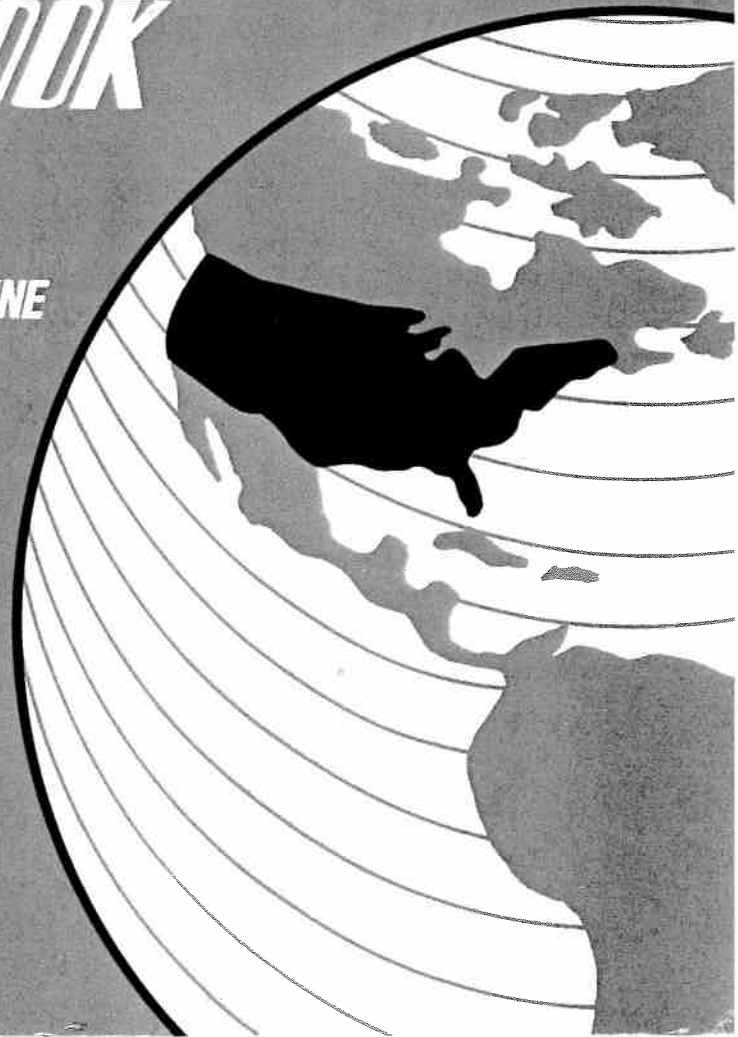


INSTRUCTION BOOK

UNIVERSAL SEWING MACHINE

MODEL UN-50



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FEATURES AND PARTS

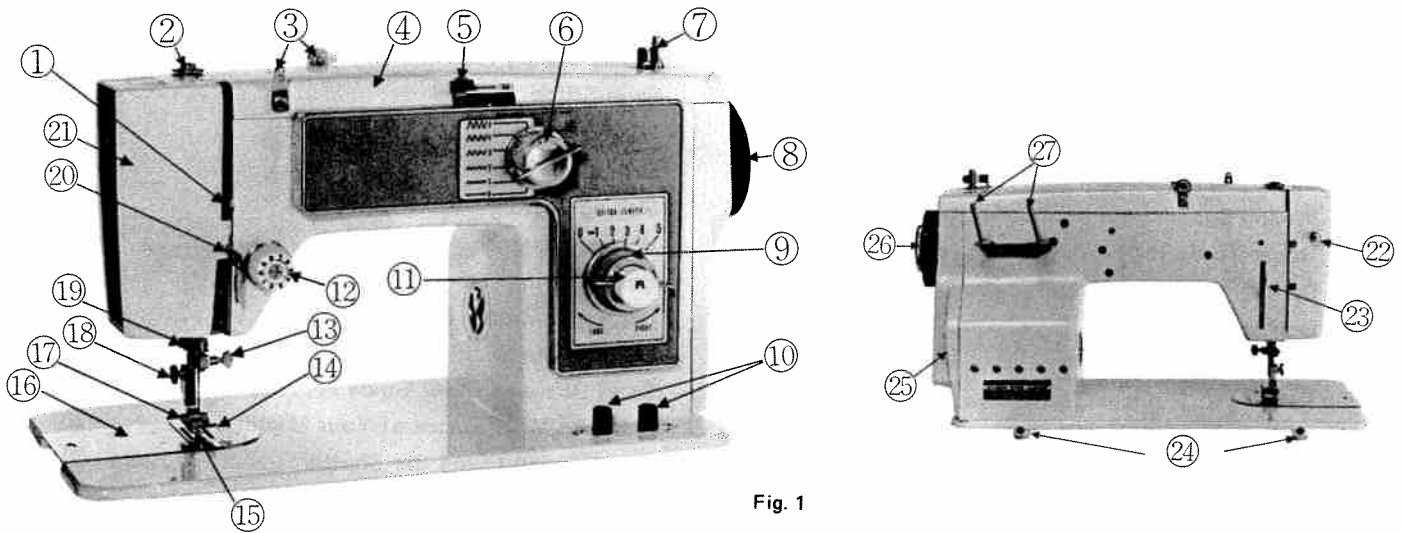


Fig. 1

- | | | |
|-------------------------------|------------------------------|-------------------------------|
| 1. Thread Take-up Lever | 10. Drop Feed Buttons | 19. Thread Cutter |
| 2. Pressure Release (Darning) | 11. Push Button Reverse | 20. Thread Bar and Guide |
| 3. Arm Thread Guides | 12. Tension Regulator | 21. Face Plate |
| 4. Top Plate | 13. Needle Clamp | 22. Lamp Switch |
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| 7. Bobbin Winder | 16. Bobbin Cover Plate | 25. Motor Belt Cover |
| 8. Hand Wheel | 17. Presser Foot | 26. Stop Motion Knob |
| 9. Stitch Length Control Dial | 18. Presser Foot Thumb Screw | 27. Spool Pins |

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.	19	6 to 8	10 to 30	Heavy Duty	
Heavy upholstery fabric, ticking, denim, leatherette	18	8 to 10	30 to 40	Heavy Duty	
Medium heavy drapery fabric, velveteen, suiting, felt, terry, etc.	16	10 to 12	40 to 60	Heavy Duty	
Medium broadcloth, percale, gingham, linen, chintz, taffeta, sheer wool, shantung, etc.	14	12 to 14	60 to 80	50	A
Sheer voile, lawn, dimity, crepe, handkerchief linen, plastic film, etc.	11	14 to 16 (Plastic film) 8 to 10	80 to 100	50	A
Very sheer chiffon, batiste, lace, organdy, ninon, net, marquisett, etc.	9	16 to 20	100 to 150	50	A

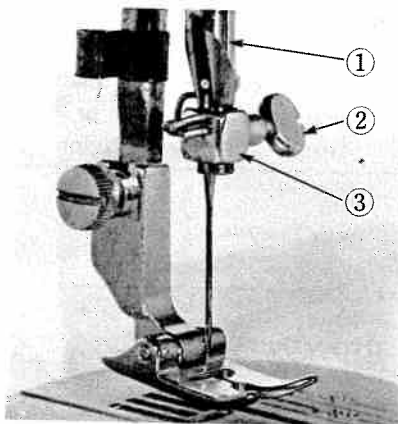


Fig. 2

INSERTING THE NEEDLE

See Fig.2. Raise the needle bar ① to its highest point, turning hand wheel toward you by hand. Then loosen the needle clamp screw ② and the needle can be inserted into clamp ③.

Place needle (Fig.3, 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 hand wheel by hand to be sure the needle is in the correct position.

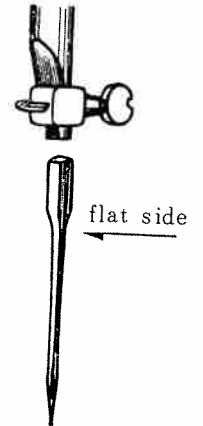


Fig. 3

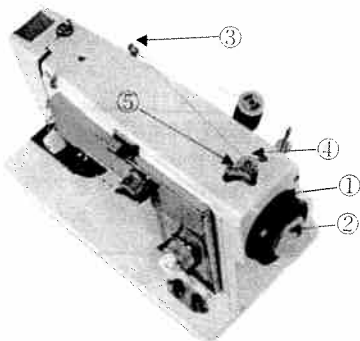


Fig. 4

WINDING THE BOBBIN

Disengage the hand wheel (①, Fig.4) from the stitching mechanism by turning the clutch (②, Fig.4) toward you or counter clockwise. Place a spool of thread on one of the spool pins and lead thread around one set of arm thread guide (③, Fig. 4). Run end of thread through a hole in the bobbin edge and place bobbin on spindle of bobbin winder (④, Fig. 4) fitting the notch on bobbin over small pin on spindle. Push bobbin winder lever (⑤, Fig. 4) against bobbin. Hold thread end loosely and 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.

THREADING THE BOBBIN CASE

Step 1 (illustrated in Fig. 5) 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. 6, and draw it under the Tension spring and into the fork-shaped opening of the spring as shown in Fig. 7.

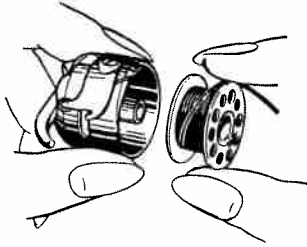


Fig. 5

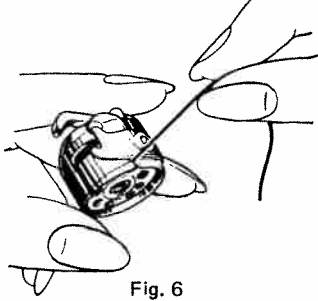


Fig. 6

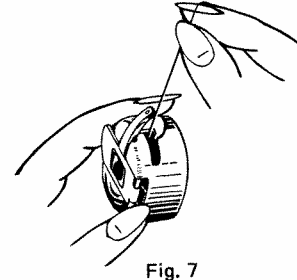


Fig. 7

PLACING BOBBIN CASE IN SHUTTLE

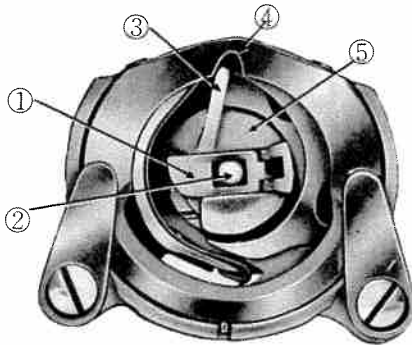


Fig. 8

Open bobbin case cover plate left of the needle. (See ⑩, Fig. 1) See Fig. 8. Hold the bobbin case latch, ①, 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 hook ②. Be sure the bobbin case finger, ③, is opposite the shuttle race notch, ④. Press the bobbin case ⑤ into the shuttle as far as possible until latch catches on the center post of the shuttle. THEN release the bobbin case latch, ①. Press bobbin case again after latch has been released to make sure the bobbin case is locked securely in place. Close the cover plate.

UPPER THREADING SINGLE NEEDLE

1. Turn the hand wheel toward you to raise the take-up lever and needle to their highest position.
2. Place spool of thread on spool pin,
3. lead thread through hole in arm thread guide,
4. down and around one set of tension discs from right to left,
5. into notch on the right hand side of check spring over threaded discs
6. under thread guide bar (⑥, Fig. 10)
7. Up into take-up lever from right to left.
8. Down through guide in thread bar again.
9. Into guide inside face.
10. Through needle clamp guide and into needle from left to right pulling three or four inches of thread through needle.

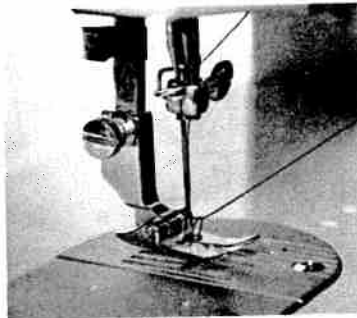


Fig. 9

Hold the end of upper thread loosely and turn hand wheel toward you until the needle goes all the way down and comes back up. A loop (Fig. 9) 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.

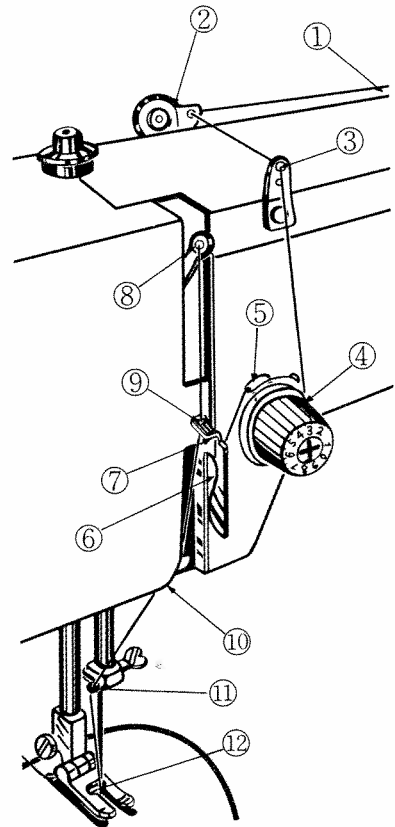


Fig. 10

SETTING THE STITCH LENGTH

The length of the stitch is regulated by the stitch length control dial (⑨, Fig. 1) Near 0 is the shortest stitch and 5 is the longest, but the control dial may be set at any spot between marking for a variety of lengths. Turn the control dial to the right to lengthen and to the left to shorten the stitch.

STITCH LENGTH CHART (Approximate)

Figures on indicator	0	1	2	3	4	5
Number of stitches per inch	No Feeding	30	15	10	7	6

SEWING IN REVERSE

When you wish to sew backward to tie the threads at the beginning or end of a seam, press in the push button (⑩, Fig. 1) as far as it will go. The machine will sew backward as long as the button is held in.

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. 11) to the right, or clockwise. To decrease, turn to the left. The higher the number on the dial, the tighter the tension. Before adjusting lower tension be sure that the machine is threaded properly. When necessary to change the bobbin tension, turn small screw (Fig. 12) on side of the bobbin case clockwise to tighten, counterclockwise to loosen.

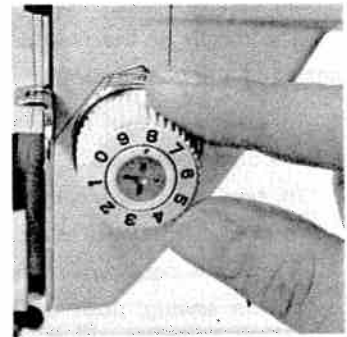


Fig. 11

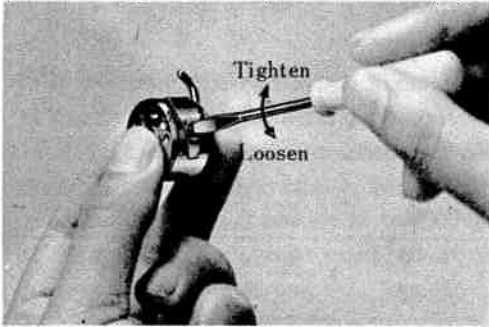


Fig. 12

When the upper and lower tensions are properly balanced, a perfect stitch will be formed with both threads interlocking in fabric (Fig. 13).

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).

When the upper tension is too loose, the upper thread forms loops over the lower thread lying flat under the fabric (Fig. 15).



Fig. 13

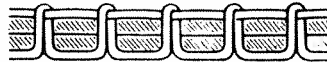


Fig. 14



Fig. 15

FEEDING OF FABRIC

The height of the feed dog may be regulated according to the thickness of the material being sewn, by proper setting of the push buttons.

1. In sewing on thin materials, such as silk, crepe de chine etc., push the button marked "DOWN" down as far as the white line.
2. In sewing on thick materials, such as overcoats, push the button marked "UP" down as far as it will go.
3. When it is necessary to turn the work freely as in embroidering and button sewing, push the button marked "DOWN" as far as it will go.

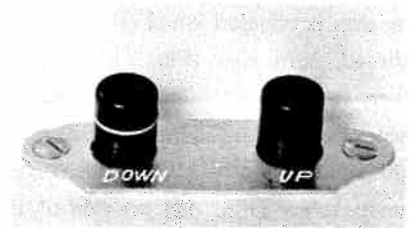


Fig. 16

SEWING THIN OR LIGHT WEIGHT FABRICS

When lighter pressure is required to sew satisfactorily on thin silk or filmy material, the pressure cap should be about halfway down.

Release all the way by pressing the snap lock, (①, Fig. 17) and then press cap (②, Fig. 18) down again to halfway spot.

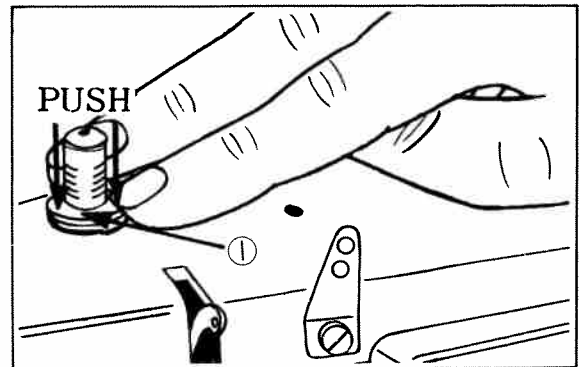


Fig. 17

DARNING AND MONOGRAMMING

In order to move the fabric freely in any direction for darning, mending and certain kinds of free-hand embroidery, release the cap (②, Fig. 18) completely by pressing down on the snap lock, (①, Fig. 17) Press "DOWN" button all the way down, which drops the feed well below the needle plate. To return feed to normal, press "UP" button, push cap down. (Fig. 18)

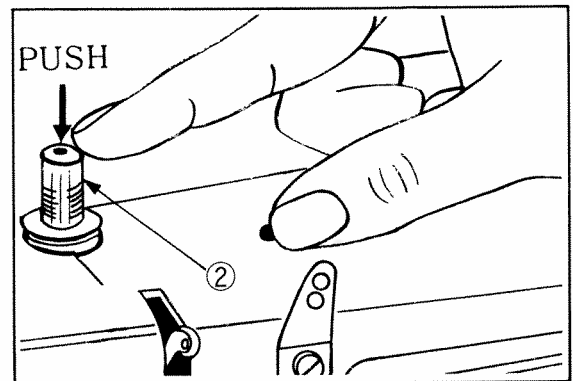


Fig. 18

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.

Turn the hand wheel toward you until the needle is at its highest point. 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.

REMOVING THE WORK

Be sure to stop the machine when the thread take-up lever and needle bar are located at the highest position. Now raise the presser foot and draw the fabric back and to the left, Fig. 19 and 20, 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.

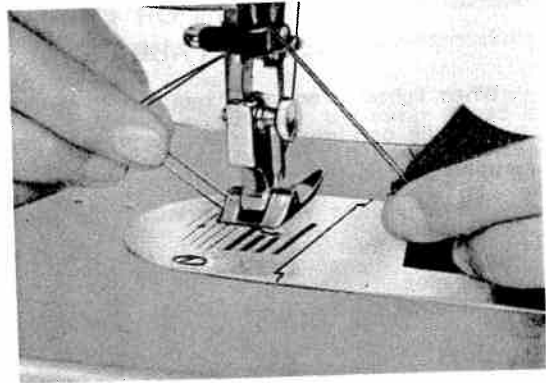


Fig. 19

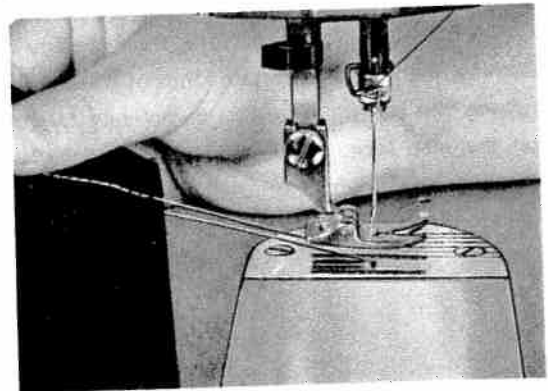


Fig. 20

STRAIGHT STITCHING

For straight sewing on fine fabric or very soft material, you may want to use the straight stitch presser foot and the straight stitch needle plate which are included in your accessory box. Both have narrow needle slots.

Changing the Foot and Plate. To change presser foot, loosen thumb screw and remove zigzag foot. Replace with hinged narrow foot and tighten screw securely. To change needle plate, remove screws and slide the bobbin case cover and replace the zigzag needle plate with that for straight sewing, while raising the needle bar and the presser foot to their highest points.

1. Set the blind stitch lever ① to "M" position.
2. Set the Z-B dial ② to "0" position.
3. Select desired stitch length on dial ③.
4. Push the button ④ and reverse stitching can be performed.

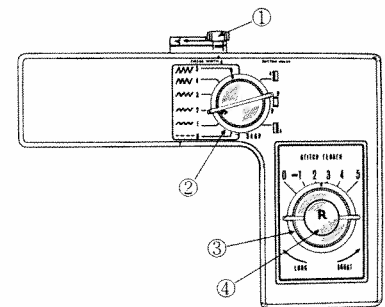


Fig. 21

ZIGZAG SEWING

1. Use zigzag presser foot and needle plate.
2. Move the blind stitch lever ① to "M" position. and select desired zigzag width on dial ②
3. Select desired stitch length on dial ③.

NOTE: 1. When you sew thin fabric, apply a thin sheet of paper to the reverse side of the fabric. Then the finished work will not pucker.

2. In zigzag sewing, loosen the upper tension slightly, and see that the lower thread does not appear on the surface of the cloth.

3. How versatile your machine is will become apparent with practice, as just changing the Z-B dial and stitch length control dial.

ZIGZAG STITCH PATTERNS


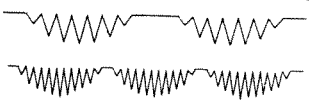

Patterns	Stitch Length	Z. B Dial
	<p>Long Short</p>	<p>Any point from 1 to 5.</p>
	<p>Long Short</p>	<p>Gradually move from 0 to 5, and return to 0. (Repeat)</p>
	<p>Long and Short (Repeat)</p>	<p>Any point from 1 to 5.</p>

Fig. 22

Satin Stitch

Use zigzag presser foot

The satin stitch which is really just a very short zigzag stitch, and the basis for most embroidery, is obtained by setting the stitch length as near 0 as possible without stopping the feeding action.

The width may be set anywhere from just past 0 to the widest, 5.



Fig. 23

BLIND STITCH HEM

1. Use standard zigzag foot and needle plate.
2. Set the Z-B dial to "0" position.
3. Move blind stitch lever to the extreme left. (<)
4. Set the stitch length control dial as you wish.

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.

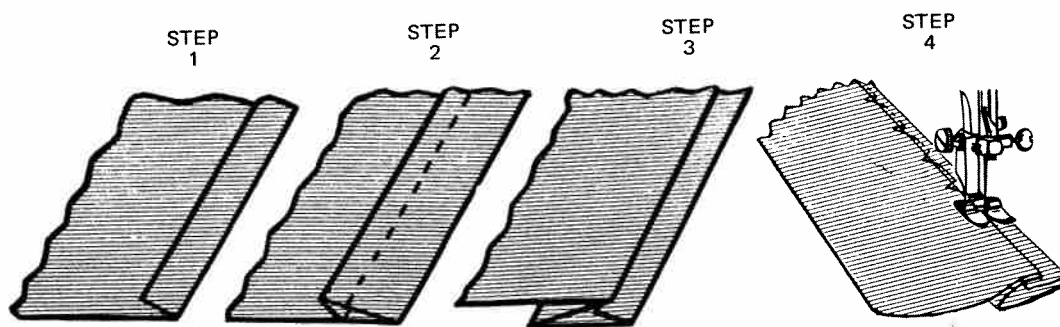


Fig. 24

- Step 1. If hem with folded edge is used, make first fold 3/8" deep.
- Step 2. Turn hem the depth desired and baste 1/4" from upper edge. Press into place.
- Step 3. Fold hem back toward right side of garment leaving 1/4" extended.
- Step 4. Place garment under presser foot and sew blind hem.

SEWING ON BUTTONS

1. Remove presser foot and replace with button sewing foot.
2. Push drop feed button marked "DOWN" all the way down.
3. Set the blind stitch lever to "M" position.
4. Set the Z-B dial to "0" position.
5. Place the button so that its left hole comes directly under the needle, then gently lower the presser foot.
6. Turn the Z-B dial until the needle goes through the right hand hole of the button.
7. Turn the hand wheel slowly by hand to be sure the needle clears both holes in the button. Correct width if necessary.
8. When needle goes into the center of each hole, run the machine at medium speed, making five or six stitches, stopping with the needle in the left hole.
9. To lock the zigzag stitch and prevent ravelling,, return the Z-B dial to "0," and make 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 the regular way. Remove the toothpick and wind thread under button, forming a shank. Fasten.
Apply the above method to sew on buttons, with four holes, hooks, etc.
10. If a four hole button is to be sewn, follow the same procedure as 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.

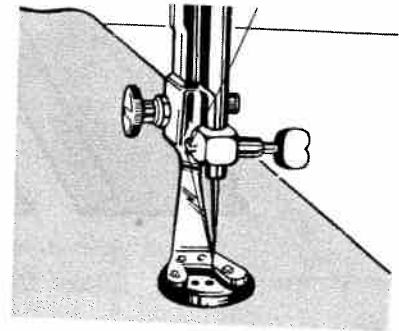






Fig. 25

MAKING BUTTONHOLES

A buttonhole can be made in any length within the range of limited width.

1. Replace regular presser foot with buttonhole foot.
2. Move the blind stitch lever to "M" position.
3. Set the Z-B dial to  position for forward stitching of buttonhole.
4. Set the stitch length control dial at number $\frac{1}{2}$ between "0" and "1"
5. Stitch the length of the buttonhole.
6. With needle out of fabric, turn the Z-B dial to the right, to the illustration showing lower bar tack of buttonhole .
7. Take 4 or 5 stitches in fabric.
8. Remove needle from fabric, and turn the Z-B dial to the right to the illustration showing right side of buttonhole .
9. Stitch the length of the buttonhole.
10. Remove needle from fabric, turn the Z-B dial to the left, to the illustration showing bar tack of buttonhole .
11. Stitch the same as lower bar tack.
12. Slit the buttonhole between the two rows of stitching with the buttonhole cutter or seam ripper. Be careful not to cut the stitching or the bar tacks.

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

NOTE: When the left side pitch is different from the right side pitch, adjust the pitch by means of the stitch length control dial, so that pitches on both side will be the same.

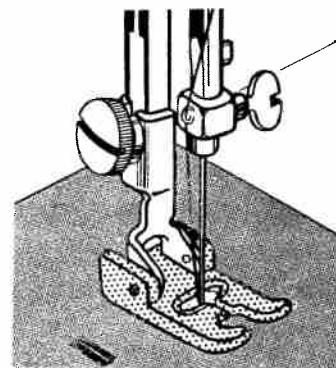
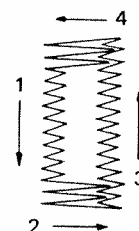


Fig. 26



4 Steps in
Making
Buttonhole

Fig. 27

NARROW HEMMER

With the needle at its highest position, replace regular presser foot with narrow hemmer foot. Set the blind stitch lever to "M" position. Set the Z-B dial at "0" position for straight stitched hem or at number "3" for zigzag stitched hem. Set stitch length to suit.

For general hemming, cut the right corner of the material to be sewn diagonally, and prepare the material so that it can be rolled easily. Then insert it into the scroll of hemmer. Pull out the material to the point just beneath the needle, so that it can continue being rolled in the scroll. Then lower the presser bar and sew 2 or 3 stitches slowly and carefully, holding the beginning of the hem between your right thumb and forefinger and sew in order that the edge of material can be scrolled nicely by adjusting, and the sewing result will be as given in the illustration. Be careful not to feed too much or too little material into the hemmer. (Fig. 28)

When hemming and sewing on lace are required in one operation, proceed to make a hem in the same manner as explained above. Insert edge of lace or trimming (be sure the right side is down) into the slot on the right side of the hemmer.

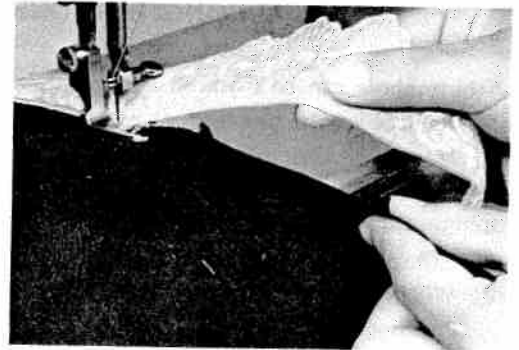


Fig. 28

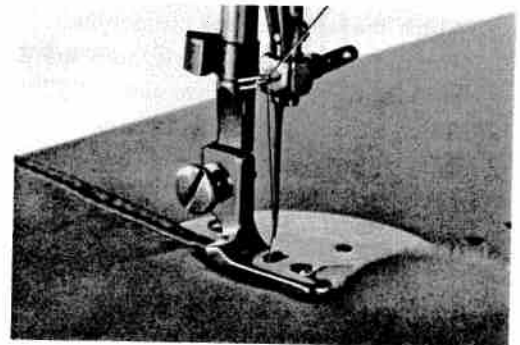


Fig. 29

Make sure that the needle pierces it close to the edge just above the turned edge of the hem. Begin to stitch, leading the lace edge into the hemmer's slot with the right hand while guiding the material being hemmed into the scroll of hemmer with the left hand. To apply lace in the "French Manner," insert the fabric to be hemmed as for plain hemming, with the right side up. Insert the lace from the left, with the right side down, and put it on top of the fabric. Then put the lace and fabric combined into the hemmer and the hem can be made to enclose the lace edge in one stitching. (Fig. 29)

EMBROIDERING WITH A HOOP

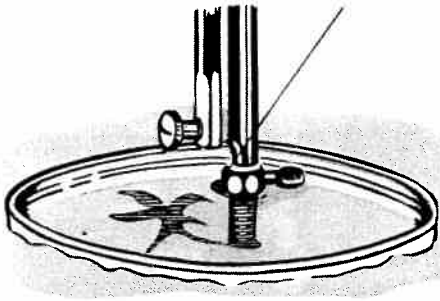


Fig. 30

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 the snap lock on the pressure release. Push the drop feed button marked "DOWN" down all the way. Then hang the upper end of the embroidery spring on the needle clamp. (See Fig. 30)

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 needle.

Should you encounter skipped stitches, the fabric is not stretched tight enough or a darning spring is needed.

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 baste cord in place (Fig. 31, 32).

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

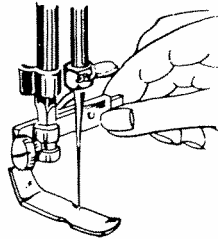


Fig. 31

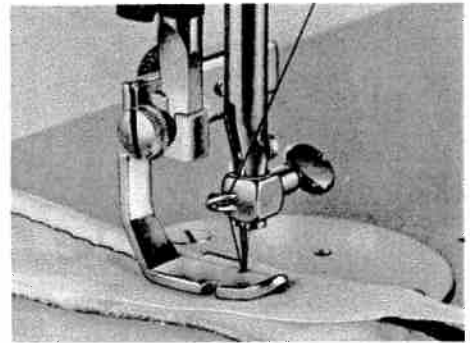


Fig. 32

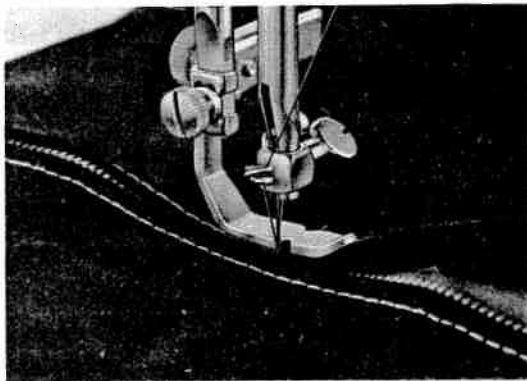


Fig. 33

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. 33) Stitching should be close to zipper to allow easy opening and closing. Adjust to sew from either right or left side, which ever is more convenient.

QUILTING GUIDE

This guide for making parallel rows of stitching is attached by placing the pronged holder between the presser foot and the presser foot clamp screw (Fig. 34). Adjust the curved bar to press lightly on the fabric. By letting the guide ride on the first stitching line, successive rows will be an equal distance apart. When the bar is attached so that the curved part is to the right of the needle, it may also serve as a seam width guide.

SEAM GAUGE OR CLOTH GUIDE

Use the seam gauge as a guide for straight seams and even rows of top stitching along edges of fabric. Fasten gauge with accompanying screw in threaded hole in bed of machine (Fig. 35). Adjust to seam width desired.

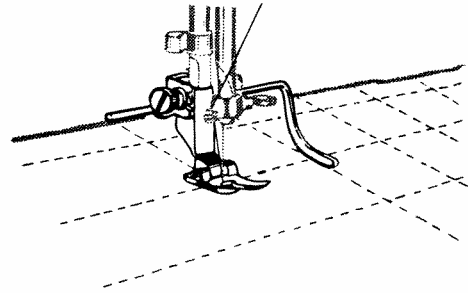


Fig. 34

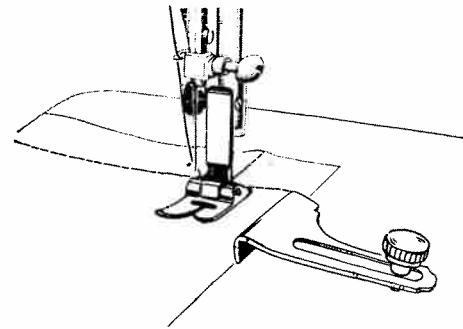


Fig. 35

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. 36 turn hand wheel toward you until the take-up lever is at its lowest point.

Avoid over-oiling. Only a drop is needed at each point.

To oil parts under the bed of the machine, tip the unit back on its hinges and apply a drop of oil at each point indicated in Fig. 37.

To oil moving parts inside the face plate, which only rarely require oiling, open plate and oil at spots indicated in Fig. 38.

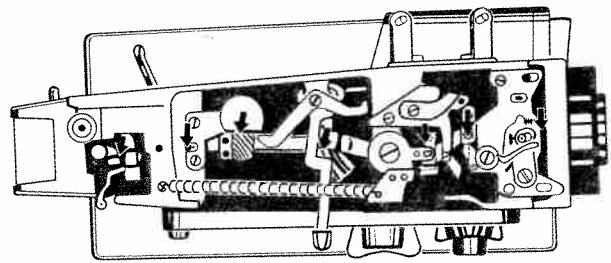


Fig. 36

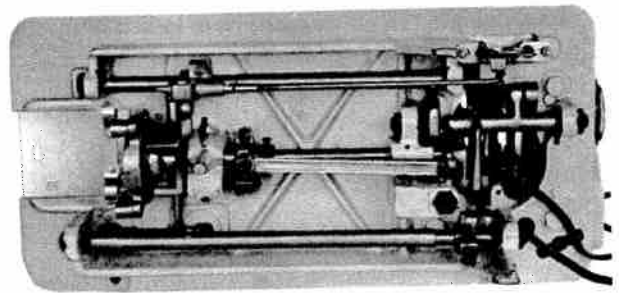


Fig. 37

CLEANING AND OILING THE SHUTTLE

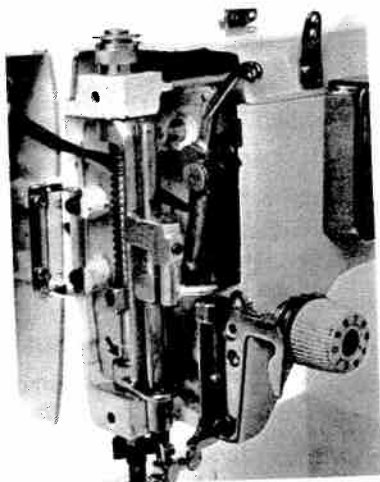


Fig. 38

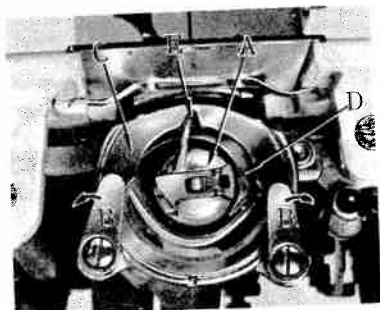


Fig. 39

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 hand wheel until the needle reaches its highest position. Tilt head back on its hinges.
2. Remove bobbin case (A) Fig. 39.
3. Turn the two shuttle race cover clamps (B) outward and remove the shuttle race cover (C) and shuttle hook. (D)
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.

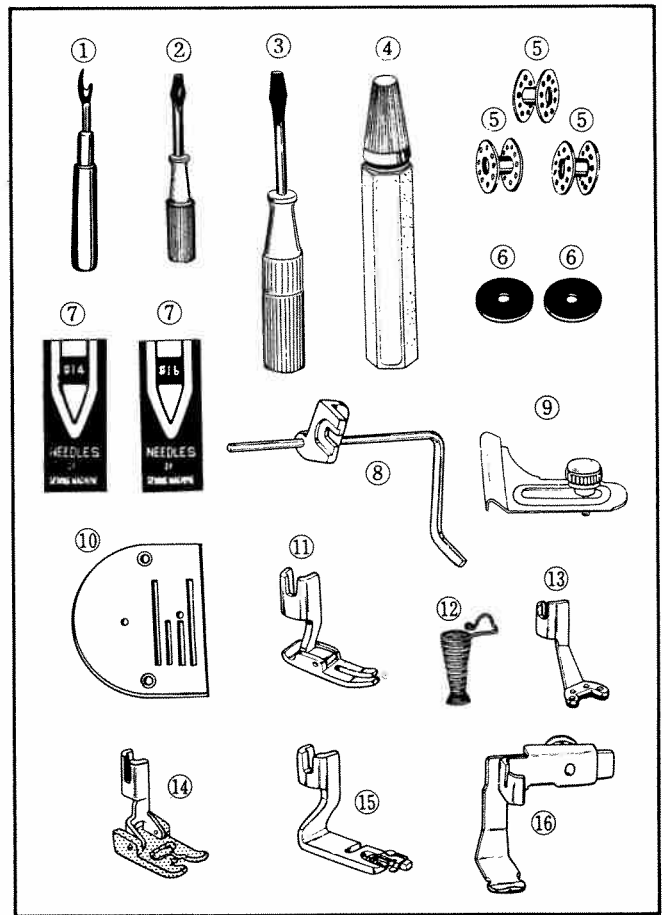
When the cleaning has been completed, proceed as follows to replace the shuttle assembly:

1. Turn the hand wheel until the needle reaches its highest position.
2. Place shuttle hook, (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.
5. Put the bobbin case into the shuttle race, fitting tongue into notch (E) of race cover.

ACCESSORIES

1. Ripper (Buttonhole Cutter)
2. Small Driver
3. Large Driver
4. Plastic Oiler (Sealed and Filled)
5. Bobbins (3)
6. Felts for Spool pin (2)
7. Package of Needle
8. Quilting Guide
9. Cloth Guide and Thumb Screw
10. Needle plate for Straight Stitch
11. Straight Stitch Presser Foot
12. Embroidery Spring
13. Button Sewing Foot
14. Buttonhole Foot (Plastic)
15. Narrow Hemmer Foot
16. Zipper Foot

"THOSE PARTS ARE STANDARD AND CAN BE PURCHASED AT ANY SEWING MACHINE DEALER'S STORE"



CHECK UP FOR SMOOTH SEWING

Although your sewing machine is designed for maximum efficiency, should any of the following difficulties occur they can be remedied with minor adjustments.

Upper Thread Breaks _____

Be sure needle is inserted properly.

Check on correct way to thread machine.

Use correct needle size for thread.

Do not have upper tension too tight.

Lower Thread Breaks _____

Check correct method of threading bobbin case.

Be sure lower tension is not too tight.

Needle Breaks _____

Do not tug or pull on the fabric while sewing as this will bend and eventually break the needle.

Be sure presser foot is firmly attached to bar.

Skipped Stitches _____

Do not use a blunt or bent needle.

Insert needle correctly.

Use correct needle size for thread.

Be sure pressure on foot is sufficient when sewing heavy fabrics.

Stitches Loop _____

Make sure tensions are properly balanced and that machine is threaded correctly.

Machine Binds _____

Clean thread, dust and lint from hook, shuttle and race.

If condition continues, it may be that the machine is gummy with oil. Apply kerosene to oil holes, run rapidly for a while, and wipe dry. Then lubricate again with fine sewing machine oil.

