

(b) Next, repeat the 'push and release' operation of lever (A) so that the indicator points to the desired embroidery pattern. For instance, if you want to sew embroidery pattern No. 8 repeat the above operation nine times, and the indicator will stop at the desired point.

Note : Make sure that the pattern selector lever (A) is pushed down or released completely.

(c) Set the zigzag width indicator (G) at 0, and move the zigzag width restricting lever (E) to the left or to the right as the case may be after pushing the lever towards the arm. Then the shadow section (F) will appear on the rear side of the graduated plate, and the zigzag width indicator (G) will not go beyond the figure indicated on the right edge of the shadow section. For instance, when the figure 3 is indicated on the right edge of the shadow section, the indicator can travel only in the range of 0~3. However, in case the zigzag width of 3 m. m. is desired, the only necessary condition is that the zigzag indicator should point to 3. Any figure in the range of 3~6 may appear on the right edge of the shadow section.

(d) Set the stitch length control dial (C) and the zigzag width control dial (D) at the desired points. Then start sewing.

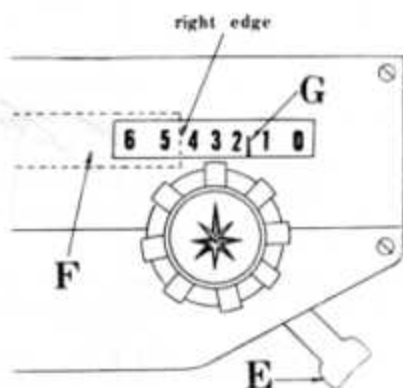


Fig. 25

MANUAL ZIGZAG PATTERNS (Use only Pattern No.10)

Patterns	Stitch Length	Zigzag Width Control Dial
	Long Short	Any point from 1 to 6.
	Long Short	Gradually move from 0 to 6 ; and return to 0. (Repeat)
	Long and Short (Repeat)	Any point from 1 to 6.
	Long Short	Zigzag width can be regulated by zigzag width control dial. Turn quickly the dial alternately.

Note : By using pattern No. 10, decorative stitches made on ordinary zigzag machines can be made

Fig. 26

SINGLE-NEEDLE ZIGZAG PATTERNS













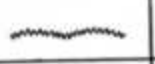

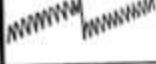
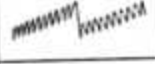
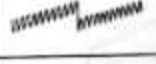
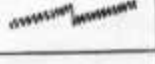




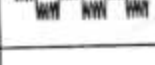
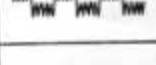
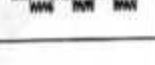
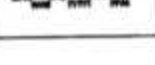
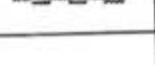

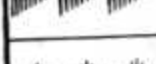
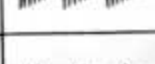
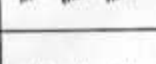
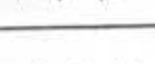









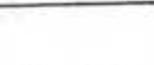
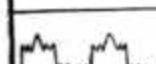
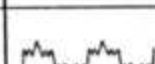
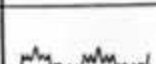
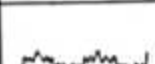














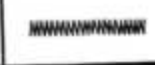
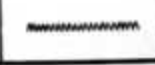








Zigzag Width Control Dial						
6	5	4	3	2	1	0
						
						
						
						
						
						
						
						
						
						

Fig. 27

TWIN-NEEDLE ZIGZAG PATTERNS

Zigzag Width Control Dial						
6	5	4	3	2	1	0
Cannot be used	Cannot be used					
5	5					
5	5					
5	5					
5	5					
5	5					
5	5					
5	5					
5	5					
5	5					
5	5					
5	5					
5	5					

Fig. 28

- Note :
1. Varied patterns can be made by changing the stitch length.
 2. The zigzag width control dial must not be turned beyond "4" in the red-marked area, and only some figure in the range of 4-0 must appear on the right edge of the shadow section, when zigzag stitching is performed with a twin needle. IF THIS WARNING IS IGNORED, THE NEEDLE WILL HIT THE SIDE OF THE NEEDLE PLATE AND BREAK.
 3. When the indicator hits the right edge of the shadow section, you feel some resistance to your hand and the indicator will not go beyond the edge.

BLIND STITCH HEM

Use standard zigzag foot.

Set the pattern indicator at number 1 (BLind stitch Pattern) and the stitch length indicator at number 3 or 4.

Zigzag stitch width to suit material being sewn.

The lower the number, the smaller the sidewise stitch.

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.

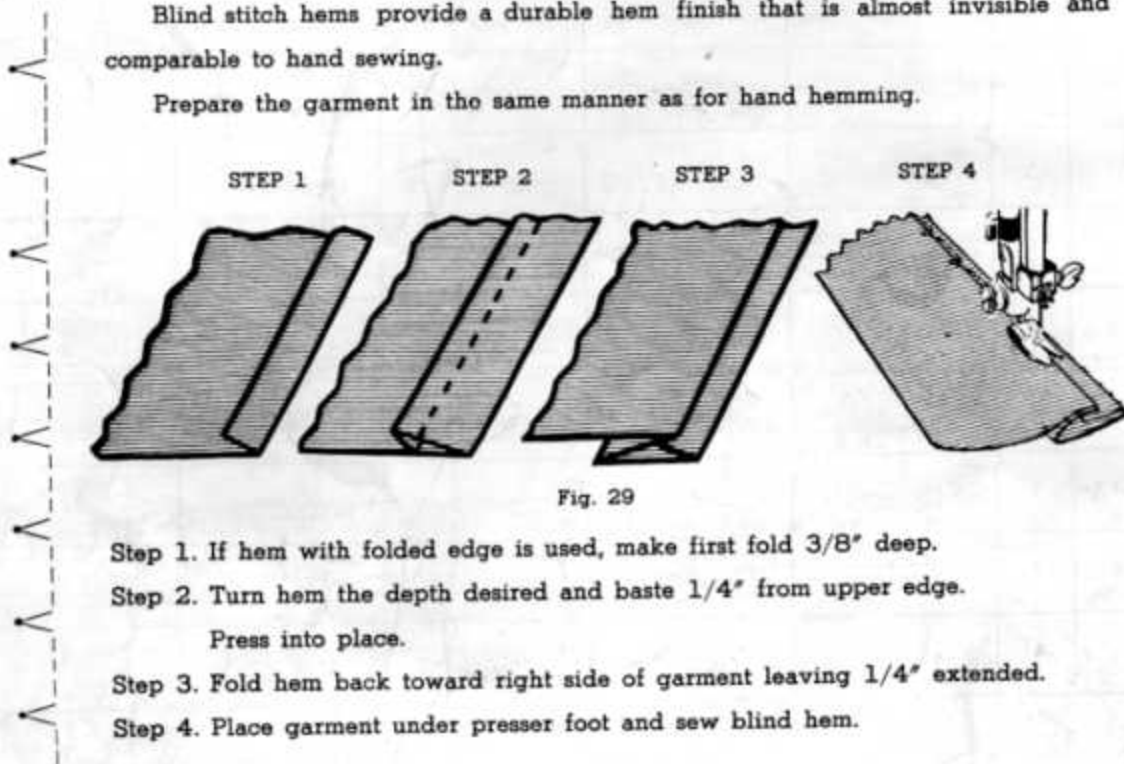


Fig. 29

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.

MAKING BUTTONHOLES

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

To establish the correct length buttonhole required add 1/8 inch to the cutting space for bar tacks.

To obtain the length of the cutting space, the opening through which the button passes is measured by adding the width (A) and thickness (B) of the button. Fig. 30

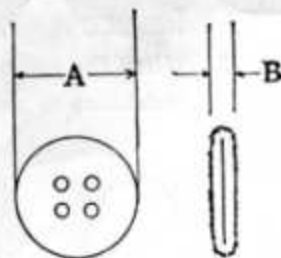


Fig. 30

The width of the button hole sides are governed by the material used. Set zigzag stitch width control on number 5 for thick material and a lower number for thin material.

Mark the beginning and end of the button hole 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.

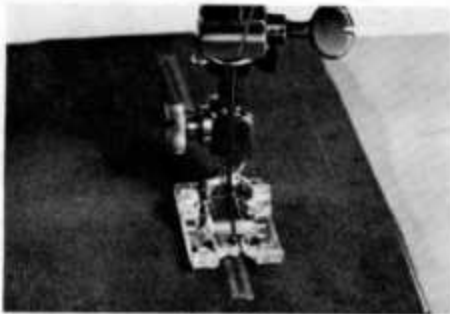


Fig. 31

- 1) Replace presser foot with special purpose button hole foot. It provides maximum visibility and allows closely spaced stitches to feed evenly. Fig. 31.
- 2) Set zigzag width control to suit material being sewn or width of button hole desired.
- 3) Set stitch length indicator at number 0~1.
- 4) Set pattern indicator at number 10 position

for bar tack of button hole. Lower needle carefully into the mark on fabric indicating the end of the button hole. Lower presser foot. Sew 4 or 5 stitches bar tack. Too many stitches sewn at this point will cause problems with the feeding of the material (pile up). Stop machine.

- 5) With needle out of the cloth push pattern selector lever to move pattern indicator to the number 11 position.

Sew left hand side of button hole. (Forward stitching)

- 6) With needle out of the cloth push lever to move indicator to the number 12 position-sew 4 or 5 stitches. (Bar tack)

- 7) With needle out of the cloth push lever to move indicator to the number 13 position-sew right hand side of button hole. (Reverse stitching)

PATTERN INDICATOR SETTING

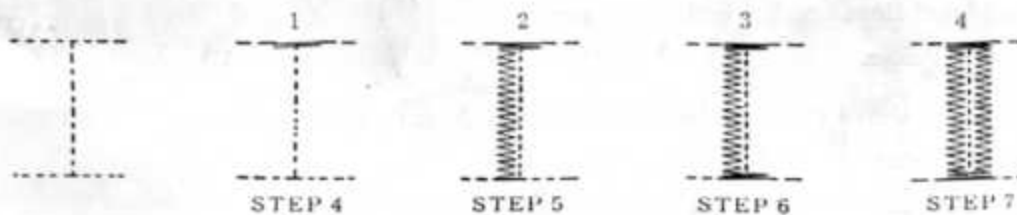


Fig. 32

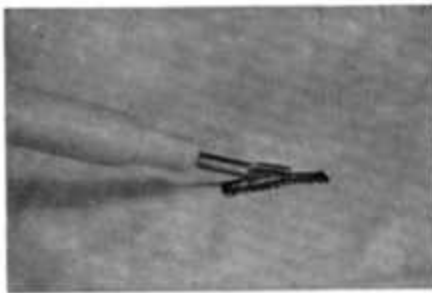


Fig. 33

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 under fabric which can be torn away. After stitching.

SEWING ON BUTTONS

- (1) Remove presser foot and replace with special purpose button sewing foot. Fig. 34
- (2) Push drop feed button marked "DOWN" down all the way.
- (3) Set zigzag width control at "0" and pattern indicator at number 10
- (4) Place the button so that this left hole comes directly under the needle. Then gently lower the presser foot.
- (5) Set the zigzag width control (produce a zigzag stitch) until the needle goes through the right hand hole of the button. Turn the hand wheel slowly by hand to be sure the needle clears both holes in the button. Correct width if necessary.
- (6) When needle goes into the center of each hole, run the machine at a medium speed, making five or six stitches, stopping with the needle in the left hole.
- (7) To lock the zigzag stitch and prevent raveling, return the zigzag width control to "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 the regular way. Remove the toothpick and wind thread under button forming a shank. Fasten.



Fig. 34

Apply the above method to sew on buttons with four holes, hooks, 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 the two hole button.



Fig. 35

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 the snap lock on the automatic darning. Push the drop feed button marked "DOWN" down all the way.

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.

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

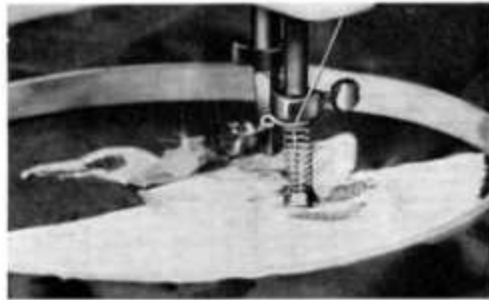


Fig. 36

NARROW HEMMER

With needle at its highest position replace regular presser foot with narrow hemmer being sure to tighten it securely in place. Set pattern indicator at 9 position and zigzag width control at 6 for straight stitched hem or at number 3 for zigzag stitched hem. Set stitch length control to suit.

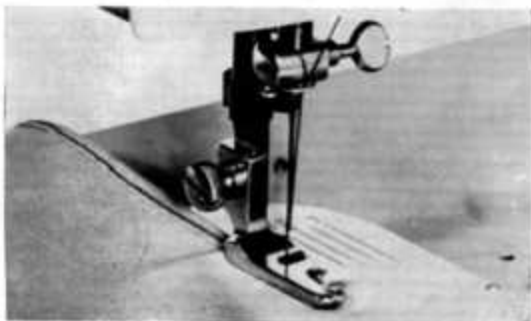


Fig. 37

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.37)

When hemming and sewing on lace is 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. 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. 38)



Fig. 38

SEWING BRAIDS



Fig. 39

Remove the ordinary presser foot from the machine and attach the braiding foot, as shown in Fig. 39. Introduce braid through the small hole on the front side of foot. Adjust the width of zigzag seam and the length of stitch to obtain such a covering of the braid as appears most desirable for the material you are sewing. Using some threads of contrasting colors will enhance the beauty of your braiding.

TO USE THE CLOTH GUIDES

Cloth guides are used when two parallel seams are to be made on the edge of the cloth.

- (a) Figure 40 indicates the way the cloth guide is attached.
- (b) Figure 41 indicates the way the quilting guide is attached.

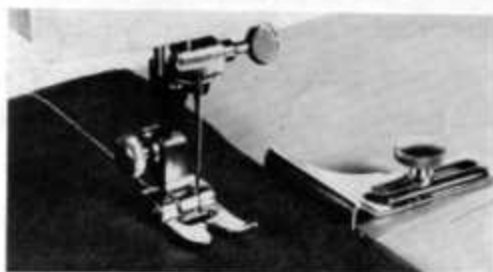


Fig. 40

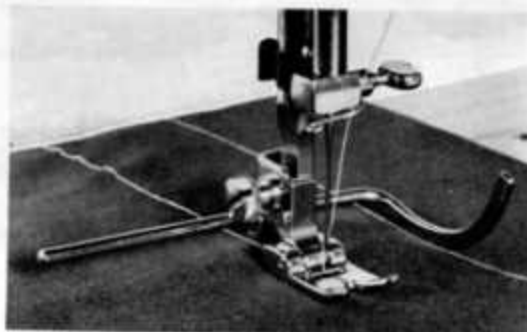


Fig. 41

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

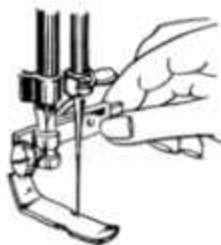


Fig. 42

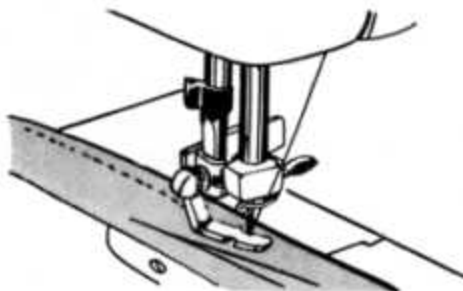


Fig. 43



Fig. 44

hole. Machine baste cord in place (Fig. 42~43)

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

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. 44). 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.

CLEANING AND OILING THE SHUTTLE

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. 45.
3. Turn the two shuttle race cover clamps (B) outward and remove the shuttle race cover (C) and shuttle body (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 body, (D), against shuttle driver and adjust into position.
3. Replace shuttle race cover, (C), 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.

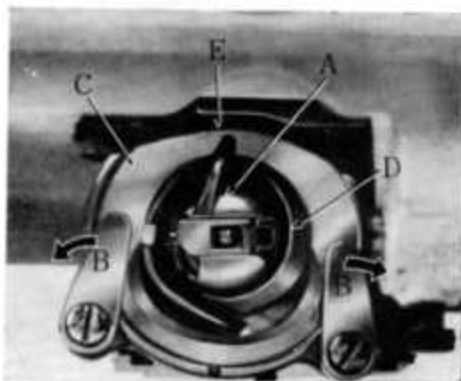


Fig. 45

HOW TO OIL YOUR MACHINE

For a free and easy running machine proper oiling is of the utmost importance and essential that you use sewing machine oil for this purpose.

When in continuous use the machine should be oiled every day. For moderate use an occasional oiling is satisfactory.

To reach the parts inside the arm remove the two screws holding the top cover and remove it.

Apply only a drop of oil to the parts indicated by the arrows in Fig. 46. Now turn the hand wheel and apply a drop of oil to all moving parts. After oiling moving parts replace top cover.

The face plate opens sideways on hinges making oiling and cleaning easy. See Fig. 48. Oil all moving parts.

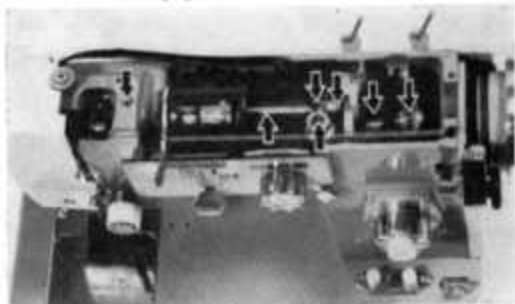


Fig. 46

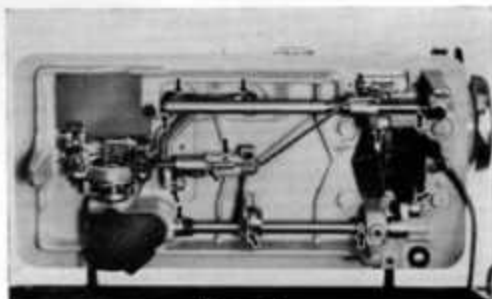


Fig. 47

To oil mechanism under bed of machine, tip the head back on its hinges and oil all moving parts indicated by arrows. Fig. 47.

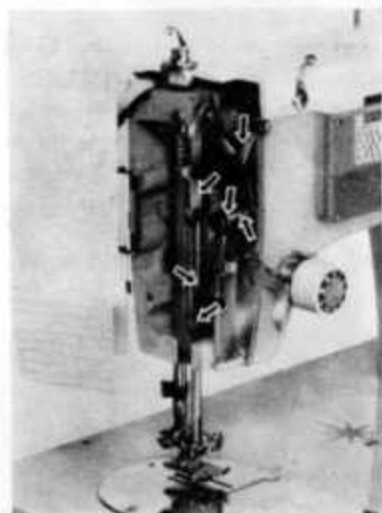


Fig. 48

HOW TO REPLACE THE LIGHT BULB

Open Face Fig. 48 unscrew bulb and insert new one. For long life and correct size, be sure it is a genuine spare part.

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——

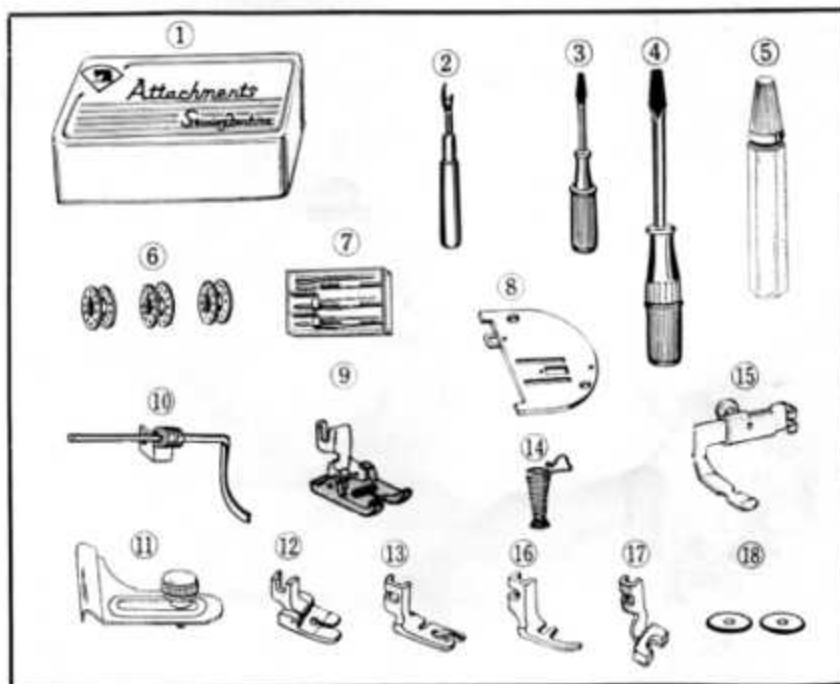
Make sure tensions are properly balanced and that machine is threaded correctly.

Machine Binds——

Clean thread, dust and lint from 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.

ATTACHMENTS



- | | |
|---|----------------------------------|
| 1. Attachment Case | 10. Quilting Guide |
| 2. Buttonhole Cutter (Ripper) | 11. Cloth Guide & Thumb Screw |
| 3. Small Screw Driver | 12. Straight sewing Presser Foot |
| 4. Large Screw Driver | 13. Zigzag Stitch Hemmer Foot |
| 5. Oil Case | 14. Embroidery Spring |
| 6. Bobbins | 15. Zipper Foot |
| 7. Package of Needles
11
14
Twin Needles | 16. Zigzag Stitch Braiding Foot |
| 8. Straight Sewing Needle Plate | 17. Button Sewing Foot |
| 9. Buttonhole Foot | 18. Felt Washers |