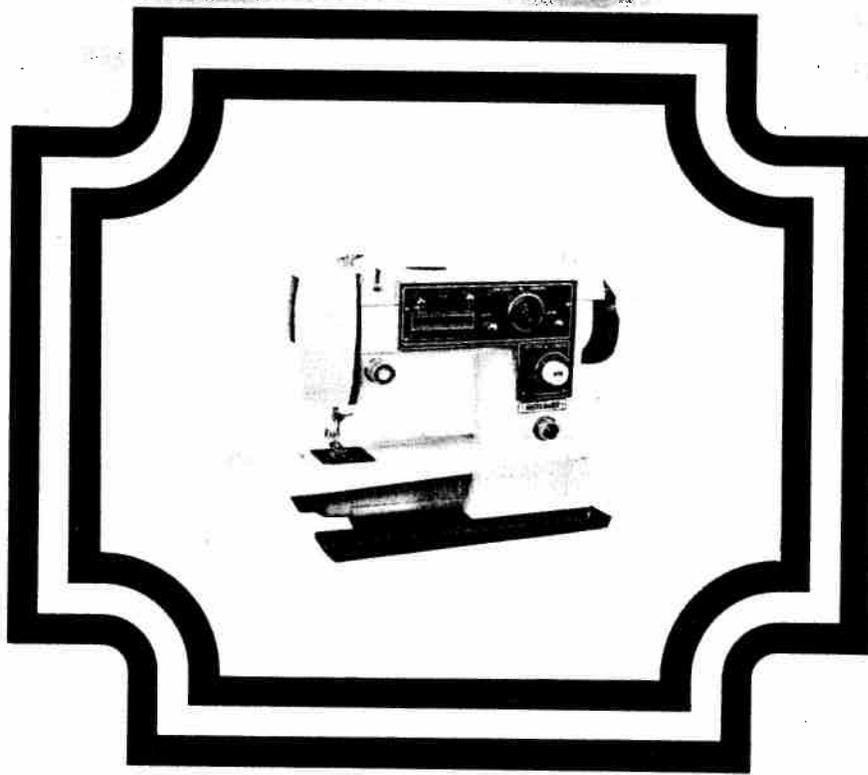


INSTRUCTION BOOK

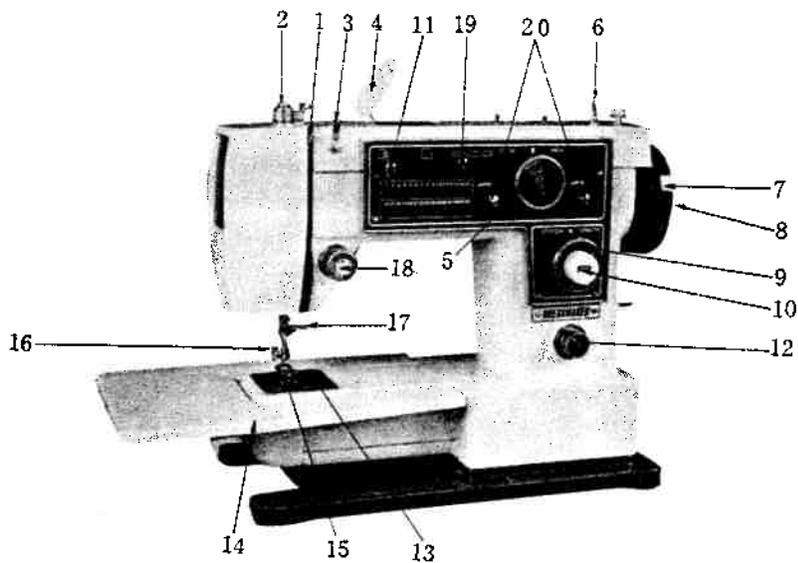
MODEL S-9000AAB



INDEX

	Pages		Pages
Features and parts.....	2-3	Free arm sewing.....	18-19
Needle-thread-fabric-stitching guide.....	4	Automatic embroidery.....	20-22
Winding the bobbin.....	5	Blind stitch hem.....	23
Setting the needle.....	6	Creative embroidery.....	24
Threading the bobbin case in shuttle.....	7	Samples of creative embroidery.....	25-26
Upper threading.....	8	Embroidering with a hoop.....	27
Adjusting the tensions.....	9	The adjustable cording and zipper foot.....	28
To regulate the length of stitch.....	10	Quilting guide	29
Sewing in reverse.....	10	Seam gauge or cloth guide.....	29
Straight and zigzag sewing.....	10	Adjusting and changing "V" belt.....	30
Adjusting pressure and feeding of fabric.....	11	Cleaning and oiling the shuttle.....	31-32
Preparing to sew.....	12	Care and maintenance of your machine.....	32-33
Removing the work.....	12	How to replace the light bulb.....	33
Three needle position.....	13-14	Accessories.....	34
Making buttonholes.....	15	Trouble chart.....	35-37
Sewing on buttons.....	16	Sewing tips.....	38-40
Stretch stitch.....	17		

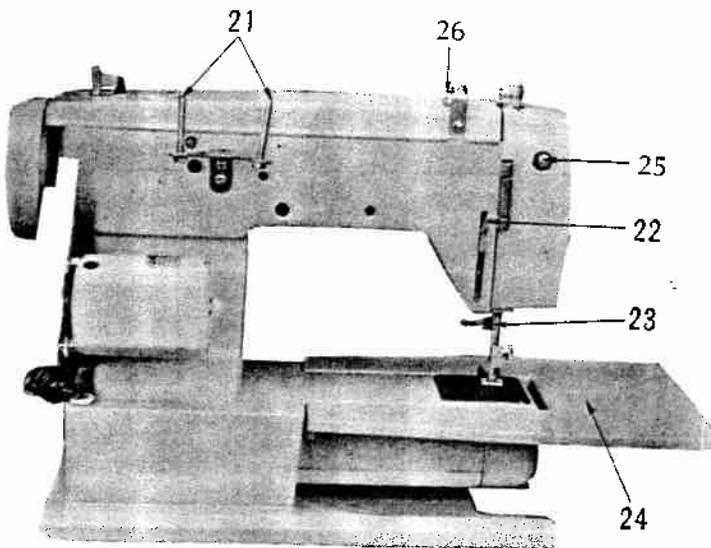
FEATURES AND PARTS
(Front View)



1. Take up lever
2. Pressure release guide (darning)
3. Arm thread guides
4. Disc cover
5. Zigzag width control
6. Bobbin winder
7. Hand wheel
8. Clutch nut
9. Stitch length dial
10. Reverse button
11. Stretch stitch lever
12. Drop feed control
13. Needle plate
14. Front cover
15. Presser foot
16. Presser foot clamp screw
17. Needle clamp
18. Tension dial
19. Needle position lever
20. Zigzag width locking knobs

Fig. 1

FEATURES AND PARTS
(Back View)



- 21. Spool pins
- 22. Presser bar lifter
- 23. Thread Cutter
- 24. Extension plate
- 25. Light switch
- 26. Bobbin winder tension

Fig. 2

NEEDLE-THREAD-FABRIC-STITCHING GUIDE

Fabric	Needle No.	Machine Stitches Per Inch	Cotton Thread	Mercerized Thread	Silk or Nylon
Extremely heavy tarpaulin, sacking, canvas, duck, etc.	4 (20)	6 to 8	10 to 30	Heavy Duty	
Heavy upholstery fabric, ticking, denim, leatherette	3 (18)	8 to 10	30 to 40	Heavy Duty	
Medium heavy drapery fabric, velveteen, suiting, felt, terry, etc.	2 (16)	10 to 12	40 to 60	Heavy Duty	
Medium broadcloth,, percale, gingham, linen, chintz, taf-feta, sheer wool, shantung, etc.	1 (14)	12 to 14	60 to 80	50	A
Sheer voile, lawn, dimity, crepe, handkerchief linen, plastic film, etc.	0 (11)	14 to 16 (Plastic film) 8 to 10	80 to 100	50	A
Very sheer chiffon, batiste, lace, organdy, ninon, net, marquisett, etc.	00 (9)	16 to 20	100 to 150	50	A

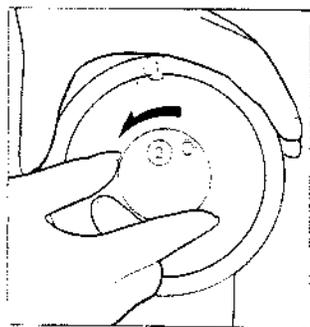


Fig. 3

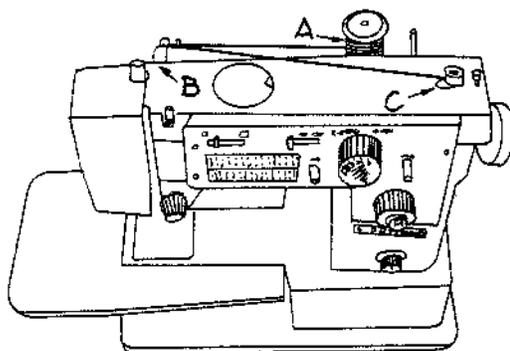


Fig. 4

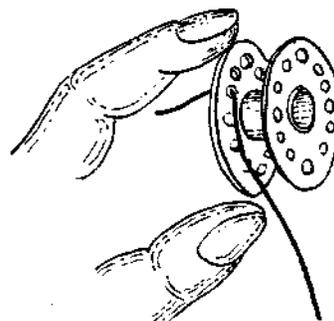


Fig. 5

WINDING THE BOBBIN

Disengage the hand wheel (1, Fig. 3) from the stitching mechanism by turning the clutch (2, Fig. 3) toward you or counter clockwise. Place a spool of thread on one of the spool pins and lead thread through the arm thread guide (B, Fig. 4). Run end of thread through a hole in the bobbin edge and place bobbin on spindle of bobbin winder (C, Fig. 4) fitting the notch on bobbin over small pin on spindle. Push bobbin winder (C, Fig. 4) to the right, and hold thread end loosely then start machine slowly. Bobbin will stop winding when it is filled. Turn clutch away from you until sewing mechanism is again engaged so that needle moves when you turn the hand wheel. Break off loose thread end used to start the winding.

SETTING THE NEEDLE

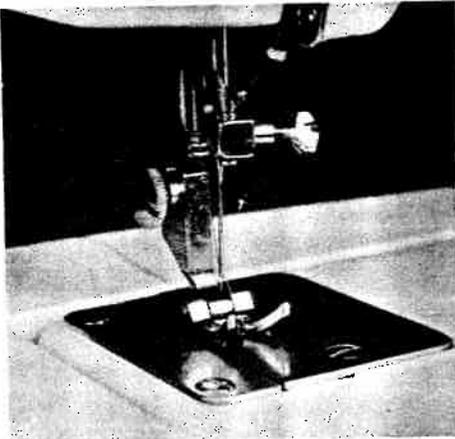


Fig. 6

See Fig. 6. Raise the needle bar to its highest point, turning wheel toward you by hand.

Then loosen the needle clamp screw B and the needle can be inserted into clamp C. Place needle (flat side to right) in the needle clamp and push it upward as far as it will go into the needle clamp hole, tightening the needle clamp screw securely with a screw driver.

After changing the needle make one complete revolution of the balance wheel by hand to be sure the needle is in the correct position.

Flat surface
of needle
shank



Fig. 7

THREADING THE BOBBIN CASE

Step 1 (illustrated in Fig. 8). Hold bobbin case between thumb and forefinger of left hand, so that the slot in the edge of the bobbin case is on top. Take the bobbin between thumb and forefinger of right hand so that the thread on top leads from left to right.

Step 2. Insert bobbin into bobbin case, pull the thread into the slot of the bobbin case as shown in Fig. 9, and draw it under tension spring and into the fork-shaped opening of the spring as shown in Fig. 10.



Fig. 8



Fig. 9



Fig. 10

PLACING BOBBIN CASE IN SHUTTLE

Raise needle bar to highest position, and open front cover to the left. (See 14 Fig. 1) Hold the bobbin case latch, (D, Fig. 11) between the thumb and forefinger of the left hand, with at least three inches of thread running from the top of the bobbin case to the right. Insert and center the bobbin case on the stud of the shuttle body, (C). Be sure the bobbin case finger, (E), is opposite the shuttle race notch (A). Press the bobbin case (B) into the shuttle as far as possible until latch catches on the center post of the shuttle. THEN release the bobbin case latch, (D). Press bobbin case again after latch has been released to make sure the bobbin case is locked securely in place. Close the front cover.

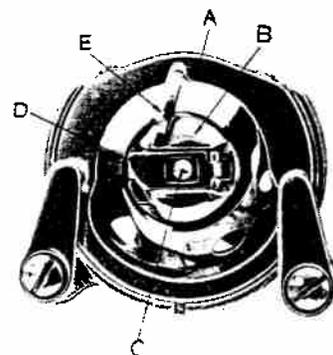


Fig. 11

UPPER THREADING

1. Turn the hand wheel toward you to raise the take-up lever to its highest position.
2. Place a spool of thread on the spool pin.
3. Lead the thread through the upper arm thread guides.
4. Down and between the tension discs, from right to left.
5. Draw the thread up through the check spring and with a slight tug into the hook.
6. Up and through the eye of the take-up lever from right to left.
7. Lead thread down through thread guide and behind the face plate guides and then through the needle bar guide from the back.
8. Thread needle FROM LEFT TO RIGHT, drawing it through about 3 or 4 inches. Hold the end of the upper thread loosely and turn the hand wheel toward you until the needle goes all the way down and comes back up. A loop will be formed over the upper thread which then can be pulled out straight. Place both thread ends under the slot of the presser foot and draw toward the back of the machine, leaving both threads three or four inches long. (Figs. 19 and 20, Page 12)

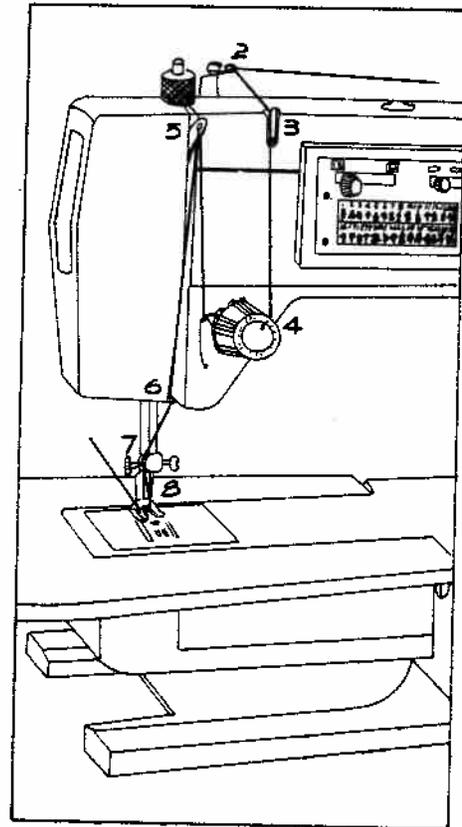


Fig. 12

ADJUSTING THE TENSIONS

Always adjust the upper tension with the presser foot down, as the tension is released when it is raised. To increase the tension on the upper thread, turn dial (Fig. 13) to the right. To decrease, turn to the left.

Before adjusting lower tension be sure that the machine is threaded properly.

When it is necessary to change the bobbin tension, turn the small screw (Fig. 15) on side of the bobbin case clockwise to tighten, counter-clockwise to loosen.

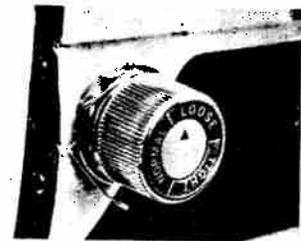


Fig. 13

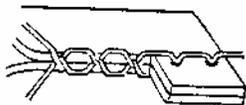


Fig. 14-A



Fig. 14-B



Fig. 14-C

When the upper tensions are properly balanced, a perfect stitch will be formed with both threads interlocking in fabric (Fig. 14-A).

When the upper tension is too tight, the lower thread is pulled up over the upper thread which is lying flat on the fabric (Fig. 14-B).

When the upper tension is too loose, the upper thread forms loops over the lower thread lying flat on the fabric (Fig. 14-C).

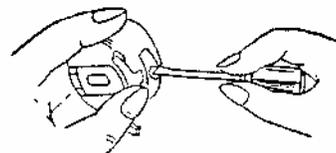


Fig. 15

TO REGULATE THE LENGTH OF STITCH

The length of the stitch is regulated by the stitch length dial (A, Fig. 16). Turn the dial to the right to lengthen and to the left to shorten the stitch. Near "0" is the shortest stitch and "5" is the longest.

Stitch Length Chart (Approximate)

Figures on dial	0	1	2	3	4	5
Number of stitches per inch	No Feeding	36	20	12	9	7

SEWING IN REVERSE

When you wish to sew in reverse to tie the threads at the beginning or the end of a seam, press the reverse button (B, Fig. 16) as far as it will go. The machine will sew backward as long as the button is pressed.

STRAIGHT AND ZIGZAG SEWING

For all ordinary manual sewing, straight or zigzag, make sure that the pattern selector (C, Fig. 16) is set at "straight & zigzag" stitch pattern (Marked $\left\{ \begin{array}{l} \text{Z} \\ \text{Z} \end{array} \right\}$).

By turning the zigzag width control (D, Fig. 16) clockwise from 0 toward 5, zigzag width will be increased, and by turning it counter-clockwise, it will be decreased, and at "0" position, the machine will sew straight stitches.

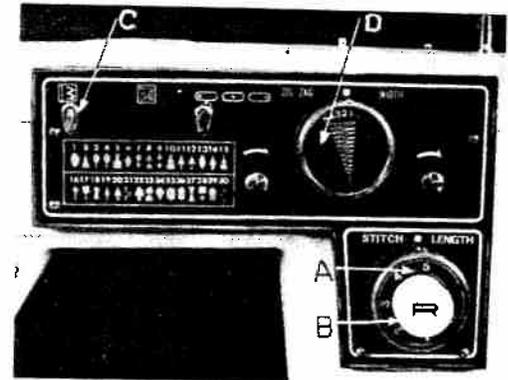


Fig. 16

ADJUSTING PRESSURE AND FEEDING OF FABRIC

General Sewing. Usually for normal sewing the pressure bar cap or darning release, (B, Fig. 17) is at its lowest position and the drop feed knob is turned to " UP " position, (Fig. 18).

Sewing Thin or Light Weight Fabrics. When lighter pressure is required to sew satisfactorily on thin silk or flimsy material, the pressure cap should be about halfway down. Release all the way by pressing the snap lock, (A, Fig. 17) and then press cap (B) down again to halfway spot.

Darning and Mending. In order to move the fabric freely in any direction for darning and mending, release the pressure cap (B, Fig. 17) completely by pressing down on the snap lock, (A, Fig. 17)

Turn drop feed control (Fig. 18) to " DOWN " position. This will drop the feed well below the needle plate. To return feed to normal position, turn knob to "DOWN" position.

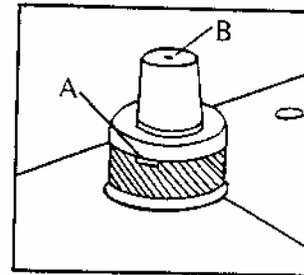


Fig. 17

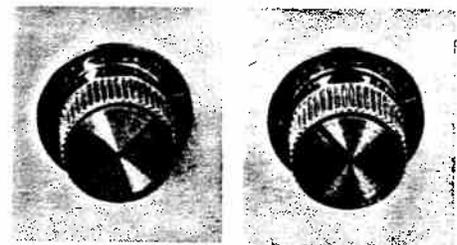


Fig.18

PREPARING TO SEW

Have take-up lever at highest point before starting to sew. Do not try to help the feeding by pulling the material as this may deflect the needle and cause it to break.

NEVER run machine without material under presser foot.

Place material and threads in position under the presser foot and lower the presser foot. You are now ready to begin sewing. By having the needle at its highest point, it is not necessary to touch the hand wheel to start the machine. You merely press the control. The speed of the machine is regulated by increasing or decreasing the amount of pressure exerted on the control.

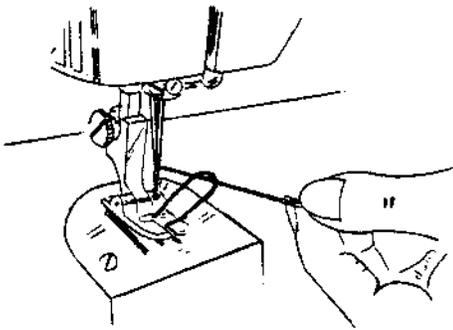


Fig. 19

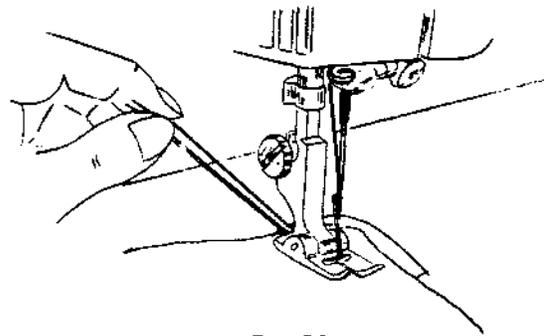


Fig. 20

REMOVING THE WORK

Be sure to stop the machine when the thread take-up lever and needle bar are at the highest position. Now raise the presser foot and draw the fabric back and to the left, and pass the threads over the thread cutter. Pull down slightly, holding thread in both hands, so as not to bend the needle. Leave the ends of thread under the presser foot.

THREE NEEDLE POSITION

- A. The machine has three basic needle position-LEFT, MIDDLE and RIGHT-controlled by a needle position lever to the left of the zigzag stitch regulator as illustrated.

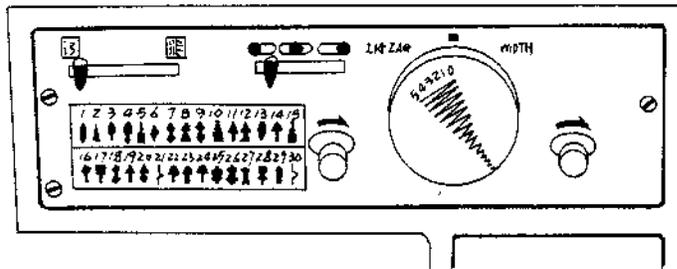


Fig. 21

B. When the needle position lever is in its LEFT  groove, the stitch directions are as per illustration B.

The width, of course, varies, and is regulated by the zigzag stitch regulator as explained on the preceding page. The length also varies, as an accordion, depending on the setting of the stitch regulator.

C. In the MIDDLE  position, the stitch directions in illustration C. In this setting, a great many different stitches can be obtained depending on the other two settings. They will, however, have one thing in common, direction, as the diagram indicates. Then using the straight sewing needle plate the position lever must be in the MIDDLE

D. In the RIGHT  position, the needle starts from the right, or just opposite from the left.

In the following pages, we explain how you may do straight stitching, zigzag stitching, embroidery, appliquing, button sewing, buttonhole making, hemming, blind stitching and many other types of work, using only the adjustments of the zigzag system.

3 VARIATIONS OF LEFT ZZ STITCH



3 VARIATIONS OF MIDDLE ZZ STITCH



3 VARIATIONS OF RIGHT ZZ STITCH



Fig. 22

MAKING BUTTONHOLES

First, mark the beginning and end of the buttonhole on fabric with a basting line or tailor's chalk. Make one on scrap fabric (following directions below) to be sure machine adjustments are correct.

1. Replace presser foot with buttonhole foot which is grooved deeply underneath to prevent piling up of thread. (See Fig. 23).
2. Set stitch width at $2\frac{1}{2}$ and stitch length knob near 0.
3. Lower needle carefully into the mark on fabric indicating the beginning of buttonhole. Stitch to the mark for the end of the button hole, step 1, Fig. 24. Stop machine with needle in fabric at right side of stitching.
4. Lift the presser foot and using the needle as a pivot, turn the fabric end for end.
5. Lower presser foot and turn hand wheel just enough to raise needle out of fabric.
6. Turn drop feed dial to "DOWN" position and set zigzag width control as far to the right as possible. Take five or six stitches to form bar tack (Step 2, Fig. 24).
7. Raise needle out of fabric, reset stitch width at $2\frac{1}{2}$ and return feed to UP position.
8. Stitch second side of buttonhole (Step 3).
9. Stitch bar tack by repeating 5 and 6 above (Step 4).
10. Return stitch width to 0 and take two or three stitches to fasten bar threads and prevent ravelling. Cut the buttonhole opening with the seam ripper, being careful not to cut the stitching.

If you plan to make buttonholes on sheer or soft material, place tarlatan or paper, under fabric which can be torn away after stitching.

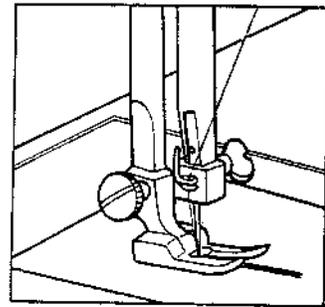


Fig. 23

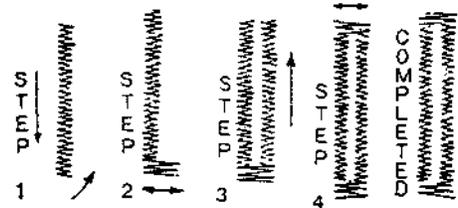


Fig. 24

SEWING ON BUTTONS

1. Remove presser foot and attach button sewing foot. See Fig. 25
2. Turn drop feed knob to "Down" position
3. Set zigzag stitch width at 0. Place the button so that its left hole comes directly under the needle, then gently lower the presser foot. Fig. 26.
4. Move zigzag stitch width control until the needle comes down exactly over the right hand hole in the button. Fig. 27. Turn the hand wheel slowly by hand to be sure the needle enters both holes in button without deflecting needle, correct width if necessary.
5. When needle goes into the center of each hole, run the machine at medium speed, making six or eight stitches, stopping with the needle in the left hole.
6. To lock the zigzag stitch and prevent ravelling, set the stitch width at 0, and take a few stitches in the same hole. If you wish you may place a rounded toothpick over the button, between the two holes, and sew button to fabric in regular way.

Remove the toothpick and wind thread under the button, forming a shank to fasten.

Apply the above method to sew on buttons with four holes, hooks and snaps, etc. If a four hole button is to be sewn, follow the same procedure above for the two hole button.

Now lift presser foot slightly and move fabric to permit stitching the remaining two holes. Hooks, snaps, etc., are sewn to the fabric with the same procedure as for sewing two hole buttons.

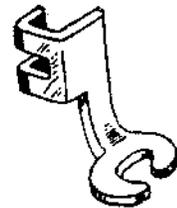


Fig. 25

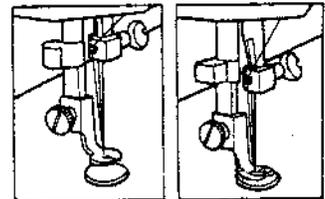


Fig. 26

Fig. 27

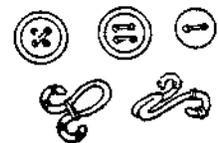


Fig. 28

STRETCH STITCH

When you use the straight stretch stitch to seam knit, stretch, and elasticized fabric, "stretch" and strength are built in as the seam is being sewn. Because it is equally useful for closed or press-open seam construction and will not break thread under stress, the straight stretch stitch is also good for seams that receive an unusual amount of strain when worn. For example: crotch seaming, sleeve insertion and construction seams in sportswear and bathing suits.

1. Use standard zigzag foot.
2. Set stretch stitch lever exactly to right.
3. Set zigzag width control dial at number "0" (for straight) or any number (for zigzag stretch stitch).
4. Set stitch dial to mark "5" when you sew stretch stitch.

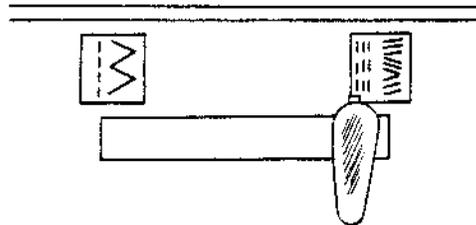


Fig. 29

CAUTION – It is difficult to remove this stitch from fabric.
Pre-fit garment before using this stitch.

● TOPSTITCHING

Because this stitch is heavier than an ordinary straight stitch, it is ideal for top-stitching, particularly on knits.

FREE-ARM SEWING

For sewing tubular and hard-to-reach areas, use your machine as a free-arm. Stitching buttonholes or sewing buttons on a cuff or neckband; topstitching a sleeve; edge finishes on sleeves, pantlegs and waistlines; darning and patching knees, elbows; and other areas of wear on children's clothing become as easy as sewing a common seam when you have the free-arm at your fingertips. Illustrations show some examples of sewing with the free-arm. (Figs 30—35)

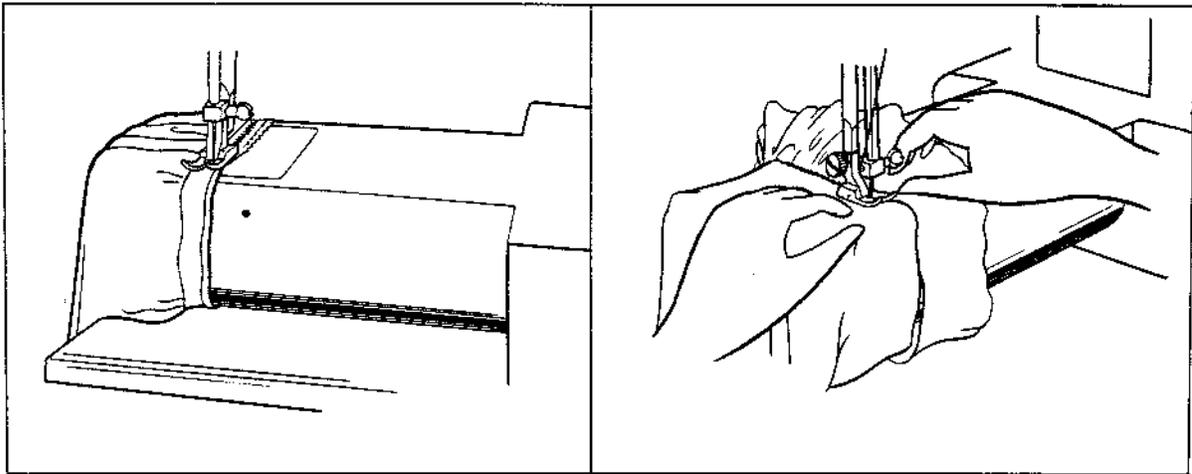


Fig. 30

Fig. 31

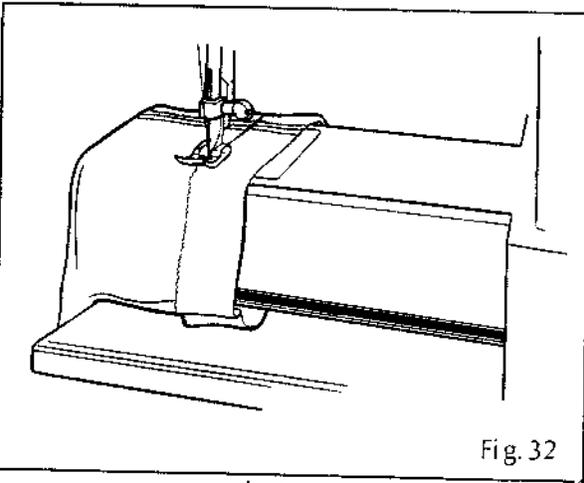


Fig. 32

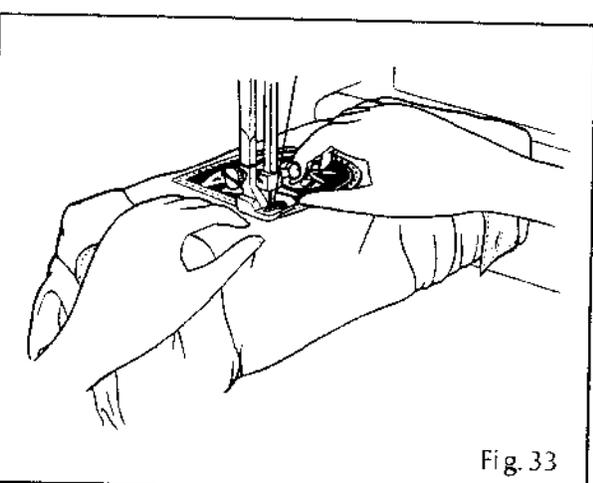


Fig. 33

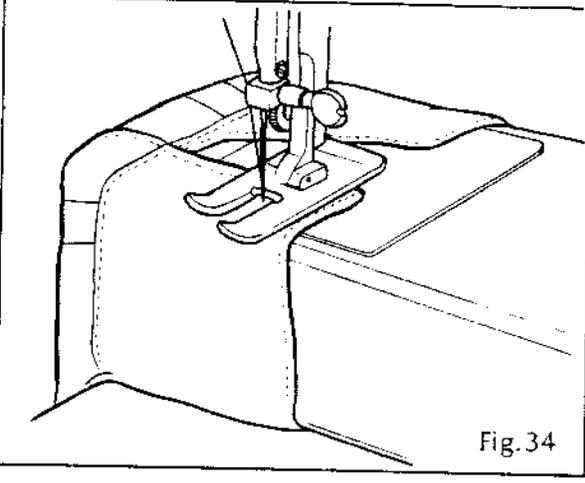


Fig. 34

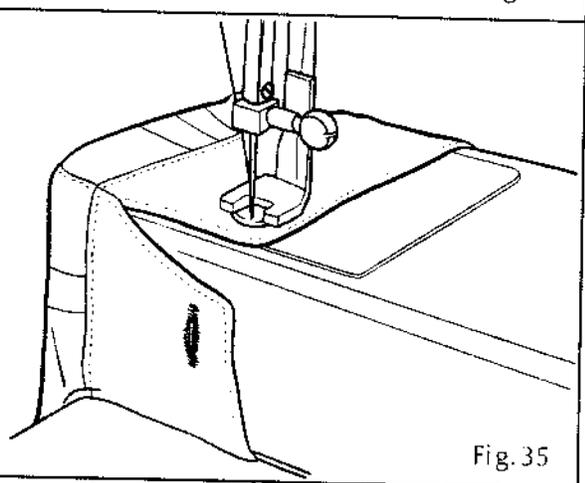


Fig. 35

AUTOMATIC EMBROIDERY

To sew automatically the stitches shown in next pages follow these procedure.

1. Be sure the zigzag needle plate and the zigzag presser foot are on the machine and the zigzag stitch locking knobs(3, Fig. 36) are each in its off positions.
2. Set the zigzag stitch width dials (2, Fig. 36) in its end position clockwise. (The mark of stitch dial points to "5" position).
3. Open disc cover at the top of the machine.
4. Insert disc cam of your choice into disc holder. Be sure that it fits snugly on the spindle in the disc cover and turn the disc until it snaps into place. Close disc cover.
5. Move zigzag stitch width dial (2, Fig. 36) in its end position counter-clockwise.
6. Start sewing with your preferable stitch length, but most embroidery designs require "1" or "less" stitch length for best appearance. To remove disc cam, turn balance wheel until take-up lever is at its highest point, open disc cover, set the stitch width dial to "5" position, and pull disc up.



Fig. 36

SEWDISCS



1



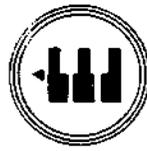
2



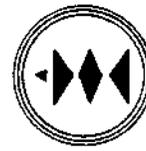
3



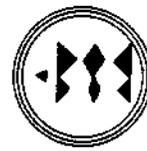
4



5

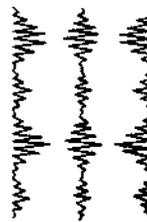
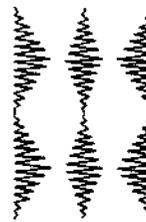
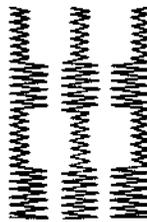
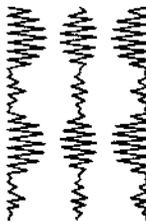
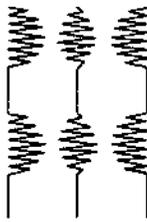
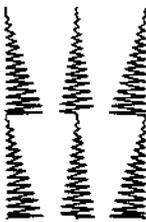


6



7

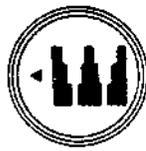
LEFT CENTER RIGHT



8



9



10



11



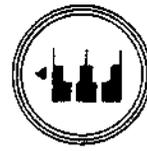
12



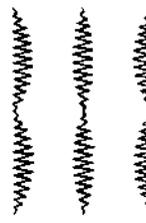
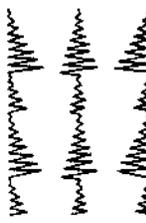
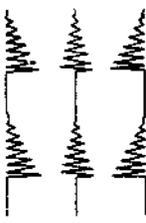
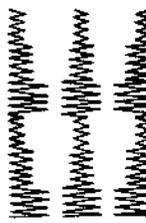
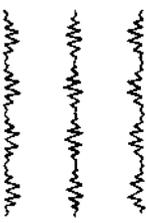
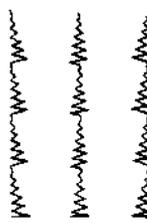
13



14



15



22



16



17



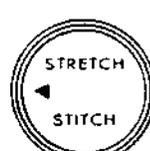
18



19



20

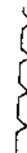
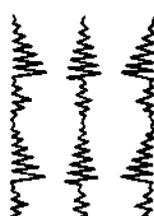
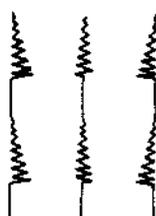
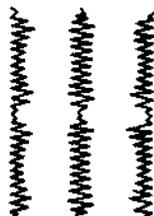
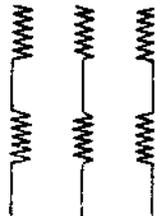
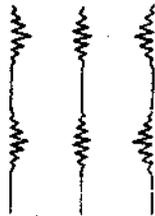


21



22

LEFT CENTER RIGHT



23



24



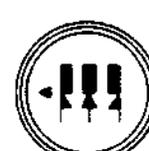
25



26



27



28

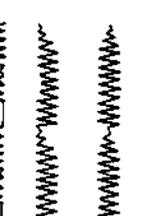
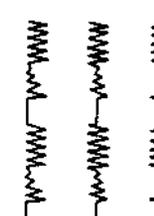
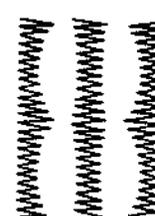
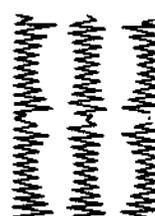
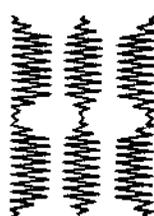
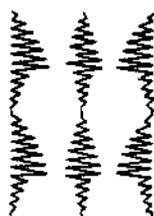
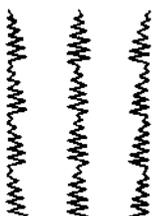


29



30

RIGHT



BLIND STITCH HEM

Pattern:  (DISC NO 30)
 Length: 3-4
 Width: 4-5
 Feed dog: "Up"
 Pressure: Normal
 Foot: Zigzag Foot
 Needle position: RIGHT

Blind stitch hems provide a durable hem finish that is almost invisible and comparable to hand sewing.
 Prepare the garment in the same manner as for hand hemming.

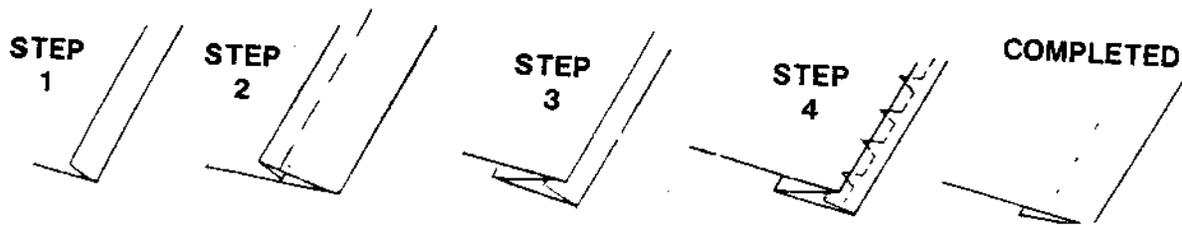


Fig. 37

- Step 1. (Fig. 37). If hem with folded edge is used make first fold $\frac{3}{8}$ " deep.
- Step 2. Turn hem to the depth desired and baste $\frac{1}{4}$ " from upper edge. Press in place.
- Step 3. Fold hem back toward right side of garment leaving $\frac{1}{4}$ " extended.
- Step 4. Place material under presser foot, sew with stitch length set to suit material being sewn and make a side wise stitch about every $\frac{3}{4}$ " of an inch of sewing.

CREATIVE EMBROIDERY

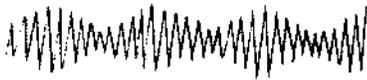
Be sure zigzag presser foot and zigzag needle plate are in place.

1. Set pattern selector (C, Fig. 16) at " $\int \sum$ " position.
2. With the zigzag width control (D, Fig. 16) set at the Number 5 and stitch length control (A, Fig. 16) as near 0 as possible without stopping the feeding action, a satin stitch is produced (Fig. 38).
4. With the machine set for a short stitch length, different designs can be made by turning the zigzag width control back and forth between 0 and 5 or any other combinations of widths. Try setting the zigzag width control (D, Fig. 16) at the first line and the various other lines. Set a rhythm for yourself and then proceed. After a while you will become quite skillful, varying your designs by the speed of the machine, stitch length and manipulation of the zigzag width control.



Fig. 38

SAMPLES OF CREATIVE EMBROIDERY



1. Set needle position lever in center notch.
2. Set stitch length regulating dial for "satin" stitch.
3. Start sewing and quickly move zigzag stitch dial from "1" to "4" and back to "1" again. Repeat operation as long as desired. The length of design depends on the speed at which the zigzag stitch regulator is operated.



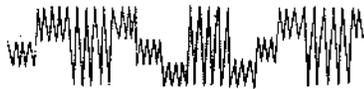
1. Set needle position lever in center notch.
2. Set stitch length regulating dial for "satin" stitch.
3. Start sewing, and move zigzag stitch regulator slowly from "0" to "4" then quickly turn regulator back to zero and repeat operation. The length of design is controlled by the speed at which the zigzag stitch dial is operated.



1. Set zigzag stitch dial between zero and "2".
2. Set stitch length regulating dial for "satin" stitch.
3. Start sewing, and shift needle position lever from left notch to right notch, and back and forth continuously and smoothly by passing the center notch entirely.
Length of design is controlled by the speed at which the needle position lever is operated.



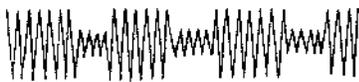
1. Set needle position lever in center notch.
2. Set stitch length regulating dial for "satin" stitch.
3. Start sewing, and move zigzag stitch dial slowly from zero up to "4" and back to zero. Continue operation in even rhythm. Length of design controlled by speed at which zigzag stitch lever is operated.



1. Set stitch length regulating dial for "satin" stitch.
2. Set needle position lever in left notch.
3. Set zigzag stitch dial between "0"-"1".
4. Start sewing and move needle position lever from the left notch to the center notch, to the right notch. Leave needle position lever in right notch.
5. While machine is still in operation, switch zigzag stitch lever to "4". Sew at this position for desired length, then turn zigzag stitch lever back to between "0" and "1".
6. Repeat operation, by moving needle position lever from right notch to center and to left notch.



1. Set stitch length regulating dial for "satin" stitch.
2. Set zigzag stitch dial at "1".
3. Set needle position lever in left notch.
4. Start sewing, and move needle position lever to center notch, to right notch, and back again, using all three notches. Length of design is controlled by the speed at which the position lever is operated, and the time during which it is allowed to remain in each notch.



1. Set needle position lever in center notch.
2. Set stitch length regulating dial for "satin" stitch.
3. Set zigzag stitch dial at "1".
4. Start sewing to desired length, then turn zigzag stitch dial to "4". Stitch desired length, then turn zigzag stitch dial back to "1". Repeat operation. Length of design is controlled by length of time that machine is allowed to stitch at each setting of zigzag stitch lever.

NOTE :

These instructions show you how to make some of the various designs that this zigzag can create, simply and with a minimum of practice on the part of the operator by using a combination of the zigzag stitch lever and the needle position lever. After a little practice with the levers, you soon will be making your own exclusive designs.

EMBROIDERING WITH A HOOP

It is easy to follow a stamped design or to work free hand when embroidering or monogramming.

Release the pressure from the foot by pressing down on the snap lock ring darning. Turn the drop feed dial to "DOWN" position.

Stretch the fabric in an embroidery hoop, and place under the needle after removing the presser foot. Set the stitch width at the size you prefer and lower the presser bar lifter. Then operate the machine at a rather high speed while moving the hoop slowly with both hands. Work carefully and be sure to keep fingers out of the path of the needle.

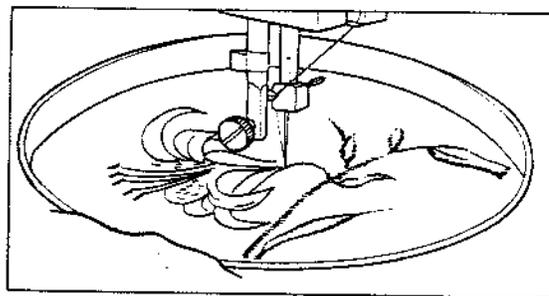


Fig. 39

THE ADJUSTABLE CORDING AND ZIPPER FOOT

This attachment is used to make and insert covered cording and to sew in zippers. Loosen thumb screw to slide foot to either right or left of needle.

CORDING. Fold bias strip of fabric over cord. Loosen thumb screw and set foot so needle is centered in needle hole. Machine bastes cord in place (Fig. 40).

To sew covered cord to material, reset adjustable foot so needle stitches closer to cord, and on edge of base fabric.

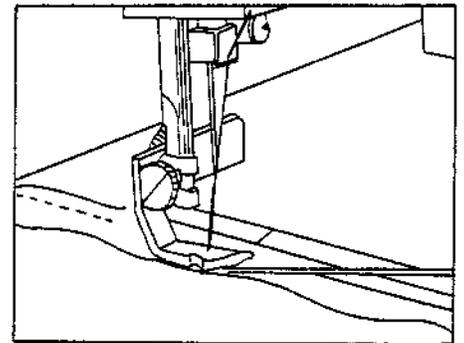
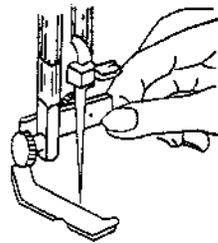


Fig. 40

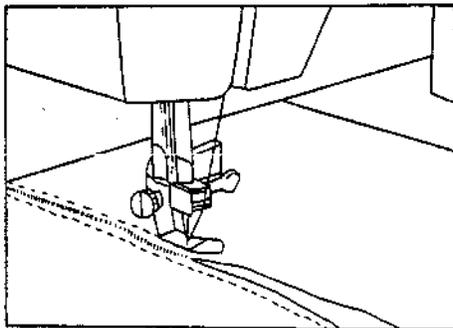


Fig. 41

SEWING IN ZIPPER

Loosen thumb screw and slide foot so needle enters center of needle hole. Guide metal of zipper along edge of foot (Fig. 41). Stitching should be close to zipper to allow easy opening and closing. Adjust to sew from either right or left side, whichever is more convenient.

QUILTING GUIDE

Use this guide for making parallel rows of straight or decorative stitching. Attach standard presser foot. Slip U shaped holder on guide under presser foot thumb screw from the back and tighten screw (Fig. 42). Adjust the curved bar for the distance desired between rows of stitches and set so it presses slightly on the fabric. By letting the guide ride on the previous stitching line, successive rows will be at equal distance apart. (Fig. 42)

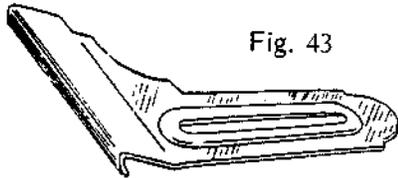


Fig. 43



Fig. 44

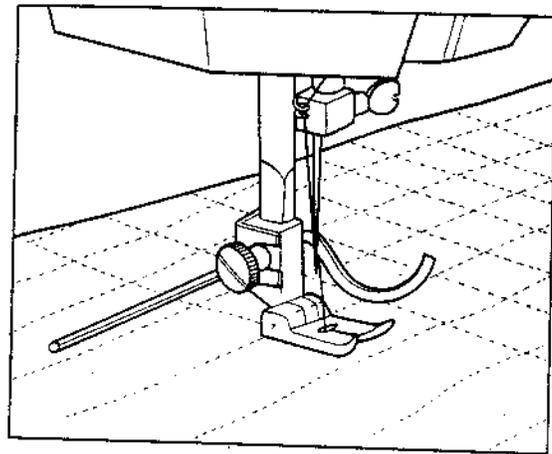


Fig. 42

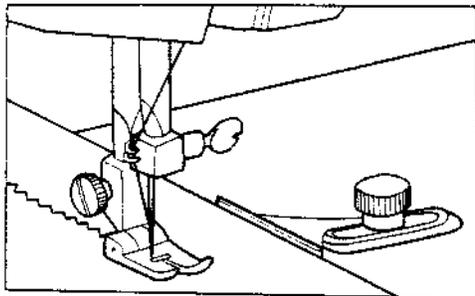


Fig. 45

SEAM GAUGE OR CLOTH GUIDE

Use the seam gauge as a guide for straight seams and even rows of top stitching along edge of fabric. (Fig. 45)

Fasten Gauge (Fig. 43, with accompanying screw (Fig. 44) in threaded hole in bed of machine. Adjust to desired width.

ADJUSTING AND CHANGING "V" BELT

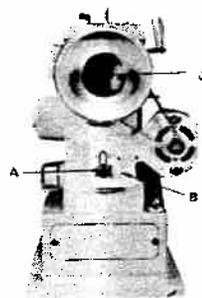


Fig. 46

- (1) To adjust "V" belt, loosen screws (A, Fig. 46,) and move bracket B up to loosen belt and down to tighten.
To remove "V" belt:
- (2) (A) Remove top cover.
(B) Loosen clutch (C,
(C) Loosen screws "A" and move bracket "B" to its highest position.
(D) Slip belt off motor pulley and then over hand wheel.
(E) Replace "V" belt by slipping it over hand wheel and then over motor pulley.

CLEANING AND OILING THE SHUTTLE (See Fig. 47 and 48)

The stitch forming mechanism occasionally becomes clogged with loose threads and lint. This will interfere with the efficient operation of the machine. Cleaning and removal of the lint will safeguard the performance. To remove the shuttle assembly, proceed as follows:

1. Turn the balance wheel until the needle reaches its highest position. Tilt head back on its hinges.
2. Remove bobbin case (A , Fig. 47).
3. Turn the two shuttle race cover clamps (B) outward and remove the shuttle race cover (C) and shuttle body (D).

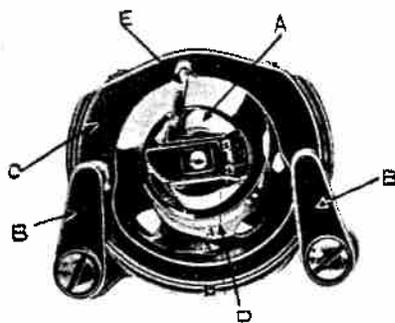


Fig. 47

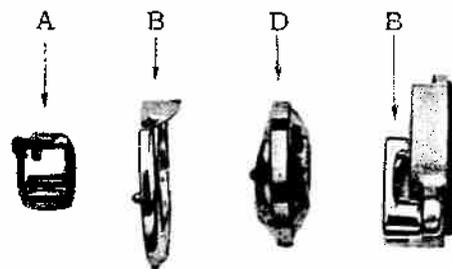


Fig. 48

4. Clean the shuttle race, the shuttle and shuttle race cover by removing all threads, lint, etc.
5. Apply a drop of oil with finger tip to outer edge of shuttle.

When the cleaning has been completed, proceed as follows to replace the shuttle assembly:

1. Turn the balance wheel until the needle reaches its highest position.
2. Place shuttle body, (D), against shuttle driver and adjust into position.
3. Replace shuttle race cover, (C), fitting pin at lower edge into notch, and lock into position with shuttle race cover clamps, (B), making certain the clamps have been snapped securely into position.
4. Put bobbin into bobbin case.

CARE AND MAINTENANCE OF YOUR MACHINE

How to Oil Your Machine

your machine should be oiled occasionally to keep it operating smoothly, how often depends on the amount of sewing you do.

Before oiling the upper part of the sewing unit at points indicated by arrows in Fig. 49 turn hand wheel toward you until the take-up lever is at its lowest point.

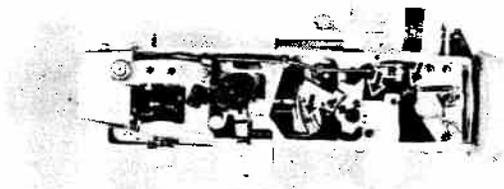


Fig. 49

To oil mechanism under bed of machine, tip the head back on its hinges and oil all moving parts indicated by arrows Figures 50 and 51

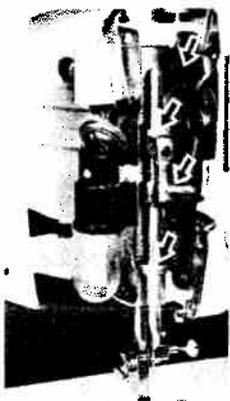


Fig. 50

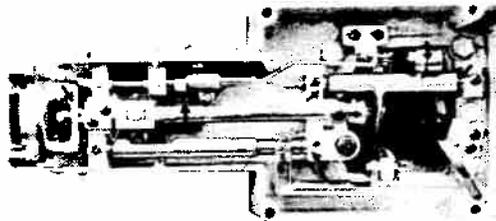


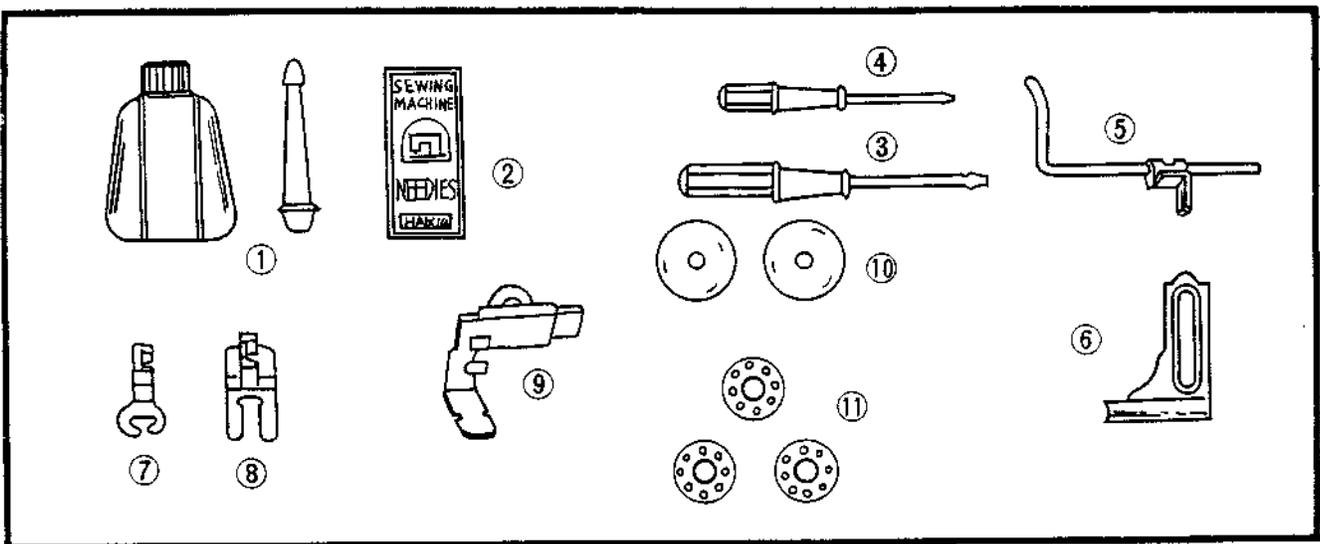
Fig. 51

HOW TO REPLACE THE LIGHT BULB

Open face plate Unscrew bulb and insert new one. For long life and correct size, use 10-C-7 or 7-C-7 or "night light" bulb available every where.

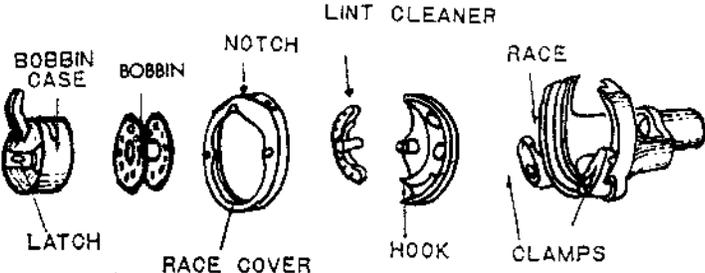
Use switch on face plate to turn this light on and off.

ACCESSORIES



1. Plastic Oiler (sealed and filled).
2. Package of Needles (3 Straight and 1 Twin Needle).
3. Large Screw Driver.
4. Small Screw Driver.
5. Quilter Guide.
6. Cloth Guide with Thumb Surew
7. Button Sewing Foot.
8. Buttonhole Foot.
9. Zipper Foot.
10. Felt Washers(2) (for spool pins).
11. Bobbins(3).

TROUBLE CHART

Trouble	Probable Cause	Correction
If Machine Binds	Thread or lint in raceway	<p>1—With take up lever in highest position, open front cover and remove bobbin case.</p>  <p>2—Turn clamps outward and remove race cover. 3—Remove hook. 4—Clean thread and lint from all parts, including race. 5—Run a drop of oil along rim of hook. 6—Replace hook, then race cover. Snap clamps into place. 7—Grasp threaded bobbin case by latch and replace, fitting tongue into notch of race cover.</p>

Trouble	Probable Cause	Correction
Skipping Stitches	Bent needle	Discard and replace.
	Needle placed incorrectly in clamp	See instruction, page No. 6.
	Too fine a needle for thread being used	See needle and thread chart, page No. 4.
Irregular Stitches	Upper thread tension too loose	Tighten upper tension.
	Improper threading	See threading instruction, page No. 5
	Bobbin not wound evenly	Rewind bobbin.
Uneven Stitches	Pulling or holding material	Avoid pulling or holding material, just guide it.
	Not enough tension on upper thread	Increase tension.
	Poor quality thread	Try different thread.
	Needle too fine for thread being used	See needle and thread chart, page No. 4.

Trouble	Probable Cause	Correction
Upper Thread Breaking	Improperly threaded	Refer to threading instructions, see page No. 5, and rethread machine.
	Too much tension	Loosen tension on upper thread by turning thread tension knob to lower number.
	Starting with take-up in incorrect position	Always start sewing with take-up lever in highest position.
	Improper setting of needle	Refer to needle setting instruction, see page No. 6.
	Bent or eye of needle too sharp	Try a new needle.
	Bent or blunt needle	Discard all blunt or bent needles and replace with new.
Material Puckering	Tensions too tight	See tension adjustment, page No. 9
	Dull needle	Change needle.
	Stitch length too long	Reduce stitch length.
Sewing Stretch Stitch	Machine noisy Material will not feed	Set stitch length control at Number 5.

SEWING TIPS

When a dainty hair line finish is particularly desirable for the inside seams of sheer collars, facings, and yokes, seam allowance that would ordinarily show through is eliminated by following the seam outline with a narrow zigzag stitch.

Trim seam allowance close to line of stitching. Trun and press.

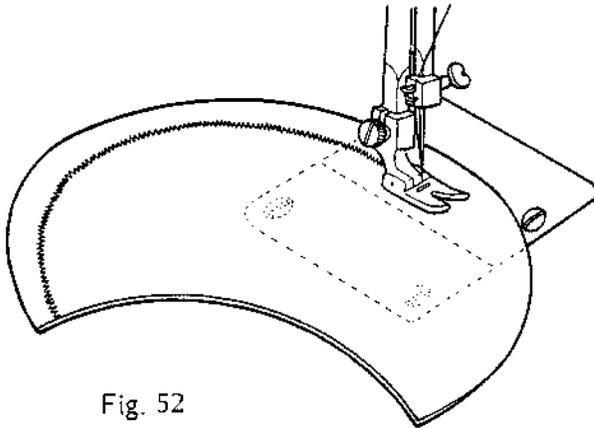


Fig. 52

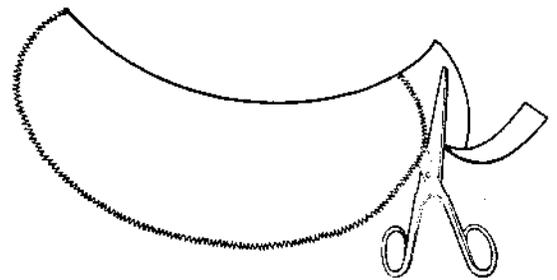


Fig. 53

EVENLY SPACED BUTTONHOLES

To make a row of buttonholes evenly spaced and accurately stitched, draw the outlines for the buttonholes on one long strip of tissue paper. Pin this pattern to position on the garment with fabric strips under each marking. Stitch around the outlines then tear paper away.

SHAPING DARTS IN INTERFACINGS

3
1/2
Center

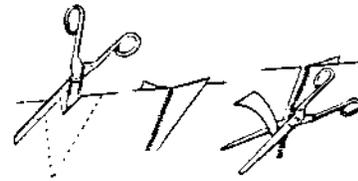


Fig. 54

Cut interfacing down center between dart lines. Overlap cut edges, matching dart lines. Zigzag stitch along marking line from point to wide end of dart. Trim both raw edges close to stitching.

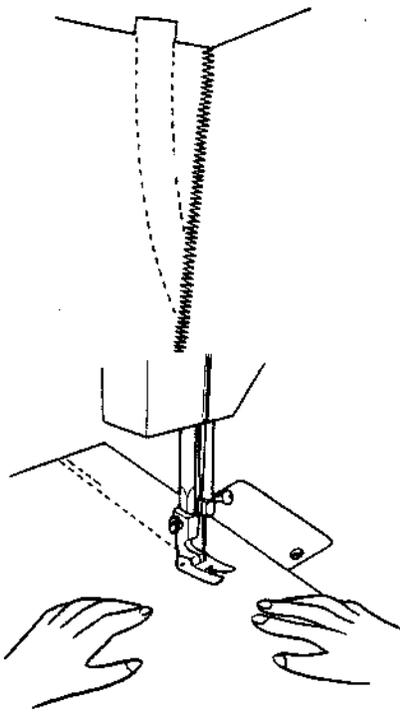


Fig. 55

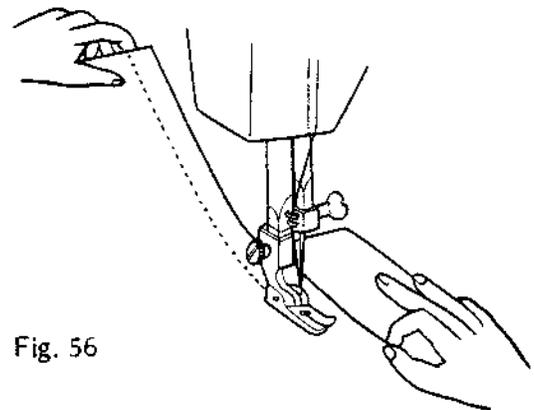


Fig. 56

SEWING ON SHEER MATERIALS

Most fabrics need to be guided only in front of the presser foot as shown at left. Many flimsy sheers, crepes, knits, tricots, etc., require support while being stitched. For such fabric use the straight stitch throat plate and presser foot and apply gentle tension by holding seam in front and back of the presser foot as shown at right.

OVERCASTING WORN EDGES

Zigzag stitch along the worn edges, catching the fabric as the needle swings to the left, and allowing the needle to just pass over the edge of the fabric on the right (Fig. 57).

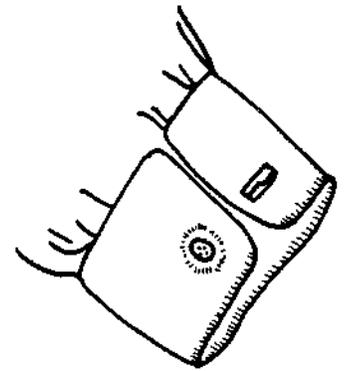


Fig. 57

PATCHING

Machine baste patch into place under hole or worn area which has been cut away. Then zigzag stitch the patch into place by overcasting around edge of hole (Fig. 58).

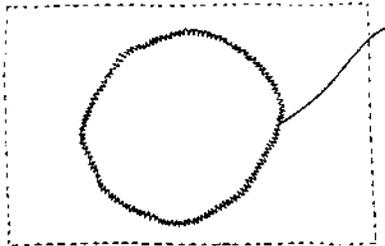


Fig. 58

STRAIGHT OR THREE CORNERED TEAR

Zigzag stitch along a straight tear catching fabric on left and right side of tear by swing of needle. Be sure your tensions are not too tight or puckering will be encountered.

In mending a three cornered tear, start zigzag stitch from each end and work to center (Fig. 59).

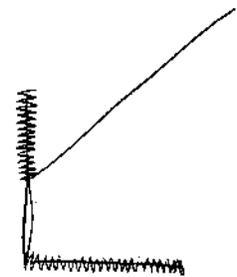


Fig. 59