or 5 stitches.

16. TO CHANGE THE POSITION OF MULTIPLE NEEDLE PLATE

The needle plate can be fitted in 3 different positions (Fig. 22) which are used as follows:

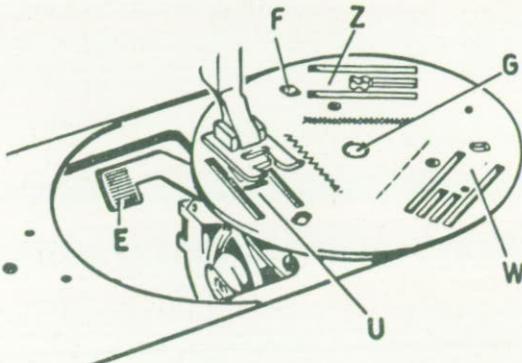


Fig. 22

U - for straight and zig-zag sewing.

W - for straight stitch on light fabrics (nylon, silk) with the needle position lever « B » (Fig. 1) in left notch 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 (see para. 14), 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.

NOTE: The needle plate can be removed by pressing lever « E » completely.

17. TO CONNECT MACHINE TO LOCAL ELECTRICITY SUPPLY

Before inserting machine plug in the supply current outlet, check that machine is provided with a voltage tap-changer as indicated in Fig. 23. Make certain that the small bridge « A » is inserted in the position corresponding to local voltage.

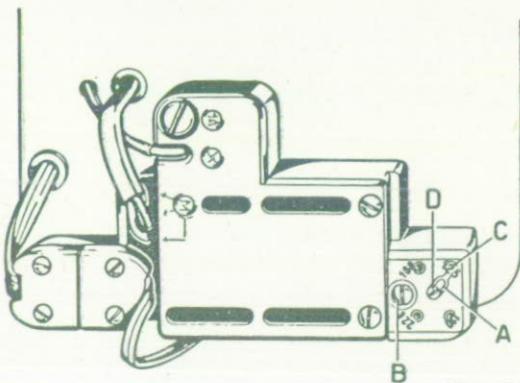


Fig. 23

If it is not, proceed as follows:

- Remove screw « B » and transparent cover plate.
- Remove screw « C » and loosen screw « D ».
- Turn small bridge « A » round so that its extremity faces the hole corresponding to the local voltage.
- Tighten screws « C » and « D » and replace transparent cover plate by means of screw « B ».

18. TO RUN MACHINE

- Connect machine to the electric line.
- Push switch « Z » (Fig. 24) in position « L ». The red signal light « R » (Fig. 25) will light up.
- Start machine by pressing on foot or knee control.

If you wish to sew with the maximum speed, push switch « M » in position « MAX ». To reduce speed, push it in position « MIN ».
NOTE: The machines for treadle operation only are not provided with switch « M ».

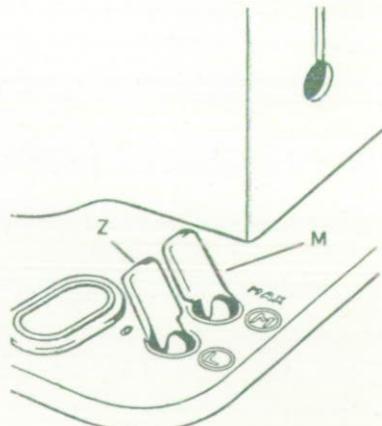


Fig. 24

19. LIGHTING

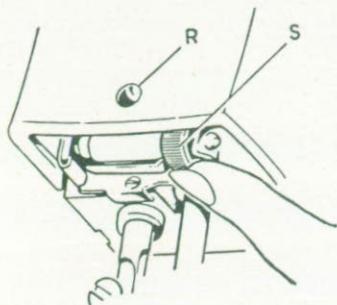


Fig. 25

In the motor operated machines, the light can be cut out by turning shade « S » (Fig. 25).

The red signal light « R », however, will continue to glow.

In the treadle operated machines, just move switch « Z » (Fig. 24) to position « O ».

20. TO REPLACE LIGHT BULB

- Open face plate.
- Remove light bulb « P » together with its shade from lamp holder « V » (Fig. 26).
- Remove light bulb from shade into which it is inserted, by pressure.
- Insert new bulb into shade and insert it into lamp holder, by pressing slightly against wall portion « Q » to ensure electric contact.

Use only NECCHI bulbs.

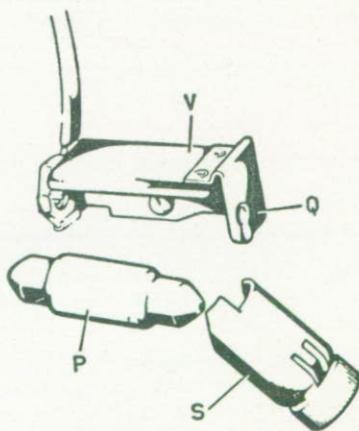


Fig. 26

21. MAINTENANCE OF MACHINE

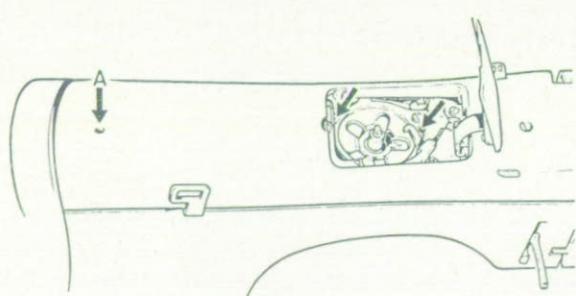


Fig. 27

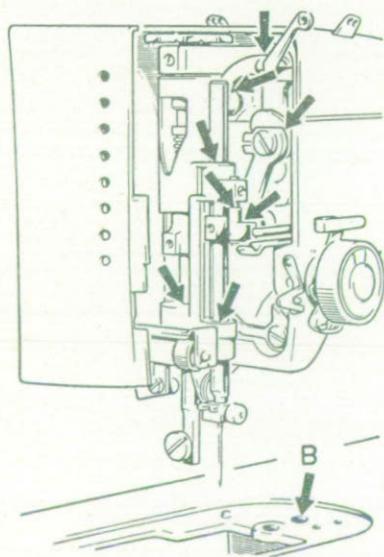


Fig. 28

a) Oiling

When the machine is new or when it is used after long periods of inactivity, it is advisable to lubricate it abundantly before use. Oiling is indispensable in order to secure smoothness and a trouble-free running of the machine which, if used continuously, should be oiled every two days.

The oiling points are indicated in Figs. 27, 28 & 29.

Let fall about ten drops of oil in hole « A » (Fig. 27), and two or three drops in hole « B » (Fig. 28).

From time to time also oil shuttle rim and shuttle race (see b).

Use Necchioil

or some good-quality light sewing machine oil.

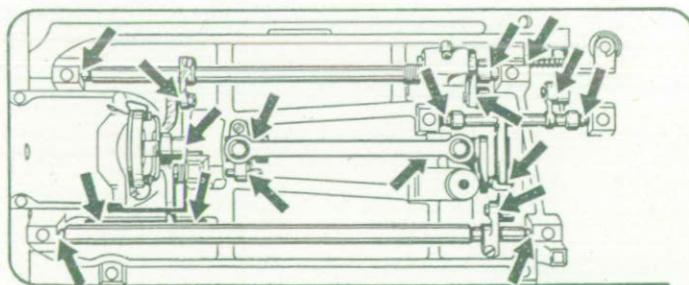


Fig. 29

b) To remove and replace the shuttle

If machine runs hard or jams slightly, this may be due to a piece of thread which has been caught in shuttle race.

To correct this condition, proceed as follows:

- Bring needle to its highest position.
- Tilt machine back on its hinges.
- Extract bobbin case.
- Push spring « Z » sideways with thumb of right hand (fig. 30).
- Turn race plate « T » around its hinge.
- Extract shuttle « R ».

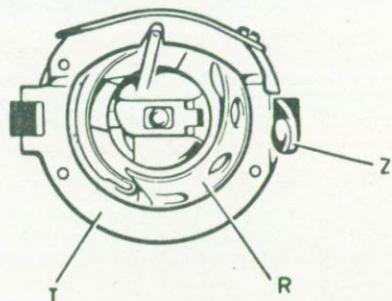


Fig. 30

- 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 onto the three short studs on the shuttle race and press it until spring blocks it in its housing.
- Replace bobbin case and lower machine to working position.

c) To clean feed dog and needle plate seat

- Remove needle plate (see note, para. 16).
- Clean feed dog teeth and needle plate with a small brush.

d) To disassemble and reassemble upper thread tension

To disassemble tension:

- Place button « A » (Fig. 31) on 0.
- Pull it out so that hook « B » comes out of hole « C ».
- Turn it anticlockwise, unscrewing it from machine.
- Disassemble parts as in Fig. 32.

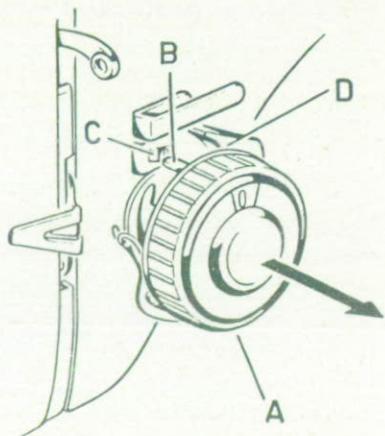


Fig. 31

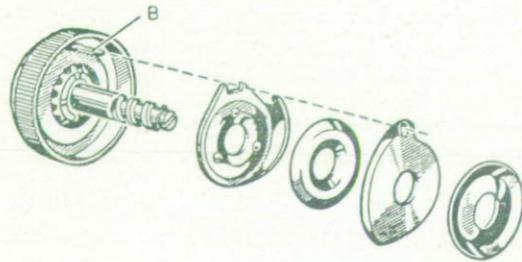


Fig. 32

Carefully clean all the surfaces of parts.

- Assemble parts exactly as shown in Fig. 32 and in such a way that the « 0 » mark will be visible on button « A ».
- Screw the device onto the machine (press slightly and turn it anticlockwise; when a click is heard, turn it in the opposite direction).
- When small hook « B » comes into contact with chrome plated plate, draw button toward you and turn it again, bringing small hook into hole « C ».

22. CAUSES OF MINOR DIFFICULTIES

Needle thread breaks

- Needle is inserted incorrectly
- Upper tension is too strong
- Machine is improperly threaded
- Thread is not suitable for fabric
- Thread has knots
- Needle eye is rough or sharp
- Needle is too fine
- Needle point is damaged, bent or blunt
- Needle plate hole is damaged
- Machine is started at full speed
- Sewing is started with thread take-up lever not in its highest position
- Bobbin case is damaged, due to being hit by needle
- Shuttle race is damaged.

Needle breaks

- Fabric is pulled by hand in such a manner that needle hits needle plate
- Needle is bent or blunt.

Lower thread breaks

- Lower thread tension is too tight
- Bobbin not evenly filled
- Bobbin is too full and does not rotate into bobbin case
- Dirt or lint in bobbin case.

Skip stitches

- Needle is inserted incorrectly
- Needle is bent or blunt
- Thread is too heavy for the size of needle
- Needle is of wrong size for thread in use.

Uneven stitches

- Presser foot does not rest fully on fabric
- Pressure of presser foot is insufficient
- Feed dog is set too low
- Fabric is pulled by hand
- Stitch is too short
- Needle is too fine for thread in use.

Machine does not sew straight stitch

- Lever « C » (Fig. 1) is not set completely to the left.
- The cams have not been removed.

Heavy turning or jamming of machine

- A loose piece of thread has been caught in shuttle race
- Motor belt is too tight (adjust it by loosening the motor fastening screws)
- Machine is not lubricated
- Needle has blunt point

Light does not go on

- Line has no current (check fuses and master switch)
- Plug is not well inserted in its receptacle
- Filament of bulb is broken
- Voltage tap-changer and/or four-way plug are not well inserted.

Light is too bright or too dim

- Control the position of the voltage tap-changer.

Although light is on, motor fails to turn.

- The four-way plug is not well inserted in its receptacle
- See the reasons mentioned under: "Heavy turning or jamming of machine"
- Make sure that automatic contact finger opening lever is in working position, that is flush with machine arm.

Motor turns too rapidly

- Check whether voltage tap-changer is correctly set.

Motor turns too slowly

- A piece of thread is caught in shuttle race
- Motor belt is too tight
- Machine is not lubricated
- Check whether voltage tap-changer is correctly set.

Overheating of motor, foot-control and/or bed plate

All electrical equipments heat up when running without causing damage. Excessive heating can only be due to overloading or heavy turning of machine.

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 dealer. He will put the machine into perfect working order.

SEWING WITHOUT AUTOMATIC MECHANISM

NOTE: To execute the sewing works described in this chapter, it is necessary to remove cams from machine (see para. 46) and set button « A » on triangular mark as indicated in para. 48.

23. STRAIGHT SEWING

Zig-zag stitch lever « C » (Fig. 1): to the left.

Stitch length knob « D »: set for desired stitch length. Normal length is on no. 2.

NOTE: for straight seams on light fabrics, see para. 16.

24. TACKING

After you have finished sewing, reinforce the seam by pressing button « R » (Fig. 17) thus making a few stitches in reverse.

25. BASTING

Proceed as for normal sewing, but set knob « D » (Fig. 1) for the maximum stitch length and loosen upper thread tension « T » (Fig. 12). This makes it possible to effect long and loose stitches which can be easily unraveled.

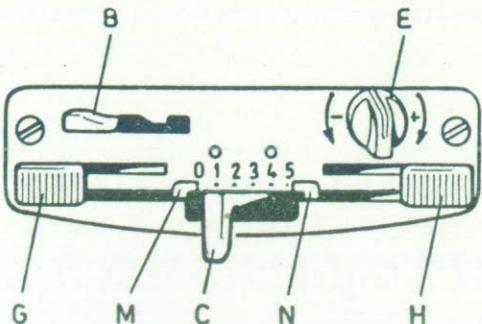


Fig. 33

26. ZIG-ZAG SEWING

Needle plate: in position « U » (see para. 16).

Presser foot: use hinged foot for zig-zag stitch or transparent foot for embroidery (no. 14, Fig. 3).

Needle position lever « B »: set it according to the desired position of the sewing line (left, centre, right).

Zig-zag stitch lever « C »: set for desired zig-zag width; the small plates « M » and « N » which make it possible to limit the displacement of the zig-zag width lever, are to be set by shifting push-button zig-zag stops « G » and « H » (Fig. 33).

Stitch regulating knob « D » (Fig. 1): set for desired length of stitch.

27. ZIG-ZAG EMBROIDERY

Fig. 34 shows a few motifs of zig-zag embroidering, but you can vary them at will.

Set machine as follows:

Presser foot: transparent foot for embroidery (no. 14, Fig. 3).

Tension: upper tension rather loose and lower rather tight.

The upper thread must be visible on the lower side of fabric.

Stitch length knob « D » (Fig. 1): near the red square mark so that the fabric is fed just enough to keep stitches close but not piled up.

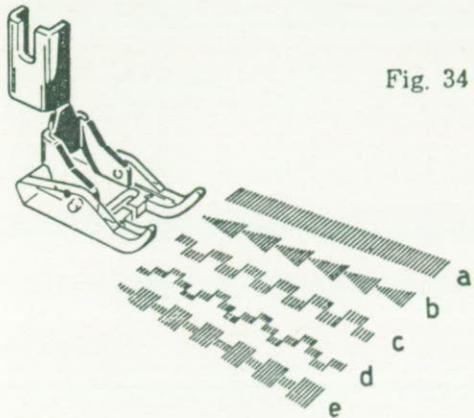


Fig. 34

Use embroidery thread no. 50.

The length of the designs b, c, d, e, naturally depends on the speed at which the levers are operated.

a) (SATIN STITCH)

Lever « C » (Fig. 33): set for desired zig-zag width. This is a basic stitch for all fancy and linear decorative stitches.

b)

*Lever « B »: in centre notch. Small plate « M » on 1.
Slowly move lever « C » from 1 to 5 and flip it back quickly to 1.*

c)

*Lever « C »: on 2.5. Small plate « M » on 2.5.
Press down lever « B » and move it from left to right and vice versa without stopping in the centre notch.*

d)

*Lever « C »: on 1.5. Small plate « M » on 1.5.
Move lever « B » rapidly from left notch to centre notch, then to right notch and vice versa.*

e)

*Lever « B »: in centre notch. Small plate « M » on 1 and « N » on 4.
Move lever « C » rapidly between 1 and 4 and vice versa.*

28. TWIN NEEDLE

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 (Fig. 35), with the flat side of its shank toward the right.

Presser foot: for twin needle (no. 19, Fig. 3).

Needle plate: in position « Z » (para. 16).

Lower thread: it must pass by the hole indicated in Fig. 36. Its tension should be rather loose.

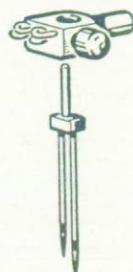


Fig. 35



Fig. 36

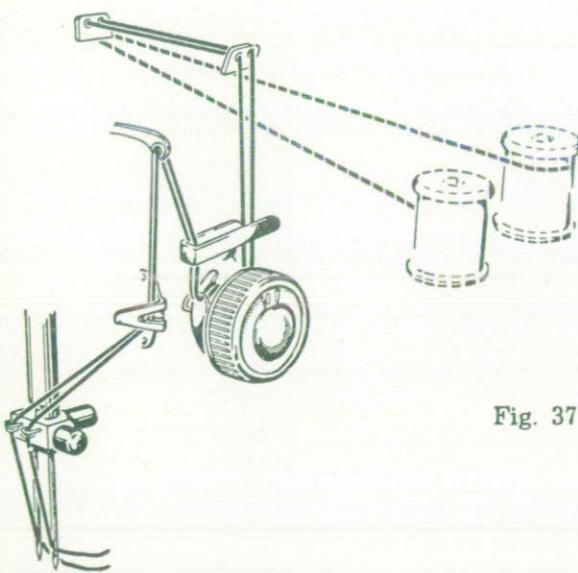


Fig. 37

Thread must pass by points indicated in Fig. 37.

The tension device has double discs between which threads pass separately.

Fig. 38a, b, c, shows some of the decorative stitches which can be made with the twin needle.

a)

Lever « B » (Fig. 1): in centre notch.

Lever « C »: on 5.

Knob « D » on 3.

b)

Lever « C » (Fig. 1): on 2.5

Knob « D »: on red square mark.

Move lever « B » rhythmically back and forth between right and left notches.

c)

Lever « C » (Fig. 1): on 1.

Knob « D »: on red square mark.

Move lever « B » regularly from left to right and vice-versa.

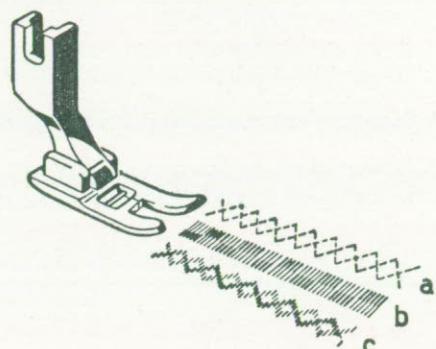


Fig. 38

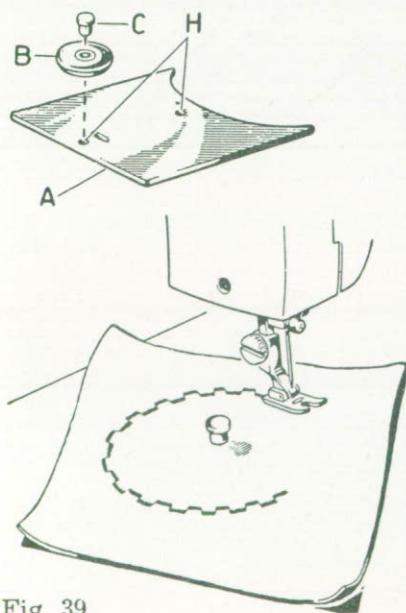


Fig. 39

29. CIRCULAR SEWING

- Insert knob « B » (Fig. 39) 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.

30. HEMMING

- Fold over edge of fabric about $1/8"$ for a length of about two inches, and insert the fold from beneath into the scroll of presser foot.
- Move fabric back and forth until hem forms itself into the scroll.
- Lower presser foot and commence sewing, guiding fabric by hand in order to help its introduction in the scroll.

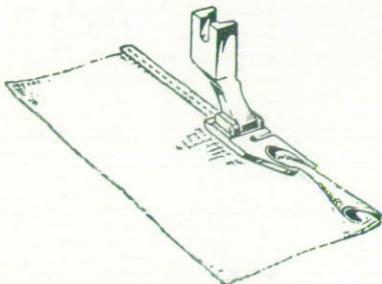


Fig. 40

b) NARROW ROLLED EDGES (Fig. 41)

Lever « B » (Fig. 1): in centre notch.

Lever « C »: between 2 and 3.

Knob « D »: between 1 and 2.

Upper tension: normal.

Presser foot: zig-zag hemming foot, (no. 13, Fig. 3, special accessory upon request and against payment).

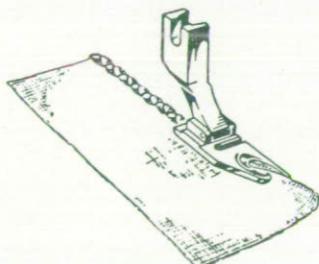


Fig. 42

a) STRAIGHT STITCH HEM (Fig. 40)

Lever « B » (Fig. 1): in centre notch.

Lever « C »: on the left.

Knob « D »: between 3 and 4.

Upper tension: normal.

Presser foot: straight stitch hemming foot (no. 18, Fig. 3).

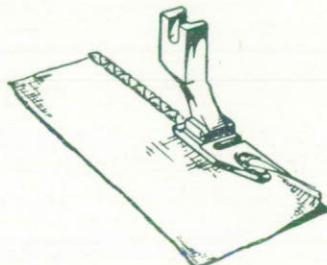


Fig. 41

c) SHELL HEMSTITCH (Fig. 42)

Lever « B » (Fig. 1): in centre notch.

Lever « C »: between 2 and 3.

Knob « D »: between 1 and 2.

Upper tension: rather tight.

Presser foot: zig-zag hemming foot (no. 13, Fig. 3, special accessory upon request and against payment). This type of hem is best done on sheer materials such as nylon or silk.

d) HEMMING AND SEWING ON LACES (Fig. 43)

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.

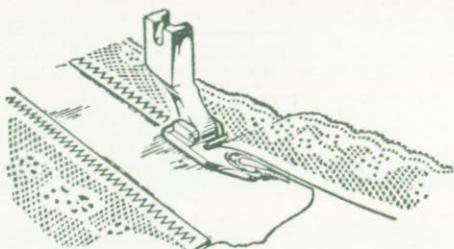


Fig. 43

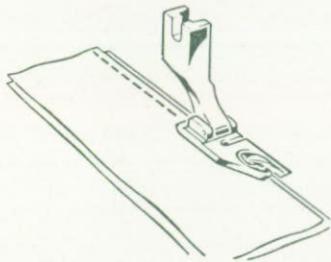


Fig. 44

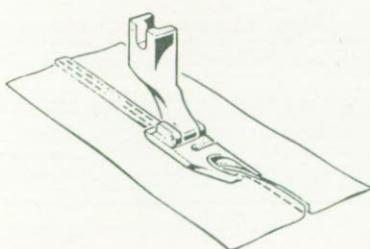


Fig. 45

32. OVERCASTING

Lever « B » (Fig. 1): in centre notch.
Lever « C »: set for desired zig-zag width.

Knob « D »: set for desired stitch length.

Upper tension: normal.

Presser foot: use foot for zig-zag sewing.

Needle must stitch into the fabric and out of its edge alternately (Fig. 46).

31. FLAT FELLED SEAMS

Set machine as for straight stitch 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 $1/8"$ beyond right edge of top piece (Fig. 44).
- Sew both pieces of fabric together, using the edge of hemming foot scroll as a guide.
- Open fabrics with their edges standing up.
- Insert edges in hemming foot scroll and sew as for normal straight stitch hem (Fig. 45).

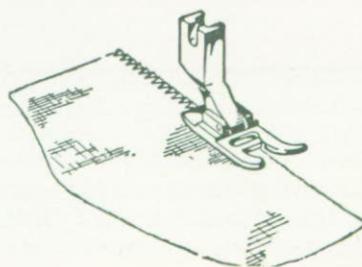


Fig. 46

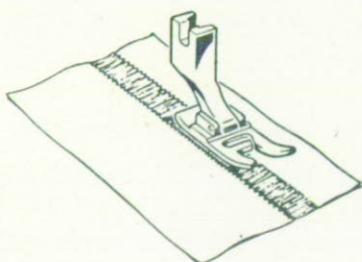


Fig. 47

34. PICOT HEM

Needle plate: in position « Z » (see para. 16).

Lever « B » (Fig. 1): in centre notch.

Lever « C »: between 1 and 2.

Knob « D »: between 1 and 1.5.

Upper tension: normal.

Needle: no. 21 (syst. 15 x 1) or no. 120 (syst. 705).

Make first row of stitches at about 12 mm (1/2") from edge of fabric. Make second row in such a way that needle stitches into the outer holes of first row of stitches (Fig. 48). With sharp scissors, cut right in the middle of the two rows.

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

35. APPLIQUE WORK

a) APPLIQUE WITH PICOT STITCH

Set machine as for picot hem. Put first piece of fabric under presser foot and second piece on which design is sketched on top of the first.

Make first row of stitches following the outline of design and then cut away surplus material of applique very close to the zig-zag stitches.

Start second row of stitches so that needle stitches into outer holes of first row.

33. HEMSTITCHING WITH DRAWN THREADS

Lever « B » (Fig. 1): in centre notch.

Lever « C »: between 1 and 2.

Knob « D »: between 1 and 2.

Upper tension: normal.

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 (Fig. 47). After stitching on one side of the drawn space has been finished, repeat same procedure on the other side.

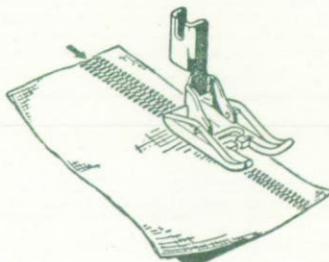


Fig. 48

b) CUT-OUT WORK

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

Start straight sewing, 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 27a), and sew following the outline of design and covering the edge and straight stitches.

c) LACE EDGING

Lever « B » (Fig. 1): in centre notch.

Lever « C »: set for desired zig-zag width.

Knob « D »: set for desired stitch length.

Upper tension: normal.

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

Commence sewing making sure that needle, while zig-zagging, stitches through both fabric and lace.

d) RAISED STITCH APPLIQUE

Lever « B » (Fig. 1): in centre notch.

Lever « C »: according to thickness of cord being used.

Knob « D »: on red square mark.

Upper tension: rather loose.

Presser foot: zig-zag stitch cording foot, (no. 20, Fig. 3, special accessory upon request and against payment).

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.

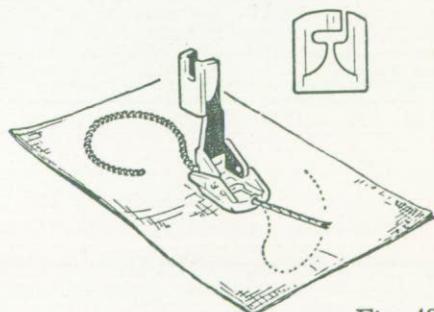


Fig. 49

e) CONTRAST WORK APPLIQUE

Proceed as for raised stitch applique, with the exception of stitch length knob « D » (Fig. 1) which can be regulated at will so that the zig-zag 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.

36. ADJUSTABLE STITCHING GUIDE

This guide (no. 8, Fig. 3) makes it possible to keep the stitches at a uniform distance from the edge of fabric. It is fitted on machine at the desired distance from needle (see Fig. 50).

For your convenience, three guide

lines have been etched into the needle plate-position « W », (Fig. 22), at a distance of $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " from needle hole.

Besides, in the Supernova Julia 534, the guide can be fitted on the zig-zag plate (see fig. 72 d) and permits to stop the needle displacement lever in the intermediate positions between those of left-centre-right.

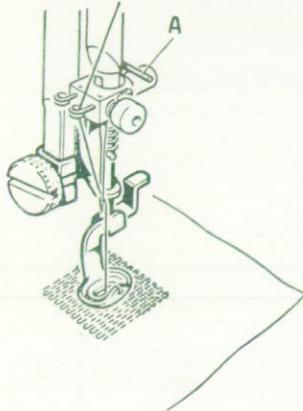


Fig. 51

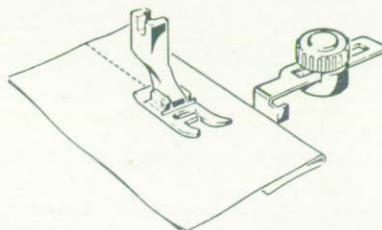


Fig. 50

37. DARNING

Lever « B » (Fig. 1): in centre notch.
Lever « C »: on the left.

Upper tension: normal.

Feed dog: to be dropped (see para. 14).

Presser foot: darning foot (no. 16, Fig. 3, special accessory upon request and against payment). The hole which is on the front of presser foot can be used to pass a reinforcement thread.

Commence darning, starting at the left upper edge of hole, in the following manner:

- Move fabric forward and backward until hole is filled with parallel lines of stitches (Fig. 52),
- Turn fabric by a right angle and repeat operation until hole is fully darned (Fig. 53).

NOTE: If large tears or very large thread bare areas are to be darned, it is advisable to clamp the fabric in an embroidery hoop which can be purchased at your local NEC-CHI Dealer.

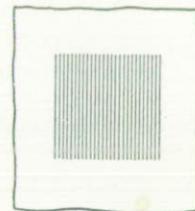


Fig. 52

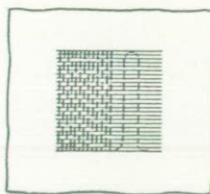


Fig. 53

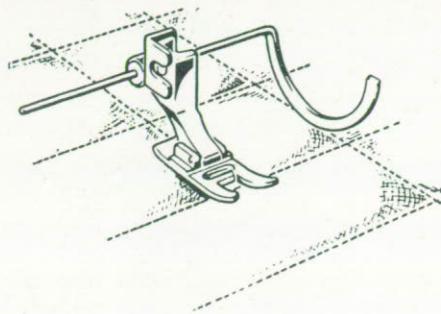


Fig. 54

38. QUILTING

Lever « C » (Fig. 1): as desired.
Knob « D »: set for desired stitch length.

Upper tension: normal.

Presser foot: use zig-zag stitch hinged foot and attach it to machine together with adjustable quilting guide (no. 12, Fig. 3, special accessory upon request and against payment).

Needle Plate: in position « U » (see para. 16).

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.

39. EMBROIDERY AND MONOGRAM WITH HOOP

For this type of work, use nylon or silk thread or mercerized embroidery thread.

Lever « B » (Fig. 1): in centre notch.

Lever « C »: on the left.

Knob « D »: on red square mark.

Upper tension: rather loose.

Feed dog: to be dropped (see para. 14).

- Remove presser foot and clamp fabric in hoop.
- Slightly pulling upper thread, turn balance wheel so that lower thread is pulled up to upper surface of fabric.
- Move hoop slowly, but only when needle is out of fabric and holding both threads for the first stitches (Fig. 55).

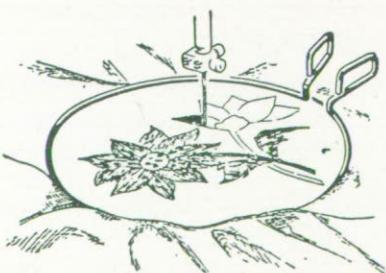


Fig. 55

40. SEWING ON BUTTONS

Lever « B » (Fig. 1): in left notch.

Lever « C »: between 4 and 5 according to distance between holes of button.

Feed dog: to be dropped (see para. 14).

Presser foot: button sewing foot (no. 17, Fig. 3).

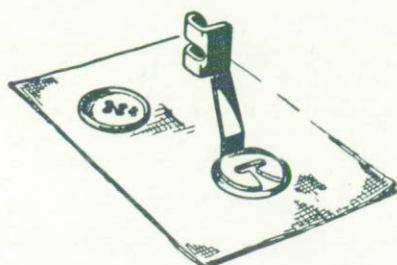


Fig. 56

For two-hole buttons proceed as follows:

- While lowering presser foot, place the button on the fabric in order that its holes are in proper position for zig-zag 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 the position of lever « C » (Fig. 1).
- Run machine at medium speed making about 5 stitches.
- Bring lever « C » to the left and make a few straight stitches in the same hole to tie up zig-zag stitches.

For sewing four-hole buttons, after stitching through the first two holes, raise slightly presser foot and place the other couple of holes under needle.

41. ZIPPER FOOT

The position of this foot is readily adjustable to either the right or left of the needle, by means of screw « A » (Fig. 57).

The zipper foot is supplied on request, and against payment.

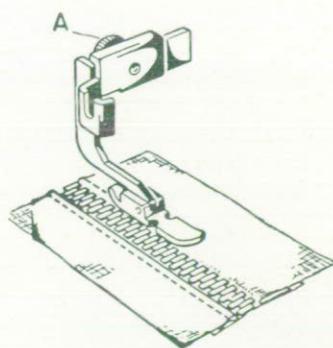


Fig. 57

42. HAND OPERATED BUTTONHOLES (only for Supernova Julia 532)

b) RAISED BUTTONHOLES

Lever « B » (Fig. 1): in left notch.

Lever « C »: its movement must be limited between 1.5 and 3 (see para. 26).

Knob « D »: on red square mark; check right position by trying out on a piece of fabric similar to that used to make buttonhole.

Presser foot: transparent buttonhole foot provided with guide (no. 15, Fig. 3). Regulate position of guide according to desired length of buttonhole.

Upper tension: rather tight; use mercerized cotton no. 40.

Lower tension: rather loose; use mercerized cotton no. 50.

- Bring lever « C » (Fig. 1) on 1.5 and make first row of stitches (Fig. 58, Operation I) going as far as to reach the limit marked by the guide. Leave needle in fabric.
- Raise presser foot and turn fabric half a turn around needle (Fig. 58, Operation II). Lower presser foot.
- Raise needle from fabric and bring lever « C » on 3.
- Make first bar tack with 3 or 4 stitches (Fig. 58, Operation III) and stop sewing with needle out of fabric.
- Bring lever « C » on 1.5 and make second row of stitches as long as the first (Fig. 58, Operation IV). Stop sewing with needle out of the fabric.
- Bring lever « C » on 3 and make second bar tack (Fig. 58, Operation V).
- Remove work and knot threads on the under surface of fabric.
- Cut fabric between the two rows of stitches with NECCHI buttonhole cutter (Fig. 59).

b) FLAT-STITCHED BUTTONHOLES

Proceed as for raised stitched buttonholes with the following exception:

- upper tension: on 4.5. Upper thread no. 50.
- lower tension: normal. Lower thread no. 50.

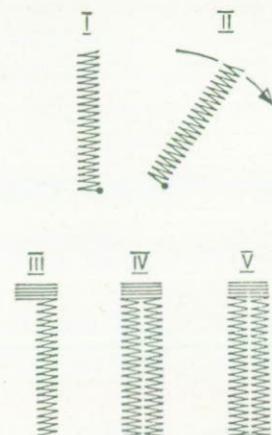


Fig. 58

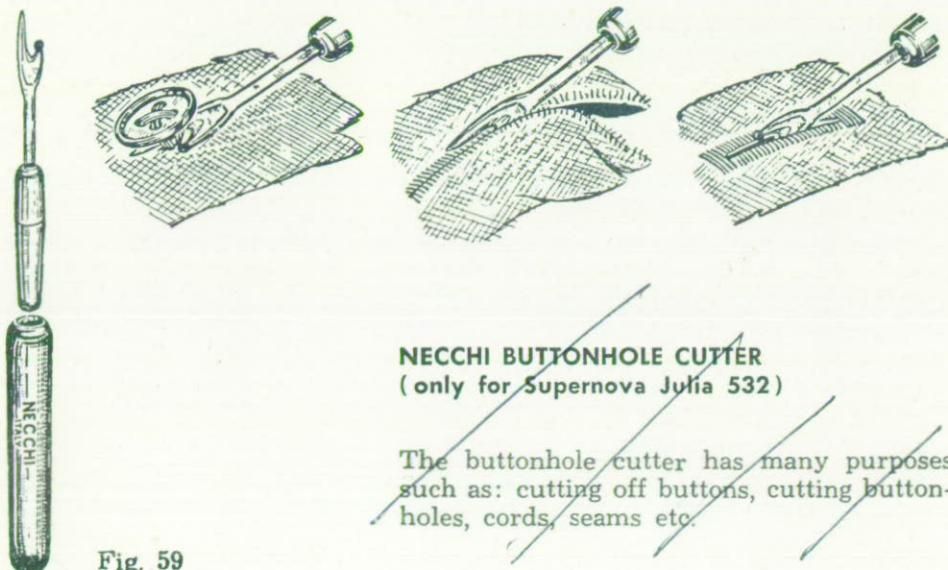


Fig. 59

NECCHI BUTTONHOLE CUTTER
(only for Supernova Julia 532)

The buttonhole cutter has many purposes such as: cutting off buttons, cutting buttonholes, cords, seams etc.

43. BLINDSTITCHING

Blindstitching makes it possible to sew together two pieces of fabric (a flat piece « M » and a folded one « N ») (Fig. 60), so that stitches appear on one side only.

Lever « B » (Fig. 1): in centre notch.

Lever « C »: move it between 2 and 4 so that needle enters in the middle of the folded fabric.

Knob « D »: on 4.

Presser foot: use hinged foot for zig-zag, provided with blindstitching guide (no. 22, Fig. 3).

Check whether folded edge of fabric « N » is in contact with blindstitching guide. If stitches are visible on the inner side of fabric « N » also, decrease zig-zag width; adjust position of guide by means of screw « F » (Fig. 60). The seam should appear as shown in Fig. 60.

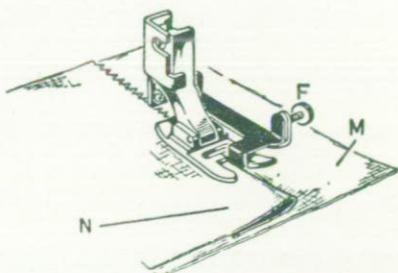


Fig. 60

AUTOMATIC SEWING

44. HOW TO USE THE CAMS

a) Three-cam groups



Fig. 61

I - XXXI - XXXII - XXXIII - XXXIV

The cam-groups being already assembled (fig. 61), there is only to insert them in machine following the instructions contained hereafter.

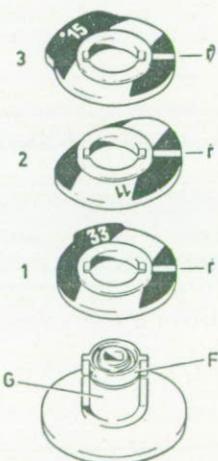


Fig. 62

b) Loose cams

To form the group you wish to insert in machine, proceed as follows:

- Place the cam fixing knob in such a way that its bars coincide with those of the cam-holder bushing « G » (fig. 62).
- Choose first cam and slip it onto cam-holder bushing « G »: the face of the cam on which the chosen number is stamped must be turned upwards.
- Slip second and third cams in the same manner.
- Slightly turn the cam fixing knob so that the cams will not slip off.

NOTE: To make the patterns illustrated on the selector disc contained in the accessory box, turn mark lines « r », stamped on each cam face, in the same direction.

By turning mark lines « r » in different directions, different patterns are obtained.

45. TO INSERT CAMS INTO MACHINE

- Move lever « L » (fig. 63) to the left.
- Open lid « M » and slip cam group onto cam driving pin « N ».
- Groups XXXI, XXXII, XXXIII are to be placed in such a way so that prong « P » of lower cam enters one of the five slots « Q » of the automatic device (fig. 64).
- Move lever « L » back to its working position so that it is flat on the machine arm.

NOTE: If you forget to pull the lever « L » against the machine, current is cut out and machine does not run.

Turn button « A » on desired mark.

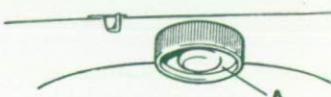
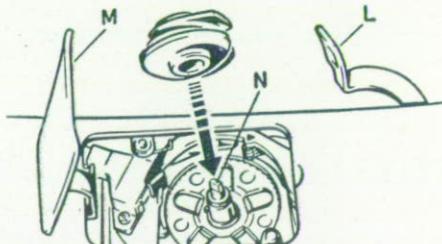


Fig. 63

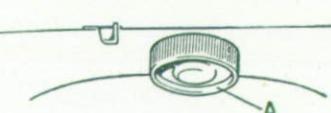
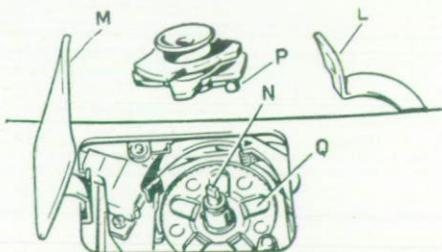


Fig. 64

46. TO REMOVE CAM GROUP FROM MACHINE

- Move lever « L » (fig. 63) to the left, open lid « M » and remove cam group from driving pin.
- Move lever « L » back to the right so that it is flush with the machine arm.

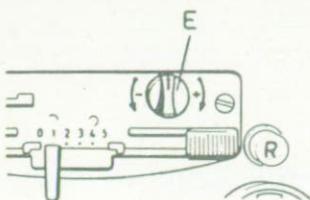


Fig. 65

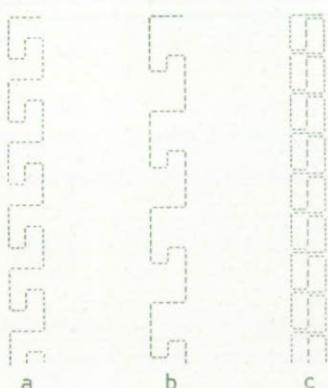


Fig. 66

length, turn knob « E » towards « + ». Design will thus be as shown on fig. 66b.

On the contrary, to decrease the forward stitch length and increase the reverse stitch length, turn knob « E » towards « — ». Design will be as shown on fig. 66c.

It is advisable to turn always very slightly the knob towards the desired direction, due to the fact that this device is very sensitive.

47. KNOB FOR MINUTE ADJUSTMENT OF DESIGN

For the normal execution of the designs, set knob « E » (fig. 65) with its index upwards. If, for some works, the index is in a position different from normal one, to set it again upwards, rotate the knob until a slight click is heard.

You should turn the knob, in particular, when having to make Turkish hemstitch, Paris stitch, or automatic buttonholes.

You will find the appropriate instructions in the relevant paragraphs.

Slight rotations of the knob in respect to normal position may sometimes be necessary, in order either to obtain designs meeting better your taste or to variate the shape of the motif.

Let us now take as an example the Greek Key (fig. 66a) obtained with cam group I and with the knob index set upwards. To increase the forward stitch length and decrease the reverse stitch length, turn knob « E » towards « + ». Design will thus be as shown on fig. 66b.

To decrease the forward stitch length and increase the reverse stitch

length, turn knob « E » towards « — ». Design will be as shown on fig. 66c.

It is advisable to turn always very slightly the knob towards the desired direction, due to the fact that this device is very sensitive.

48. TO REGULATE AUTOMATIC MECHANISM

When using either no cams or cam groups XXXI, XXXII, XXXIII, XXXVI:

- Turn knob « A » (fig. 63) until diamond mark « R » appears through its small window (fig. 67).
- Rotate balance wheel for a complete revolution.
- Turn knob again in the same direction until triangular mark « T » appears through small window.

In other cases, turn button « A » on desired number between 4 and 1.



Fig. 67

49. AUTOMATIC BUTTONHOLES

Buttonholes are made in a fully automatic way, by simply shifting a lever.

Machine setting

Foot: Use the special buttonholing foot, included in the accessory box (fig. 68). To set this foot proceed as follows:

- bring needle to its highest position, by turning balance wheel towards you;
 - shift lever « L » (fig. 63) to the left as far as it will go;
 - loosen almost completely presser foot screw « G »;
 - apply the foot from left to right, keeping it inclined (see fig. 68), so that its shank « H » gets astride on screw stem;
 - slightly push the foot towards the right so that its base rests on needle plate and, raising it, secure it to presser bar by fastening presser screw.
- During these operations, lever « M » is to be maintained in the vertical position in order that, when the foot is completely set, this lever should be in front of lever « N » as shown in fig. 68.

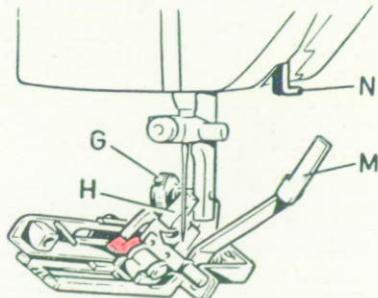


Fig. 68

Cam group XXXIV. Move lever « L » (fig. 63) to the left and place the cam group on driving pin. Holding it by its handle « P », turn it counterclockwise

until its red mark « Q » engraved on top matches the red triangular mark « R » of the micro-electro automatic control finger. Now move lever « L » back to its working position so that it is flat on the machine arm.

Knob « A » (fig. 1): 1 to 2 according to desired length of bar-tack.

Lever « B »: in left notch.

Lever « C »: on the left.

Knob « D »: between red mark and 1.

Knob « E »: with its index toward plus or toward minus according to the type of fabric and the desired density of stitches.

Needle: no. 70 (10) for light fabrics, no. 90 (14) for heavy fabrics.

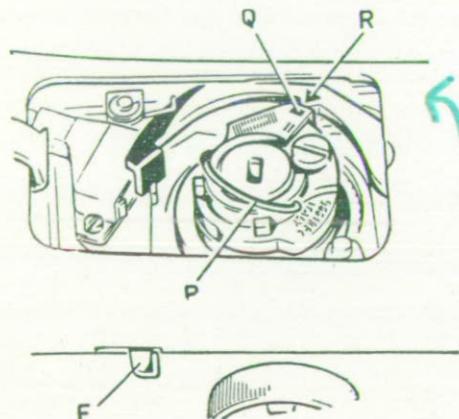


Fig. 69

Length of the buttonhole:

Raise buttonholing foot, and loosen screw « S » (fig. 70). Operating with the right hand on right wing « T », move the sliding part of the foot, while, with the left hand, you move slider « U » until its front end shows, on graduated scale « V », the length of the desired buttonhole. Then fasten screw « S » firmly.

Graduated scale « V » shows the length of the buttonhole in inches in its lower part and in centimetres in its upper part. It is possible to make buttonholes ranging from 1 to 3,7 cm. (abt. 3/8" to 1½").

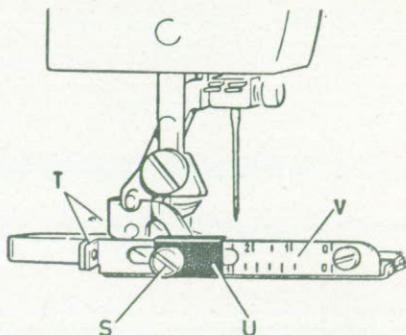


Fig. 70

NOTE: Before making any buttonhole on garments, it is recommended to try on a scrap of fabric similar to the one in use and in the same conditions; to regulate the density of the stitch, you should bear in mind that:

- 1) *First row of stitches in forward sewing: during operation, turn stitch regulating knob « D » (fig. 1) until you reach the desired density. The stitches must not be too dense as they would heap up and the fabric would not be fed.*
- 2) *Second row of stitches in reverse sewing: during operation turn slightly the knob « E » for minute adjustment of designs (fig. 1) toward plus or toward minus, according to the fabrics, until you obtain the same stitch density as in the first row of stitches.*

Do not forget that the density increases when you turn the knob toward plus and decreases when you turn it toward minus.

Procedure

- a) Place fabric under buttonholing foot and lower presser bar lever. Increase pressure of presser foot when the fabric you are using is not fed correctly by feed dog.
- b) Start the machine and move lever « F » (fig. 69) towards the left, releasing it after a few seconds. Machine will start operating and it will make the buttonhole automatically, stopping by itself when the buttonhole is complete, even if you continue pressing on the rheostat. When the cam group will have again its red mark « Q » matching triangular mark « R », (fig. 69) the machine will be ready for another buttonhole.
- c) See that the needle is out of the fabric and in its highest position.
- d) Press drop feed button « P » (fig. 20). When this pushbutton is in position of normal sewing, it will immediately come out by itself. The feed dog will remain lowered until you start sewing again. It will then resume its normal position automatically.
- e) Turn cutter lever « Z » (fig. 71) and press slightly in order that cutter point enters the fabric.

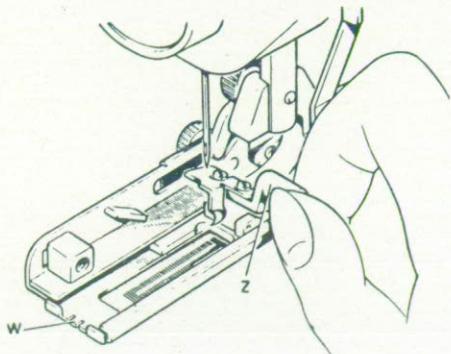


Fig. 71

f) To cut buttonhole: hold with both hands at the same time the fabric and wings « T » (fig. 70) of foot sliding part, then push both wings backwards pressing slightly downwards the fabric with your fingers. When cutting is complete, cutter will automatically resume its initial resting position.

g) Raise buttonholing foot, and move the fabric. Everything is now ready for another button-hole.

Here are some instructions on how to make different types of buttonholes.

Ordinary buttonholes

Upper embroidery thread: no. 30-50 - upper thread tension: normal or loose.
Lower embroidery thread: no. 30-50 - lower thread tension: normal or tight.

Raised buttonholes

Proceed as for ordinary buttonholes described above but set upper tension on 5 or 6. Lower tension rather loose. Upper ordinary thread no. 40-60.

Raised buttonholes with gimp thread

Set the machine as indicated above. Operate as described under point a), then place the gimp thread astride on pin situated in rear end of buttonholing foot. Bring both ends of thread underneath base of foot and toward you, then insert them, pulling both threads upwards, into the slots « W » (fig. 71) provided at the front end of the foot. Make sure that both threads are parallel under foot base.

Follow operations indicated under points b), c), d), e), f), g). The gimp thread will be covered by the stitches for the whole length of the button-hole. Remove fabric from machine, and pull left end of the gimp in order that the loop at the starting end of the buttonhole disappears.

Knot together the two ends of gimp thread close to the bar-tack and cut off loose ends.

Semi-automatic buttonholes

The buttonhole can be obtained by using also the transparent zig-zag foot (no. 14, fig. 3), by operating manually lever « F » (fig. 69) of the micro-electro control.

- Set the machine as described above;
- press on the foot or knee control and move lever « F » toward the left;
- once the desired length of the right row of stitches is obtained, shift again lever toward the left, the first bar-tack will be made and the machine will start making the second row of stitches;
- when this second row will reach the length of the first one, press again lever « F » toward the left and you will thus have the second bar-tack, the closing stitches and the machine will stop.

This is particularly indicated when you want to make buttonholes on very heavy fabrics (as coats or overcoats), on which the machine has a hard feed, as well as for sewing near raised edges which make the fabric thickness irregular.

50. TURKISH HEMSTITCH (fig. 72a)

Cam group XXXI.

Knob « A » (fig. 1): on triangular mark.

Lever « B »: in left notch.

Lever « C »: on the left.

Knob « D »: on 4.

Knob « E »: Normally, it should be slightly turned towards « + » or « — » until forward and reverse stitch meet exactly. The position of the knob will be correct when, by trying on a scrap of fabric similar to the one in use, you will see that when the machine is running, the needle enters always exactly in the holes already made. This is very important.

Upper thread tension: normal.

Lower thread tension: tighter than the upper one.

Needle: in order to obtain a perfect stitch, it is recommended to use a needle having a large diameter, as for instance no. 120 (19).

Presser foot: transparent hinged foot (no. 14, fig. 3).

For this particular stitch it is advisable to use the lower speed, by setting switch « M » (fig. 24) in position « Min ».

If you wish to decrease the width of the design, place needle positioning lever « B » in centre notch, or use the guide for straight sewing (see fig. 72 d) in the intermediate positions.

Moreover, by changing the positions of levers « B » and « C », and by turning knob « E », you can obtain beautiful ornamental motifs.

Here are a few examples:

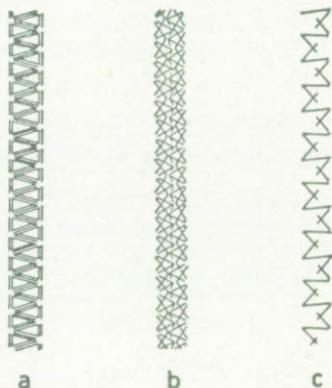


Fig. 72

Fig. 72b shows the design obtained by setting lever « C » on 2 and leaving the other controls in settings indicated above. Fig. 72c shows the design obtained by setting lever « C » on 2 and knob « E » on « + ».

51. SHELL STITCH (fig. 73)

Cam group: XXXII.

Knob « A » (fig. 1): set on triangular mark.

Lever « B »: in left notch.

Lever « C »: on the left.

Knob « D »: from 1 up to 2.5, thus allowing different lengths of scallops.

Knob « E »: with its index upwards.

Presser foot: transparent hinged foot (no. 14, fig. 3).

Upper thread tension: normal.

Lower thread tension: tight.

It is recommended to keep switch « M » (fig. 24) in position « Min ».

Procedure

Place fabric under presser foot, in order that the portion to be hemmed is on your left. Then start sewing, guiding the fabric by hand. Fig. 73 shows an interesting motif.

52. PARIS STITCH (fig. 74a)

Cam group: XXXIII.

Knob « A » (fig. 1): on triangular mark.

Lever « B » in left notch.

Lever « C »: at extreme left.

Knob « D »: on 4.

Knob « E » regulate it by turning it towards minus until forward and reverse stitch meet exactly.

The position of the knob will be correct when, by trying out on a scrap of fabric similar to the one in use, you will see that, when sewing, the needle will enter always the holes already made.

Upper thread tension: normal.

Lower thread tension: normal.

Needle: for good results we recommend the use of a large size needle.

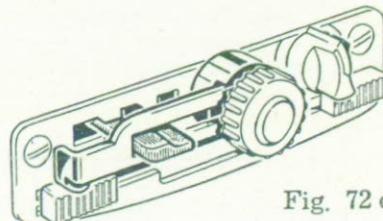


Fig. 72 d

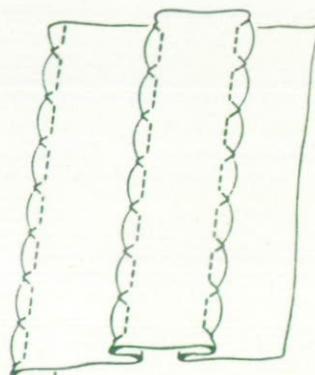


Fig. 73

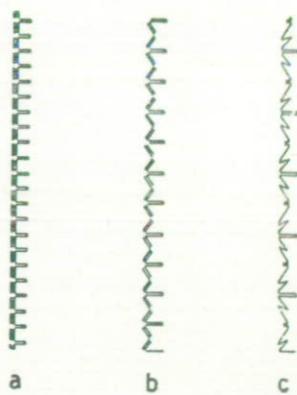


Fig. 74

Presser foot: transparent hinged foot (no. 14, fig. 3).
 It is recommended to keep switch « M » (fig. 24) in position « Min ».
 If you wish to decrease the width of the design, set lever « B » (fig. 1) in centre notch, or use the guide for straight sewing (see fig. 72 d) in the intermediate positions.
 Moreover, by changing the positions of lever « B » and « C » and by turning knob « E » you can obtain pretty ornamental motifs.
 Here are a few examples:
 Fig. 74b shows the design you obtain by setting lever « C » on 2 and leaving positions of the other controls unaltered.
 Fig. 74c shows the design you obtain by setting lever « C » on 3 and knob « E » with its index upwards.

53. BLINDSTITCHING AUTOMATICALLY

Proceed as described under para. 43, page 32, but setting the machine as follows:

Cam group: XXXII.

Knob « A »: on triangular mark (fig. 1)

Lever « B »: in left notch.

Lever « C »: at extreme left.

Knob « D »: regulate it at will between 0.5 and 2.5 according to the required distance of stitches.

Knob « E »: with its index upwards.

Presser foot: normal metal foot for zig-zag stitch with the blindstitch guide (no. 22, fig. 3) attached to presser bar as shown in fig. 75.

NOTE: If seam is visible also on inside of folded fabric, regulate the position of the guide by means of screw « F » (fig. 75).

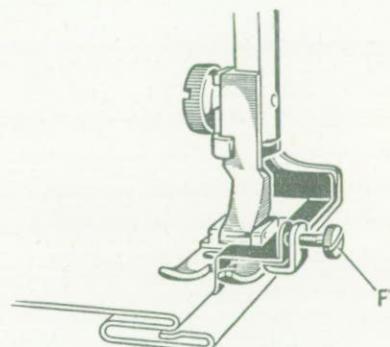


Fig. 75

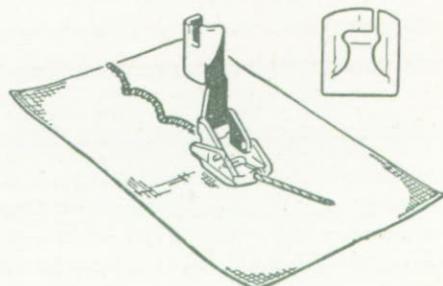


Fig. 76

54. RAISED SCALLOPS

Insert cams 0,0,24 for round scallop, or cams 0,0,17 for pointed scallop.

Knob « A » (fig. 1): from 2 to 4 according to desired length of scallop.

Lever « B »: in left notch.

Lever « C » on 2 or more according to string thickness.

Knob « D »: on red mark.

Knob « E »: with its index upwards.

Presser foot: use raised scallop presser foot (fig. 76).

Use pearl cotton no. 8 of the same colour as the thread, inserting it in the hole of the presser foot base and pulling it backwards under same.

To make fine scalloping, use pearl cotton no. 12, leaving the zig-zag width always above 2.

For very light fabrics and to make « false lace », reinforce fabric with tissue paper. Start sewing by operating the machine slowly and taking care to hand-guide the string, holding it from front side of foot, for two or three stitches, to ensure that the string should be covered immediately. Then leave it, taking care that it should run regularly without being tightened in the foot base hole and sew normally.

55. SMOCK STITCH

For this type of work use light material like satin.

Set machine as for sewing with twin needle (see para. 28 page 22).

Cam group: cams 0-0-17.

Knob « A »: on 1.

Lever « B »: in left notch.

Lever « C »: at extreme left.

Knob « D » on red mark.

Knob « E »: with its index upwards.

Upper thread tension: rather tight.

Thread: use embroidery thread no. 50.

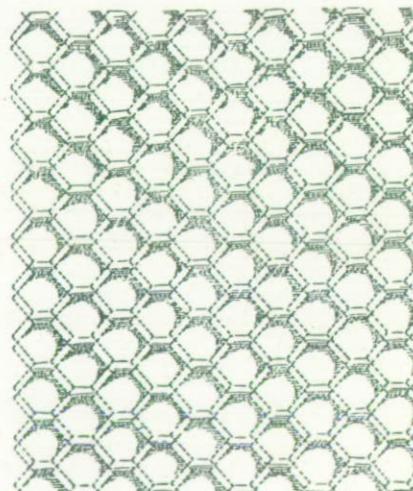


Fig. 77

Sew parallel lines of stitches so that the point of every line is always in correspondence with the point of the preceding one (fig. 77). Eventually correct direction of sewing, guiding the fabric by hand.

56. HOW TO MAKE THE DESIGNS SHOWN ON THE SELECTOR DISC

The selector disc, included in the accessory box, gives you immediate instructions on how to set the machine for making the 90 designs shown.

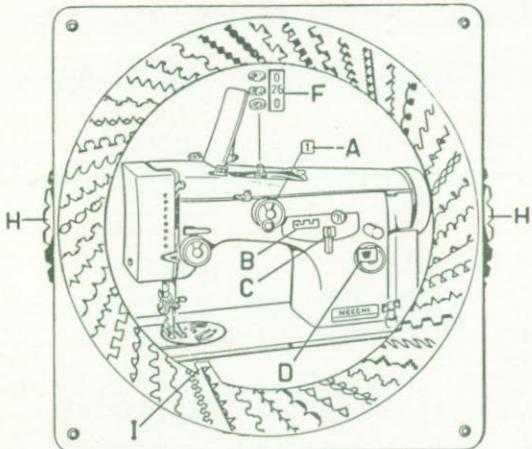


Fig. 78

This disc is to be used in the following manner:

- Bring desired pattern in correspondence with slot « I » by turning knurled dial « H » (fig. 78).
- The numbers of the cams to be used for forming the group appear through small window « F ».
- Cams are to be assembled on cam-holder bushing « G » (fig. 62) in the order indicated. The face of the cam on which the chosen number is stamped must be turned upwards. Guide lines « r », which are also stamped on each cam face, must be turned in the same direction.

-- The instructions necessary for the execution of the design will appear through the other small windows made on the disc.

NOTE: The designs illustrated on the selector disc can be varied by altering the position of control levers and knobs. A few examples of variations are illustrated in the last pages of this book.

57. CHARTS OF AUTOMATIC EMBROIDERY DESIGNS

Thousands of designs can be obtained, most easily, by combining the cams at will, by varying the position of the guide lines in respect to the mark hole « s » (fig. 79) of cam-holder bushing « G », and by changing the position of controls of machine. Beside the designs illustrated on the disc, the following charts are showing a few examples of patterns that can be obtained by combining the cams supplied with the standard accessories of the machine. The charts indicate the cams in the same order as they must be inserted on cam-holder bushing.

Under each number there is a mark indicating the direction that should be given to guide line « r » (fig. 79) on cam-holder bushing « G » in order to make the desired design.

The mark  indicates that the cam is to be placed on cam-holder bushing with its guide line « r » in the direction of the bar which has underneath the hole « s ».

The mark  indicates that the cam is to be placed on cam-holder bushing with its guide line « r » in the opposite direction.

When consulting the charts, always refer to Fig. 1.

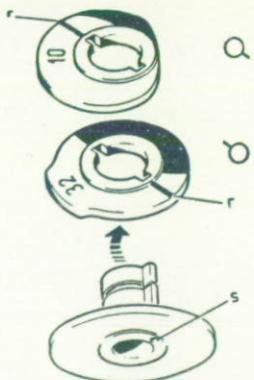


Fig. 79

	22-20-19	0-0-24	0-0-16	32-21-31	32-21-18	32-21-25	22-21-31	25-0-16	28-20-11	33-0-11
A	2,5	1	1	2,5	1	1	2,5	1,5	1	1
B										
C	0	1,5	1,5	0	0	0	0	0	0	0
D	4							1	0,8	

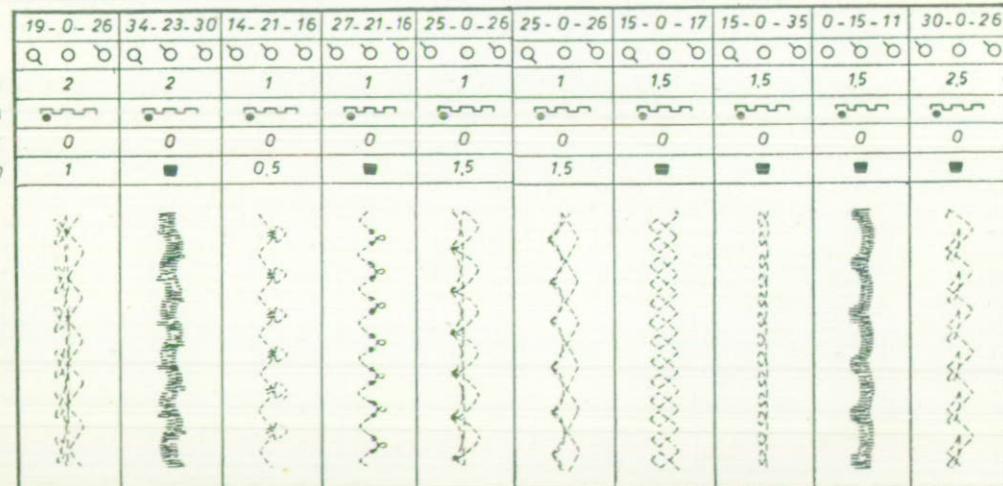
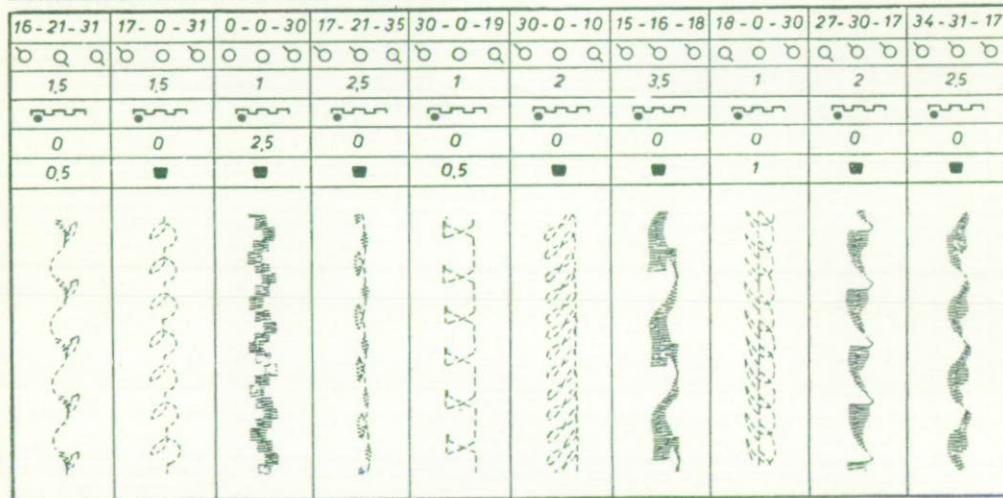
	32-0-26	25-0-11	30-0-16	28-18-17	28-17-18	30-0-11	30-0-11	14-20-27	14-20-26	21-26-17
A	1,5	1	3	3	3	1	1	1	2	2
B										
C	0	0	0	0	0	0	0	0	0	0
D		1,3						0,5	0,5	0,5

	22-26-20	22-0-19	32-16-30	22-0-25	0-0-30	28-0-17	0-0-26	32-0-31	28-0-31	0-34-24
A	1	2	1,5	1	1	2,3	3	2	2	2,5
B	—	—	—	—	—	—	—	—	—	—
C	0	1	0	0	1,5	0	1,5	1	0	0
D	0,5	—	0,5	0,5	—	0,5	—	—	4	—

	17-20-35	26-34-19	20-35-30	0-35-26	18-0-10	0-34-18	22-20-26	15-0-18	0-21-14	31-0-16
A	2,5	2	2	2	1	1	2,5	3,5	1	3,5
B	—	—	—	—	—	—	—	—	—	—
C	0	0	0	0	0	0	0	1	0	0
D	—	—	—	—	1,2	—	—	—	—	—

	16-0-27	18-0-16	14-0-27	16-0-14	15-0-10	17-26-19	31-21-18	0-18-27	21-35-33	0-35-20
A	1,5	1	3	1,5	3	1	3	1	2	2,5
B	—	—	—	—	—	—	—	—	—	—
C	0	0	0	0	0	0	0	0,5	0	0
D	—	1	—	—	—	0,5	—	—	—	—

	31-20-16	19-20-26	18-20-26	29-35-23	35-17-18	0-20-31	11-0-27	0-20-17	30-0-19	18-0-31
A	q q q q q q q q	q q q q q q q q	q q q q q q q q	q q q q q q q q	q q q q q q q q	q q q q q q q q	q q q q q q q q	q q q q q q q q	q q q q q q q q	q q q q q q q q
B	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■
C	0 0 0 0 0 0 0 0 0 0 0									
D	■ 1,2 1 1				■	■	■ 1,5	■	■	■ 0,9



	28-0-31	23-26-19	23-26-18	23-35-19	33-17-0	0-17-26	0-17-18	0-17-11	17-21-11	20-34-26
A	ρ o σ	σ σ ρ	σ σ ρ	σ σ σ	σ σ o	o σ ρ	o σ σ	o σ σ	σ σ σ	σ σ σ
B	3,5	3	3	3,5	1,5	1	3	3	2,8	3
C	1	0	0	0	0	0	0	0	0	0
D	0,8	■	■	■	■	■	■	■	■	■

	16-34-18	16-34-24	16-34-25	27-34-17	27-34-16	27-34-30	0-34-16	0-17-35	0-21-29	0-21-28
A	σ σ σ	σ σ ρ	σ σ ρ	σ σ ρ	σ σ σ	σ σ ρ	o σ σ	o σ σ	o σ σ	o σ σ
B	3,3	3,3	2,3	2,5	2,5	3	3	3	3	3
C	0	0	0	0	0	0	0	0	0	0
D	■	■	■	■	■	■	■	■	■	■

	34-27-10	0-27-30	0-16-27	0-17-19	0-26-21	27-20-31	27-31-16	27-31-17	0-30-26	0-26-35
A	σ σ σ	o σ ρ	o σ σ	o σ ρ	o σ σ	σ σ σ	σ σ σ	σ σ σ	o σ σ	o σ σ
B	3	3	3	3	3,2	3	3	3	3	3
C	0	0	0	0	0	0	0	0	0	0
D	■	■	■	■	■	■	■	■	■	■

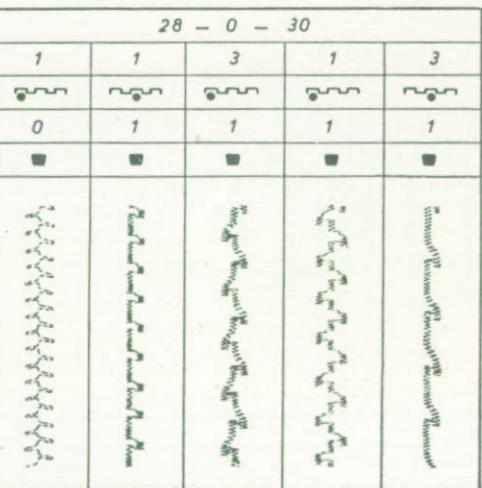
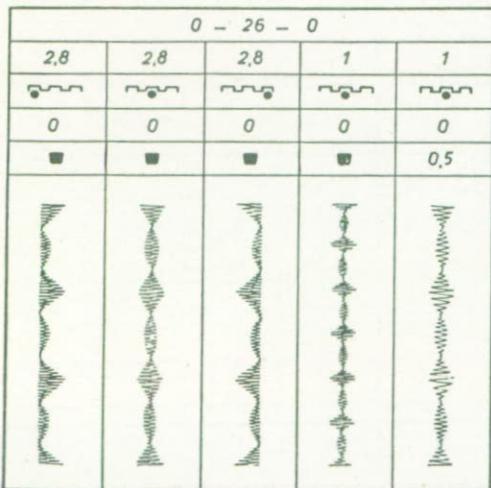
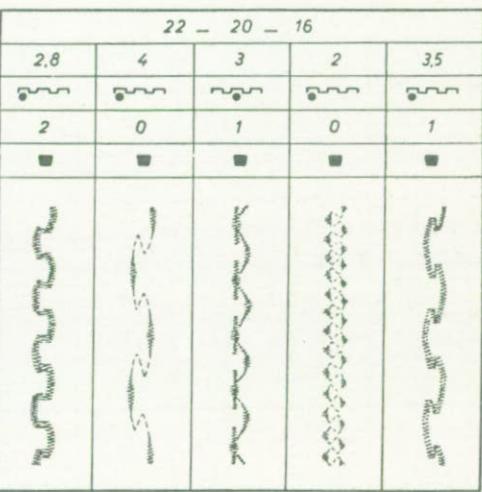
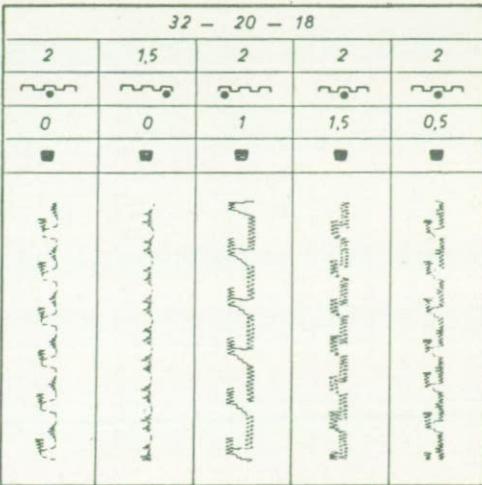
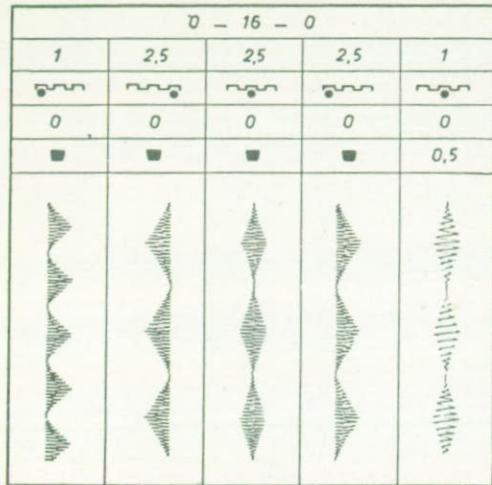
	14-21-19	27-0-25	23-21-16	0-27-20	0-20-25	33-35-17	15-0-25	14-21-25	19-0-11	19-0-25
A	0 0 0 0									
B	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■
C	0 0 0 0									
D	1 ■	1 ■	1 ■	1 ■	1 ■	0,5 ■	2,5 ■	2,5 ■	1 ■	1 ■

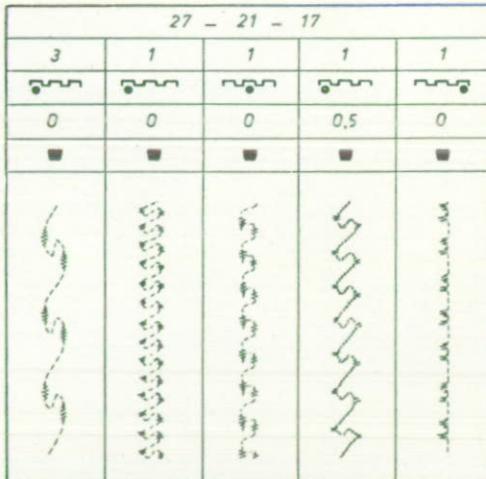
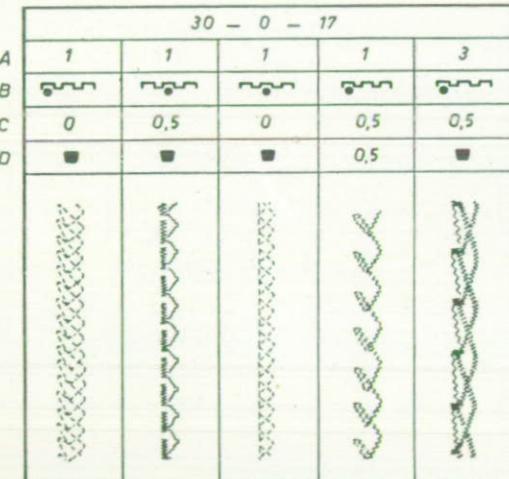
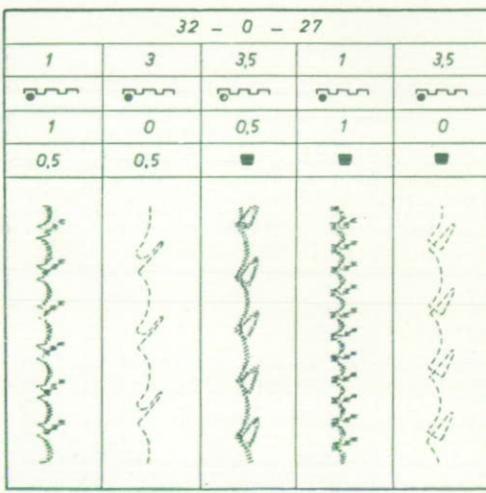
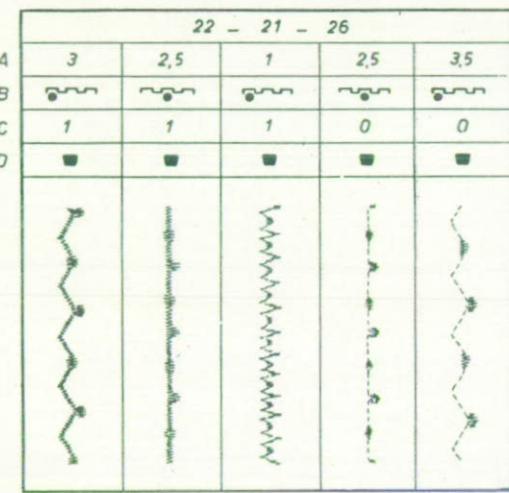
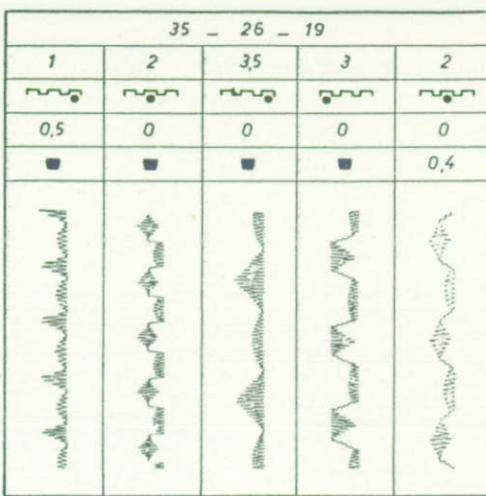
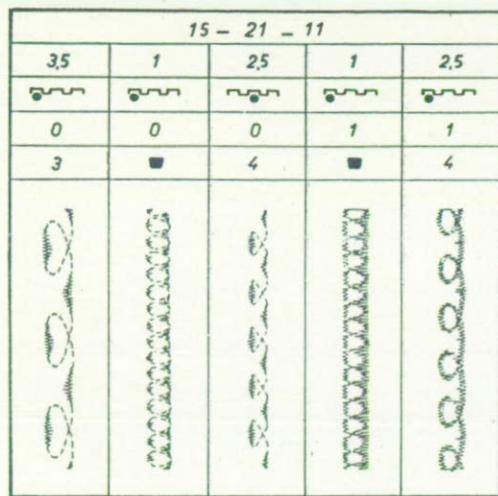
	I				
A	1	1	1	2	3
B	■■■■	■■■■	■■■■	■■■■	■■■■
C	0	1	1	1	1
D	0,6	4	4	0,5	4

The following charts illustrate a few examples of designs that can be made by varying those shown on the selector disc, changing the positions of the machine control levers and knobs (fig. 1).

22 - 20 - 18					
A	3	2,8	4	3	3
B	■■■■	■■■■	■■■■	■■■■	■■■■
C	0	2	0	1	2
D	■	■	■	■	■

0 - 24 - 0					
A	1	2,5	1	2,5	1
B	■■■■	■■■■	■■■■	■■■■	■■■■
C	0	0	0	0	0
D	■	■	■	■	■





58. ADDITIONAL FLOWER DESIGNS WITH AUTOMATIC STOP

The flower designs illustrated in fig. 81, 82 and 83 can be obtained with the automatic stop at the end of each petal, by fitting, on the cam group, stop plate « A » (fig. 80), supplied in the accessory box.

When placing the cams on the cam-holder bushing, it is necessary to note carefully the position of the guide lines (see para. 57, fig. 79) indicated under the numbers of the cams forming the flower motif.

NOTE - The first cam must be placed with its guide line on the side of the bar which has underneath the hole « s ».

Plate « A » is to be fitted on top of the upper third cam, and its prong « a », turned downwards, must be inserted into the notch of the third upper cam on the side of the bar which has the hole, that is the two holes « s » and « s' » must be on the same side.

Tighten then the cam fixing knob.

Machine setting :

- Set the machine controls according to instructions which are to be found facing each design.
- Move lever « L » (fig. 63) to the left and insert the cam-group, then move back this lever to its normal working position, against machine arm.
- Make sure that curved end « b » of plate « A » is matching the red triangular mark « R » (fig. 69). If you do not meet this condition, start the machine and run it idle until it reaches the position of automatic stop.
- Place fabric under presser foot, and turning balance wheel by hand, make sure that needle enters the correct point where the centre of the flower is going to be.
- Start the machine and then move towards the left lever « F » (fig. 69), releasing it after a few seconds: the machine will start sewing and when petal is complete, will automatically stop.
- Insert needle into fabric and, pivoting around needle, with presser foot slightly raised, turn fabric clockwise. Then lower again presser foot.
- Move again lever « F » towards the left, always pressing on foot or knee control and make the second petal. Continue as indicated above until your flower is complete.

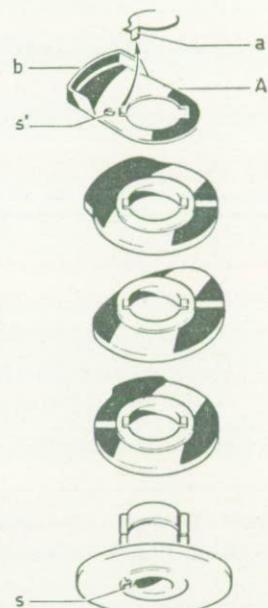


Fig. 80

A) Cam-group: 18 — 0 — 31

○ ○ ○

Knob « A » (fig. 1): on 3

Lever « B »: in left notch

Lever « C »: on the left.

Knob « D »: between 0.5 and 1

Knob « E »: with its index upwards.

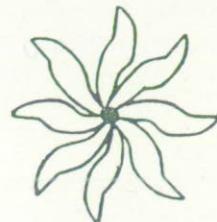


Fig. 81

B) Cam-group: 27 — 0 — 10

○ ○ ○

Knob « A » (fig. 1): on 3

Lever « B »: in left notch

Lever « C »: on the left.

Knob « D »: on 1

Knob « E »: with its index upwards.

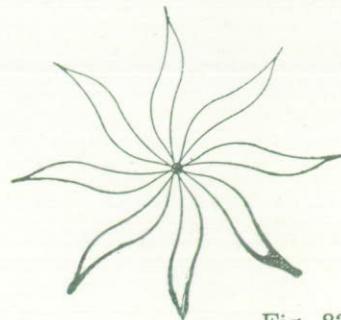


Fig. 82

Place fabric under presser foot and sew one half of one petal. After first half of petal is finished, machine will automatically stop.

At this point, raise presser foot slightly, and while keeping needle in fabric; pivot fabric clockwise around needle. Complete second half of petal by moving lever « F » to the left.

Proceed in this manner until desired number of petals is made.

This flower can also be varied by stitching with zig-zag lever on 1.

C) Cam-group: 33 — 17 — 31

○ ○ ○

Knob « A » (fig. 1): on 3

Lever « B »: in left notch

Lever « C »: on the left.

Knob « D »: on 4

Knob « E »: with its index upwards.

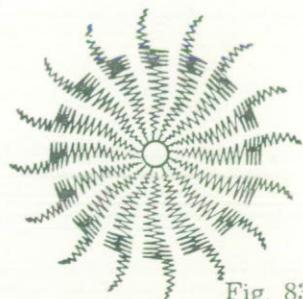


Fig. 83

Each petal is started from the centre. After making each petal, cut off the thread, start the next one in the centre and continue until flower is complete.

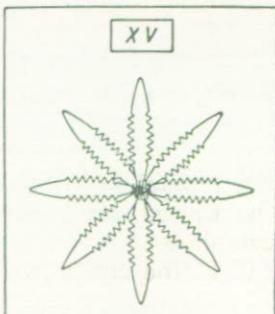
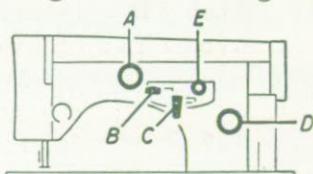
Fill in the centre with satin stitches or a bright button.

59. PERMANENT CAM-GROUPS

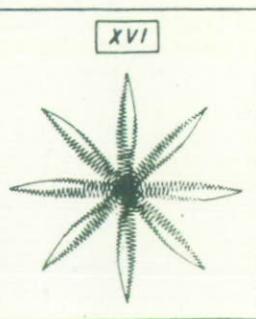
Please find, illustrated hereunder, the designs which are obtained with the permanent cam-groups pertaining to our present production.
 Cam groups I - XXXI - XXXII - XXXIII and XXXIV are included in the standard accessories supplied with the machine; the other permanent cam-groups are supplied, upon request and against payment, by our Sales Organization.

You will find, near each design, the indications concerning machine setting.

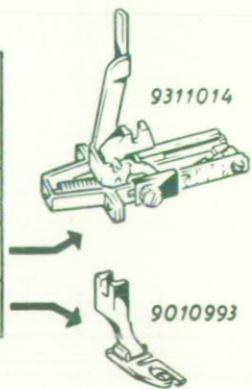
Nº	A	B	C	D	
I	1	•	0	4	51515151515
III	1	•	0	4	2222222222222
IV	1	•	1,5	■	Wavy line
VI	2,5	•	2	■	Wavy line
VII	1	•	0	4	Stitch pattern
VIII	1	•	0	■	Wavy line
		•			Wavy line
		•			Wavy line
IX	1	•	0	■	Wavy line
X	1	•	0	1,5	Wavy line
XI	2	•	0	4	Wavy line
XII	1	•	0	1,5	Wavy line
XIII	1	•	0	1,5	Wavy line
XIV	3	•	0	4	Wavy line
XV	2,5	•	0	1	Wavy line
XVI	3	•	0	0,7	Wavy line
XVII	1	•	0	■	Wavy line
XVIII	2,5	•	0	■	Wavy line
XIX	2,5	•	0	■	Wavy line



Nº	A	B	C	D	
XX	2,5	~~~~~	0	■	
XXI	1	~~~~~	0	■	
XXII	3,5	~~~~~	0	■	
XXIII	3,5	~~~~~	0	■	
XXIV	3,5	~~~~~	0	■	
XXV	3	~~~~~	0	■	
XXVI	4	~~~~~	0	■	
XXVII	4	~~~~~	0	4	
XXVIII	3	~~~~~	0	■	
XXIX	3,5	~~~~~	0	■	
XXX	3 *	~~~~~	0	■	



Nº	A	B	C	D	E	
XXXI	▲	~~~~~	0	4	-○+	
XXXII	▲	~~~~~	0	1÷2,5		
XXXIII	▲	~~~~~	0	4	-○+	
XXXIV	1÷2	~~~~~	0	■	-○+	
XXXV	▲	~~~~~	0	1		





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