

**model 300**

**Directions for Use  
Automatic Household Sewing Machine**

A whole lifetime of pleasurable sewing will be yours providing you always remember to treat your Model 300 as a friend and regularly give it the little servicing it requires.

Carefully read and follow the instructions and hints given in this little booklet — it will certainly repay you.

In case of doubt or difficulty, contact the dealer or agent who sold you the machine — he will gladly help.

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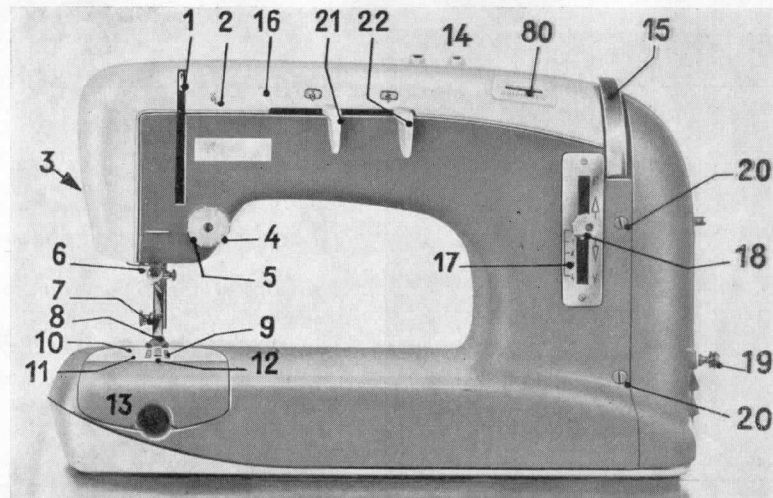


fig. 1

- |                                     |  |
|-------------------------------------|--|
| 1 Thread take-up lever              | 13 Sliding cover   |
| 2 Thread guide                      | 14 Hole for reel pin   |
| 3 Lever to raise sewing foot        | 15 Handwheel   |
| 4 Tensioner for needle thread       | 16 Cover over arm  |
| 5 Thread-tensioning spring          | 17 Graduated scale (stitch length)                                   |
| 6 Thread guide                      | 18 Stitch-length lever   |
| 7 Foot-holding screw                | 19 Thread guide for spooler mechanism                                |
| 8 Sewing foot                       | 20 Screws holding rear cover   |
| 9 Feed mechanism                    | 21 Lever for setting stitch width from zero to 4 1/2 mm (0 to 3/16") |
| 10 Hole for darning plate           | 22 Stitch-position lever left, centre, right                         |
| 11 Throat plate                     |  |
| 12 Cord guide (for sewing pintucks) |  |

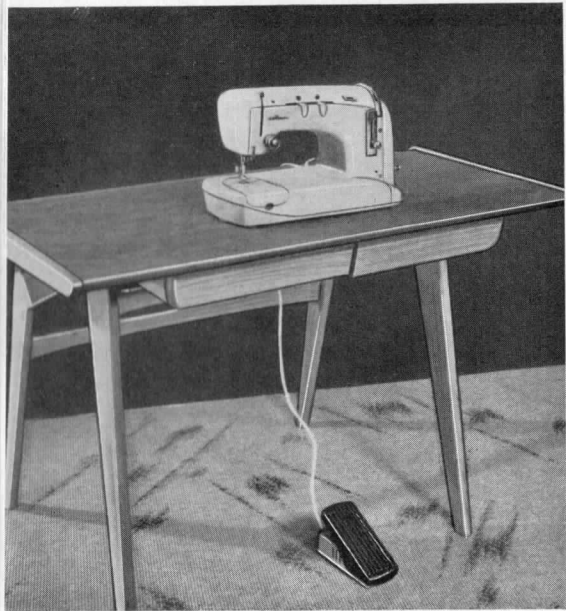


fig. 2

## Preparing the machine for use

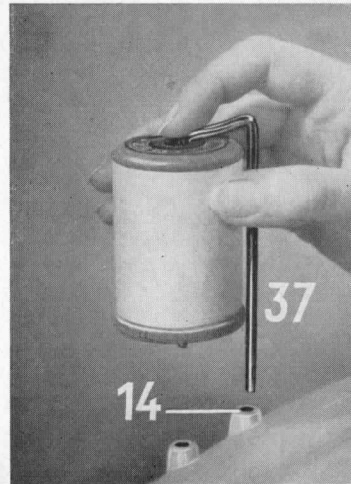
Take the machine out of its case and place in front of you on a table.

Next insert the plug from the foot control in its socket on the machine.

## Threading the needle thread

Insert the thread-reel pin (37 in Fig. 3) with thread reel in the hole (14) in the cover over the arm. Push home until the pin snaps into position. Details are given on pages 30 and 31 on how to use two threads and two thread reels (for sewing pintucks and twin-needle seams). A new thread reel can be fitted in place of the old one simply by swinging the pin to one side.

fig. 3





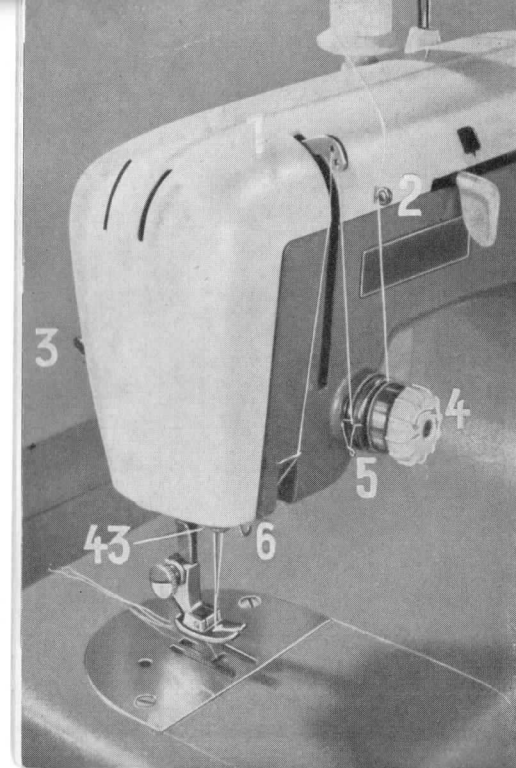


fig. 4

The thread from the reel is threaded as follows:

1. Pass through the thread guide (2 in Fig. 4),
2. between the tensioning discs (4),
3. under the thread-tensioning spring (5),
4. through the lower hole in the thread take-up lever (1), (the lever must be raised as high as it will go)
5. through the thread guide (6),
6. through the thread guide (43), and then threaded about 80 mm (3 $\frac{1}{4}$ "") from front to rear through the eye of the needle.

## Changing needles

To fit a new needle, firstly bring the needle bar to its maximum raised position by turning the handwheel (15 in Fig. 1) in the direction shown by the arrow. Next loosen the screw (33 in Fig. 5), remove the needle and fit the new needle so that its long groove is facing towards the front. Push the needle home as far as it will go.

Tighten screw (33). — Only system 705 (15 x 1) should be used. Only by using good quality and undamaged needles can you expect good work from your machine. Neat and tidy work cannot be expected if the needle is damaged in that its point is broken or bent.

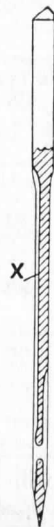
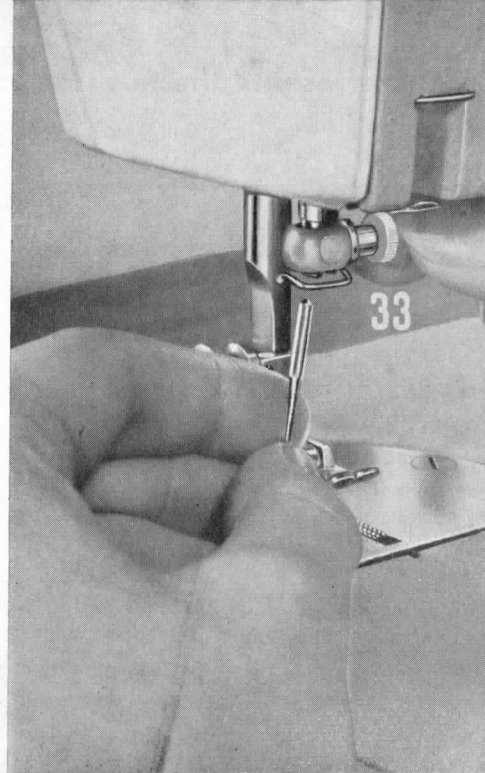


fig. 5



## Needles and threads

The following table will give you an idea which sizes of needles should be used with different threads and materials.

Types of Fabric	Needle Style No.		Threads	Stitch length
	15 x 1 × Size No.	705 ××		
Chiffon, fine dimity, silk, delicate nylon	9	70	Mercerized cotton 100 to 150 or O. N. T. size 0000	1 - 1½
Dacron, rayon, batiste, velvet, tricot	11	80	Mercerized cotton 70-100 or O. N. T. size 000	1½ - 2½
Linen, poplin, gingham, light weight wool, plastic	14	90	Mercerized cotton 50-70 or O. N. T. size 00 or 000	1½ - 2½
Cotton, coat fabrics, wool, rubberized fabric	16	100	Mercerized cotton 50-60 or O. N. T. size 00	2 - 3

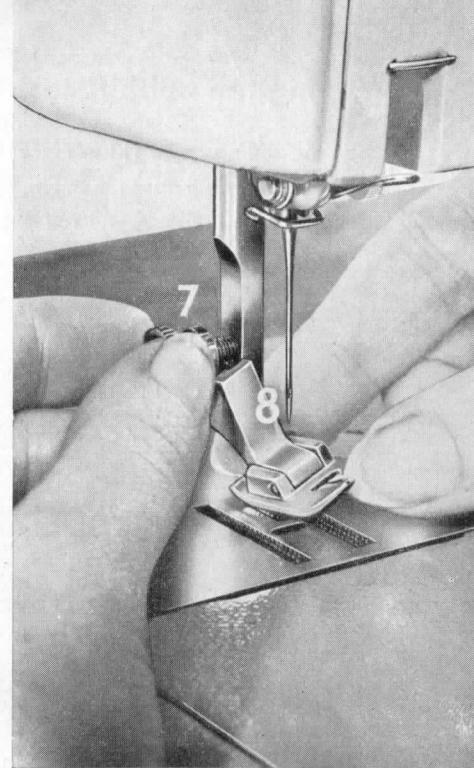
Sew "orlon", "dacron" and "nylon" fabrics with "dacron" thread.  
For darning, embroidery and scalloping use special D.M.C. machine twist.

× American size number } equivalent  
×× European size number }

## Changing sewing feet

With the left hand, loosen the holding screw (7 in Fig. 6), remove foot and then fit the other one in place. Push upwards as far as it will go and then tighten the holding screw. How and when the various feet supplied standardly with the machine as attachments are used are dealt with under the various headings. All normal straight and zigzag-stitch seams are sewn with the hinged zigzag-stitch foot.

fig. 6



## Removing the bobbin case

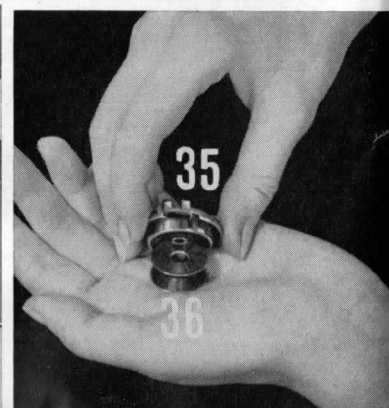
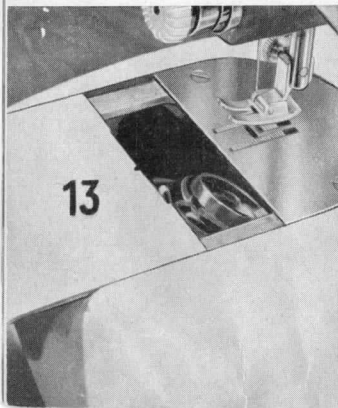
1. Open the sliding cover (13 in Fig. 7) by drawing towards the front,
2. Remove the bobbin case (35 in Fig. 8) together with the bobbin (36),
3. The bobbin (36 in Fig. 9) will fall out of the case as this is turned upside down.

10

fig. 7

fig. 8

fig. 9



## Winding the bobbin

Turn the knob (32 in Fig. 10) located at the rear of the machine in the direction shown by the arrow. This disengages the sewing mechanism and simultaneously engages the bobbin winding device.

Next insert the reel-holder pin (44 in Fig. 11) with thread reel into the hole provided for this purpose. Press the pin firmly home so that it prevents the reel spinning too freely. Pass the thread end through the guide (19) and then wind several turns of thread round the bobbin (36) which is then inserted onto the spooler pin (38).

Set the bobbin slowly in motion by gently pressing on the foot control (a slow, regular bobbin speed will give a uniformly-wound bobbin).

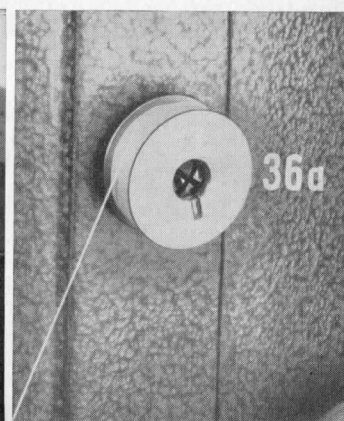
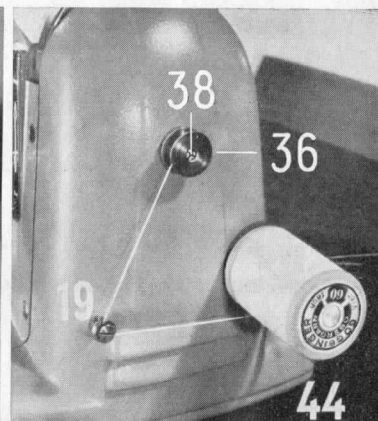
Just before the bobbin is fully wound, release pressure on the foot control and then remove the bobbin from its pin. Turn the control knob (32) back to the "sewing" position (horizontal). If the machine is not to be used for a long period of time, turn the knob (32) to an oblique position (↘)

fig. 10

fig. 11

fig. 12

11



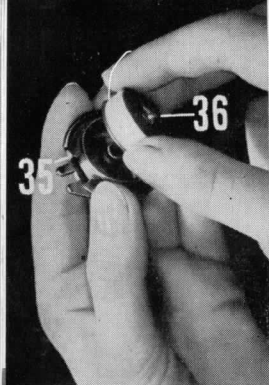


fig. 13

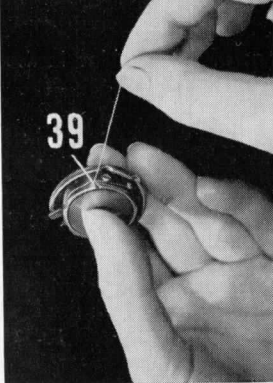


fig. 14

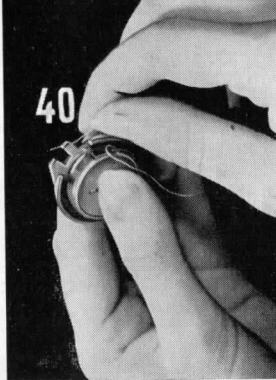


fig. 15

## Threading the bobbin thread

Insert the fully-wound bobbin (36 in Fig. 13) into the bobbin case (35) making sure that the thread winds off the bobbin as shown in Fig. 13.

Pass the thread through the slot (39 in Fig. 14) and then through the hole (40 in Fig. 15) in the bobbin case. Leave about 80 mm (about 3¼") of thread hanging out of the hole.

## Refitting the bobbin case

Hold the end of thread (as shown in Fig. 16) and refit the bobbin case (complete with bobbin) making sure that the projecting tag (41) fits snugly into the aperture (42). This should be checked very carefully before finally closing the sliding cover (see Fig. 17). The thread from the bobbin should pass through the groove (13a) in the sliding cover and should project about 80 mm (about 3¼") beyond the top of the cover, (13).

fig. 16

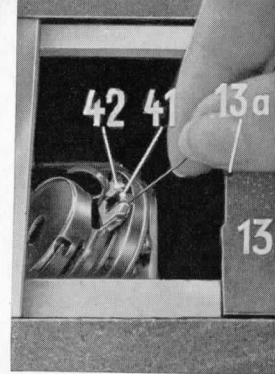
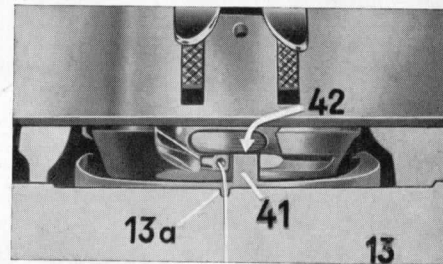


fig. 17



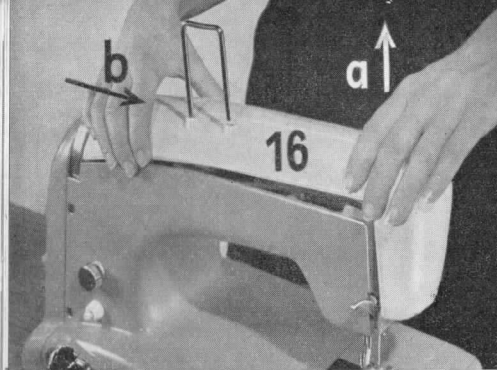


fig. 18

## Adjusting foot pressure

(Removing cover over arm)

Remove the cover (16) over the arm by lifting it firstly in the direction shown by the arrow a) (see Fig. 18) and then sliding it off in the direction shown by the arrow b).

Increased foot pressure will be required when sewing thicker-than-normal materials whereas thinner materials will require less foot pressure.

The pressure applied by the foot can be increased by turning screw (45 in Fig. 19) in the direction shown by the arrow. Vice versa, foot pressure is decreased by turning the same screw in the opposite direction.

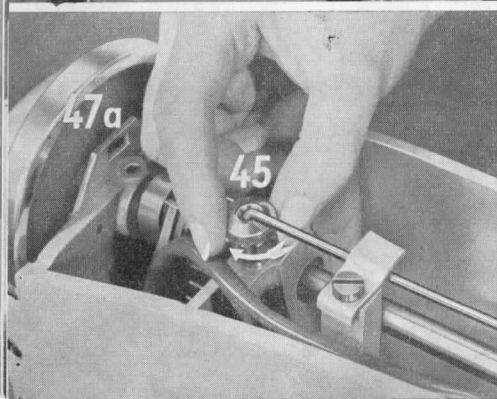
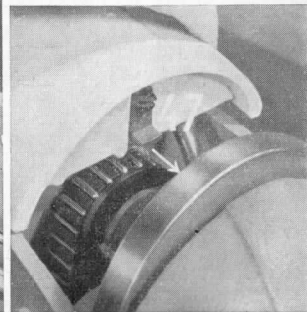


fig. 19



The top cover is refitted by firstly inserting the projecting tag (47 in Fig. 20) in the aperture provided for this purpose and pressing inwards (in the direction shown by the arrow) and then firmly downwards.

fig. 20

## Adjusting tension of the threads

fig. 21

The amount of tension applied to the needle thread can be increased by turning the nut (4 in Fig. 21) in a clockwise direction and, vice versa, pressure is decreased by turning the same nut in an anti-clockwise direction.

Normally speaking, the tension on the bobbin thread should not be altered. However, the amount of tension can be increased by turning the screw (46 in Fig. 22) in a clockwise direction, or can be decreased by turning the same screw in an anti-clockwise direction.



fig. 23



fig. 24

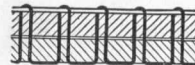
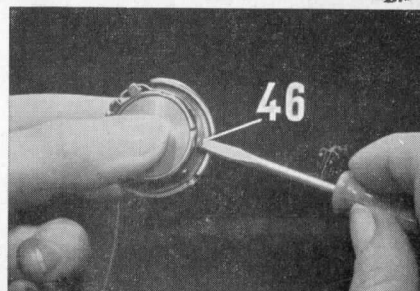
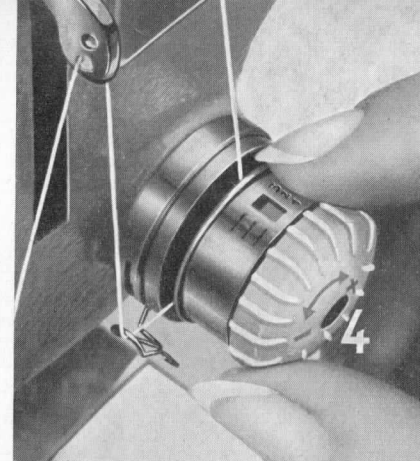


fig. 25



The loop formed between the two threads should be located exactly between the two layers of material. (see Fig. 23).

Loops visible on the underside of the material indicate that either there is too much tension on the bobbin thread or not sufficient tension on the needle thread (see Fig. 24).

On the other hand, loops visible on the top of the material indicate that there is probably too much tension on the needle thread or insufficient tension on the bobbin thread (see Fig. 25).

fig. 22



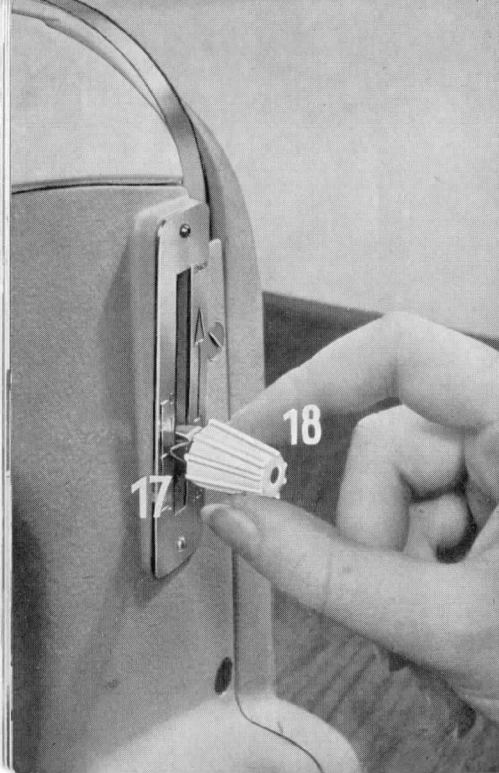


fig. 26

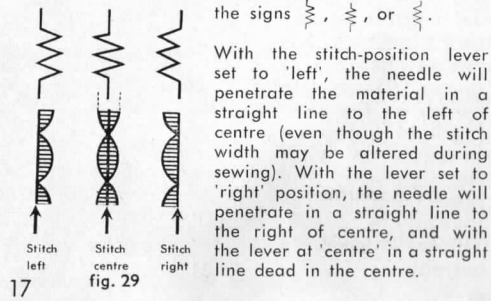
## Setting stitch length

An alteration to the position of the stitch-length lever (18 in Fig. 26) should only be made either with the needle in its maximum "up" position or during sewing. Forwards stitches are sewn by moving the lever (18) downwards and the length of stitches required set on the graduated scale (17). Backwards stitches of the same length (as required e. g. to lockstitch the end of a seam) are obtained by screwing the screw (18) inwards and then swinging the lever upwards along the graduated scale as far as it will go.

## Setting stitch width and needle position

The width of the zigzag stitches can be varied over the stitch-width lever (21 in Fig. 27); any alternation is made during sewing or, when the machine is not running, with the needle in the maximum "up" position. The width (in millimetres) of the stitches set by the lever is shown in the opening in the top cover over the arm. Using the notch in the opening edge and the size graduations it is possible to set the stitch width very accurately to the nearest half-millimetre.

The position of the needle and therefore, of the stitches is varied by means of the lever (22 in Fig. 28). Alteration can be made during sewing or with the machine still (providing the needle is in the maximum up position). The position of the stitches, i. e. to the left of centre, in the centre, or to the right of centre is shown respectively in the opening in the arm cover by

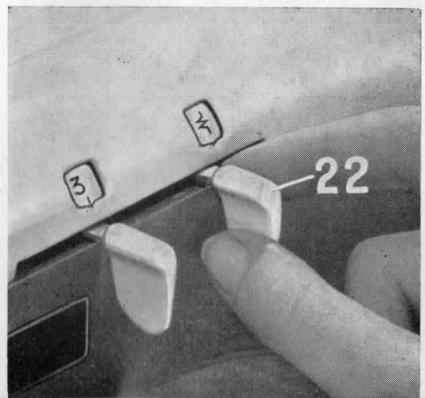
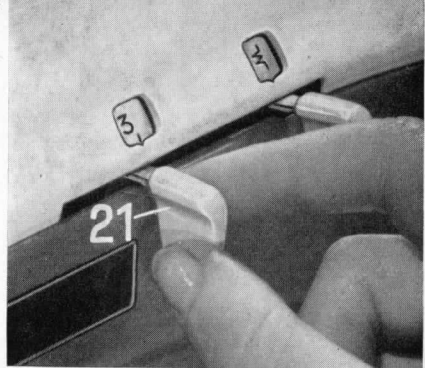


the signs , , or .

With the stitch-position lever set to 'left', the needle will penetrate the material in a straight line to the left of centre (even though the stitch width may be altered during sewing). With the lever set to 'right' position, the needle will penetrate in a straight line to the right of centre, and with the lever at 'centre' in a straight line dead in the centre.

fig. 28

fig. 27



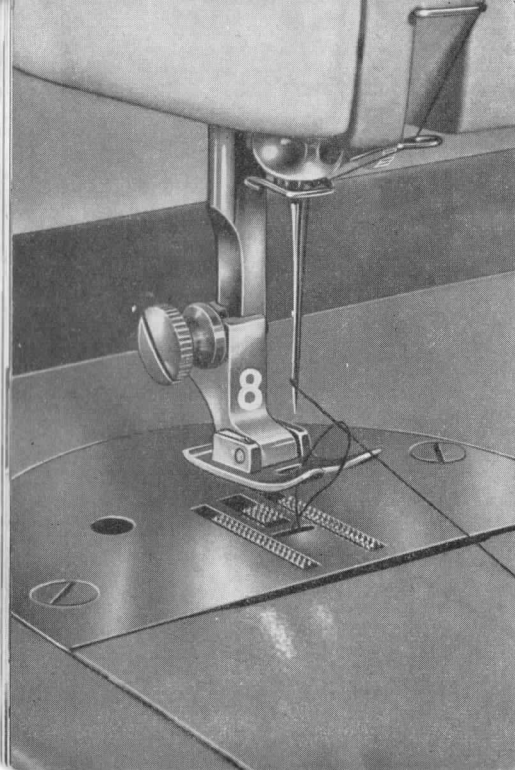


fig. 30

### Starting the machine and sewing

Lightly hold the end of the needle thread and then turn the handwheel one complete revolution towards you until the thread take-up lever is again in the "up" position. This will draw the bobbin thread through the hole in the throat plate and into position under the needle (see Fig. 30). Now position both threads underneath the sewing foot and facing towards the machine rear (see Fig. 31). Position the material under the foot which is then lowered by means of the lever.

Before plugging the machine into the electric mains, check that the mains current is the same as the voltage given on the machine rating plate (30 in fig. 32) which is located on the machine base plate. Press knob (31 see fig. 33) inward to switch on the sewing light (and press in again to switch the light off). The Machine is laid out to operate on 110 volt alternating current.

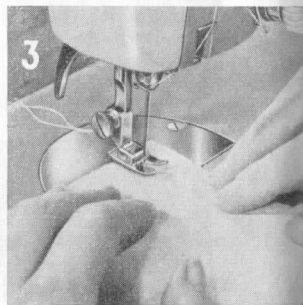


fig. 31

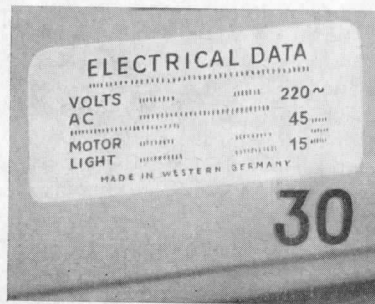


fig. 32

Next insert the plug at the end of the cable from the foot control unit into its socket. Gentle pressure on the foot control will cause the machine to start — slowly at first but faster as more pressure is applied to the foot control. The machine will come to an immediate stop as pressure is removed completely from the foot control.

Try out the machine with a straight-stitch seam obtained by setting the stitch-width lever (21) to zero.

**Important:** Never run the machine without material under the foot unless the foot itself is raised to the maximum "up" position.

Always disconnect the machine from the mains when you have finished sewing for a time, or the machine is left unattended for a period of time.

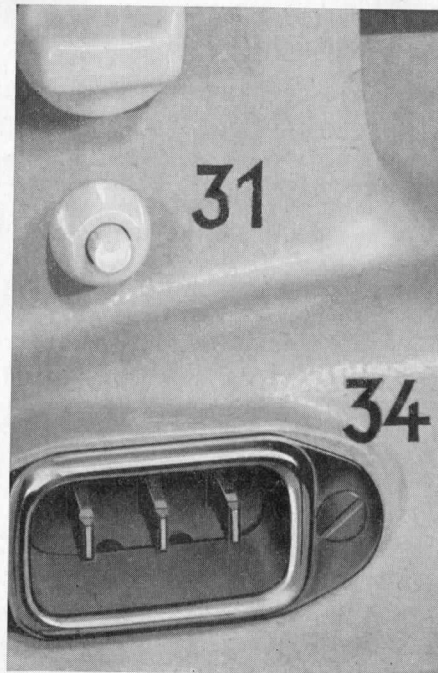


fig. 33



## Servicing the machine

(cleaning and lubricating)

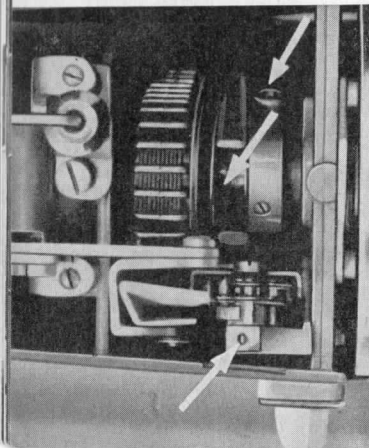


fig. 34

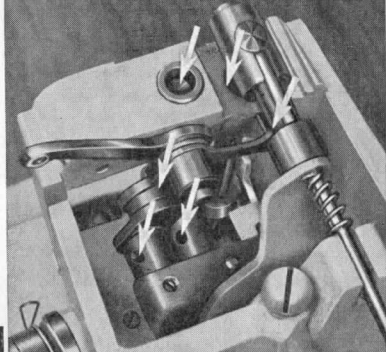


fig. 35

the points indicated by arrows (see Figs. 34 and 35) will suffice. Do not use oil at any other points than these, for the sinter-metal bearings used in an Model 300 Machine require no lubrication or servicing.

After a prolonged period of inactivity, pour a few drops of kerosene oil on all moving parts and then run the machine for a short length of time (with the sewing foot raised). Wipe off all dirt and oil and then lubricate the machine in the normal manner. Only use a good-quality resin-free sewing-machine oil.

Before lubricating your machine, make sure that it is disconnected from the electric mains.

20

The Machine is so practically and stoutly constructed that it will give little or no trouble with jammed threads ends, nor will it require a great deal of lubrication. After long periods of use, a drop or two of oil at

## Servicing the motor

Firstly, disconnect the machine from the mains.

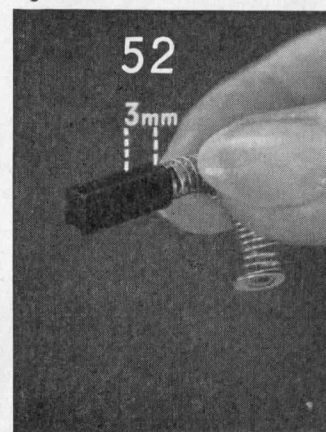
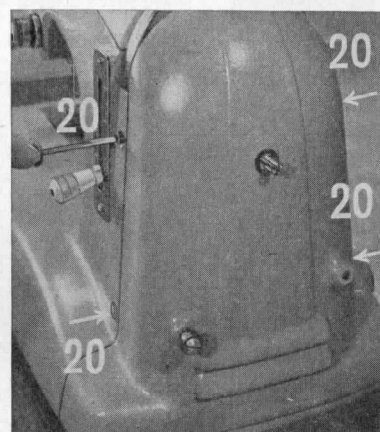
The condition of the motor (48 in Fig. 36) can be checked at any time, or new carbon brushes fitted, by removing the four screws (20 in Fig. 37) and taking off the rear cover (a screwdriver for this purpose is provided in the tool kit). The two brush caps (50 and 51) can be easily unscrewed and the brushes removed from their holders. Brushes whose length has worn down to 3 mm ( $\frac{1}{8}$ " ) or less should be renewed (see 52 in Fig. 38) otherwise the motor performance will be impaired.

When fitting new brushes, make sure that the convex end of the brush fits snugly round the circular surface of the commutator (see accompanying photo).

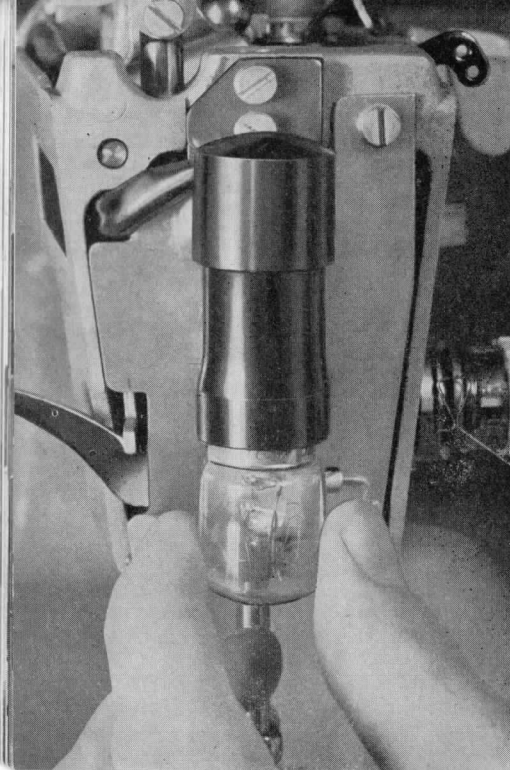
fig. 36

fig. 37

fig. 38



21



## Fitting a new lamp bulb

A new bulb is easily fitted in the machine by firstly removing the cover over the end of the arm (see page 14). Make sure that the machine is disconnected from the electric mains.

A new bulb can be ordered by quoting the following part no.

**25304/110**

This machine is radio-suppressed.

fig. 39

## Darning

Your Machine can be used to darn table and bed linen, or underwear and lingerie without requiring an embroidery frame. Thinner materials will require a frame. This type of work is greatly simplified by a built-in darning vibrator.

In place of the normal sewing foot, fit a special darning foot (53 in Fig. 40), and then set stitch-width lever (21 in Fig. 1) to zero.

As shown clearly on Fig. 40, insert the darning plate (54) in the hole (10) in the throat plate (11). Turn and press downwards at the same time (see Fig. 42). Clamp the darning plate immovably in place with the sliding cover (13).

fig. 40

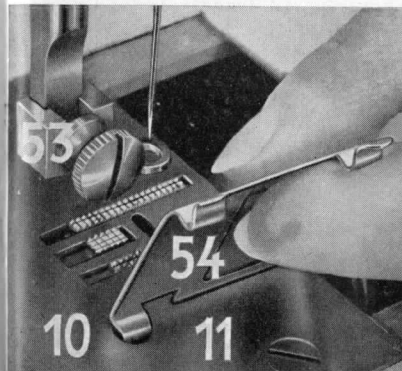


fig. 41

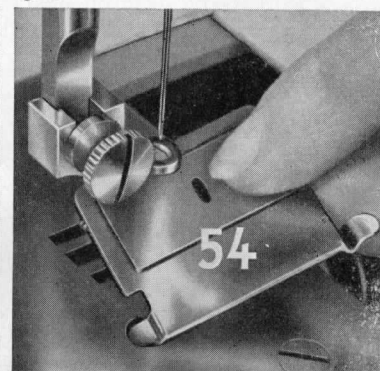
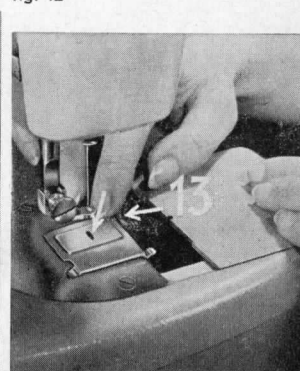
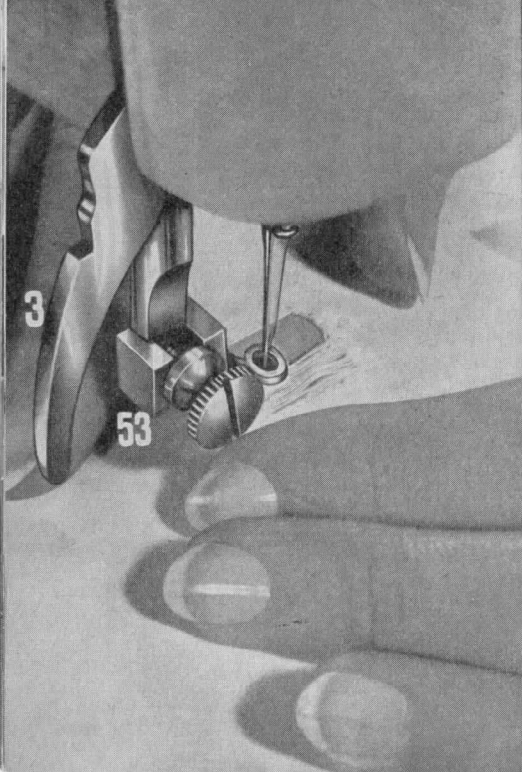


fig. 42





Darning is best carried out with a number 70 needle and darning thread number 50 to 80. Tension on both the needle and bobbin threads should be set to normal. Position the worn portion of the material under the darning foot which is then lowered by means of lever (3 in Fig. 43). Sew a row of stitches completely round the worn portion (see Fig. 44). Working from a point about 5 mm ( $\frac{3}{16}$ " ) from the outside edge of the hole, quickly sew a row of stitches right across this i. e. from one side to the other. The material is hand fed under the foot. Continue sewing row upon row of closely-spaced stitches backwards and forwards across the hole until this is completely filled in (see Fig. 45). Now turn the material through 90 degrees and again sew row upon row of closely-spaced stitches backwards and forwards across the hole until this is completely darned (see Fig. 46).

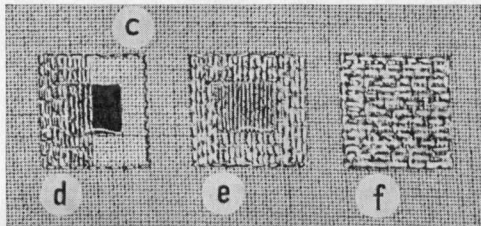


fig. 44

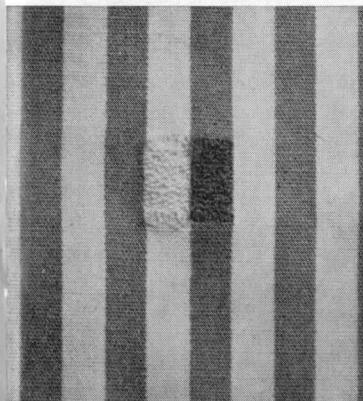
fig. 45

fig. 46

fig. 43

**Darning patterned materials**  
Patterned and even multi-coloured materials (see Fig. 47) can be very satisfactorily darned by carefully positioning the stitches in relation to the pattern, and by using suitably coloured threads which should be fast to light and to washing. This type of work is best carried out with the material stretched tightly in an embroidery frame.

fig. 47



**Darning-in patches**

Get the machine ready for use as described on page 23. Neatly trim the edges of the hole and stretch the material in an embroidery frame. Cut out a patch of material from the material itself and exactly the same size as the trimmed hole; lay in the hole. Using suitably coloured threads, darn over the two material edges (see Fig. 48).

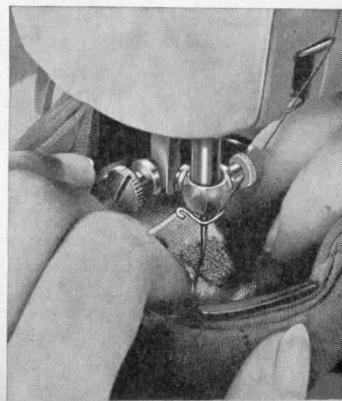
fig. 48



**Darning stockings and socks**

The sock or stocking to be darned should be firstly stretched in a stocking-darning frame (see Fig. 49). This work is done with a number 60-70 needle and with either no. 50 machine darning thread or with nylon thread.

fig. 49



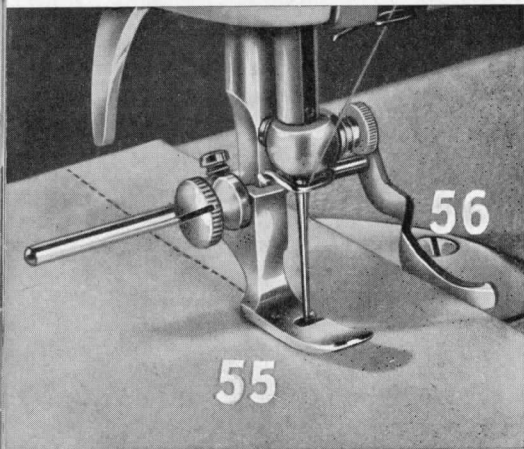


fig. 50

### Pleats, folds and paralell seams

Wide pleats, fancy-quilted-stitch seams, or even parallel seams can be sewn very easily and in uniform width throughout by employing the services of the adjustable guide (56 in Fig. 50) on the zipper foot (55). During sewing, the guide is adjusted to either run along the edge of the material or along a previously sewn seam.

### Sewing in zippers

Change the standard sewing foot for the special zipper foot (55 in Fig. 51) and remove the guide. The zipper should then be positioned under the lightly tacked or unsewn edges of the material and then sewn into place using straight stitches set to a length of about 2 mm ( $\frac{1}{8}$ " ).

### Quilting work

Fit the zipper foot (55 in Fig. 52) on the machine and then position a layer of wadding or cotton wool under the material. Sew into place with uniformly-spaced rows of straight stitches (stitch length set between  $1\frac{1}{2}$  and 2 mm ( $\frac{3}{16}$  to  $\frac{1}{8}$ " ). The rows of stitches can be kept perfectly parallel by keeping the guide (56) on the foot always in line with the previously-sewn seam.

fig. 51

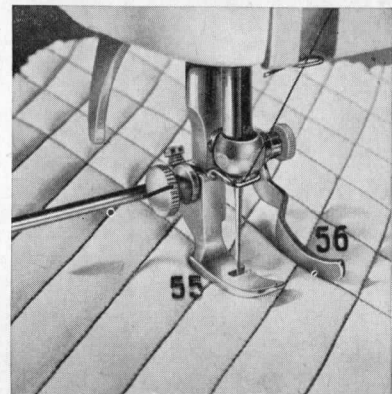
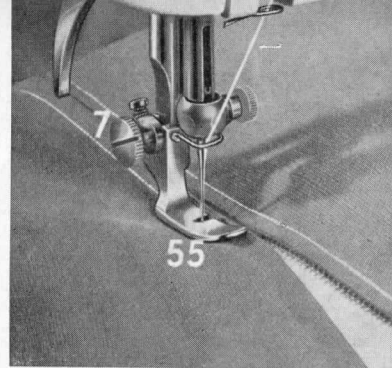


fig. 52



## Hemming

Using straight stitches, the hemmer attachment (57 in Fig. 53) will form a hem about 3 mm ( $\frac{1}{8}$ " ) wide. Turn the edge of the material over about 3 mm (about  $\frac{1}{8}$ " ) before tapering off the leading or front edge for a distance of about 10 mm (about  $\frac{3}{8}$ " ). Raise the sewing foot and feed the tapered edge into the guide of the hemmer.

Lower the foot and commence sewing making sure that the folded edge is fed uniformly and smoothly into the hemmer opening. Make sure that the material does not jam and that it is folded to the required hem width before being fed into the opening of the foot.

28

fig. 53

57

## Kelim Rugs

Make sure always that the pattern on the backing material is at least as wide as the Kelim fork used for this work. Kelim forks can be obtained direct from your Dealer. Using suitably-coloured wool, wind this round the fork which is then positioned as required under the foot prior to sewing the wool firmly to the backing with a series of straight stitches. After all the strands of wool have been sewn, pull out the fork slightly (without however pulling it completely out of the guiding wool loops) so that more turns of wool can be made round the fork. Change the colour of wool as required by the pattern of the rug.

fig. 54

## Smyrna Rugs

Are made with a so-called Smyrna-fork. Each row of wool loops should be positioned to overlap the preceding row of loops by half its width.

fig. 55

29

fig. 56

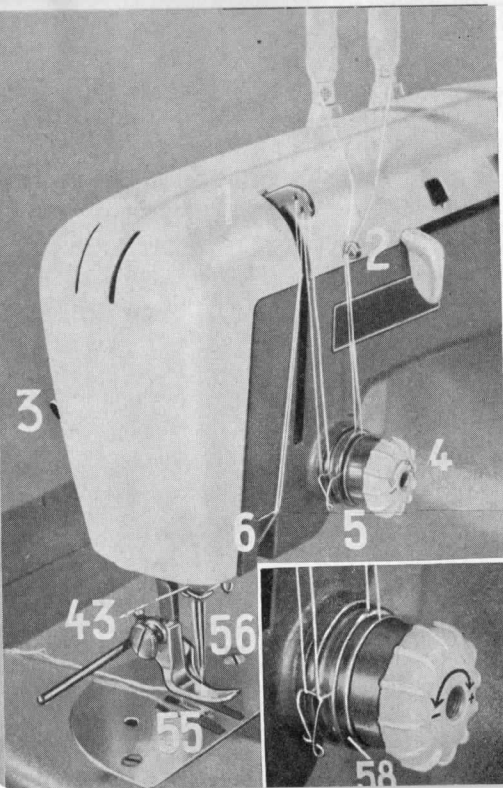


fig. 57

## Twin-needle seams / Pintucks

Twin-needle seams are sewn with a pair of needles spaced out from 1 to 4½ mm (.04 to .177") apart. Fit the zipper foot (55 in Fig. 56). The two reels of thread are fitted on the machine as shown in Fig. 56. The needle threads are threaded to the needles as described on pages 5 and 6 but extreme care must be taken that they do not cross or become twisted anywhere along their length. On one of the threads is passed round the front of the tensioner discs (58 in Fig. 57), the other to the rear of the discs. The threads should also pass through separate holes in the thread take-up lever (1). Twin-needle seams are used to sew seams with 'give' in tricot materials, for tidying seams in tricot materials, and for sewing pintucks.

The adjustable guide (56) on the zipper foot (55) is used to keep the sewn seams straight and at their correct spacing. Twin-needles may only be used with straight stitches i.e. with the stitch-width lever set to zero. The stitches must also be positioned at centre.

fig. 58

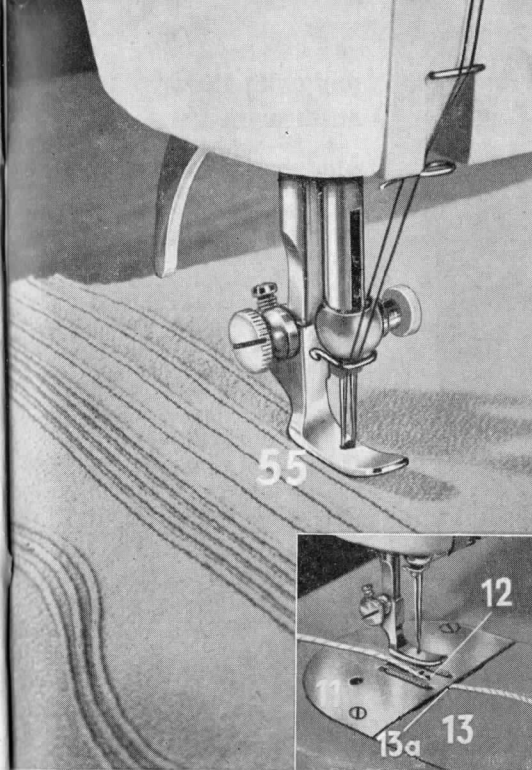


fig. 59

Pintucks of all kinds, wide and narrow, or in the thinnest or thickest materials can be easily sewn with the aid of a set of twin needles.

Fit the zipper foot (55 in Fig. 58) and remove the guide unless a pintuck width other than foot width is required.

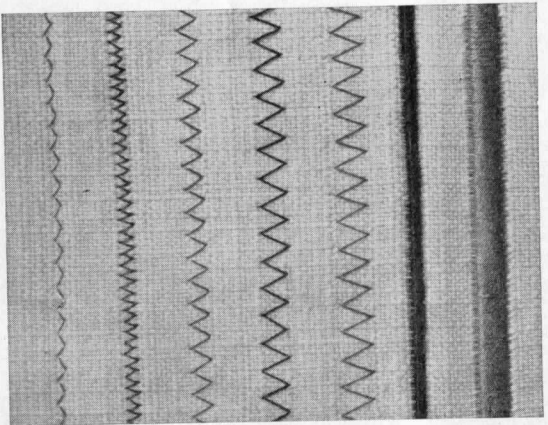
Set the stitch-width lever (21 in Fig. 1) to zero, the stitch-position lever (22) to centre, and the stitch length lever to between 1½ and 2 mm (.059 and .078"). The two needle threads are threaded to the needles as described on pages 5 and 6.

The pintuck should run along the groove or slot cut into the sole of the zipper foot. Pintucks wider than from 2½ to 4 mm (.098 to .157") are best sewn with the pintucking foot no. 53466 which can be obtained direct from your ADLER Dealer.

Generally speaking, increased thread tension will be required to sew pintucks. Attractive and more upstanding tucks can be obtained by backing them with cord (the thickness of the cord used depending entirely on the width of the finished tucks). The cord should be passed through the groove (13a) left between the sliding cover (13 in Fig. 59) and the throat plate (11 in Fig. 1). It should then be threaded upwards through the hole (12).

fig. 60

Seams for tricot and jersey materials.  
 Patching tricot, sewing on lace, edging scarves and ruches.  
 Edging sheer, thin materials, hemming tricot.  
 Edging thicker materials, hemming tricot.  
 Edging very coarse materials.  
 Covered gimp (reinforced piping).  
 Sewn piping (wide satin-stitch).



Stitch width:	1	2	3	4	4,5	2	4,5 mm
Stitch length:	1	1/2	1	1 1/4	1 1/4	almost zero	
Stitch position:				'centre'			

\*) made with cord fed in under the foot

### and so to zigzag-stitch work

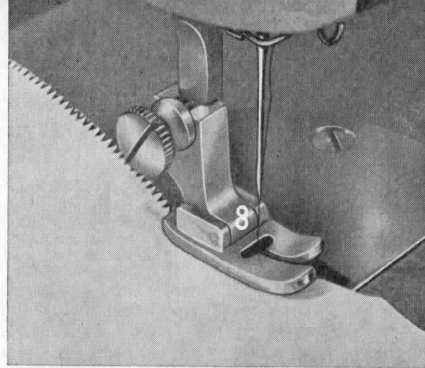
After having thoroughly acquainted yourself with the details of zigzag stitches as given on page 17, you will now want to do some of this interesting work yourself. The accompanying photo shows you some of the interesting patterns which can be sewn with zigzag stitches. The various lever settings are also shown.

Other types of zigzag-stitch work are dealt with on the following pages. Work of this kind is either made with the hinged zigzag-stitch foot or with a special buttonhole foot. Twin needles should not be used on this machine for zigzag-stitch work.

### Edging with zigzag-stitch seams

fig. 61

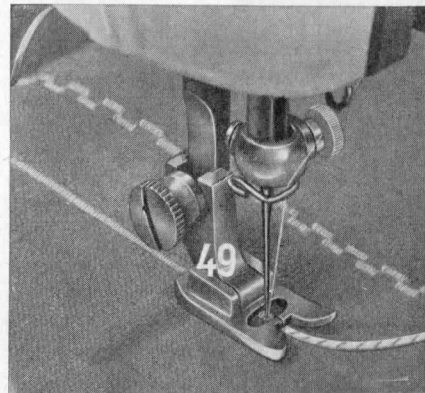
Work of this kind is carried out with the normal hinged zigzag-stitch foot (8 in Fig. 61). Primarily, it is intended for tidying seams and cut edges. The material is fed under the foot in such a manner that, with the stitch-position lever set to "centre", the needle just grazes by the edge of the material without actually penetrating this as it swings over to the right. Finishing an edge like this will prevent the material fraying and unravelling along the edges. The edges of scarves, handkerchiefs, and ruches can be tidied very satisfactorily by firstly turning the edge downwards by about 5 mm (3/16"). Extremely attractive finishes can be obtained by using different coloured threads along the edges. The turned under edge should be neatly trimmed after sewing.



### Sewing fancy-stitch seams

Fancy-stitch seams either with or without cord backing, are sewn with the help of the special buttonhole foot (49 in Fig. 62). These seams are used predominantly on childrens' clothes, blouses, covers of all kinds, cushion covers, etc. An attractive raised-stitch effect can be obtained by sewing over a thicker thread arranged to run under the centre of the foot. A really attractive and fascinating finish can be obtained by sewing fancy-stitch seams using different coloured threads.

fig. 62





## Manually-controlled fancy-stitch seams

Fancy-stitch seams of all kinds are obtained by altering the position of the stitch-width lever (21 in Fig. 1) and the stitch-position lever (22). Both levers are moved during sewing in a regular and rhythmic sequence and with the machine kept running at a constant speed.

Counting under your breath will help appreciably.

### Only the stitch-position lever is moved

1. Move the stitch-position lever (22) from left, to right, back to left, and right, etc. Stitch-width lever set and kept at 2.
2. Move the stitch-position lever (22) from left, to centre, and then to right, back to centre, and to left. Repeat ad lib. Stitch width lever set and kept at 2.
3. A combination of 1. and 2. with stitch-width lever set to 2. The twin points in the centre of the pattern are obtained by very quickly moving the stitch-position lever (22) from right to left and then back again.

### Only the stitch-width lever is moved

4. The stitch-width lever (21) is moved regularly and uniformly from zero to  $4\frac{1}{2}$ , and then back to zero. Stitch-position lever set and kept at centre.
5. Same as 4. above except that the stitch-position lever is set and kept at left.
6. Slowly move the stitch-width lever (21) from zero to  $4\frac{1}{2}$  and then quickly back to zero. Stitch-position lever set and kept at left.
7. First phase: Proceed as detailed under 4. then quickly move the stitch-width lever (21) to  $4\frac{1}{2}$ . After the square portion of the pattern is finished, move the stitch-width lever (21) to five. Stitch-position lever set and kept at centre.

### Turning the material

8. Set the stitch-position lever to left, and the stitch-width lever to  $4\frac{1}{2}$ . Sew the rectangular portion of the pattern until it is the required length. Stop with the needle penetrating the material to the left of the zigzag stitch. Raise the sewing foot and turn the material through 90 degrees. Sew the small square and stop the machine with the needle penetrating the material to the right of the stitch. Again raise the sewing foot and turn the material through a further 90 degrees. Move the stitch-position lever to right, and then sew the long rectangular section of the pattern. Leave the needle penetrating the material to the left of the stitch, turn the material through a further 90 degrees. Move the stitch-position lever to left and repeat the process ad lib.

fig. 63

## A hard-wearing patch in underwear using zigzag stitches.

If the material is worn thin round the hole, the patch should be cut large enough to ensure that the zigzag stitches penetrate unworn material.

1. Neatly trim the edges of the hole.
2. Cut a patch 10 mm ( $\frac{3}{8}$ " ) larger all round than the hole and position under the material.
3. Fit the hinged zigzag-stitch foot on the machine. Set the stitch-position lever to centre, stitch width to 2 and the stitch length also to 2. Using no. 50 machine darning thread, sew completely round the hole (see Fig. 64).
4. Set stitch-width lever to 3 and stitch-length lever to  $1\frac{1}{2}$  and again sew completely round the hole.
5. Secure the end of the seam with four to five straight stitches (stitch width set to zero).

fig. 64

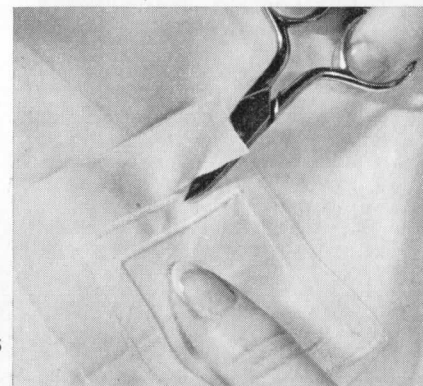


fig. 65

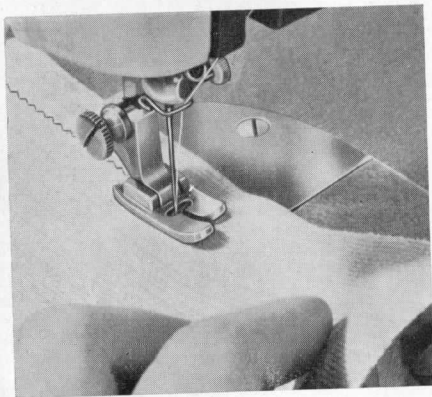


fig. 66

6. Working from the face side of the material, sew completely round the edges of the patch in the same manner as described above (see Fig. 65).
7. Neatly trim off any surplus material.

### Seams with 'give' in trikot materials

A seam with plenty of "give" can be sewn in trikot material using the hinged zigzag-stitch foot. Set stitch position to centre, stitch width to 1, and stitch length also to 1. A seam sewn in this way will stretch and give just the same as the woven material itself.

This method of sewing is particularly advantageous for sewing patches in trikot materials. Use the method described on page 35. Neatly trim the edges of the patches after sewing.

### Sewing lace on and in

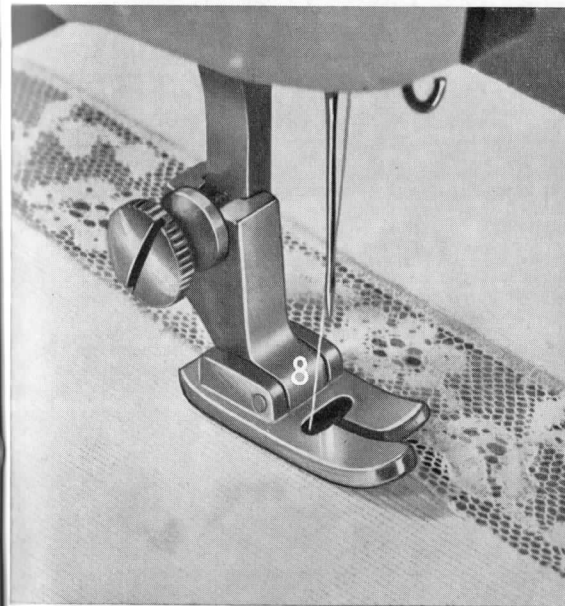


fig. 67

Position the lace on the material so that its one edge projects about 5 mm ( $\frac{3}{16}$ " ) beyond the edge of the material. Fit the hinged zigzag-stitch foot on the machine, position the stitches to centre, stitch width between  $1\frac{1}{2}$  and 2, and stitch length between 1 and  $1\frac{1}{2}$ . Sew the lace onto the material and then trim off the surplus material under the lace. Corners e.g. on handkerchiefs, can be sewn very easily in that before the first side of the handkerchief is sewn, the lace is positioned so that it projects over the top edge of the handkerchief material a distance equal to the width of the lace edging material. Sew down one side of the handkerchief and stop the seam about 5 mm ( $\frac{3}{16}$ " ) before the corner is reached. Fold the lace over and along the other side of the handkerchief. Sew down this side. Repeat until handkerchief is completely edged. Finally, sew down the folds in the lace at the corners using a series of neat zigzag stitches. Cut off any surplus lace.

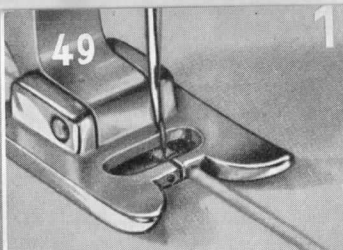


fig. 68

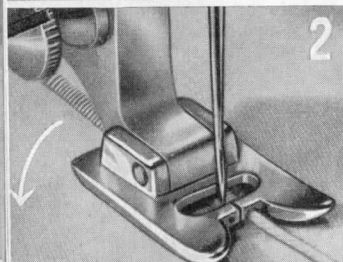


fig. 69

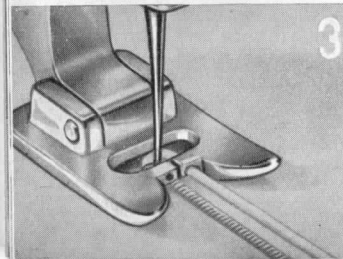


fig. 70

fig. 71



fig. 72

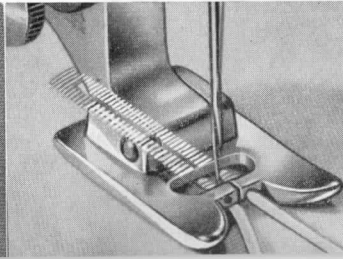


fig. 73

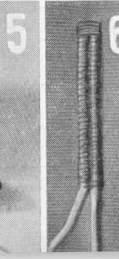


fig. 74

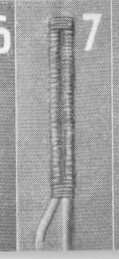
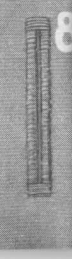


fig. 75



## Buttonholes sewn ten-times quicker than by hand

Use a number 50 embroidery thread. Fit the special buttonhole foot (49 in Fig. 68). Set stitch-position lever to right, stitch width to 2 mm, and stitch length almost on zero. Position the backing cord to run through the groove in the right-hand side of the foot (at the bottom) (see Fig. 68). Now sew a row of stitches as long as the required buttonhole and stop the machine with the needle penetrating the material to the left of the backing cord (see Fig. 69). Raise the sewing foot and turn the material in the direction shown by the arrow so that the backing cord circles round the back of the needle (see Fig. 70). Lower the sewing foot and make one stitch so that the needle moves over to the right. Bring the needle to the up position and set the stitch-width lever to 4 (twice the size of the original row of stitches). Now sew four to five wide stitches holding the material still all the time so that these stitches are made almost at the same spot (see Fig. 71). Bring the needle to the up position and then set the stitch-width lever to 2. Sew down the other side of the buttonhole until end of the original row of stitches is reached (see Figs. 72 and 73). Again bring needle to raised position, set stitch width to 4, and again sew and again sew from four to five wide stitches across the end of the buttonhole (see Fig. 74). Cut off the backing cord (see Fig. 75). With a suitable cutting blade, cut out the buttonhole taking great care that the threads are not cut or damaged in any way. Smaller buttonholes can be sewn in the same way in that the stitch width is set to  $1\frac{1}{2}$  for the sides of the buttonhole and to 3 for the end stitches. Buttonholes can also be sewn without using reinforcing gimp but will thus be less raised.

38

## Sewing-on buttons, hooks and eyes

The special-type buttonhole foot (49 in Fig. 76) can be used satisfactorily to sew on all buttons, hooks and eyes providing the gap between the holes is not greater than 4.5 mm ( $\frac{3}{16}$ " ). Set the stitch length to zero, stitch position to right, and the stitch width to correspond to the clearance between the holes of the button, hook or eye. Position the button etc. so under the foot that as the needle swings to the right it passes through the right-hand hole of the button. Now sew from five to eight zigzag stitches making sure that the needle finishes penetrating the right-hand hole of the button. Raise the needle, set stitch-width lever to zero, and sew five locking stitches.



fig. 77

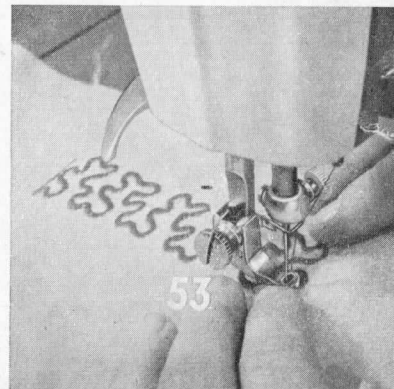
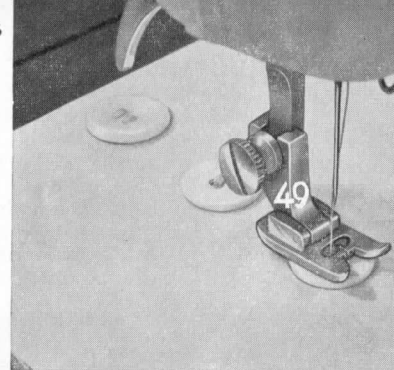
## Free-hand outlining

Fit the darning plate on the normal throat plate and replace the normal foot with the darning foot (53 in Fig. 78). Set stitch width between  $2\frac{1}{2}$  and 5. The material being machined is guided freely by hand but should not be turned so that all the stitches run in the same direction. The formation and character of the zigzag stitches is such that light and dark shading appear in the pattern and give this an air of distinction and attractiveness.

39

fig. 78

fig. 76



## Appliqué work

This type of work is nowadays very popular on childrens' clothes, aprons, and covers of all kinds. It is carried out with the special buttonhole foot (49 in Fig. 79). The various patterns and motifs should be cut from gaily-coloured materials leaving about 5 mm ( $\frac{3}{16}$ " ) all round for the sewn edge. The motif patterns are sewn onto the backing material with zigzag stitches (stitch length 1, and stitch width  $1\frac{1}{2}$ ). Any projecting material should be trimmed off after sewing. Again sew round the pattern edges but this time with zigzag stitches set to 2 to  $2\frac{1}{2}$  wide and stitch length almost zero. If the backing material is transparent, the pattern motifs can well be stitched onto the back of the material.

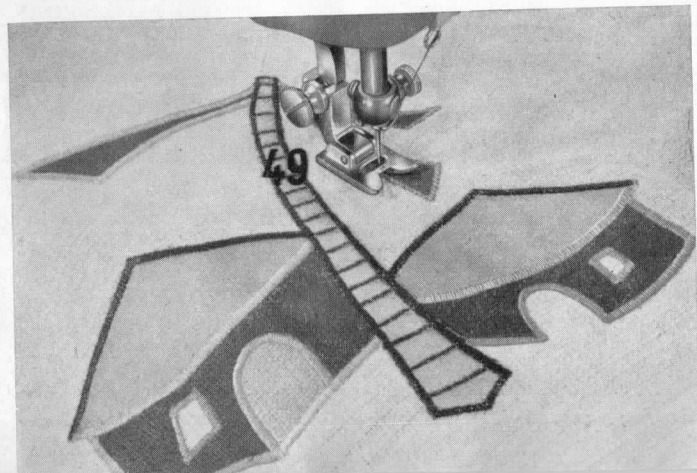
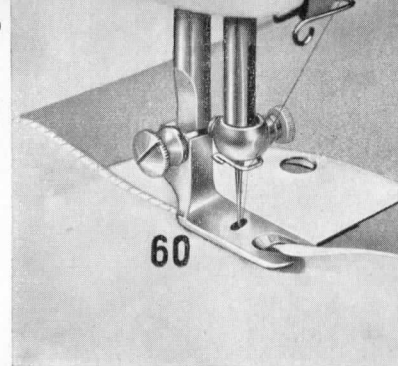


fig. 79

fig. 80

## Rolled-edge hems

are sewn with zigzag stitches (stitch width set to 2 or even wider if the material warrants it, stitch position centre, and any convenient stitch length). The normal foot should be replaced by a rolled-edge hemmer (60 in Fig. 80) available from your Dealer. Rolled-edge hems are recommended for edging very thin materials, and really attractive and becoming results can be obtained by using coloured threads.



## Shell-edge hems on trikot materials

This very popular type of tricot edging is obtained with a zigzag-stitch width of 3 mm ( $\frac{1}{8}$ " ) with stitch-position centre. With the help of the shell-edge hemmer (61 in Fig. 81), really attractive edgings can be obtained on artificial silk childrens' clothes. The hemmer can be obtained direct from your Dealer.

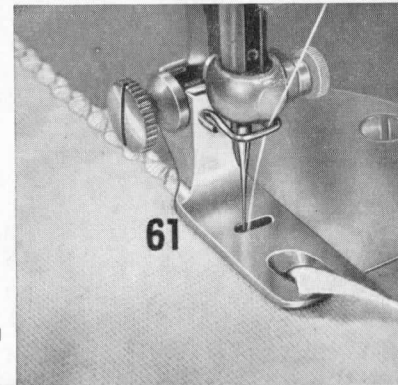


fig. 81



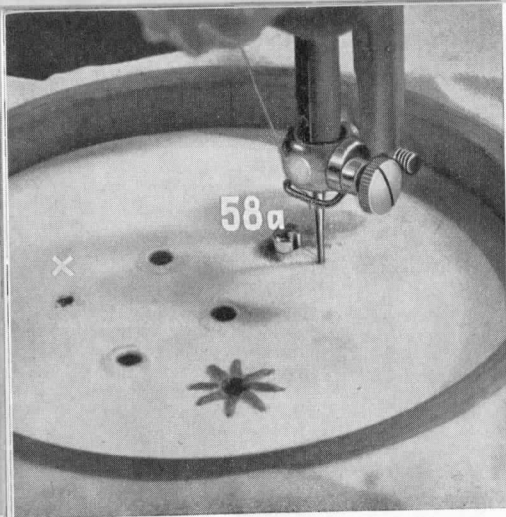


fig. 82

### Hole embroidery both with or without star patterns

A special hole-embroidery plate (obtainable direct from your Dealer) is fitted in exactly the same manner as the special darning plate (see page 23). Stretch the material to be machined in an embroidery frame (see page 43) and then position over a hardwood block. At the required points in the pattern, punch out 1 mm ( $\frac{3}{64}$ " ) diameter holes (x) using a suitable punch. Position one of the punched-out holes over the pin (58a) of the hole-embroidery plate (see Fig. 82). Remove the sewing foot, set the stitch-position lever to left, stitch width to 2, and then commence sewing at the same time slowly turning the embroidery frame. The frame should be turned at a slow uniform speed. After only a little practice, neat and tidily-sewn holes will soon be produced (a better appearance can be obtained by sewing twice round each hole). Lock the end of the seam with 5 short straight stitches. Attractive variations such as star patterns, etc. can be obtained by increasing the stitch width for a few stitches as the edge of the hole is sewn.

### Embroidery work with frame

This type of work is carried out with the help of an embroidery frame with a diameter of between 100 and 120 mm (4 and 6"). If possible, the frame should also have an adjuster screw (see Fig. 84).

If the frame does not hold the material taut enough, or if the material is delicate and easily damaged, wrap the outer of the two frame rings with cloth. After positioning the material between the frame rings, pull it taut and firm so that only neat and tidy stitches will be produced.

1. Fit the darning plate (see page 23)
2. Remove normal foot and then fit the special darning foot (53) (see page 23)
3. Make sure that no. 70 needle is fitted and only use no. 50 machine embroidery thread
4. Lower foot
5. According to the pattern required, set the machine to sew either straight or zigzag stitches.
6. The embroidery frame should be held as shown in Fig. 83, and moved around according to the requirements of the pattern.

To obtain a better view of the work, skilled machinists do this kind of embroidery without a foot on the presser bar.

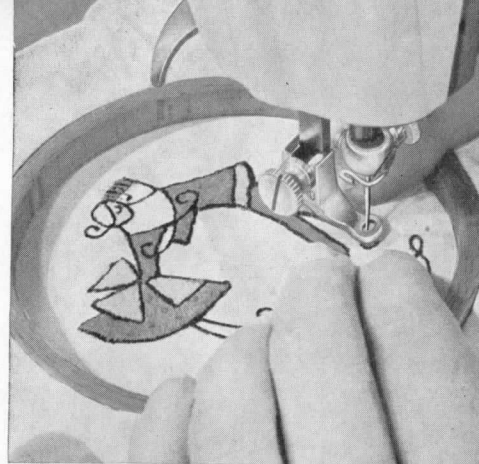


fig. 83

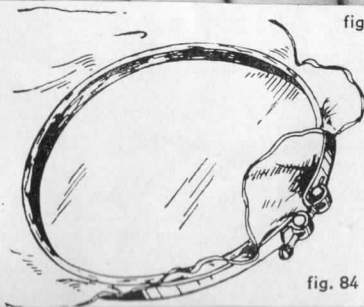


fig. 84

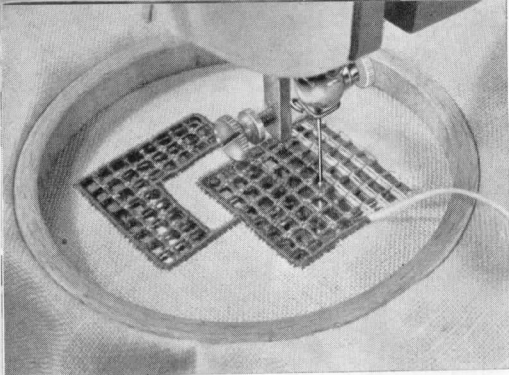


fig. 85

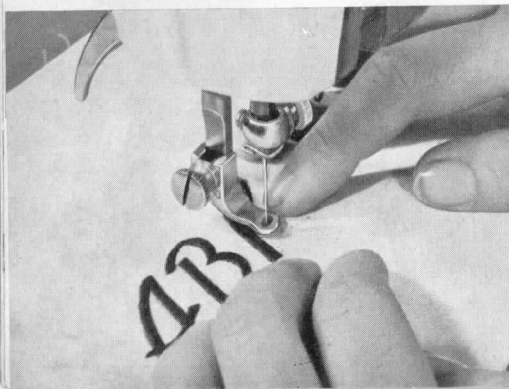
### A jour embroidery

Remove single threads from the material just as you would for real hemstitch work (threads should be removed lengthways and crossways). Stretch the material in an embroidery frame; and fit the darning plate on the normal throat plate. Remove the sewing foot and then, with a very fine zigzag-stitch, sew the remaining threads together (see Fig. 85). Finally edge the pattern with cord sewn down with zigzag stitches (stitch width 2).

### Monograms

One of the very popular and, incidentally, one of the simplest methods of sewing monograms (see Fig. 86) is carried out with the help of the darning foot (53) and the darning plate. (Extra thin materials should be stretched in an embroidery frame). Set the stitch width to the required size. By hand, guide the material in the direction you want it to go i. e. upwards, downwards, and sideways, but do not turn it in any way. The thin lines of the letters are best made by positioning the work so under the needle that the thin line is in line with and parallel to the line of movement made by the needle as it swings from side to side.

fig. 86



### Automatic sewing work with pattern bars

A small bag in the regular attachment roll supplied with every Model 300 Machine contains 5 pattern bars (Fig. 87 shows bar nos. 1 and 2). Each bar is contoured to automatically sew two different fancy-stitch seams.

The following pages show all the fancy-stitch seams which can be sewn automatically on your Machine with the help of these bars. The work is easy and no complicated adjustments need be made.

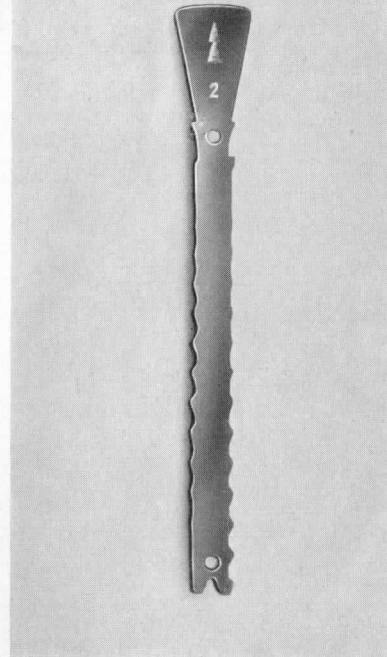


fig. 87

Pattern bar

1/2

3/4

5/6

7/8

9/10

Set stitch length

almost 0 0

almost 0 0

almost 0 0

almost 0 3/4 0

almost 0 0

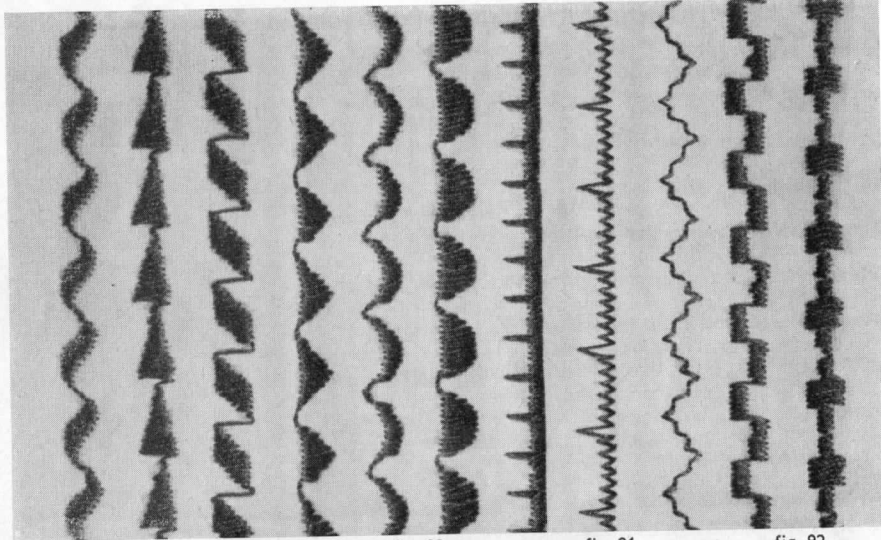


fig. 88

fig. 89

fig. 90

fig. 91

fig. 92

fig. 93

Before commencing to sew, pick out the fancy-stitch seam you require. Each bar is marked with the patterns it will produce.

### Fitting a pattern bar

1. Move the stitch-position lever (22 in Fig. 93) to the right.
2. Move the stitch-width lever (21) also to the right i. e. to position  $4\frac{1}{2}$ .
3. The stitch length required to produce the various fancy-stitch seams is shown in Figs. 88 to 92.
4. After having chosen the required pattern bar, insert this vertically in the aperture (80 in Fig. 94) provided so that the illustrations of the stitch patterns face towards the front.
5. If difficulty is experienced in inserting the disc, then re-check the adjustments given under 1. and 2.
5. Now move the stitch-width lever (21) over to the left until such time as a "0" appears in the opening in the upper arm.

The automatic mechanism is now engaged and sewing can be started at any time.

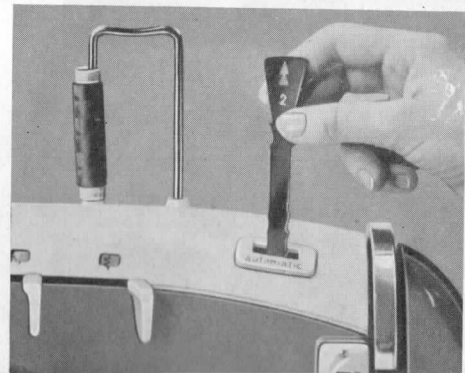
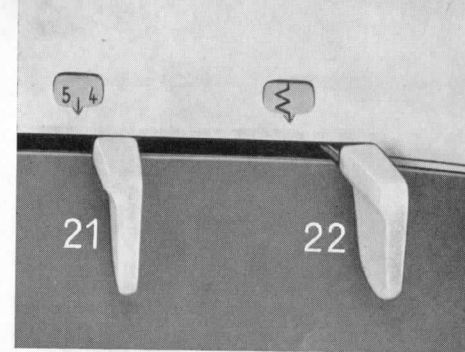


fig. 94



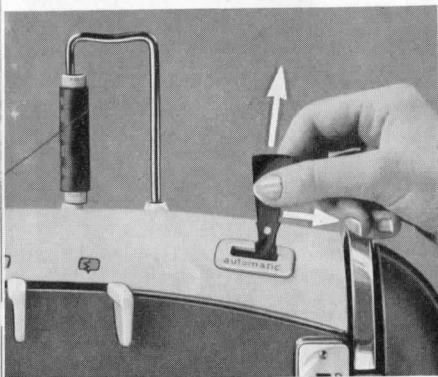


fig. 95

## Changing pattern bars

6. As already mentioned, each bar is contoured to produce two different fancy-stitch seams. The second seam is obtained simply by turning the bar over.
7. This is done by moving the stitch-width lever (21) as far as it will go to the right, i. e. to 4½.
8. Now press the holder (Fig. 95) of the bar gently to the right (in the direction shown by the arrow) and remove the bar upwards.

Then proceed as described in detail on page 47.

## Standard accessories

1 Parts bag	25512 *)	3 Needles	System 705 *)
1 hemmer 3 mm (1/8")	25450 *)	1 Instruction book	GA 1517 A *)
1 darning foot	126410 *)	1 pattern bar 1/2	300800 *)
1 Zipper and pintuck foot	26412c*)	1 pattern bar 3/4	300801 *)
1 Buttonhole and embroidery foot	126415c*)	1 pattern bar 5/4	300802 *)
1 Darning plate	126441 *)	1 pattern bar 7/8	300803 *)
1 Oil can	25505 *)	1 pattern bar 9/10	300804 *)
1 Screwdriver 2½ mm (3/32")	25510 *)	1 bag for pattern bars	300830 *)
3 Bobbins	25086 *)	1 carrying case	126510

\*) If your parts bag and contents (all marked with an \*) becomes lost, the whole set can be re-ordered under the part number 300512 c. A slight charge will be made for the set.

Naturally, the various parts and attachments can be ordered individually.

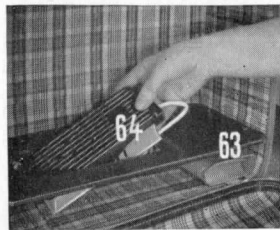


fig. 96

After sewing is finished for the day, withdraw both plugs from their sockets. Then pack all parts and accessories which have been used back into the parts bag (including the reel holders) (63 in Fig. 96). The bag is then put in the bottom right-hand corner of the carrying case. Then collapse the foot control down flat and insert into the space provided in the bottom of the carrying case. Put the sewing machine back into its case which is then closed and locked.

## What to do when . . .

### The seam is ragged and uneven

1. Check that the bobbin (35) turns easily in the bobbin case (36) (see page 10).
2. Check that the thread is not knotty or irregular in thickness. Poor quality threads like these should not be used.
3. Check that no dust or dirt has collected under the throat plate. If so, loosen the throat plate with a screwdriver and clean carefully.
4. Check that both needle and bobbin threads are threaded correctly (see pages 6 and 12).
5. Check that the thickness of the needle matches the thickness of the thread being used (see page 8).
6. Check that no remnants of thread have collected between the discs of the tensioner device (4). If so, clean (see page 6).

### Missed stitches occur

1. Check that the needle is fitted correctly. The long groove of the needle should face towards the front (see page 7).
2. Check that the correct system needle is being used and also the correct size of needle (see page 8).
3. Check that the needle is not bent, or its point is not damaged. If so, fit a new needle.

### Needles break repeatedly

1. Check that the needle is correctly fitted (see page 7).
2. Make sure that the material is not tugged unduly during sewing.
3. Make sure that the needle was not bent.
4. Check that the thickness of the needle matches the thickness of the thread being used (see page 8).
5. Check that the bobbin is fitted correctly (see page 13).

### **Threads snap repeatedly**

1. Check that the needle and bobbin threads are threaded correctly through the machine (see pages 6 and 12).
2. Raise needle and foot as high as it will go. Now check that the thread can be pulled easily through the eye of the needle. Check that remnants of thread have not lodged between the discs of the tensioner device (4).
3. Check that there is not too much tension on the threads (check tension of needle and bobbin thread, see page 15).
4. Check that the eye of the needle has not worn to a groove or sharp edge. If so, the thread will snap as it is pulled through the needle eye. A damaged needle should be changed at once.

### **The machine runs heavily**

1. After standing for a long time in an unheated room, the machine should be moved into a warm room and allowed to warm up to room temperature before being used.
2. Check that the oil used in the machine is not too viscous. If so, wash or flush all parts with kerosene, run the machine then for about five minutes, and then lubricate with a good-quality sewing-machine oil (see page 20).

### **The sewing mechanism does not function.**

1. Check that the motor switch is turned to the 'sew' position. (switch 32 on page 11).

In case of difficulty or doubt, please contact your Dealer which will gladly help you at all times. Any enquiries made direct to the works should be accompanied by:

**1. Date of delivery of machine**

**2. Class of machine**

**3. Number of machine head.**