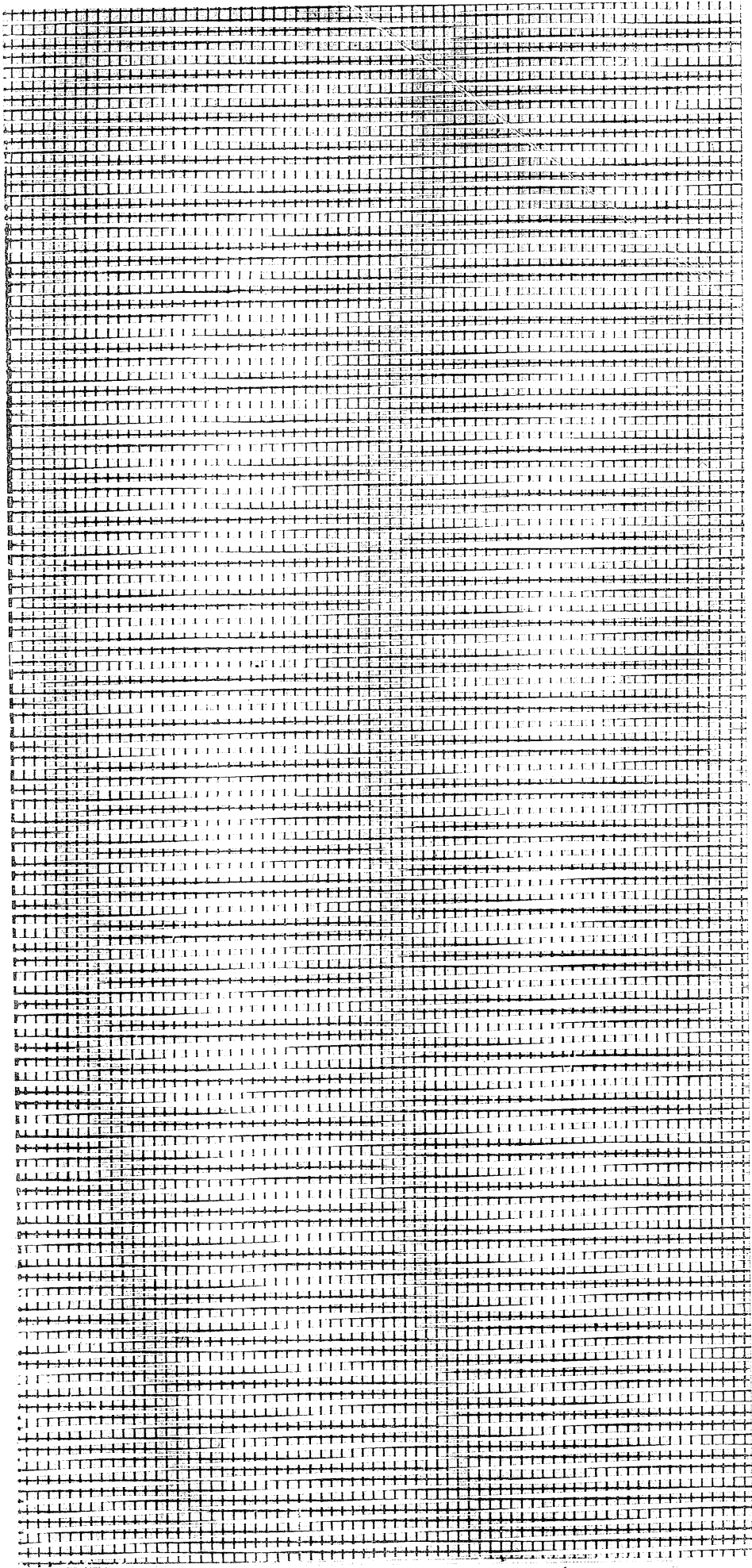




**INSTRUCTIONS FOR USING**  
**SINGER \* MACHINE 224U**



# Congratulations!

As the owner of a **SINGER** Sewing Machine/Model 224U, you are about to enter a wonderful new world of sewing! From the moment you begin to sew on your Model 224U, you will be delighted with its easy, dependable operation.

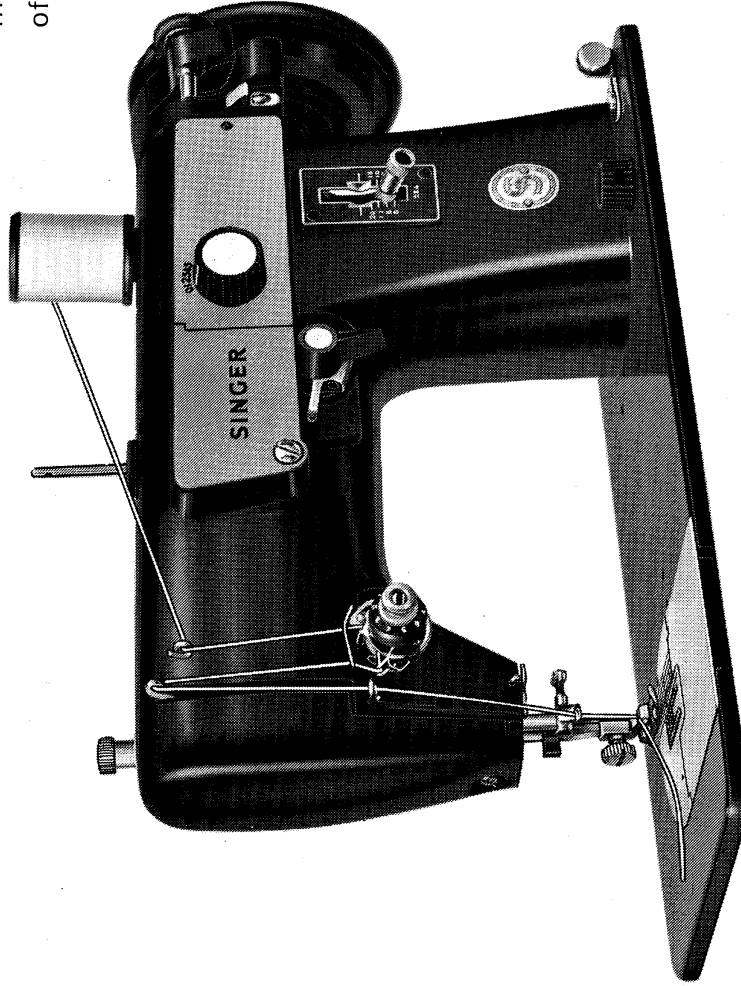
- Perfect straight stitching.
- Zigzag and ornamental stitching in a variety of widths and stitch lengths.
- Superfine control of stitch length insures perfect satin stitching.
- Easy-to-handle interchangeable Fashion Discs.

May we recommend that, before you begin to sew, you discover all the many advantages of your Model 224U by going through this instruction book step by step while seated at your machine.

**SINGER** service is always close at hand. If your sewing machine should need servicing, call your local **SINGER CENTER** to be sure of warranted **SINGER** parts and service. You will find the address under **THE SINGER COMPANY** in the classified telephone directory.

# INSTRUCTIONS FOR USING SINGER SEWING MACHINE MODEL 224U

.....a remarkable swing-needle sewing machine  
of outstanding quality and dependability.....



## **MODEL 224U1**

USE THIS MACHINE FOR TREADLE  
OPERATION

## **MODEL 224U2**

USE THIS MACHINE FOR HAND  
OPERATION

## **MODEL 224U3**

USE THIS MACHINE FOR MOTOR  
DRIVE

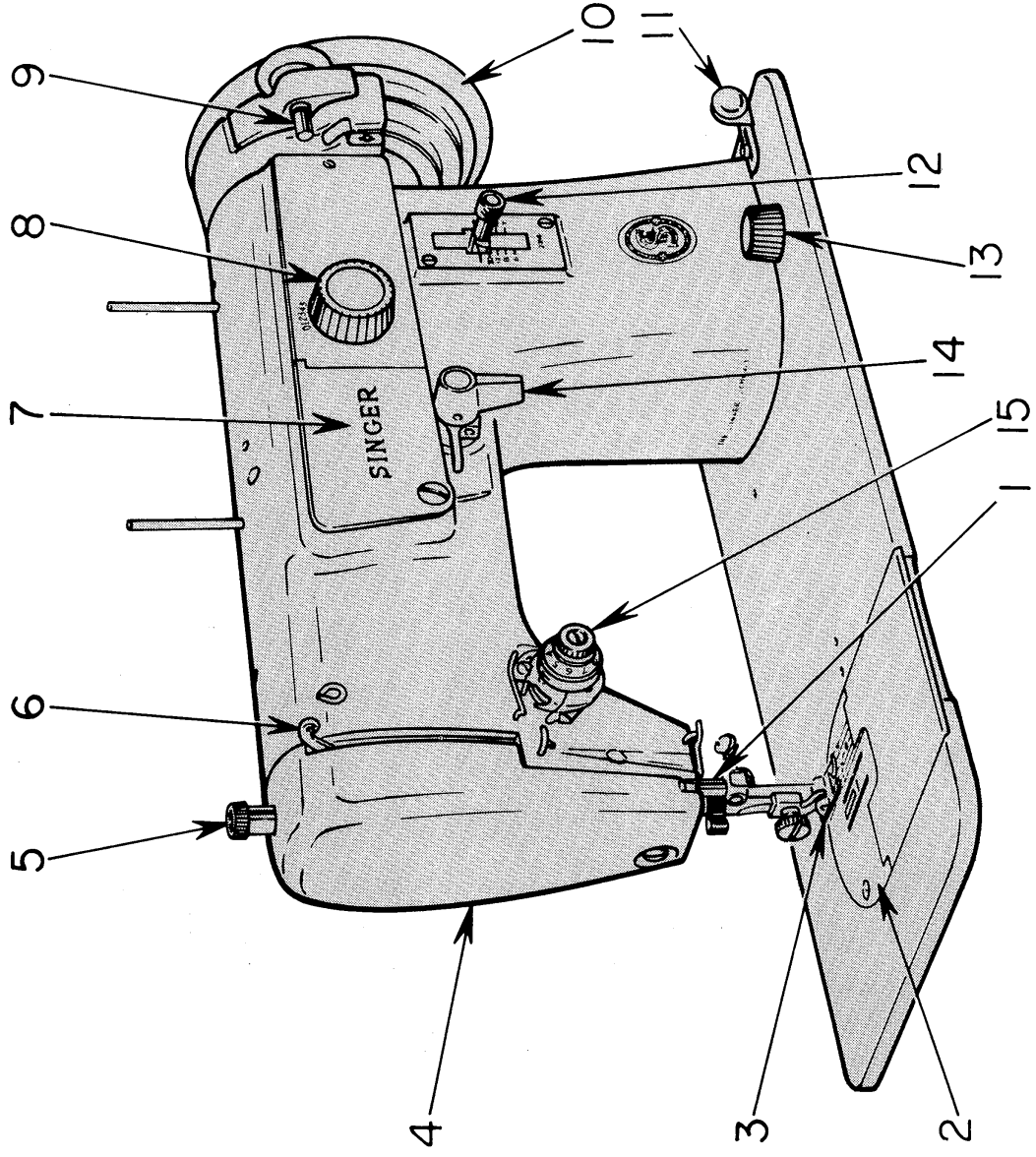
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PRINCIPAL PARTS OF MACHINE 224U



## NAMES OF PRINCIPAL PARTS OF MACHINE 224U

1. Needle Bar.
2. Throat Plate—Numbered guidelines help you keep seams straight.
3. Presser Foot—Holds fabric against feed dog.
4. Presser Foot Lever—At back of machine, raises and lowers presser foot.
5. Pressure Regulating Thumb Screw—Regulates degree of pressure exerted on fabric by presser foot.
6. Take-Up Lever—Takes up needle thread.
7. Disc Cover Plate—Swings up for removal and replacement of Fashion Disc.
8. Stitch Width Dial—Setting **O** is for straight stitching; numbers indicate stitch width for zigzag stitching.
9. Bobbin Winder Spindle—Holds bobbin for winding.
10. Hand Wheel—Controls movement of take-up lever and needle. Always turn it toward you.
11. Bobbin Winder Tension Bracket—Regulates thread tension for bobbin winding.
12. Stitch Length Regulator—Lets you stitch forward and in reverse.
13. Feed Throw-Out Knob—Used for free-motion work. Drops feed dog below throat plate and thus allows you to control feeding of fabric.
14. Needle Position Selector—Places stitching at left, center or right needle positions.
15. Needle-Thread Tension Dial—Numbers allow for exact, easy-to-duplicate settings.

## FABRIC, THREAD, NEEDLE AND STITCH LENGTH TABLE

FABRICS	THREAD SIZES	NEEDLE SIZES	STITCH LENGTH SETTING
<b>DELICATE</b> —tulle, chiffon, fine lace, silk, organdy, fine tricot	Fine Mercerized 100 to 150 Cotton Synthetic Thread	9	15 to 20
<b>LIGHTWEIGHT</b> —batiste, organdy, jersey, voile, taffeta, silk crepe, plastic film	50 Mercerized 80 to 150 Cotton A Silk Synthetic Thread	11	12 to 15
<b>MEDIUM WEIGHT</b> —gingham, percale, pique, linen, chintz, faille, satin, fine corduroy, suitings	50 Mercerized 60 to 80 Cotton A Silk Synthetic Thread	14	12 to 15 (8 to 10 for plastic)
<b>MEDIUM HEAVY</b> —gabardine, tweed, sail-cloth, denim, coatings, drapery fabrics	Heavy Duty Mercerized 40 to 60 Cotton	16	10 to 12
<b>HEAVY</b> —overcoatings, dungaree, upholstery fabrics, canvas	Heavy Duty Mercerized 20 to 40 Cotton	18	6 to 10



## NEEDLES AND THREAD

This machine uses needles Catalog 2020 (15×1), available in sizes 9, 11, 14, 16 and 18.

For perfect stitching, thread should be selected according to fabric to be stitched and needle must be correct size for thread to pass freely through eye of needle. Select correct needle according to table on page 6. Be sure that needle is not blunt or bent.

**NOTE:** Thread breakage is sometimes caused by variations in the diameter of thread. Such breakage is overcome by using the next size larger needle.

Use like threads for needle and bobbin. Do not use silk on bobbin and mercerized thread in needle or vice versa.

### TO SET THE NEEDLE

Raise needle bar to highest position by turning the hand wheel toward you. Loosen the needle clamp screw. Insert needle into clamp as far as it will go, with flat side to the back and long groove toward you. Then tighten needle clamp screw.

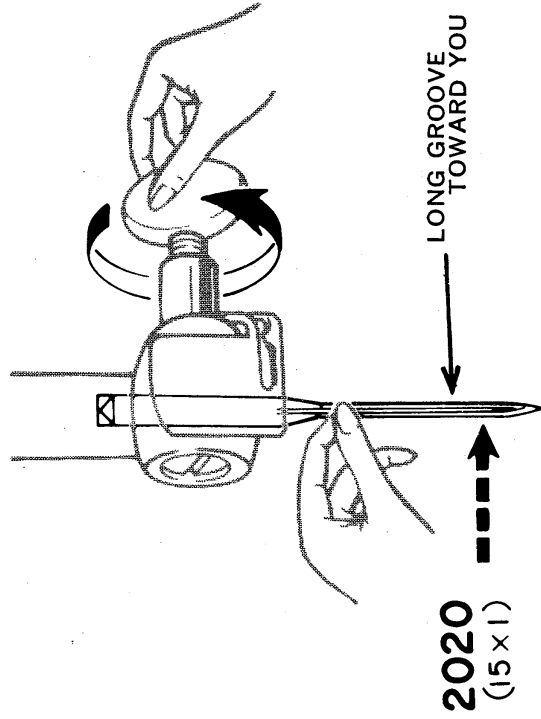


Fig. 2

## UPPER THREADING — SINGLE NEEDLE

Turn hand wheel over toward you to raise take-up lever **6** to its highest position. Place spool of thread on spool pin.

Lead thread into self-threading eyelet **1** from underside. Down and from right to left behind or in front of center tension disc **2** (Center disc separates threads for twin needle sewing).

Hold spool tightly and draw thread up against take-up spring **4** until it enters retaining fork **3**.

Lead thread up into thread guide **5**. Up and from right to left through hole in take-up lever **6**. Down through guides **7** and **8**. Into guide **9** of needle clamp and from front to back through eye of needle.

Draw about two inches of thread through eye of needle with which to start sewing.

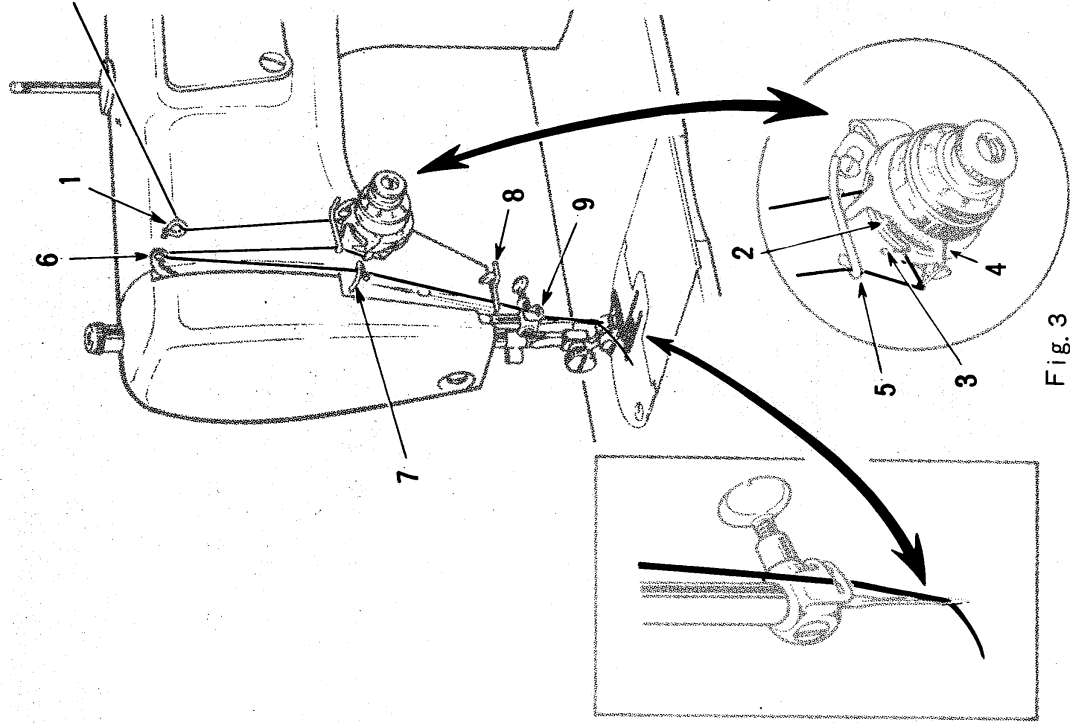


Fig. 3

## TO WIND THE BOBBIN

Stop motion of needle by loosening stop-motion screw  
**A.** Hold hand wheel **B** with left hand while turning stop-motion screw toward you with right hand.

Place bobbin on bobbin winder spindle and turn bobbin until spindle pin enters slot in right side of bobbin.

Place spool of thread on spool pin, pass thread through eyelet and down around tension discs **C**.

Draw thread from the inside, through hole **D** in the left side of the bobbin. Press bobbin winder down against hand wheel, making sure that the sides of the bobbin straddle the bobbin winder stop.

Hold thread end as shown and start the machine. Thread end will break off after a few coils have been wound.

Do not guide or hold thread when winding bobbin—let the machine do the work. Winding will stop when bobbin is full.

Raise bobbin winder away from hand wheel, remove bobbin and cut thread. Then retighten stop-motion screw.

**IF BOBBIN DOES NOT WIND EVENLY**, loosen screw **E** which holds tension bracket.

—If bobbin winds high on left, move bracket to right.

—If bobbin winds high on right, move bracket to left.

When tension bracket is correctly centered, thread will wind evenly across bobbin. Retighten screw.

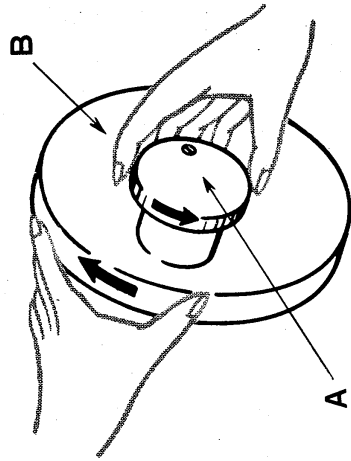


Fig. 4

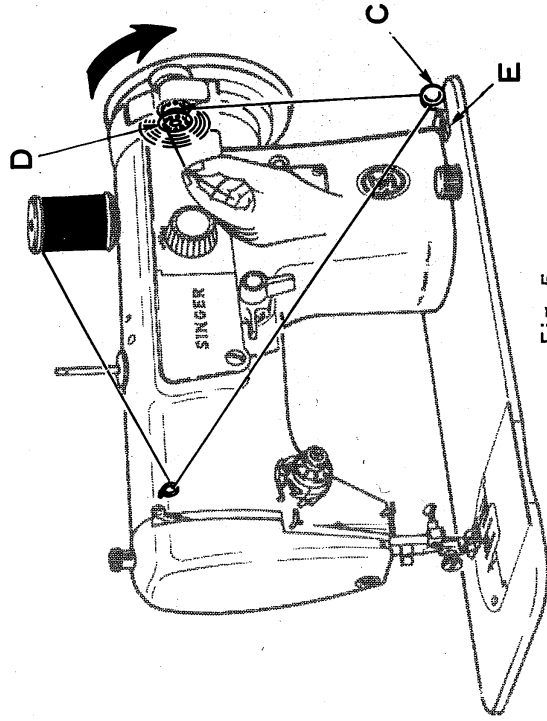


Fig. 5

## TO REMOVE THE BOBBIN

1. Turn hand wheel toward you until needle is at its highest position.
2. Raise hinged bed plate.
3. Reach down with left hand, open bobbin case latch and lift out bobbin case.
4. Release latch and remove bobbin from bobbin case.

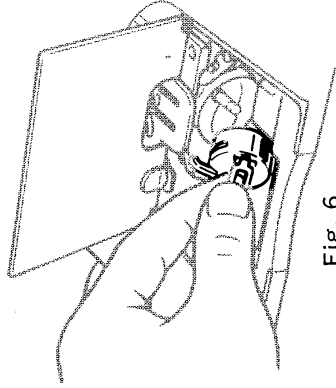


Fig. 6

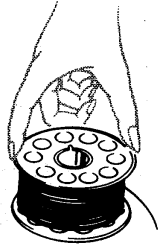
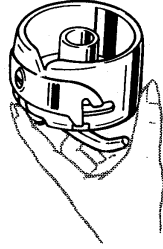


Fig. 7

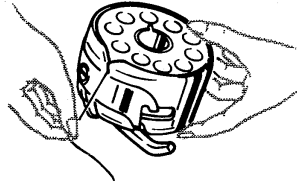


Fig. 8

## TO THREAD THE BOBBIN CASE

1. Hold bobbin so that thread unwinds in the direction as shown in Fig. 7 and put bobbin in bobbin case.
2. Pull thread into notch, (Fig. 8), draw it under tension spring, and into slot. Allow about three inches of thread to hang freely from bobbin case, Fig. 9.

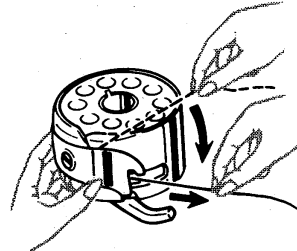


Fig. 9

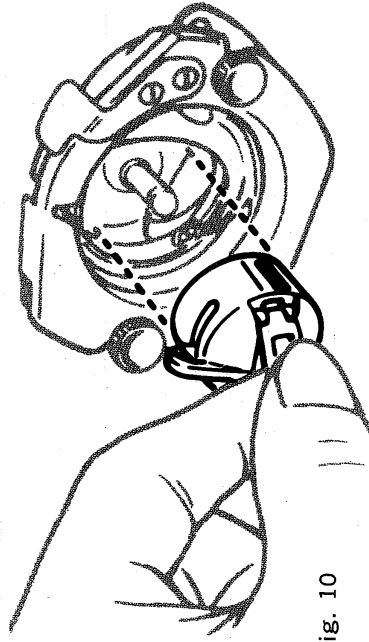


Fig. 10

## TO REPLACE THE BOBBIN

1. Hold bobbin case by latch and place it on spindle of shuttle body so that position finger enters notch at top of shuttle. Release latch and press bobbin case until it clicks in place.
2. Close hinged bed plate.

## TO REMOVE AND REPLACE THROAT PLATE

### TO REMOVE

1. Remove two screws and remove throat plate and bed plate as a unit.
2. Hold throat and bed plate bottom side up and press throat plate downward in order to disengage it. Slide throat plate to the right and disengage bed plate.

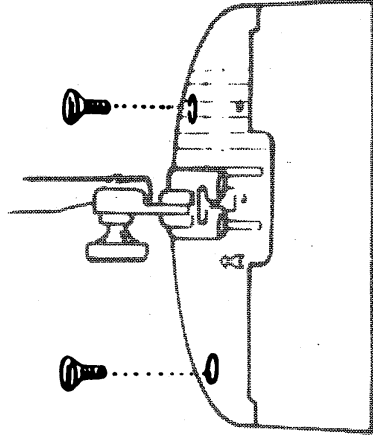


Fig. 11

### TO REPLACE

1. Fit pin **J1** on the underside of the bed plate over groove **K1** in the throat plate.
2. Press throat plate down toward bed plate while assembling stop plate **L** of bed plate to spring **M** of throat plate.
3. Fit pin **J2** of bed plate to groove **K2** of throat plate.

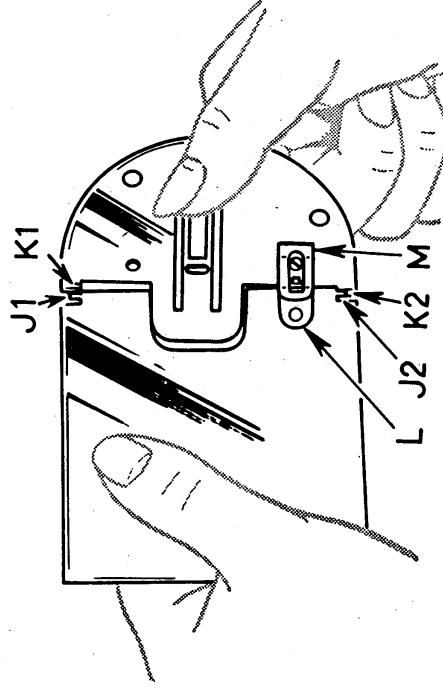


Fig. 12

## TO ADJUST STITCH LENGTH

The stitch length regulator does two jobs: it controls the number of stitches per inch, and it lets you sew either forward or in reverse. Fig. 13 A.

The numbers on either side of the lever represent the number of stitches per inch.

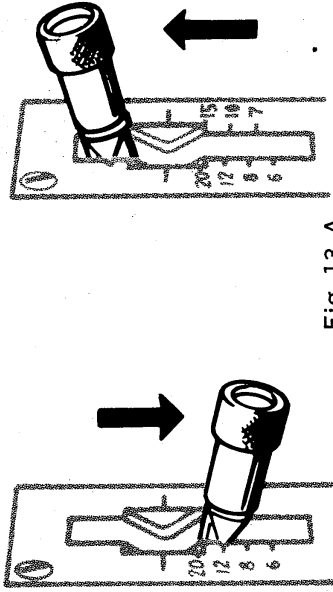


Fig. 13 A

## TO SET STITCH LENGTH

- Loosen thumb nut by turning to left.
- Position lever for desired stitch length.
- Tighten thumb nut by turning to right.

For reverse stitching, simply raise lever as far as it will go. Do not loosen the thumb nut to reverse. Fig. 13 B.

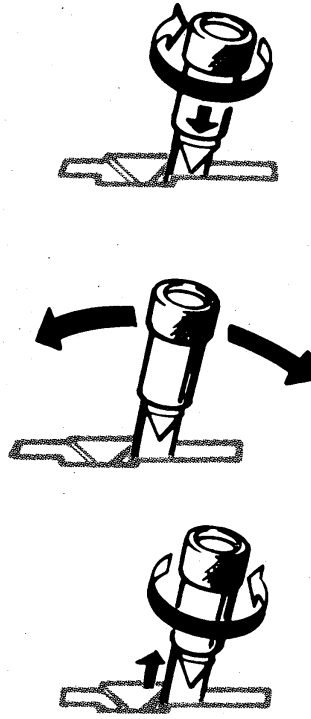


Fig. 13 B

## TO ADJUST PRESSURE

The pressure screw regulates the pressure that the presser foot exerts on the fabric.

Correct pressure is important because it means that the fabric feeds smoothly, evenly, without being marred. Generally, heavy fabric requires heavy pressure; light-weight fabric, light pressure.

- To **increase** pressure, turn thumb screw downward.
- To **decrease** pressure, turn thumb screw upward.

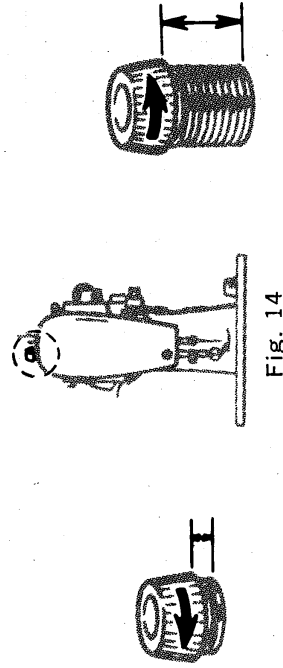


Fig. 14

Fig. 14.

## STITCH CONTROLS

### NEEDLE POSITION SELECTOR

Left, Center, and Right needle position settings are available for placement of both straight and zigzag stitching.

To meet special requirements, you may wish to place a line of stitching to the left or right of center. To position, move selector to desired position.

### STITCH WIDTH DIAL

Stitch width dial regulates swing of needle from its straight stitching position **0** (zero width) to maximum width **5**. Fig. 15.

To position, turn dial to setting desired. Numbers indicate five width settings, but intermediate settings may also be used.

**Do not make any needle position or stitch width adjustments while the needle is in the fabric.**

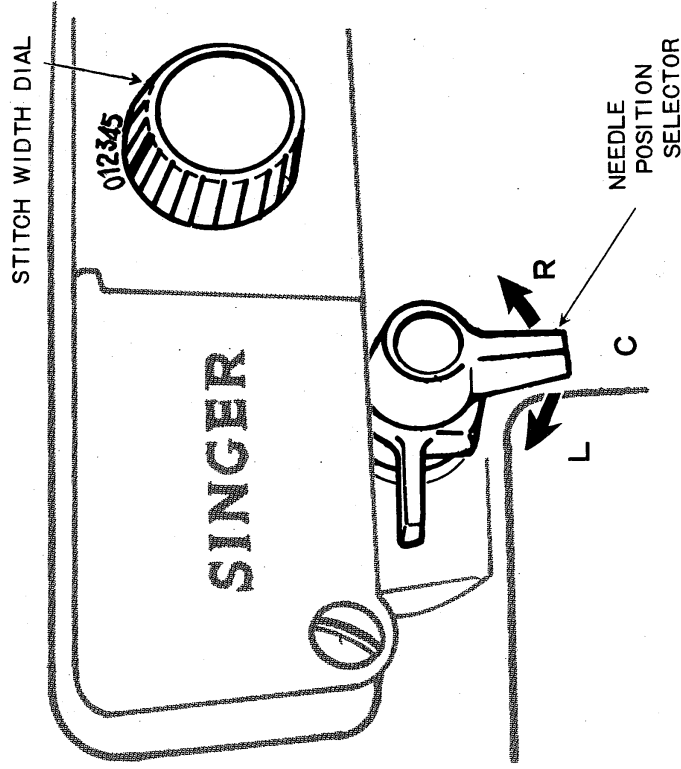


Fig. 15

### STRAIGHT STITCHING

—CENTER NEEDLE POSITION

Needle Position Selector: **Center**

Stitch Width Dial: **'0'**

The general purpose throat plate and presser foot as well as the straight stitch throat plate and presser foot can be used in Center needle position. Fig. 16.

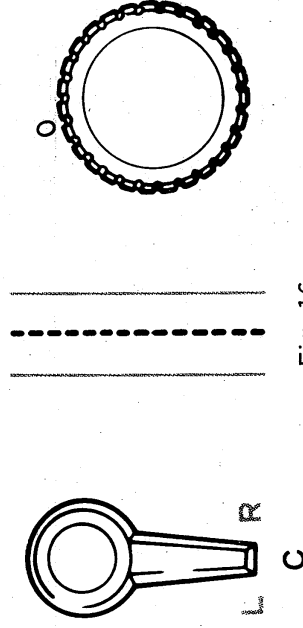


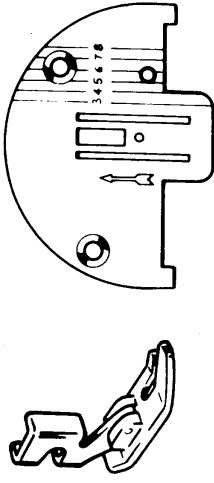
Fig. 16

## STRAIGHT STITCHING EQUIPMENT

Straight Stitch Throat Plate and Presser Foot (Fig. 17) are used where fabric and sewing procedure require close control....for the precision stitching of curved and scalloped edges, top stitching, edge stitching etc. This equipment should be used when stitching delicate or spongy fabrics, synthetics, and knits.

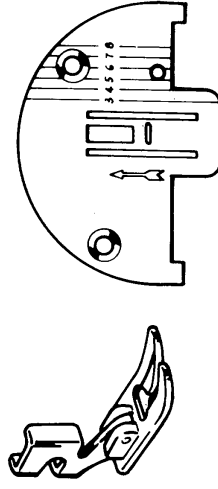
General Purpose Throat Plate and Presser Foot (Fig. 18) are used for all utility sewing and where there is occasion to alternate between straight and zigzag stitching in the sewing procedure.

These general purpose fittings must be used when placing a line of stitching to the left or right of center.



STRAIGHT STITCH PRESSER FOOT  
STRAIGHT STITCH THROAT PLATE

Fig. 17



GENERAL PURPOSE PRESSER FOOT  
GENERAL PURPOSE THROAT PLATE

Fig. 18

## STRAIGHT STITCHING — SECONDARY POSITIONS

Needle Position Selector: **Left** or **Right**

Stitch Width Dial: "0"

General Purpose Throat Plate and Presser Foot

To meet special requirements a line of stitching may be placed to left or right of center. The general purpose throat plate and presser foot must be used with secondary needle positions.

**Do not make any needle position adjustments while the needle is in the fabric.**

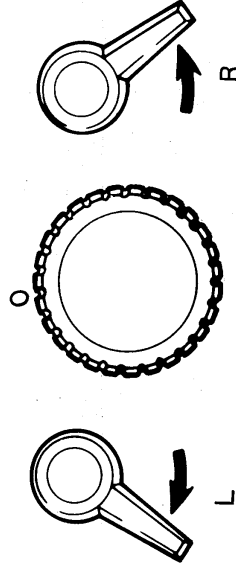


Fig. 19



# NEEDLE THREAD TENSION

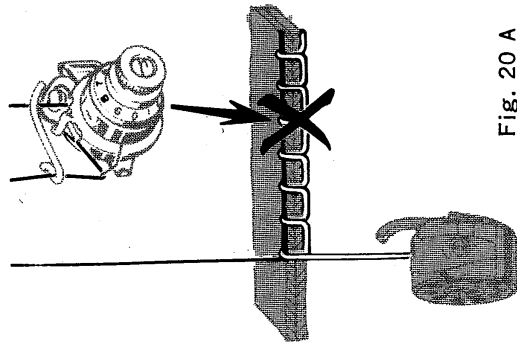


Fig. 20 A

Needle thread tension too tight—  
correct by setting dial to lower  
number. Fig. 20 A.

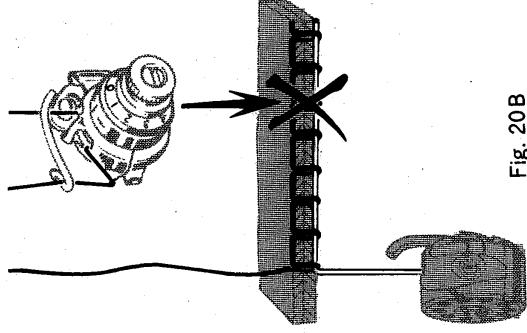


Fig. 20 B

Needle thread tension too loose—  
correct by setting dial to higher  
number. Fig. 20 B.

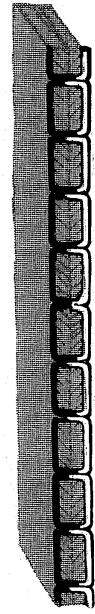


Fig. 20 C

A perfectly locked stitch results  
with upper and lower tensions  
balanced so that needle and bobbin  
threads are drawn equally into  
fabric.

# BOBBIN THREAD TENSION

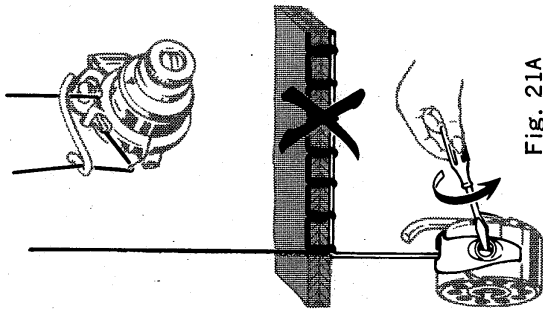


Fig. 21A

Bobbin thread tension too tight—  
correct by turning screw counter-  
clockwise. Fig. 21 A.

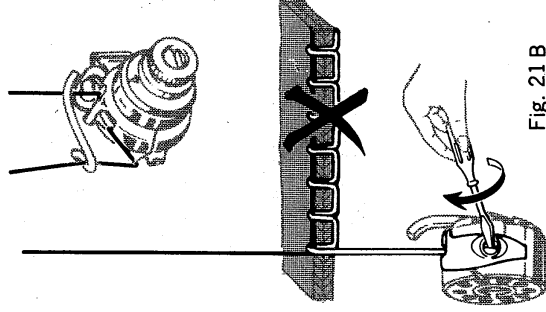


Fig. 21 B

Bobbin thread tension too loose—  
correct by turning screw clockwise.  
Fig. 21 B.



Fig. 21C

A perfectly locked stitch results  
with upper and lower tensions  
balanced so that needle and bobbin  
threads are drawn equally into  
fabric.

PREPARING TO SEW

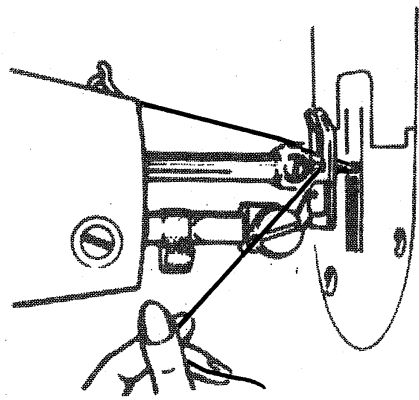


Fig. 22

Hold needle thread lightly with left hand.

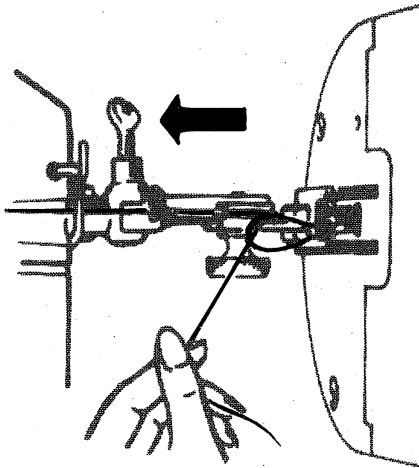


Fig. 23

Turn hand wheel so that needle enters throat plate and brings up bobbin thread.

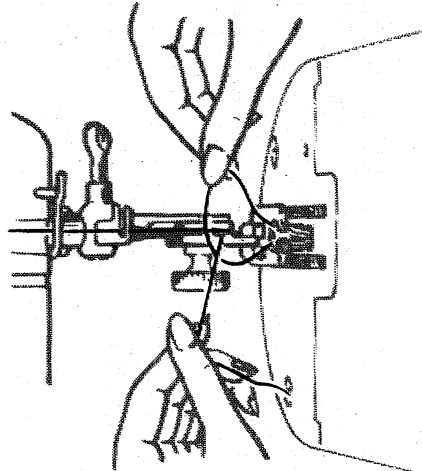


Fig. 24

Pull end of bobbin thread up through throat plate.

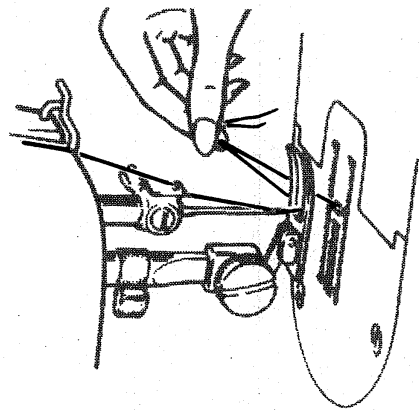


Fig. 25

Place both needle and bobbin threads diagonally under presser foot.

## HOW TO SEW A SEAM

### TO START A SEAM

1. Raise take-up lever to its highest point.
2. Set stitch length regulator for desired stitch length.
3. Position needle into fabric about half inch from edge. Fig. 26.
4. Lower presser foot.
5. Raise stitch length regulator to reverse. Fig. 27.
6. Backstitch to edge of material for reinforcement.
7. Lower stitch length regulator for forward stitching and stitch to end of seam. Fig. 28.

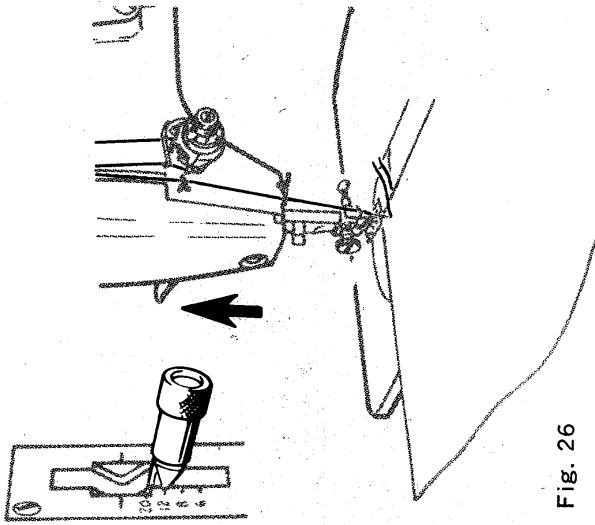


Fig. 26

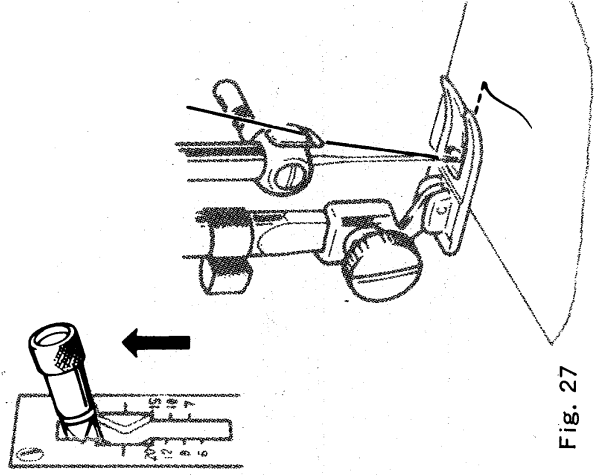


Fig. 27

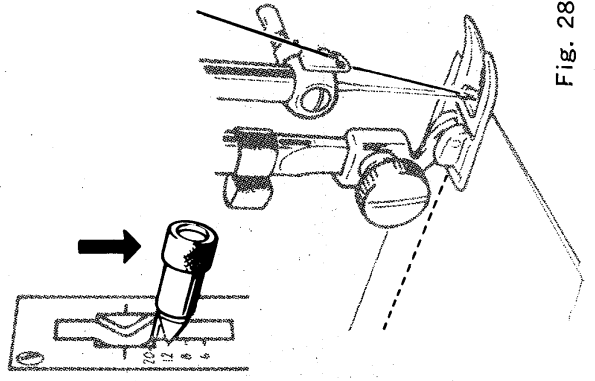


Fig. 28

### TO END A SEAM

1. Raise stitch length regulator as far as it will go, and backstitch to reinforce end of seam.
2. Turn hand wheel to bring take-up lever to its highest position.
3. Raise presser foot and remove fabric by drawing it back and to the left.
4. Cut threads on thread cutter at rear of presser bar. Lower stitch length regulator for forward stitching.

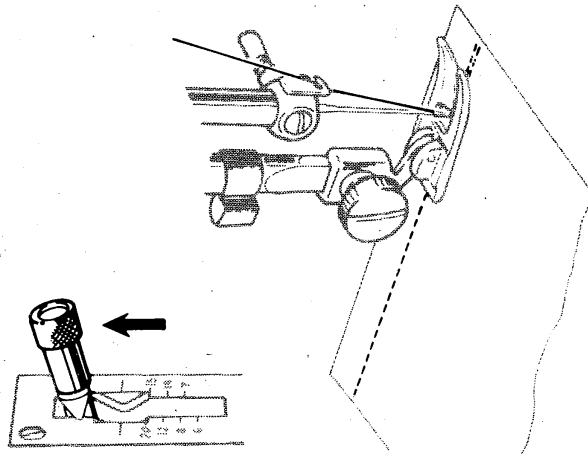


Fig. 29

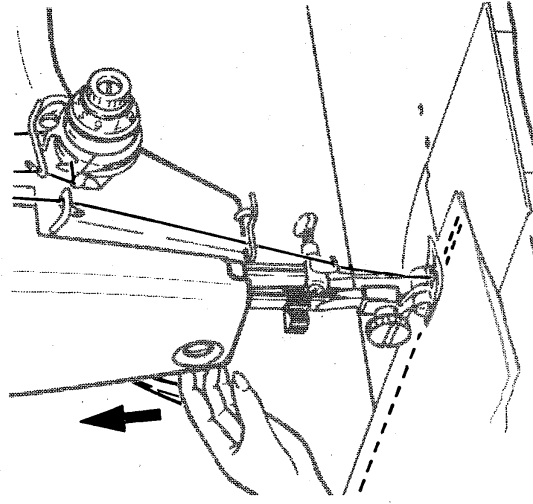


Fig. 30

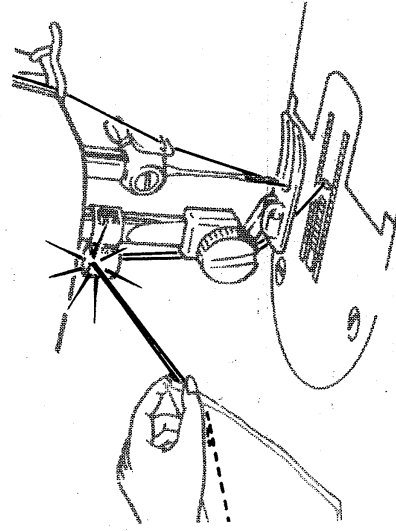


Fig. 31

## CLOTH GUIDE

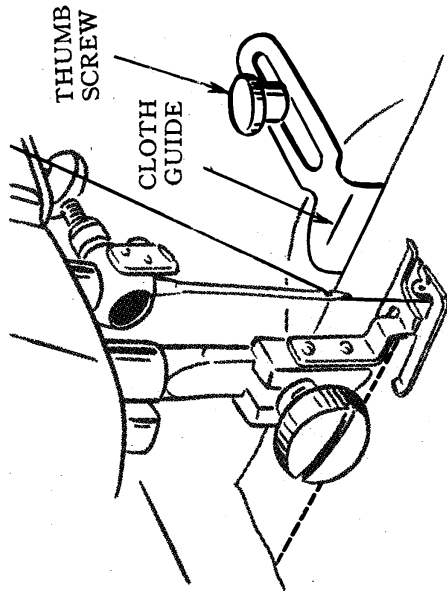


Fig. 32

The cloth guide aids in attaining uniformity of seam width.

The guide is secured to the bed of the machine in either of the threaded holes to the right of the slide plate. To guide seam stitching straight and parallel to the edge of the fabric, guide the fabric edges lightly against the guide while stitching.

## RIPPER

The ripper will help you to cut opening for the button after a buttonhole is completed.

It is also useful for removing seams.

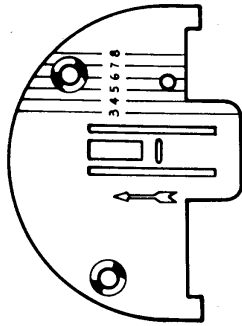


Fig. 33

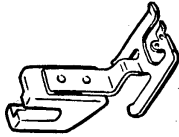
## ZIGZAG STITCHING EQUIPMENT



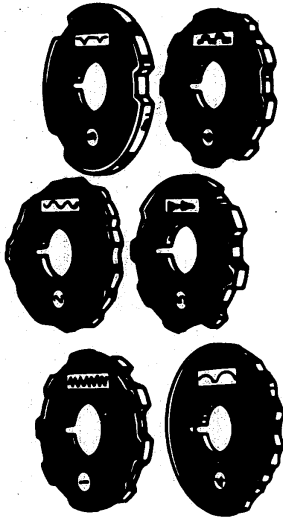
GENERAL PURPOSE  
PRESSER FOOT



GENERAL PURPOSE  
THROAT PLATE



SATIN STITCH  
FOOT



FASHION DISCS

Fig. 34

## ZIGZAG STITCHING

Fashion Discs Control Stitch Patterns.

Needle Position Selector Places Stitching at Left, Center or Right.

Stitch Width Dial Controls Width of Stitch Pattern.

Stitch Length Regulator Controls Length of Stitch.

Six removable FASHION Discs are furnished with the machine. Zigzag Disc No. 1 is supplied on the disc holder in the machine. Five additional discs are in the attachment set. Each disc produces an individual design, and is interchangeable with the Zigzag Disc.

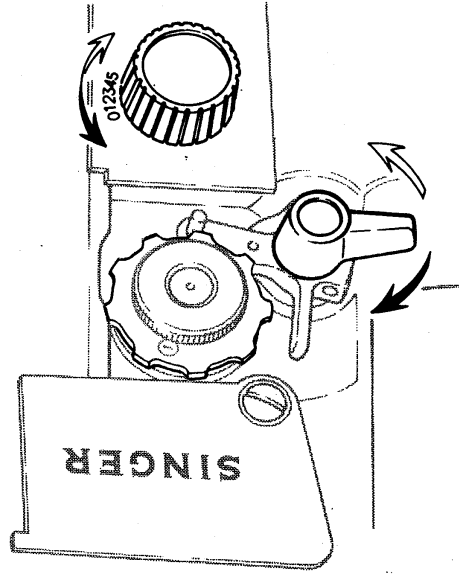


Fig. 35

## REMOVAL AND REPLACEMENT OF FASHION DISCS

1. To remove FASHION Disc, turn hand wheel toward you until the needle is above throat plate.
2. Set stitch width dial at "0"
3. Swing disc cover upward to expose disc.
4. Unscrew knurled thumb nut.
5. Raise disc follower releasing lever with finger of left hand, and at the same time lift disc from spindle.
6. To replace FASHION Disc, raise disc follower releasing lever and put desired disc on spindle so that the pin on disc adapter will fit in slot of disc.
7. Replace and tighten thumb nut securely.
8. Close disc cover.
9. Set needle position and stitch width dial at desired settings.

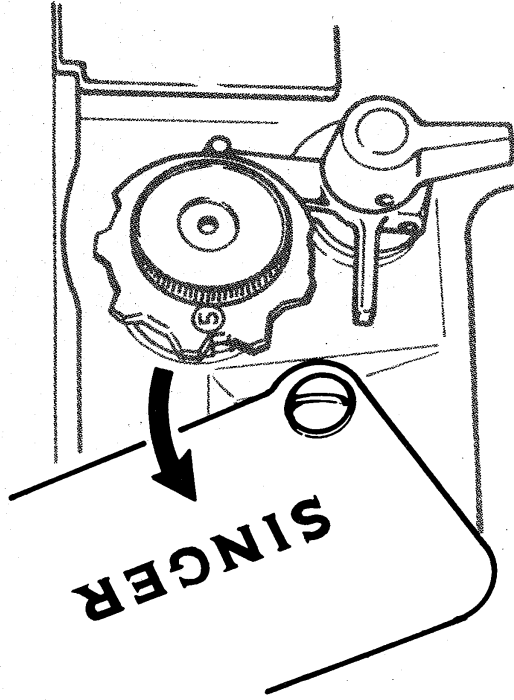


Fig. 36

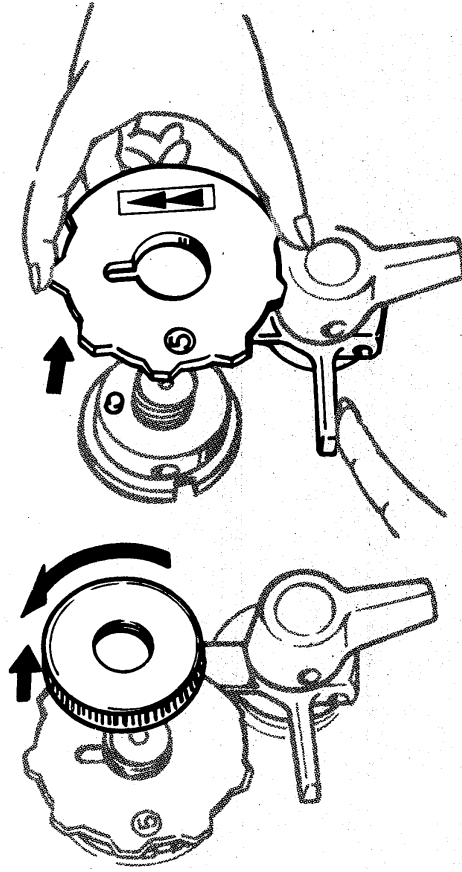


Fig. 37



# FASHION DISCS

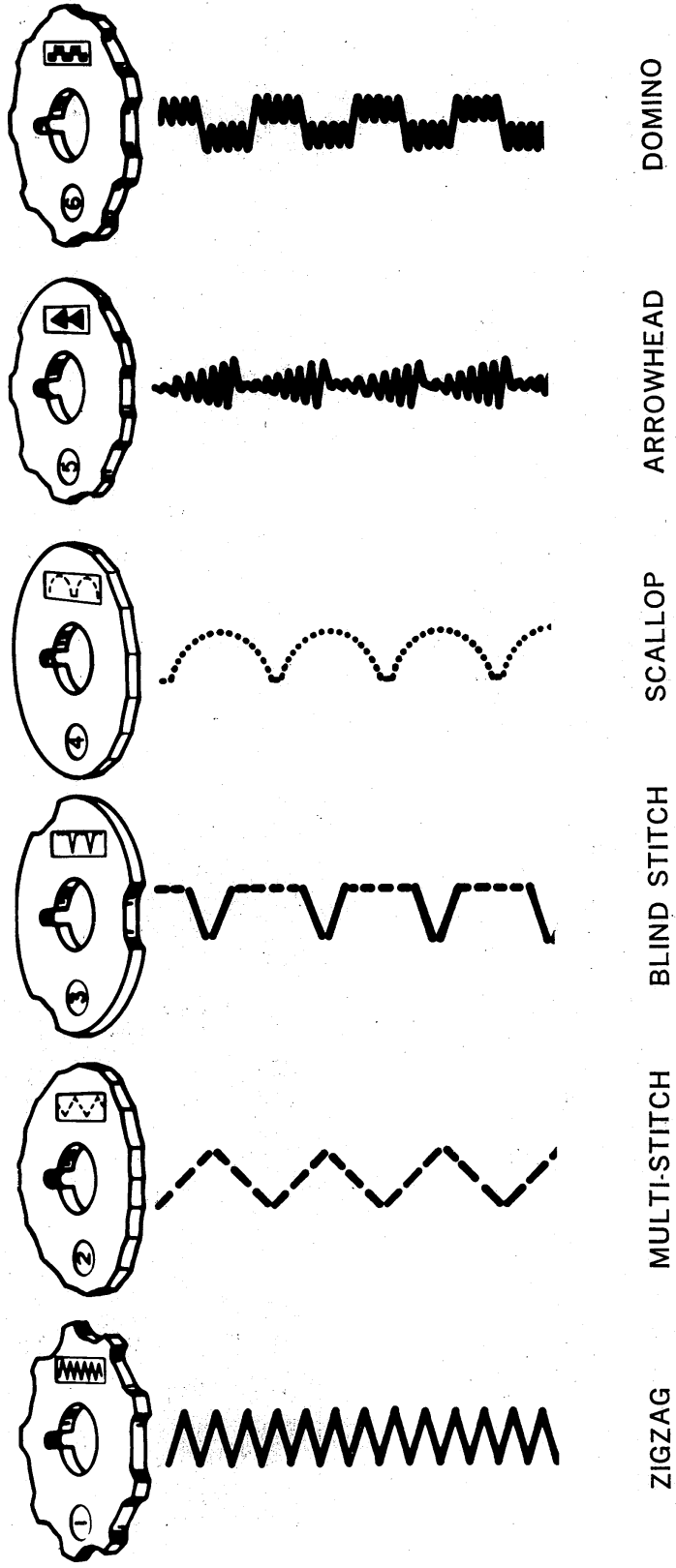


Fig. 38

These six interchangeable FASHION Discs are included with the machine.

See page 22 for removal and replacement.

## CONTROL OF WIDTH — ZIGZAG STITCHING

Width of zigzag stitching is controlled by the Stitch Width Dial. As the dial is turned to the right, the width of zigzag stitch is increased. Settings of 1 through 5 are indicated, but intermediate settings may also be used.

To avoid damage to needle and fabric, do not make any stitch width adjustments with the needle in the fabric.

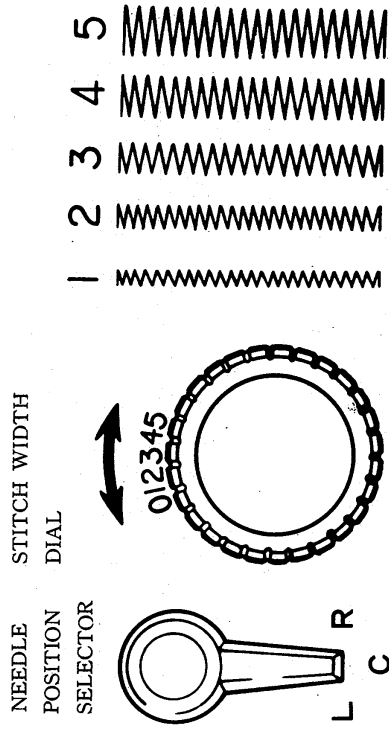


Fig. 39

## NEEDLE POSITIONS FOR ZIGZAG STITCHING

Needle position setting of Center places stitching in central needle position. Settings Left and Right place stitching in left or right of center needle position.

Center needle position is preferred. Left or Right settings are used only when special placement of stitching is desired....for example: buttonholes, button sewing, blind stitching.

**Do not make any needle position adjustments while the needle is in the fabric.**

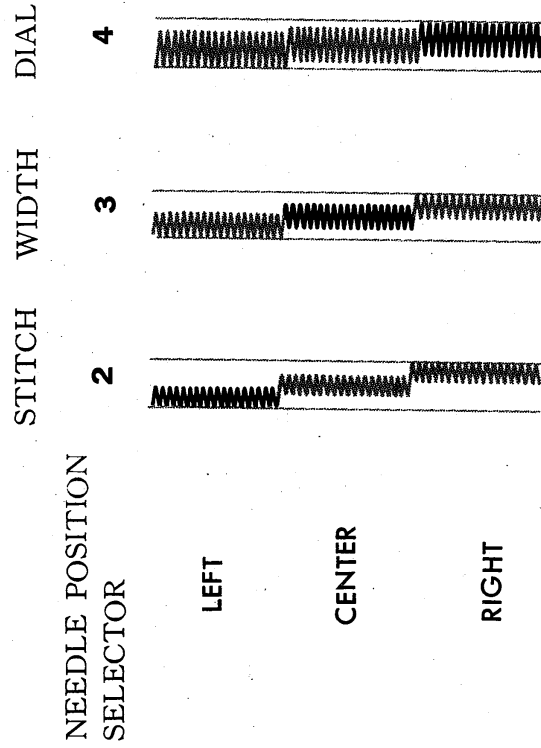


Fig. 40

## STITCH LENGTH ADJUSTMENT FOR SATIN STITCHING

Satin stitching, a series of closely spaced zigzag stitches that form a smooth satin-like surface, is useful for both utility and decorative work. Zigzag stitch (FASHION Disc No. 1) is suitable for bar tacks and buttonholes when it is closed up to form a satin stitch.

When you wish to produce a satin stitch, make a test sample first using the satin stitch foot so that you can adjust the stitch length and thread tension properly.

Soft fabric may require a backing to ensure firm satin stitching. Crisp organdy or lawn is suitable for this purpose.

For open zigzag stitching, choose any stitch length from **6** through **20**, depending on how open you wish the stitches to be.

If you wish a closely packed satin stitch:

1. Move stitch length regulator to bottom of inclined area, or above **20**.
2. Run machine at slow speed.
3. Gradually tighten thumb nut by turning it to right, until stitches are closely spaced and form a smooth surface.



Fig. 41

## TENSION ADJUSTMENT FOR SATIN STITCHING

All zigzag stitching requires less tension than straight stitching; and satin stitching requires even less than open zigzag stitching. Furthermore, the wider the satin stitch, the lighter the tension on the thread must be. Thus, stitch width **5** requires the least tension; narrower satin stitching requires somewhat more.

Notice the stitching on your sample. If the stitching looks too taut, or if the fabric is puckering (Fig. 43), lower the needle thread tension by turning the Tension Dial to a lower number. A properly balanced satin stitch should lie flat across the material.

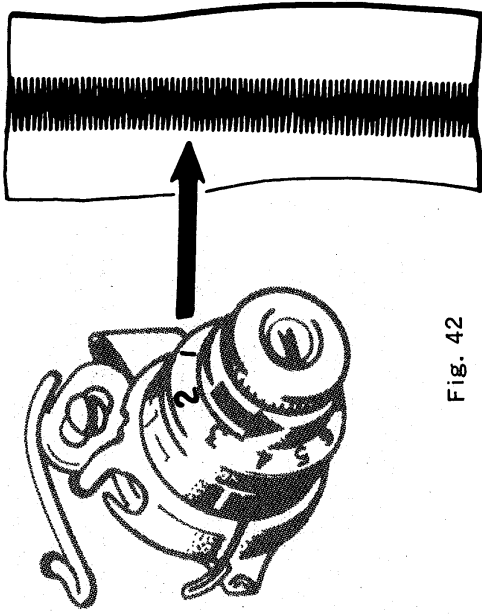


Fig. 42

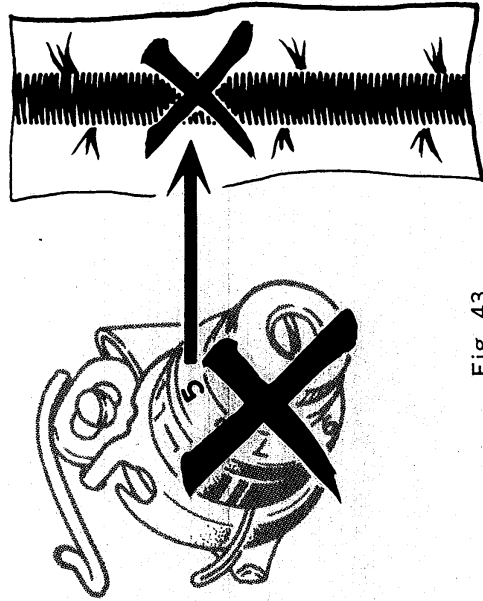


Fig. 43

## TWIN NEEDLES

### TO SET TWIN NEEDLES

To set Twin Needles Catalog 2036 (306×3), follow the same procedure as described for setting single needle. (See page 7)

**CAUTION:** When stitching with Twin Needles, the Needle Position Selector must be in **Center** position and the machine must not be operated at a bight exceeding stitch width **3**.

In performing Twin Needle work, the general purpose throat plate and presser foot (or satin stitch foot) must be used in addition to setting the machine as described above.

### TO THREAD THE MACHINE

1. Place spool of thread on left spool pin. Thread as for one needle stitching except:
  - ▲ Pass thread between center and back tension discs.
  - ▲ Pass thread through eye of left needle.
2. Place spool of thread on right spool pin. Thread as for one needle stitching except:
  - ▲ Pass thread between center and front tension discs.
  - ▲ Pass thread through eye of right needle, but do not pass thread through the last thread guide.

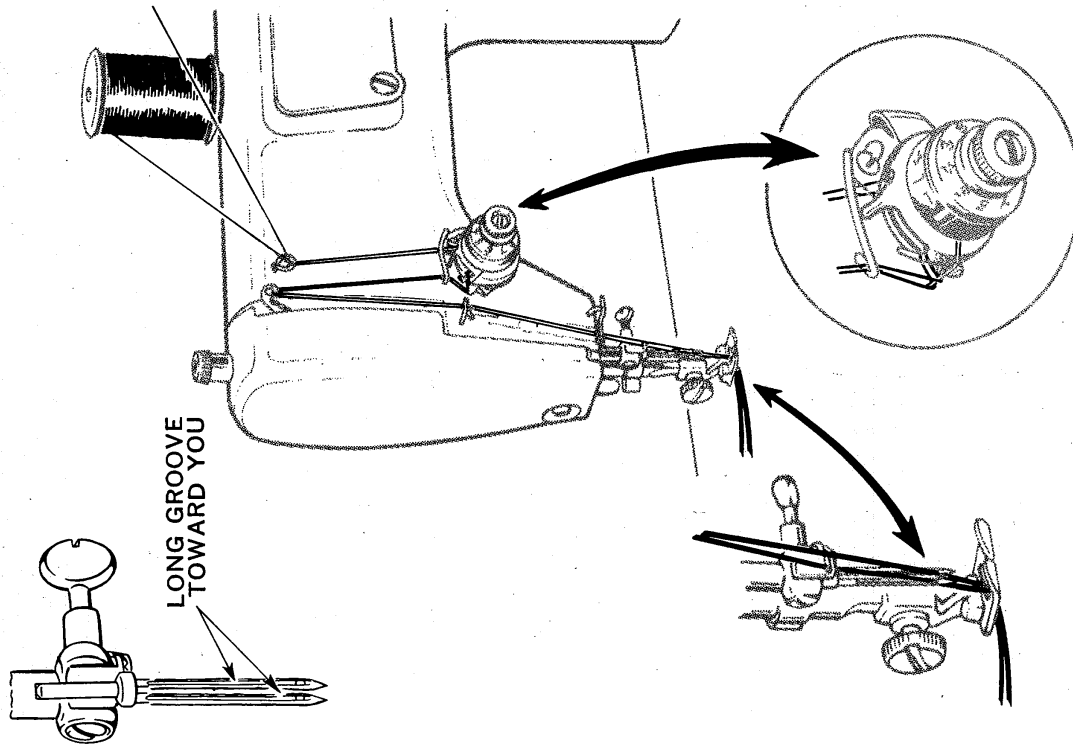
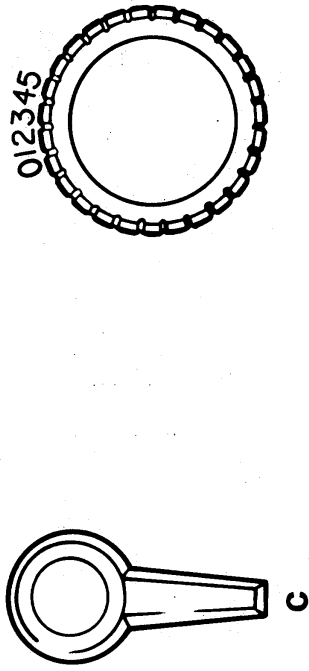


Fig. 44

## TWIN NEEDLES



### STRAIGHT STITCHING—

Needle Position Selector: **Center Only**

Stitch Width Dial: **"0"**

General Purpose Throat Plate and Presser Foot

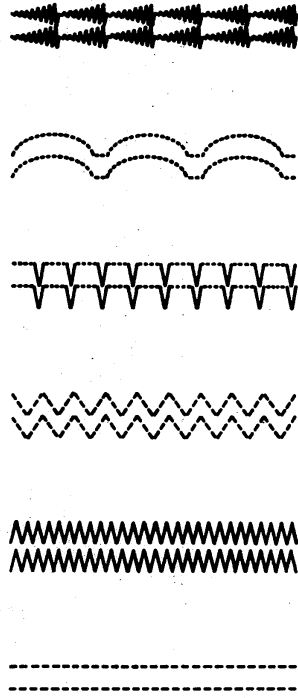
### ZIGZAG AND DECORATIVE STITCHING—

Needle Position Selector: **Center Only**

Stitch Width Dial: **"1", "2" or "3" Maximum**

General Purpose Throat Plate

General Purpose Presser Foot or Satin Stitch Foot



Some of the attractive designs you can create by using Twin Needles are shown at right.

**CAUTION:** Be sure the needles are out of the fabric before turning a corner when performing Twin Needle work. Square corners are made by turning the material in two steps with needles out of the fabric.

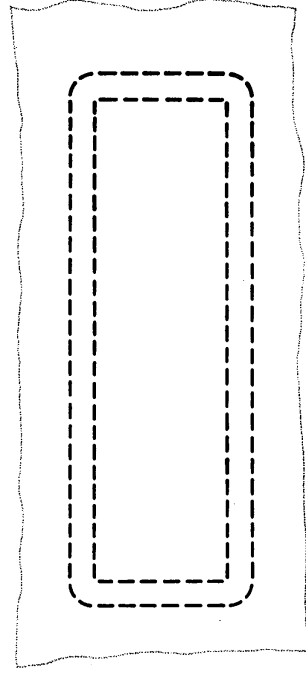


Fig. 45

## SATIN STITCH FOOT

The Satin Stitch Foot, designed especially for satin stitching, provides ample visibility and allows closely spaced zigzag stitch to feed freely.

It is ideal for accurate placement of satin stitching in monograms, motifs and applique.

Eyelet in front of foot accommodates a filler cord for corded applique.

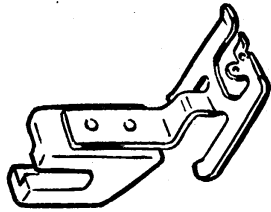


Fig. 46

## APPLICATIONS

Monograms

Decorative Stitching

Applique Work

Motifs

## MONOGRAMS AND MOTIFS

Many of the decorative stitch patterns can be used for monograms or motifs for adding a personal touch to a blouse collar, for example, or for initialing household linens. You can buy designs or create them yourself.

## TO STITCH A MONOGRAM OR MOTIF

- ▲ Stitch Width Dial: 1~5
- ▲ Stitch Length: **Above 20**
- ▲ General Purpose Throat Plate and Satin Stitch Foot

1. Make a sample first, to determine suitability of stitch pattern and find the right stitch length and width, thread tension, and pressure.
2. Transfer the design (by tracing, usually) to the right side of the fabric.
3. If the fabric is soft or loosely woven, baste a backing of lawn or organdy onto the wrong side.
4. After stitching, trim the backing close to the stitching.

## TO FIND THE BEGINNING OF THE PATTERN UNIT

When you use decorative stitch patterns in a motif, always start stitching at the beginning of a pattern unit—that is, at the beginning of the arrowhead, or whatever pattern you are using. To find the beginning:

1. On a scrap of material, stitch until you come to the end of a complete pattern unit. Now you are ready to start stitching at the beginning of the next unit.
2. Raise presser foot and remove scrap.
3. Position motif under needle; lower presser foot; and stitch.

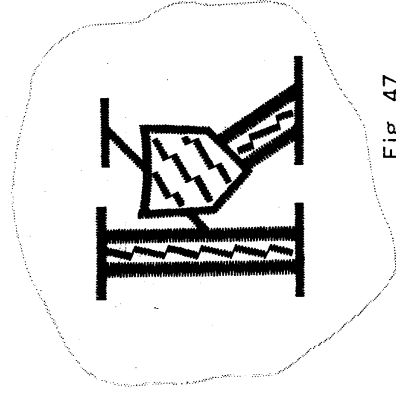


Fig. 47

## APPLIQUE

Applique adds beauty and interest to clothes and household linens. Either contrasting or self-fabric can be used effectively.

The stitch most commonly used in appliqueing is zigzag stitch (FASHION Disc No. 1), closely spaced to form a satin stitch. The width of this and other patterns can be varied to accommodate fabrics of different weaves and textures.

Many of the FASHION Disc patterns present interesting ways to applique with decorative stitching.

There are two methods by which applique work may be done. To prepare for appliqueing, make a sample to help you decide which of the following two methods is the more appropriate for your fabric and design.

- ▲ Position the design.
- ▲ Baste it to the fabric.
- ▲ Attach Satin Stitch Foot and General Purpose Throat Plate

### Method No. 1

1. Select and insert desired FASHION Disc.
2. Set stitch width dial to desired width. Set stitch length regulator above 20.
3. Stitch, outlining the design with applique stitching.
4. Trim any excess fabric on the outer edges of the stitching. Remove basting.

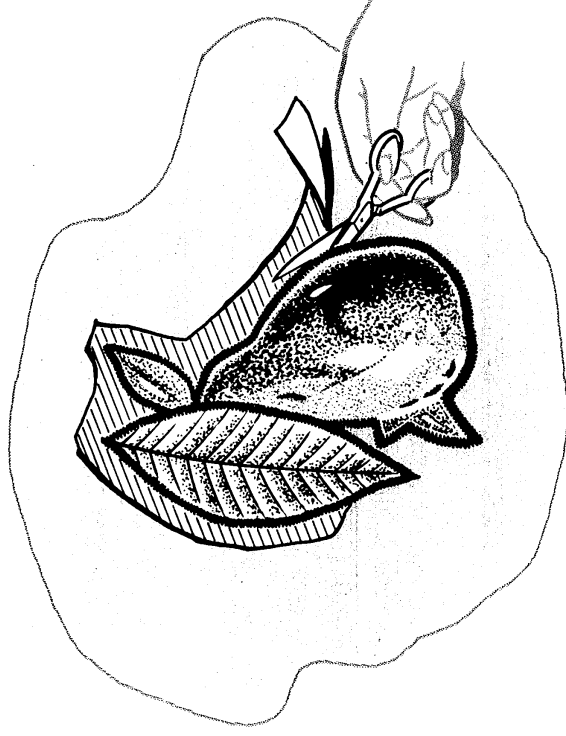


Fig.48 METHOD NO. 1 — TRIMMING AFTER STITCHING



## APPLIQUE

### Method No. 2

1. Adjust stitch width dial and needle position selector (center needle position) for straight stitching.
2. Outline the entire design with a short stitch.
3. Trim raw edges to the stitching.
4. Select and insert desired FASHION Disc. Set stitch width dial for desired stitch width.
5. Stitch, following the straight-stitch outline. This step will produce a smooth overedged finish, with no raw edges to be trimmed.

### CORDED APPLIQUE

The Satin Stitch Foot, which provides for a filler cord is most suited for corded applique work. Gimp, crochet thread, or buttonhole twist are generally used for filler cord.

Follow either Method No. 1 or No. 2, described above. The only difference in corded applique is the introduction of the cord, over which the applique stitching is formed.

### To Thread Filler Cord

1. Place the spool of filler cord on the table, floor, or in your lap.
2. Unwind a sufficient amount to avoid tension or strain on the cord.
3. Lead the end of the cord through the eyelet in front center of the Satin Stitch Foot.
4. Draw the cord under and in back of the foot.
5. Proceed with stitching as for regular applique stitching.

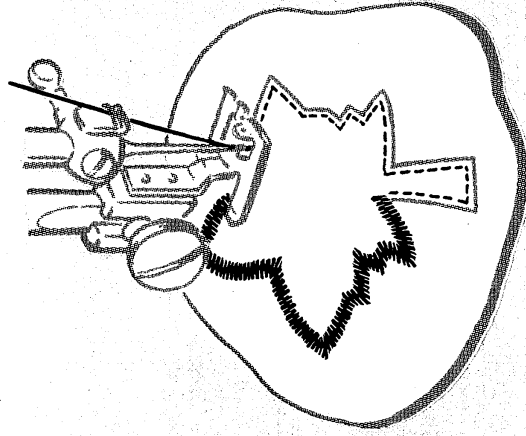


Fig. 49 METHOD NO. 2—STITCHING AFTER TRIMMING

# BUTTONHOLES

Fashion Disc No. 1

Stitch Width Dial: "2" and "4" or "2 1/2" and "5"

Needle Position: **Left**

Throat Plate: General Purpose

Presser Foot: Satin Stitch Foot

Stitch Length: **Above 20**

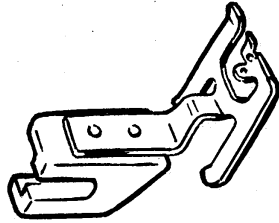


Fig. 50

## BUTTONHOLE LENGTH

First decide how long the opening needs to be. This will depend on the diameter and thickness of the button. To find the right length, cut a small hole in a scrap of your fabric and gradually enlarge it until the button slips through easily. Then add at least 1/8 inch (1/16 inch for each bar tack), and mark the fabric as shown below. This bar-tack measurement is approximate; on some buttonholes, you may need to increase it to arrive at pleasing proportions.

Always make a test buttonhole on a sample of your fabric. Be sure to duplicate the thickness of the garment and include interfacing if appropriate.

## STITCH WIDTH SETTING

You will need two stitch width settings, one for side stitching and one for the bar tacks. Depending on the size of the buttonhole, you can use either stitch width **2** and **4** or **2 1/2** and **5**.

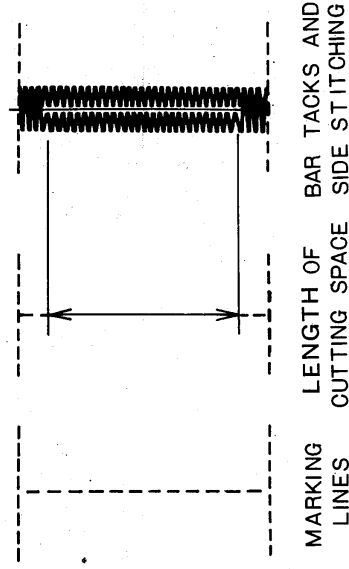


Fig. 51

## BUTTONHOLES (Continued)

**Procedure:** Set Needle Position Selector at Left and Stitch Width Dial on setting desired for side stitching of buttonhole. Place work under needle, aligning center marking of buttonhole with center point of Buttonhole Foot.

**Side Stitching:** Position needle in fabric at point **A**. Lower foot and stitch to end of marking. Leave needle in fabric at point **B**. Raise foot and pivot work on needle. Lower foot. Take one stitch without changing width setting, bringing work to point **C**.

**Bar Tack:** Adjust Stitch Width Dial for bar tacks and

take at least six stitches. Stop at point **D**.

**Side Stitching:** Readjust Stitch Width Dial for side stitching. Complete work to point **E**. Leave needle in fabric.

**Final Bar Tack:** Adjust Stitch Width Dial for bar tacks, and take at least six stitches ending at point **F**.

**Fastening Stitch:** To secure stitching, adjust Stitch Width Dial to "O" setting and take three stitches in reverse. Remove work, draw threads to underside, fasten and trim. Cut opening for button with sharp scissors.

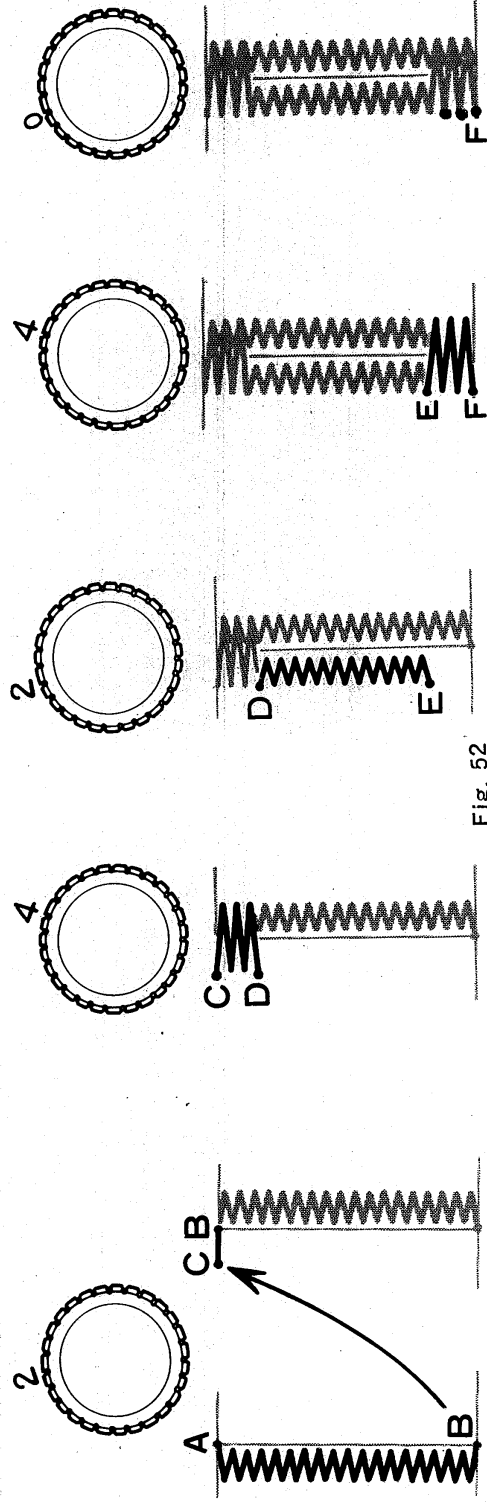


Fig. 52

## CORDED BUTTONHOLES

Soft threads used for embroidery and crocheting make suitable filler cords for raised buttonholes. A fine pearl cotton (size No. 8) or silk buttonhole twist is generally used.

Place the spool of filler cord on the table, floor, or in your lap. Unwind a sufficient amount to avoid tension or strain on the cord. Lead the end of the cord through eyelet in front of Buttonhole Foot. Proceed with stitching as for regular buttonholes.

Just before making the final bar tack, cut the filler cord close to the eyelet guide. Complete the bar tack and fasten buttonhole stitching as usual. Carefully trim cord ends.

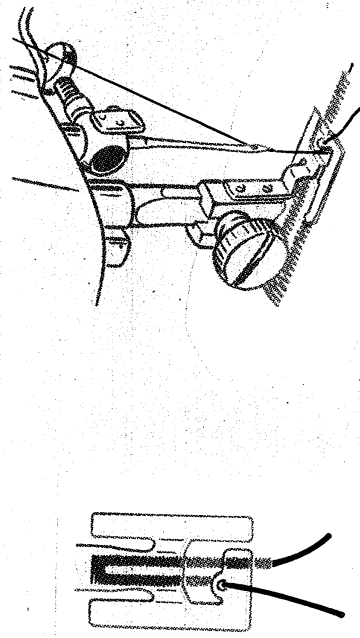


Fig. 53

## TO SEW ON BUTTONS

Zigzag Disc No. 1  
Stitch Width Dial:  
"0" and about  
"4"

Needle Position:

**Left**

Throat Plate:

General Purpose

Presser Foot:

Button Sewing Foot

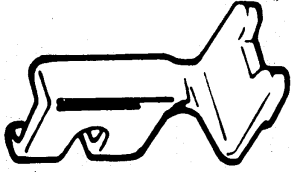


Fig. 54

BUTTON SEWING FOOT

The space between the holes in the button determines the stitch width settings. The number **0** setting must always be used to position the needle and fasten stitching. For buttons with standard hole spacing, use setting **0** and increase or decrease the width setting (**4**) as necessary.

## TO SEW ON BUTTONS (Continued)

Lower feed by turning Feed Throw-out Knob clockwise. With Fashion Disc No. 1 in place, set needle at Left Needle Position and Stitch Width Dial at **0**. Position button under foot so that needle will enter left hole, Fig. 55. Lower foot. Turn hand wheel toward you until needle rises out of fabric and is just above the foot.

Set Stitch Width Dial at about **4**. The needle should then enter into the right hole of the button. Take approximately six zigzag stitches in this position. End on the left side, Fig. 56.

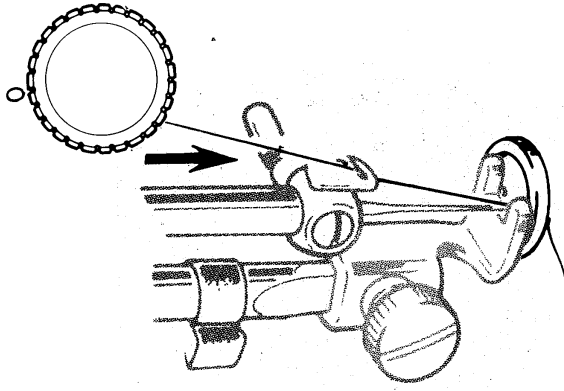


Fig. 55

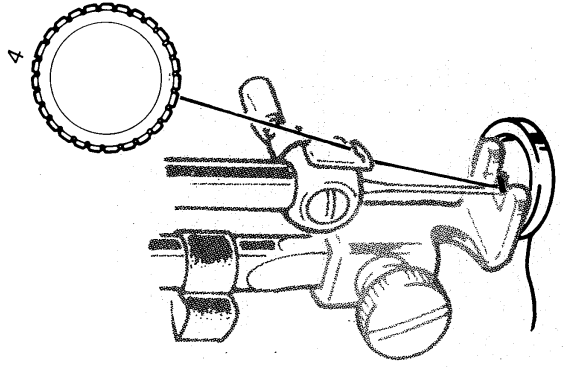


Fig. 56

To fasten stitching, adjust to number **0** stitch width setting and take approximately three stitches, Fig. 57.

### TO SEW ON BUTTONS WITH THREAD SHANK

Follow steps outlined above and in addition, hold pin or needle between holes in button to deepen stitches and provide a thread shank, Fig. 58. A long thread shank results when the heavy end of sewing machine needle is used in place of a pin. Tighten needle thread tension if the stitches appear to be loosely set.

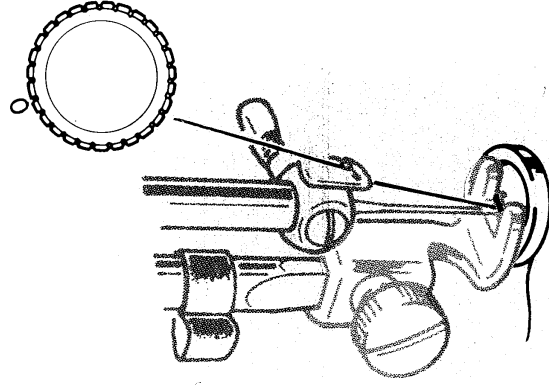


Fig. 57

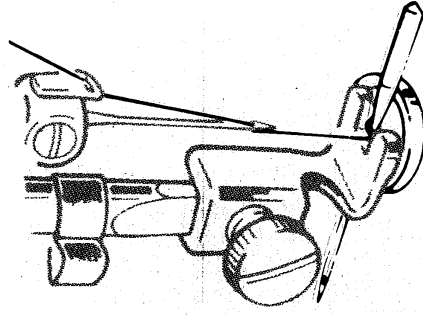


Fig. 58

## LINGERIE SEAMS

Fashion Disc No. 1

Stitch Width Dial: "2"

Stitch Length: 15 to 20 depending on fabric

Throat Plate: General Purpose

Presser Foot: General Purpose

Dainty lingerie seams can be made durable with plain zigzag stitching.

1. Straight-stitch the seam on the wrong side.
2. Press both seam allowances in the same direction.
3. From the right side, top stitch with zigzag setting (width 2), letting the needle alternately enter the seam line and seam thickness.

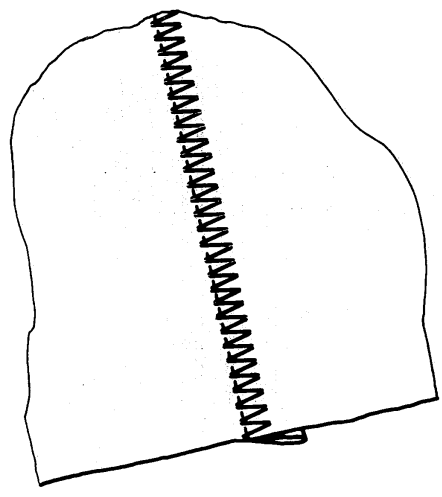


Fig. 59

## KNIT FABRIC SEAMS

Fashion Disc No. 1

Stitch Width Dial: "2"

Throat Plate: General Purpose

Presser Foot: General Purpose

A fine zigzag stitch is ideal for seaming knit fabrics. It is particularly desirable for underarm seams where elasticity and give are needed.

For neckline and waistline seams, where a stay is needed to prevent undue stretching, this same stitch can be used to apply seam tape. To stay a knit seam:

1. If seam is curved, pre-shape tape to fit by steam pressing.
2. Baste tape in place.
3. Stitch, allowing needle to enter seam tape and seam allowance alternately.

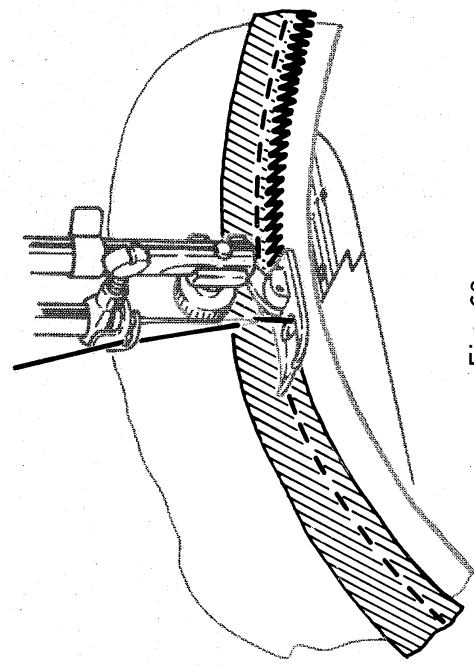


Fig. 60

## FLAT FELLED SEAMS

Fashion Disc No. 1

Stitch Width Dial: "3"

Throat Plate: General Purpose

Presser Foot: General Purpose

Zigzag stitching gives strength and durability to flat felled seams.

1. Stitch the seam on the right side of the fabric, taking full seam allowance.
2. Press the seam allowance to one side, keeping the right side of the stitch on top.
3. Trim half the under seam allowance. Then turn the upper seam edge evenly over the trimmed seam, and top stitch.

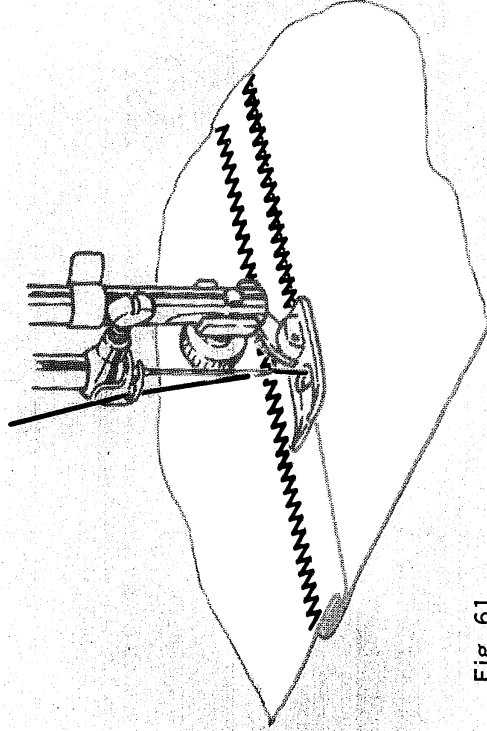


Fig. 61

## SEAM FINISHES

Fashion Disc No. 1

Stitch Width Dial: "4" or "5"

Throat Plate: General Purpose

Presser Foot: General Purpose

Seam edges support the garment and should be given a durable finish if the fabric is likely to ravel.

The zigzag stitch is ideal for such finishing. Place stitching near the edge of the seam allowance, and then trim excess fabric.

Seam can also be finished with a blind stitch (Fashion Disc No. 3). Seam edges should be trimmed evenly, and the stitch then formed over the raw edge.

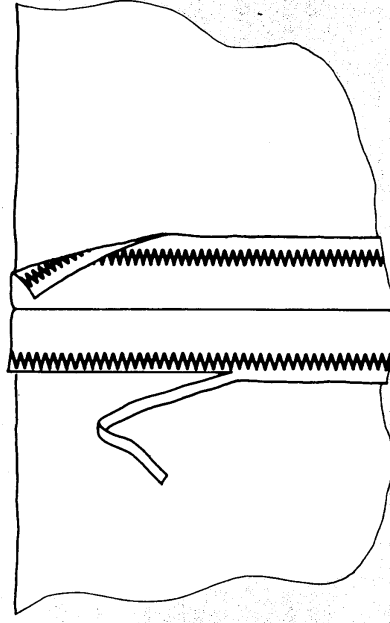


Fig. 62

## HOW TO SEW DARTS

Needle Position Selector: **Center**

Throat Plate: **General Purpose**

Presser Foot: **General purpose**

Darts can be made by either of two methods: "regular" and "continuous thread."

### REGULAR DARTS

1. Stitch from the seam edge tapering gradually to the point.
2. Stitch beyond the fabric to form a thread chain 1/2 to 3/4 inch long.
3. Tie the thread ends into a single knot close to the stitching.

### CONTINUOUS-THREAD DARTS

This method is particularly useful for darts in sheer fabrics, where transparency requires a neat clean finish. It is also useful for darts made on the side of a garment as a styling detail.

1. Unthread the needle. Pull up the bobbin thread and draw it through the needle from back to front.
2. Tie bobbin and upper threads together and draw knot through threading points toward spool winding enough on spool to complete a single dart.
3. Position the needle in the very edge of the fold, at the point of the basted or pinned dart.
4. Lower the presser foot and stitch carefully toward the wide end of the dart.

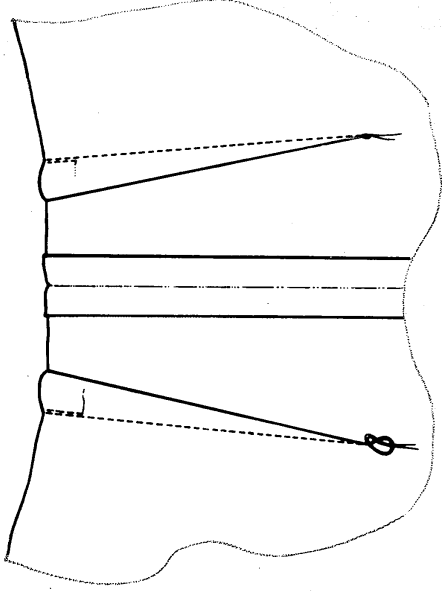


Fig. 63

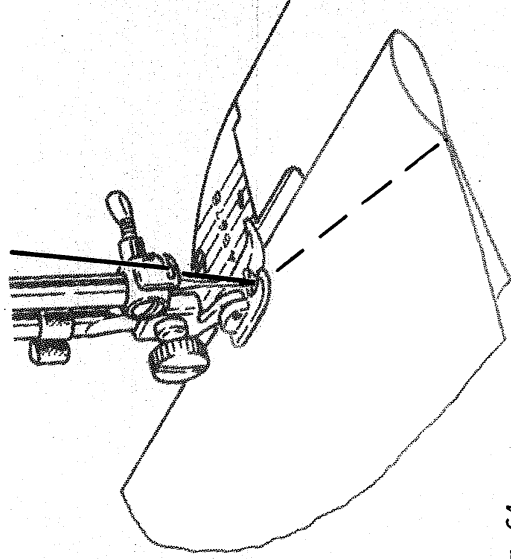


Fig. 64



## MENDING

Zigzag stitching is well suited for all type of household mending. Multiple Stitch Zigzag provides a firm, flexible bond for repair of tears, and is ideal for reinforcement and application of elastic. Stitch length and width are regulated according to need.

### TEARS

Fashion Disc No. 2

Throat Plate : General Purpose

Presser Foot : General Purpose

1. Trim ragged edges.
2. Place underlay on the wrong side of tear for reinforcement.
3. Stitch on the right side, bringing the edges of the tear together.
4. Shorten stitch length at ends and corners to give extra strength.
5. Trim underlay.

### ELASTIC

1. Use same settings and attachments as for "Tears" above.
2. Hold the elastic taut as you stitch so that it will remain stretchable after stitching is completed.

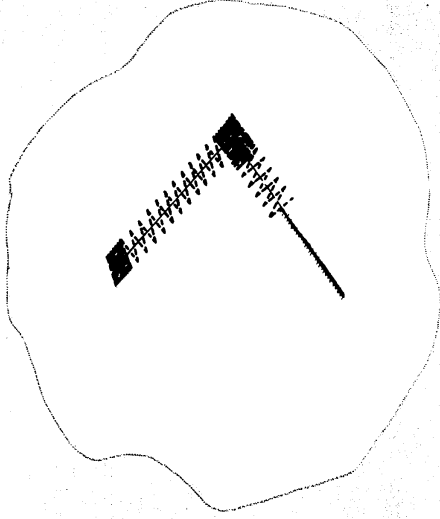


Fig. 65  
A TEAR MENDED WITH  
MULTIPLE STITCH ZIGZAG

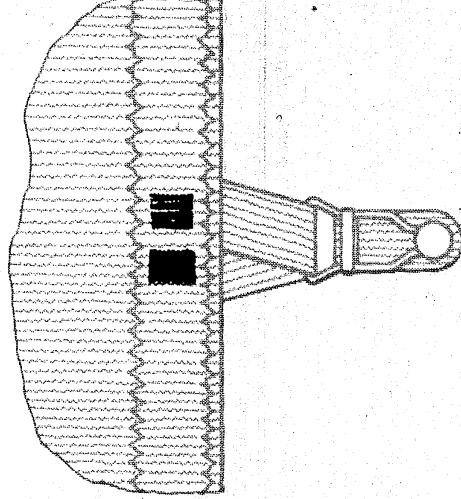


Fig. 66  
REPLACING ELASTIC WITH  
MULTIPLE STITCH ZIGZAG

## ZIPPER FOOT

This foot is designed to facilitate the placement of stitching close to a raised edge. It is attached to the machine in place of the regular presser foot and may be adjusted to either the right or left side of the needle.

### APPLICATIONS

Zipper Insertion	Tubular Cording
Corded Seams	Slip Cover Welting

### ZIPPER INSERTION

Stitch Width Dial: "0"

Needle Position Selector: **Center**

Throat Plate: General Purpose

Presser Foot: Zipper Foot

When the zipper is to the right of the needle:

1. Loosen the thumb screw at the back of the foot, and slide the foot to the left of the needle.
2. Check the position of the foot by lowering the needle into the side notch of the foot, making sure it clears the foot.
3. Lock the foot into position by tightening the thumb screw.

When the zipper is to the left of the needle, adjust the foot to the right of the needle in the same way.

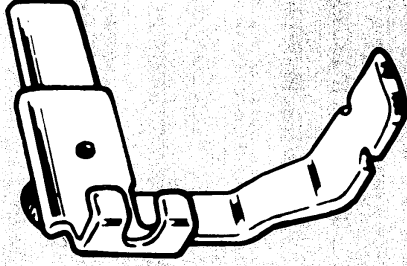


Fig. 67 ZIPPER FOOT

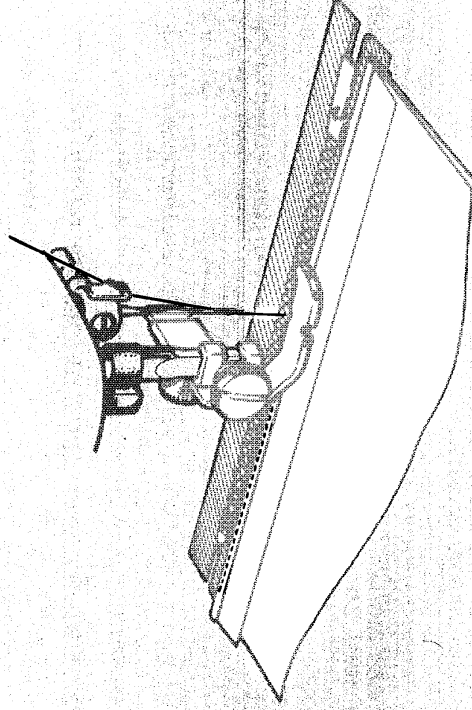


Fig. 68 ZIPPER INSERTION

## CORDED EDGES WITH FABRIC COVERED CORD

Stitch Width Dial: "0"

Needle Position Selector: **Center**

Throat Plate: General Purpose

Presser Foot: Zipper Foot

To cover cord, cut bias strip twice the width of the seam allowance plus cord, adjust Zipper Foot at left of needle, fold bias over cord, raw edges even, and position needle close to cord, but not into it, and lower the foot. Stitch, guiding the edge of the foot next to the cord, but do not crowd the foot against it.

Machine baste cord to the right side of garment using Zipper Foot adjusted to right of needle.

Apply facing and position under needle, with facing next to feed and garment next to foot, so that basting stitch will be in view. Stitch, this time crowding the foot against the cording and making stitches between the basting and the cording.

Before turning work, blend seams by cutting away seam allowances, the bias to 1/8 inch and the garment and facing to 1/4 inch.

Corded seams and edges lend smartness to tailored garments. Cushion covers and slip covers are usually finished with corded seams. The Zipper Foot is essential for making corded seams and has many applications in addition to stitching zippers and hems.

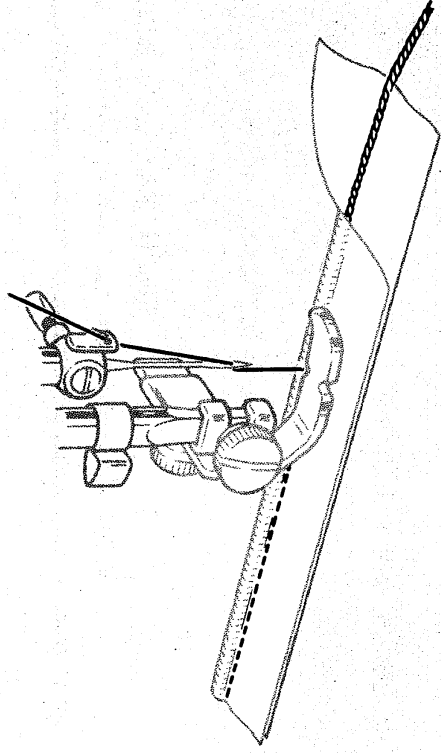


Fig. 69

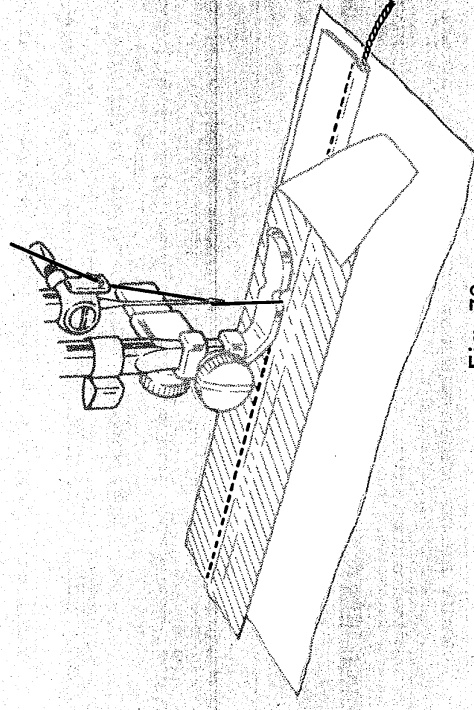


Fig. 70

## HEMMER FOOT

You can turn and stitch a narrow hem in a single operation if you use the Hemmer Foot. Thus, you can eliminate basting or pinning whenever you are making ruffle edges, lingerie finishes, and the like.

### PLAIN NARROW HEMS

Stitch Width Dial: "0"

Needle Position Selector: **Center**

Throat Plate: General Purpose

Presser Foot: Hemmer Foot

1. Draw the bobbin and needle threads under the Hemmer Foot.
2. Crease a double 1/8 inch fold for about 2 inches along the edge of the fabric.
3. Place the creased fold under the Hemmer Foot.
4. Lower the foot and start the hem by taking two or three stitches through the double fold.
5. Hold the thread ends with the left hand and guide the raw fabric edge in front of the hemmer into the scroll.
6. Sew slowly, guiding raw edge in front of Hemmer Foot. Hold threads until hem is well started. Even feeding is essential, so keep the same width of fabric in the scroll of the hemmer at all times.

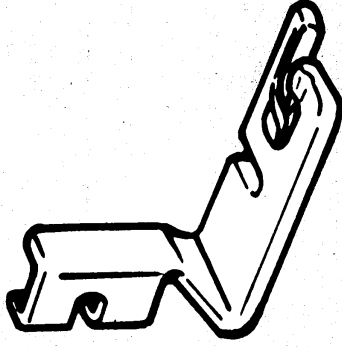


Fig. 71 HEMMER FOOT

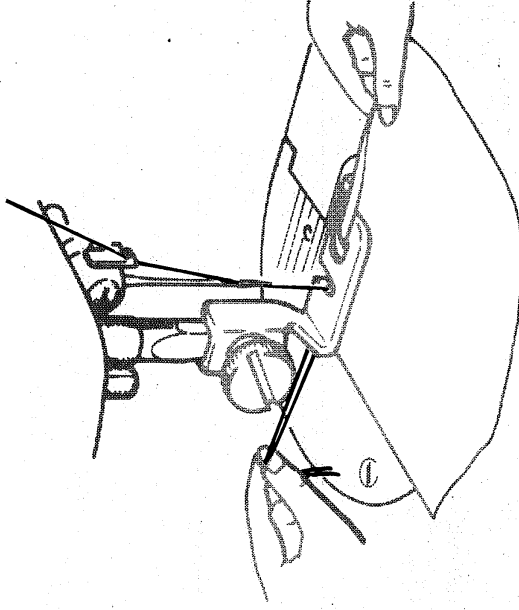


Fig. 72 GUIDING FABRIC EDGE INTO SCROLL OF FOOT

## HEMMED SEAMS

Where a fine narrow seam is appropriate, sew a hemmed seam.

1. Use same settings and attachments as for plain narrow hems.
2. With right sides of fabric together, allow a scant 1/4 inch seam allowance and place upper layer 1/8 inch to left of lower layer.
3. Insert two fabric edges into Hemmer Foot and proceed as for plain hem.

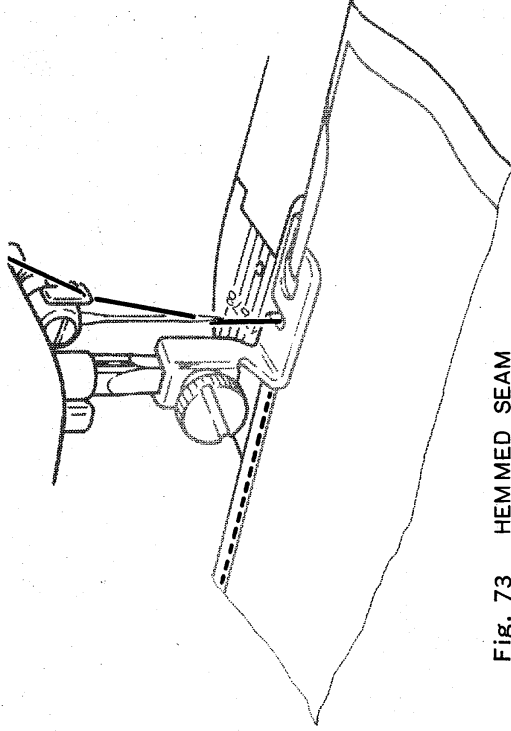


Fig. 73 HEMMED SEAM

## DECORATIVE NARROW HEMS

Narrow hem edges can be turned and decorated in one operation using Hemmer Foot and a stitch pattern.

- Fashion Discs : **All**  
Stitch Width Dial : "1" to "3"  
Needle Position Selector : **Right**  
Throat Plate : General Purpose  
Follow same steps as for plain hems

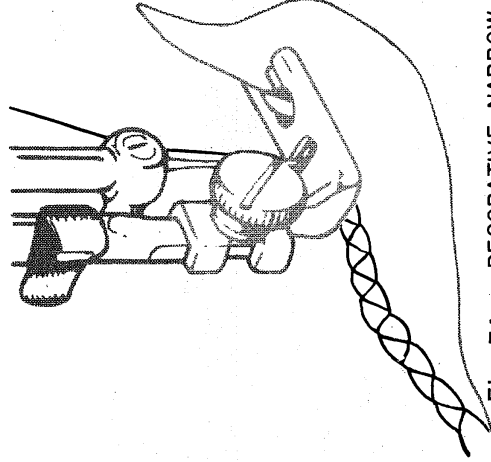


Fig. 74 DECORATIVE NARROW HEM

## FREE MOTION WORK

### DARNING

Worn or torn spots on children's clothes, knits and household linens can be darned effortlessly and quickly with little practice. You may choose to darn either with or without an embroidery hoop. When greater control is needed, free-motion stitching with an embroidery hoop is usually best.

To prepare for free-motion work—either darning or monograms—turn Feed Throw-out Knob clockwise to lower the feed dog. Then remove the presser foot.

### DARNING WITH EMBROIDERY HOOP

Stitch Width Dial: "0"

Needle Position Selector: **Center**

Stitch Length: **Above 20**

Throat Plate: Straight Stitch

Presser Foot: None

1. Trim ragged edges from area to be darned.
2. Center worn section in embroidery hoop.
3. Position work under needle and lower presser bar to engage tension.
4. Hold needle thread loosely with left hand, turn hand wheel over and draw bobbin thread up through fabric. Hold both thread ends and lower needle into fabric.
5. Outline area to be darned with running stitches for reinforcement.
6. Stitch across opening, moving hoop under needle at a slight angle from lower left to upper right. Keep lines of stitching closely spaced and even in length.
7. When opening is filled, turn work 90 degrees and continue stitching until darn is completed.

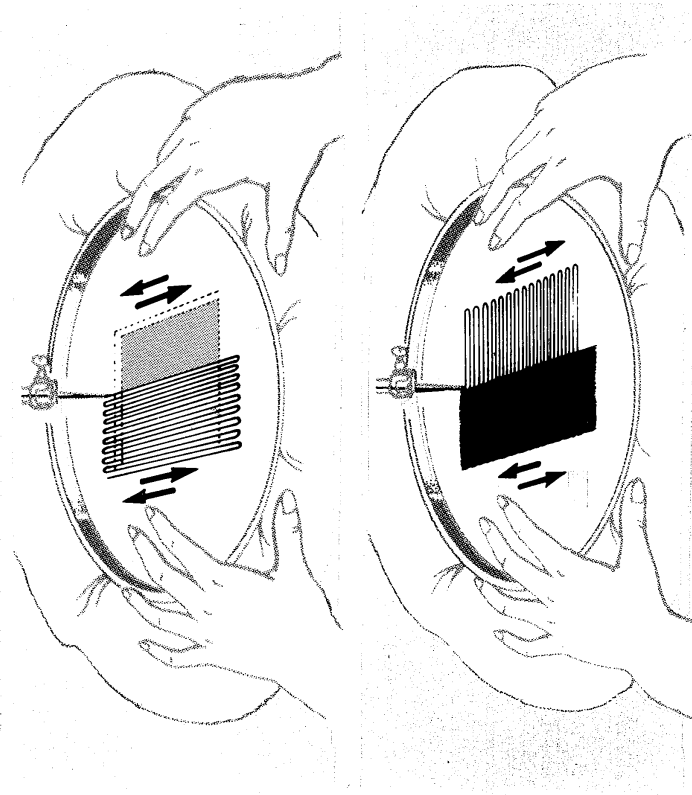


Fig. 75 DARNING WITH EMBROIDERY HOOP

## FREE MOTION WORK

### Darning (continued)

Run machine at moderate speed and control hoop with a steady continuous movement. Slow movement of hoop will produce a short stitch; more rapid movement lengthens the stitch.

Fairly long stitches are best for knit and tricot fabrics; short stitches are best for cottons and linens, as they approximate weave of fabric and are strong enough to withstand many launderings.

### MONOGRAMS AND SCRIPT LETTERING

You can buy designs for monograms or script lettering, or create them yourself. Always make a sample first, to find the right stitch settings and spacing.

Adjust stitch length to setting above **20** and set Stitch Width Dial between **2** and **5**.

1. Transfer the design (by tracing, usually) to the right side of fabric.
2. If the fabric is soft or loosely woven, baste a backing of lawn or organdy onto the wrong side.
3. Place work in embroidery hoop. Be sure fabric is held taut.
4. Position work under needle; lower presser bar to engage tension.

5. Turn hand wheel toward you to bring bobbin thread up through fabric at start of design: hold both threads as you start stitching.
6. Stitch, following the outline of the lettering. Move the hoop slowly and maintain an even rate of speed so that stitches are uniformly spaced.
7. After stitching, trim the backing close to the stitching

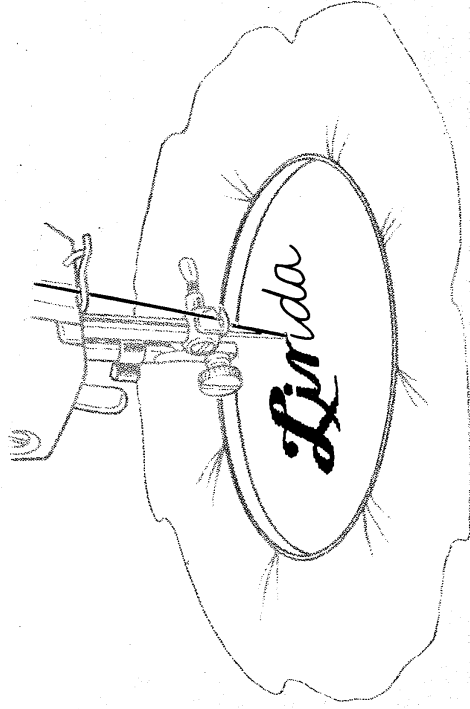


Fig. 76 SCRIPT LETTERING

## HOW TO TAKE CARE OF YOUR SEWING MACHINE.

Your sewing machine is a fine yet sturdy precision instrument, and it will serve you perfectly for many years if you take a few simple steps to keep it in good working condition.

How often you will need to clean, oil, and lubricate the machine will depend on how often you use it and where you keep it. The following general guide lines assume that you will be sewing two or three times a week. But if you use the machine continuously, clean and oil it daily. Or, if you keep it in a very warm or damp place, oil and lubricate it more frequently than the guidelines suggest.

### EVERY WEEK OR SO—

Remove lint and fluff from exposed parts. (As a matter of fact, you will be able to see the lint and fluff gathering on these parts, and we recommend that you remove them as they accumulate.)

With a soft cloth, clean :

- ▲ Tension discs
- ▲ Take-up lever and thread guides
- ▲ Presser bar and needle bar
- ▲ Bobbin case (for instruction on removal, see page 47)
- ▲ Machine arm and bed

If necessary, dampen the cloth to clean the machine

surface. **Do not use detergents.**

With a lint brush, clean :

- ▲ Feed dog
  - ▲ Shuttle (area under throat plate)
- After each cleaning, apply a drop (but no more than a drop) of SINGER\* oil to the areas indicated. Then sew a line of stitching on a scrap of material to remove excess oil.

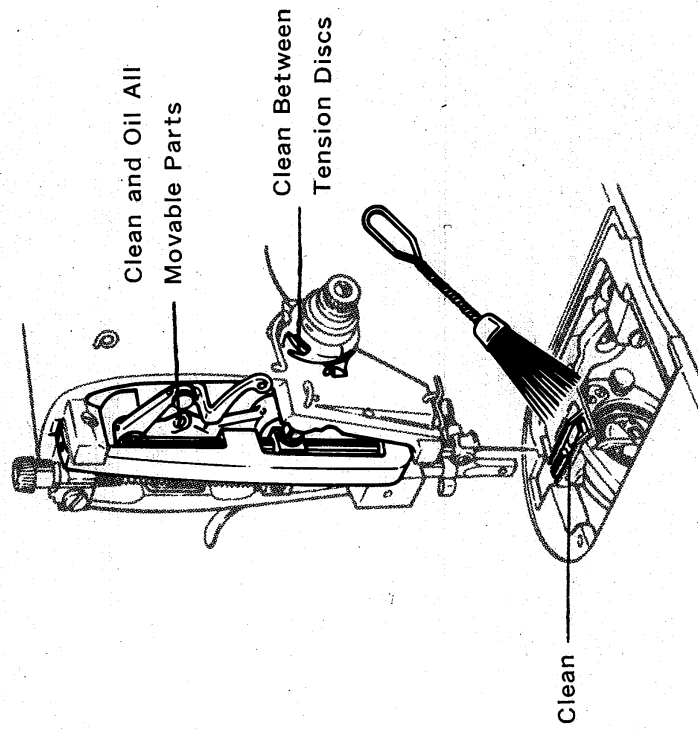


Fig. 77



## TO REMOVE AND REPLACE SHUTTLE

### TO REMOVE

1. Tilt machine back.
2. Turn hand wheel until needle bar is at its highest point.
3. Remove bobbin case.
4. Push shuttle race latches out toward left and right, then open shuttle race gate. The shuttle can now be easily removed.
5. Clean and apply oil to shuttle area.

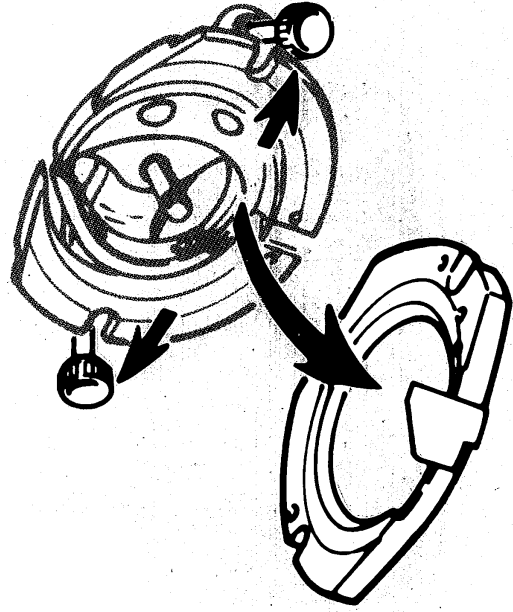


Fig. 78

### TO REPLACE

1. Turn hand wheel until needle bar is at its highest point.
2. Replace shuttle with its point in position shown in illustration. Close shuttle race gate and lock in position by pushing latch back into slot.
3. Replace bobbin case.

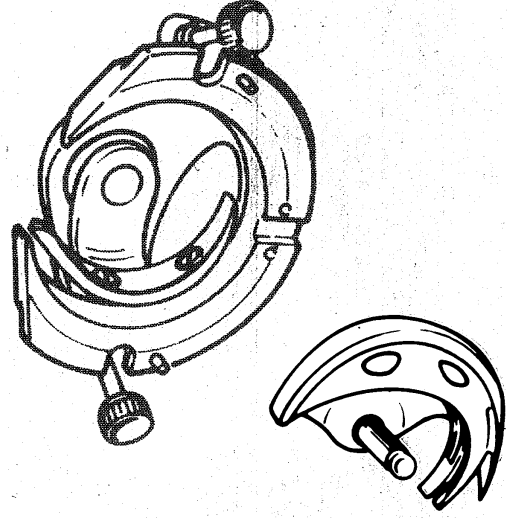


Fig. 79

## TO LUBRICATE THE MACHINE

### EVERY FEW MONTHS—

Clean the machine as instructed on page 46.

Apply a drop of oil to each place indicated on top of machine and on bed.

Remove thumb screw at rear of arm and remove side cover plate at back of machine. Apply oil to all parts which are in movable contact with each other. Replace side cover.

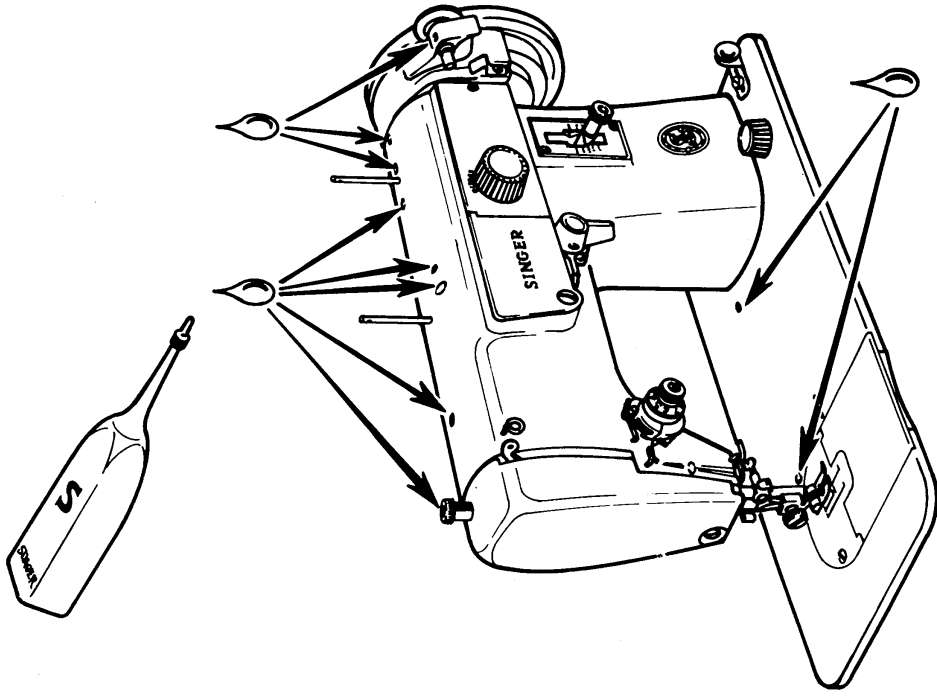


Fig. 80

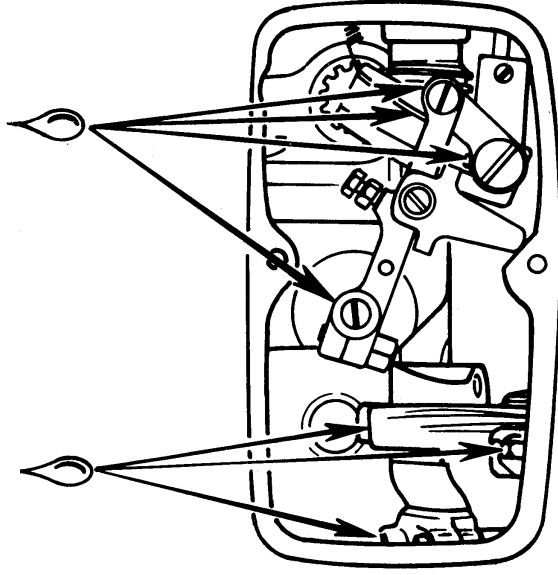


Fig. 81

Clean and oil area behind face plate:

- ▲ Loosen screw on face plate and remove face plate.
  - ▲ Oil the places indicated.
  - ▲ Replace face plate.
- Raise hinged bed plate and apply a drop of oil to the shuttle raceway.

Tilt machine back and oil each of the places indicated on bottom of machine.

**IF THE MACHINE IS TO BE STORED—**

- Clean all exposed parts and area behind face plate.
- Swab all exposed metal parts and parts behind face plate with lint brush saturated with SINGER oil to protect against rust.

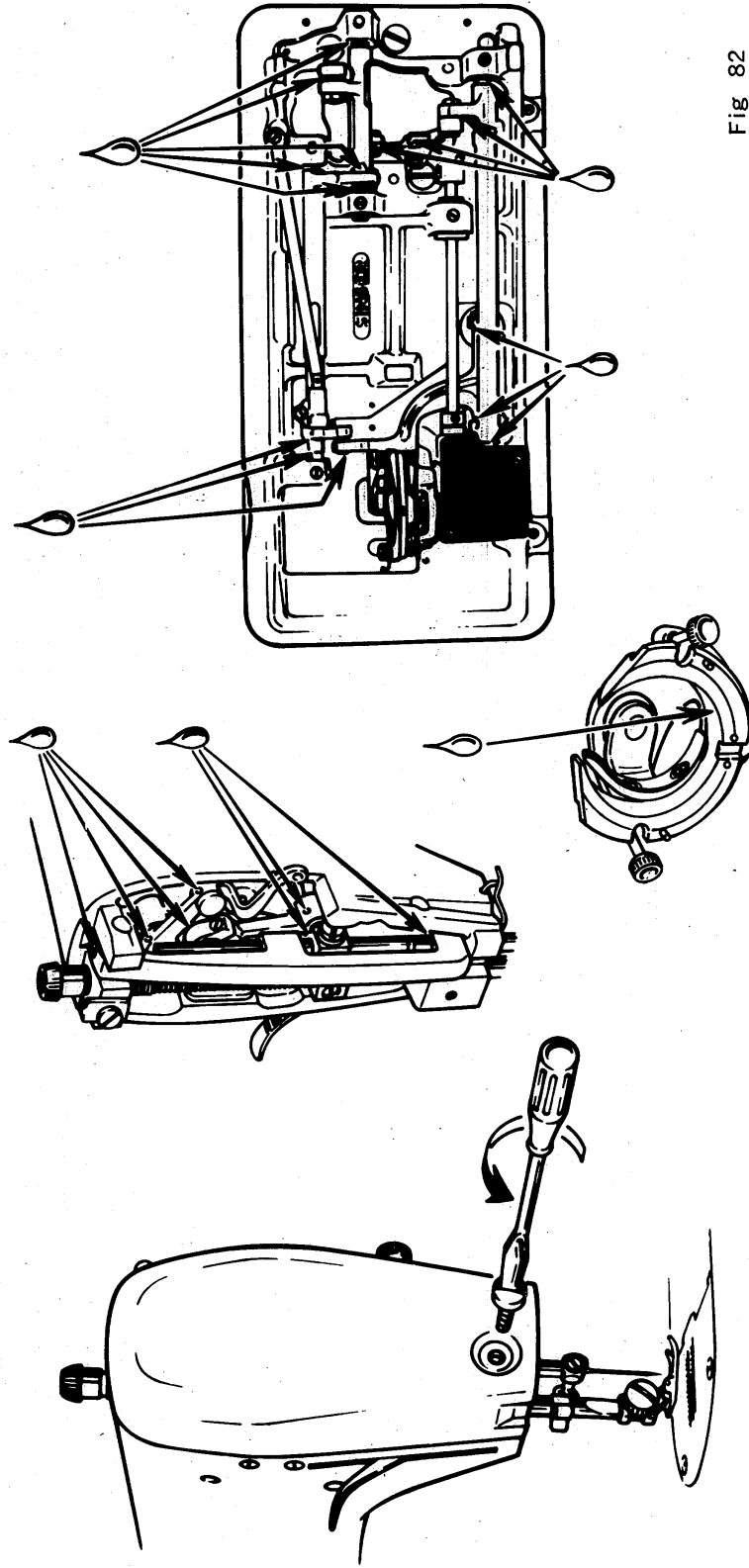


Fig 82

## MOTOR

The motor is attached to the machine arm as shown. Before plugging in the machine be sure that the voltage and number of cycles stamped on the motor name plate are within the range marked on the electric meter installed by your power company.

Electrical Foot Controller—Controls speed of the machine, the harder you press, the faster it will sew.

### TO ADJUST BELT TENSION

On rare occasions, you may find it necessary to adjust the tension on the motor belt. Tension on the belt should be just strong enough to keep the belt from slipping. If the belt is too tight, the machine will run slowly. This will overload and possibly damage the motor.

### TO ADJUST

1. Loosen bracket screw a full turn.
2. Allow weight of motor to supply correct belt tension.
3. Tighten bracket screw.

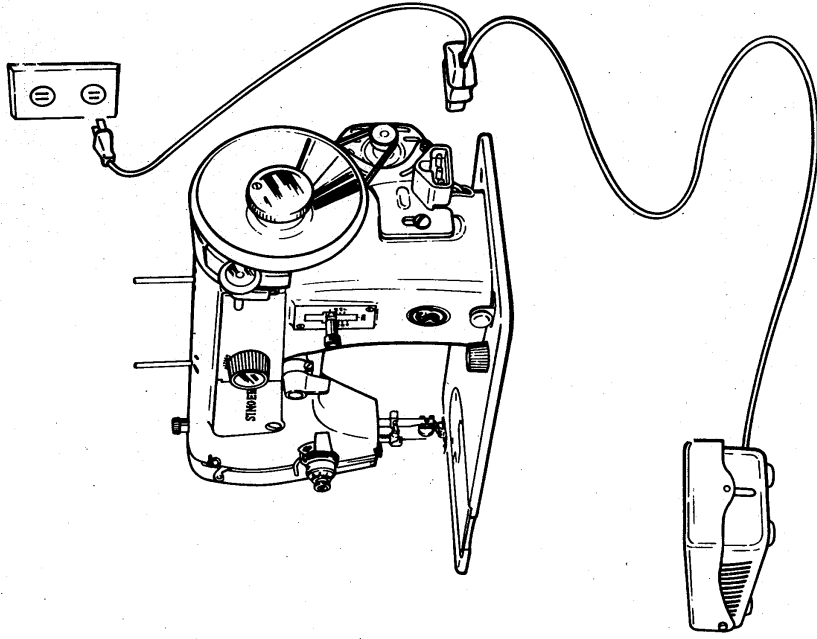


Fig. 83



THE SINGER COMPANY

A large grid of empty cells, likely a ledger or table for recording data. The grid consists of many rows and columns, forming a dense pattern of small squares. The grid is oriented vertically on the page, with the header text 'THE SINGER COMPANY' positioned to its left.