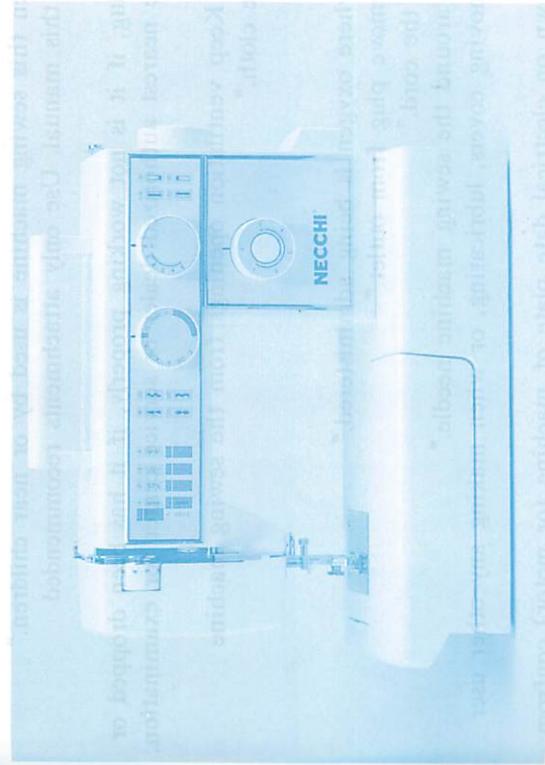


# NECCHI

SEWING  
MACHINE

MODEL 4575



# INSTRUCTION MANUAL

**ALLYN INTERNATIONAL INC.**

# **“IMPORTANT SAFETY INSTRUCTIONS”**

“When using an electrical sewing machine, basic safety precautions should always be followed, including the following.”

“Read all instructions before using this sewing machine.”

“This sewing machine is designed for household use.”

## **“DANGER-TO REDUCE RISK OF ELECTRIC SHOCK:”**

1. “A sewing machine should never be left unattended when plugged in. Always unplug this sewing machine from the electrical outlet immediately after using and before cleaning.”
2. “Always unplug before reclamping. Replace bulb with the same rated 15 watts.”

## **“Warning-TO reduce the risk of burns, fire, electric shock or injury to persons...”**

1. “Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.”
2. “Use this sewing machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.”
3. “Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.”
4. “Never operate the sewing machine with any air openings blocked. Keep ventilation openings from the sewing machine and foot control free from the accumulation of lint, dust, and loose cloth.”
5. “Never drop or insert any object into any opening.”
6. “Do not use outdoors.”
7. “Do not operate where aerosol [spray] products are being used or where oxygen is being administered.”
8. “To disconnect, turn all controls to the off [“0”] position, then remove plug from outlet.”
9. “Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.”
10. “Keep fingers away from all moving parts. Special care is required around the sewing machine needle.”
11. “Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.”
12. “Before connecting the power, make sure the voltage and cycles shown on electrical date plate of machine (or motor) conform to your electrical power.”
13. “Always use the proper needle plate. The wrong plate can cause the needle to break.”
14. “Do not use bent needles.”
15. “Do not pull or push fabric while stitching. It may deflect the needle, causing it to break.”
16. “Switch the sewing machine off [“0”] when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot and the like.”

# **“SAVE THESE INSTRUCTIONS”**

## BY THE MANUFACTURER

Dear Owner:

You can be proud of your new sewing machine — an outstanding product of many years of research and development. The highest quality materials and functional design are combined in it to achieve perfect operating efficiency and years of dependable service.

If you have ever admired the beautiful and intricate sewing of professional seamstresses, you will be amazed and delighted to learn that you can now do it yourself with this remarkable sewing machine.

Before attempting to sew, however, please read this instruction book carefully. If you follow these instructions and give your machine proper care, it will operate perfectly for many years.

Should the machine fail to function correctly, stop sewing and review the manual before starting again. Time spent in learning the features, controls and adjustments of your machine will eliminate errors and will result in complete satisfaction and enjoyment of your sewing skills.

# CONTENTS

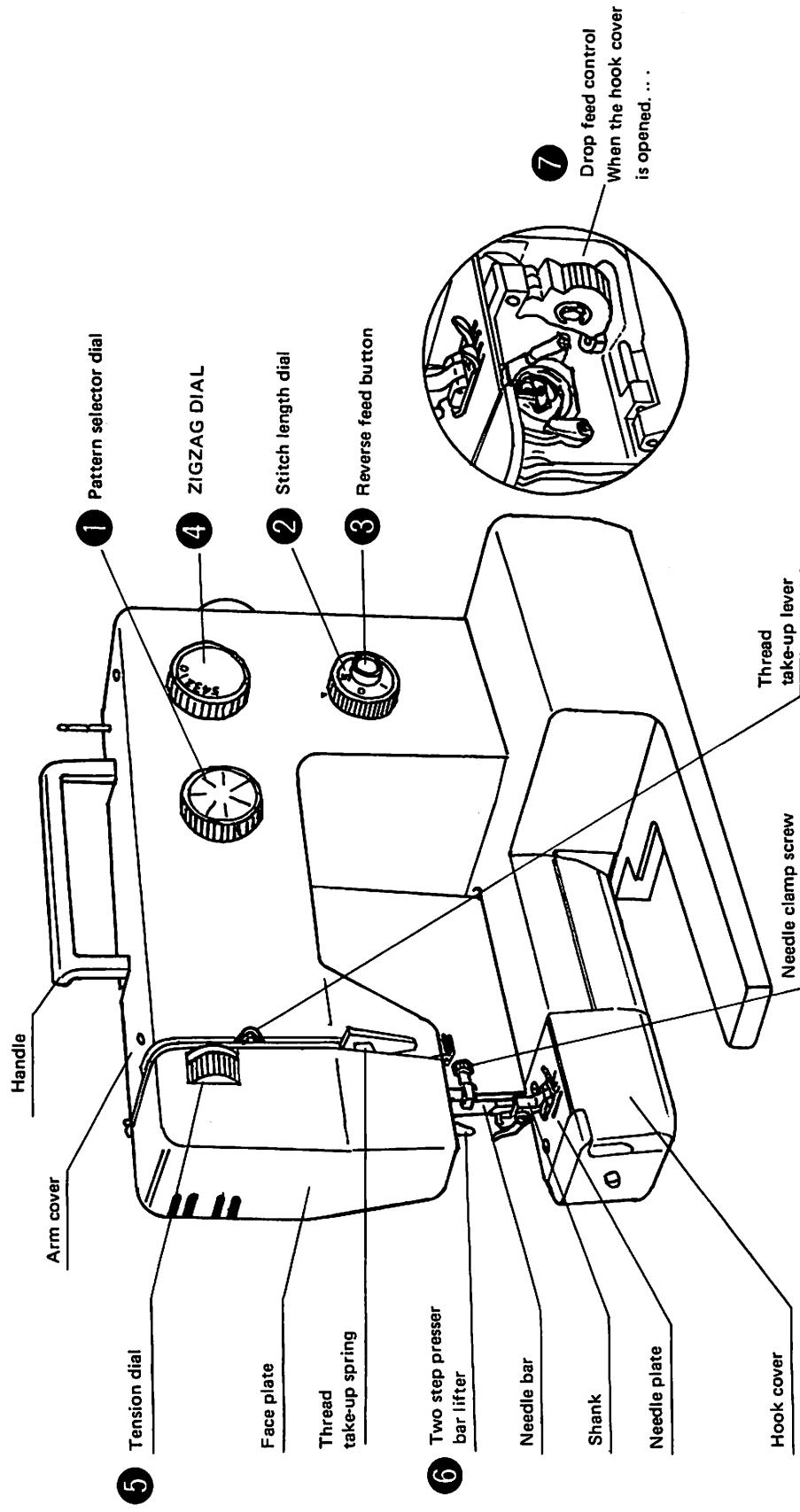
## BASIC FUNCTIONS

PAGE	
	MAIN PARTS: NAMES AND FUNCTIONS .....
4	ACCESSORIES .....
6	FITTING THE SNAP-IN SEWING TABLE .....
7	INSTALLATION INSTRUCTIONS .....
8	OPERATION INSTRUCTION .....
8	REPLACING THE LIGHT BULB .....
9	HOW TO CHANGE PRESSER FOOT .....
10	HOW TO REMOVE SHANK .....
10	HOW TO FIT QUILTER .....
10	HOW TO CHOOSE NEEDLE .....
10	HOW TO SET NEEDLE .....
11	MATCHING NEEDLE, FABRIC AND THREAD .....
12	HOW TO WIND BOBBIN .....
13	INSERTING BOBBIN INTO BOBBIN CASE .....
14	UPPER THREADING .....
16	HOW TO RAISE THE BOBBIN THREAD .....
17	HOW TO DROP FEED DOG .....
17	HOW TO SELECT STITCHES .....
18	HOW TO ADJUST THREAD TENSIONS .....
19	Straight stitching .....
21	Zigzag stitching .....
23	Zigzag pattern stitching .....
23	Super stretch pattern stitching .....

## APPLICATIONS

	PAGE
Straight Stretch Stitching.....	24
Blind Hem Stitch.....	25
Overcasting Edges .....	26
Sewing On Buttons .....	27
Buttonholes.....	28
ZipperS and Piping.....	30
Hemming .....	31
Pin Tucking .....	32
Cording.....	33
Bobbin Embroidery .....	34
Smocking .....	35
Applique .....	36
Free Hand Machine Embroidery.....	37
Elementary Exercises in Free Embroidery .....	38
How to Adjust the Tension of the Motor Belt .....	39
Maintaining the Machine .....	40
Trouble Shooting Guide .....	42

## MAIN PARTS: NAMES AND FUNCTIONS



### ③ REVERSE FEED BUTTON

Push in center button for reverse stitching and backtacking.

### ④ ZIGZAG DIAL

Stitch width is controlled by this dial. For straight stitching, set the dial at "0". The larger the number on the dial, the wider the zigzag.

### ⑤ TENSION DIAL

Upper thread tension is regulated with this dial. Smaller numbers indicate lighter tension. Larger numbers indicate tighter tension.

### ⑥ TWO STEP PRESSER BAR LIFTER

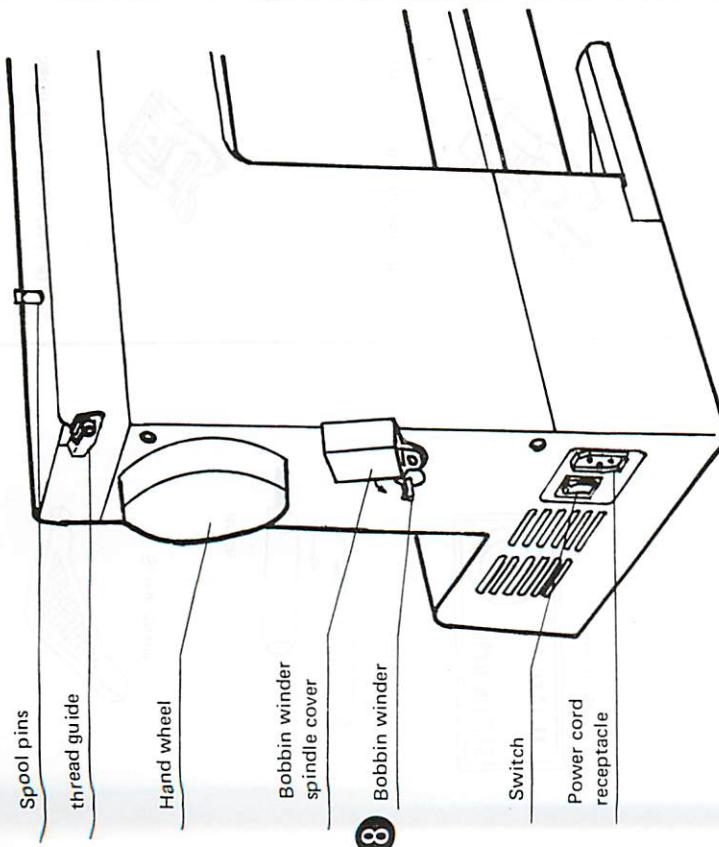
Raise the Presser bar lifter and the presser bar will rise. When sewing extra heavy, thick material, the lifter can be raised an additional distance. Lowering the lifter brings the presser down on the material.

### ⑦ DROP FEED CONTROL

Press the upper side ( ) of the control and the feed dog drops below the needle plate for patching, mending, sewing on buttons and embroidery. Press the lower side (---) of the control to raise feed dog for normal sewing.

### ⑧ BOBBIN WINDER & THREAD CUTTER

Sewing mechanism is disconnected while bobbin winder is in use. Thread will be automatically cut when bobbin is fully wound.



### ① PATTERN SELECTOR DIAL

Each stitch function is selected with this dial. Set the dial to desired stitch pattern, match other dials by color, and sew.

### ② STITCH LENGTH DIAL

Stitch length is controlled with this dial. At "0", fabric will not feed. Stitch length increases as the dial is turned to larger numbers.

## ACCESSORIES

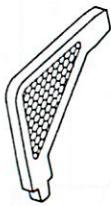
Hemmer (No. 1) Cording foot (No. 2)



All purpose foot (No. 3)

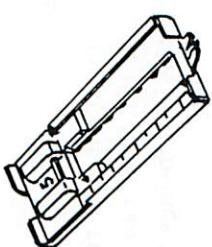


Satin stitch foot (No. 4)

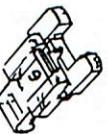


Can be used for all usual  
stitches including  
straight and zigzag.

Buttonhole foot (No. 5)



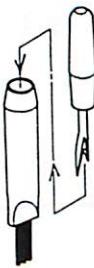
Button foot (No. 6)



Zipper foot



Brush

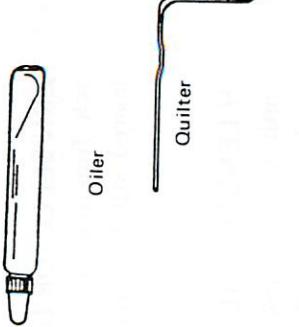


Seam ripper

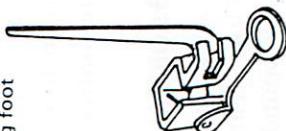


Needle set

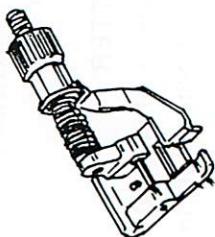
ORGAN NEEDLES  
3. HAX 1 14



Darning foot



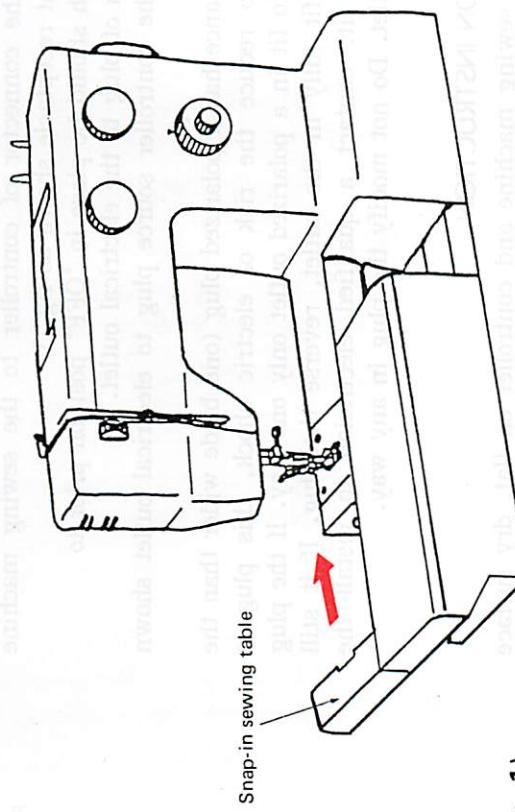
Blind hem foot (No. 9)



The use of specialist sewing feet will  
improve the quality of stitch.  
The design of the feet may change.

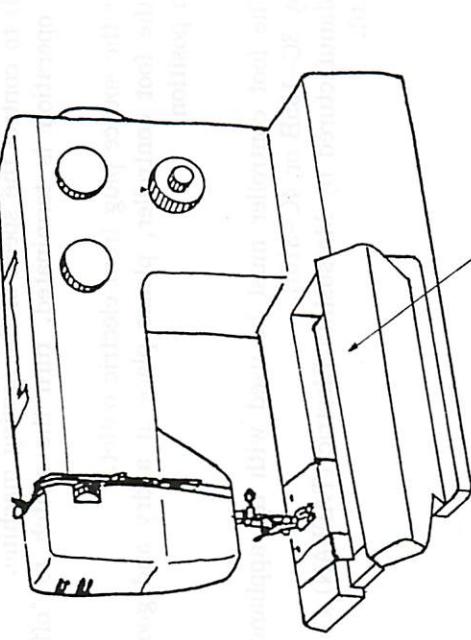
## FITTING THE SNAP-IN SEWING TABLE

Keep the snap-in sewing table horizontal, and push it in the direction of the red arrow. (Fig. 1)



(Fig. 1)

The inside of the snap-in sewing table can be utilized as an accessory box.  
To open, lift up at the point of the arrow. (Fig. 2)



(Fig. 2)

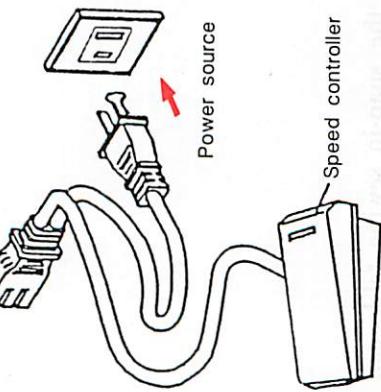
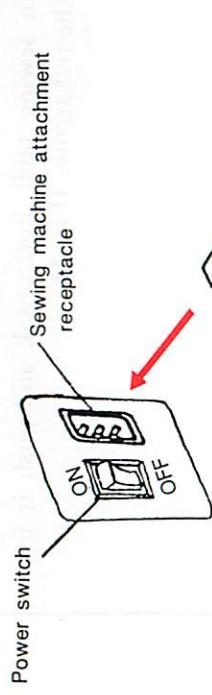
## INSTALLATION INSTRUCTIONS

Connect the connector of controller to the sewing machine attachment receptacle shown as fig. 1.

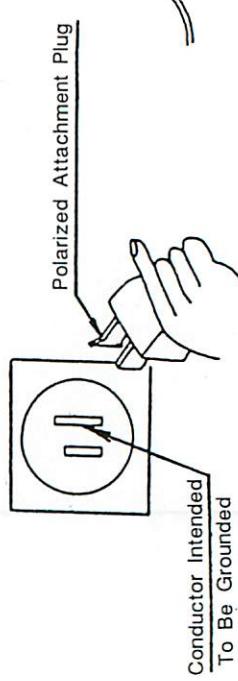
The switch should be place in "OFF" position prior to connection of plug to the electrical outlet.

Connect the controller source plug to electrical outlet shown as fig. 2.

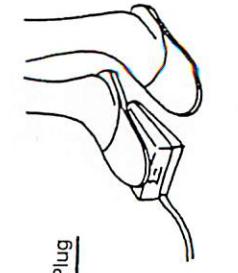
This appliance has a polarized plug (one blade wider than the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.



(Fig. 1)



(Fig. 2)



(Fig. 3)

## OPERATION INSTRUCTION

Place the sewing machine and controller on flat, dry surface and available for pedalling properly and comfortably.

Turn the switch of power supply to "ON" position.

Press-down on the upper cover of the foot controller (see fig. 3) to control the speed of the sewing machine.

Whenever operation is terminated, turn the switch to "off" position.

Disconnect the source plug from electric outlet.

To store the foot controller, please place at a dry and good ventilation position.

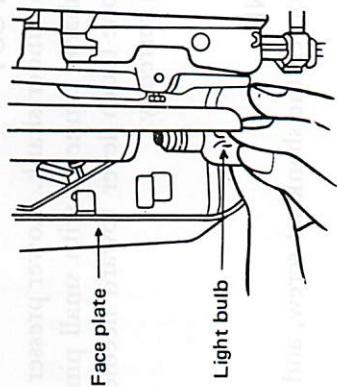
Caution: The foot controller must be used with the appliance by 3C-135B or 4C-316B.

Manufactured by Matsushita Electric (TAIWAN) Co., Ltd.

## HOW TO CHANGE THE PRESSER FOOT

**REPLACING THE LIGHT BULB**  
When replacing the light bulb, first be sure to unplug your sewing machine. Swing out the face plate, then the light bulb is easily accessible and can be removed just as an ordinary light bulb (Fig.1)

Always ensure that the bulb is screwed in tightly.



(Fig. 1)



(Fig. 2)



(Fig. 3)



(Fig. 4)



(Fig. 5)

**HOW TO REMOVE THE SIDE COVER**  
When you want to clean the interior of the sewing machine, you can remove the side cover. Turn the machine upside down and swing out the side cover. Then you can clean the interior of the machine. (Fig. 6)

**HOW TO CLEAN THE DUST**  
When you want to clean the interior of the sewing machine, you can remove the side cover. Turn the machine upside down and swing out the side cover. Then you can clean the interior of the machine. (Fig. 6)

## HOW TO CHANGE PRESSER FOOT REMOVING PRESSER FOOT

Raise the foot, pull the one-touch lever toward you, and the foot will drop off. (Fig. 1)

### PUTTING ON PRESSER FOOT

Center desired presser foot under shank. Lower presser bar until the groove on the shank connects with small pin on the foot. Gently push one-touch lever toward needle to make sure foot is attached correctly. Release lever. (Fig. 2)

### HOW TO REMOVE SHANK

Keep the presser bar up, loosen the shank set screw, and the shank will drop off.

When you replace the shank, tighten the set screw firmly with a screw driver. (Fig. 3)

### HOW TO FIT QUILTER

Insert quilter bar through quilter slot in the sank (Fig. 4)

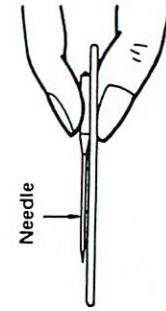
### HOW TO CHOOSE NEEDLE

Be sure to use proper size needle for the thread and type of material you are sewing. See needle guide on page 10. Using a bent or blunt needle may result in breaking thread or poor stitching.

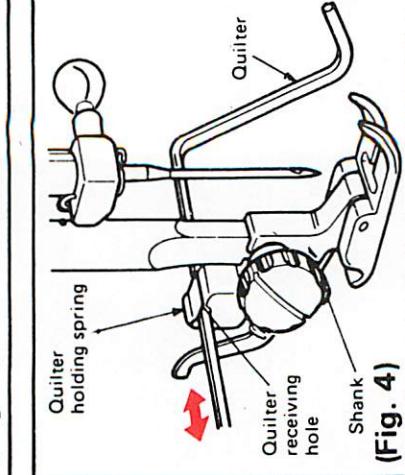
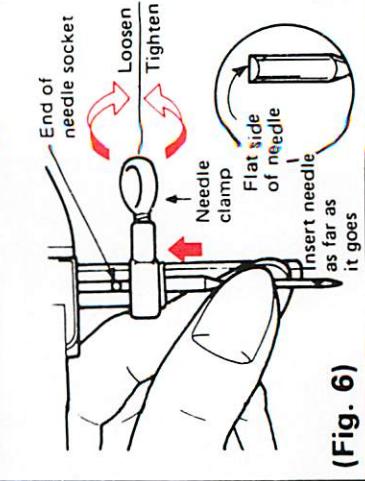
### HOW TO SET NEEDLE

Insert end of needle into needle clamp, flat side of needle facing away from you. Tighten clamp with screw driver. (Fig. 5)

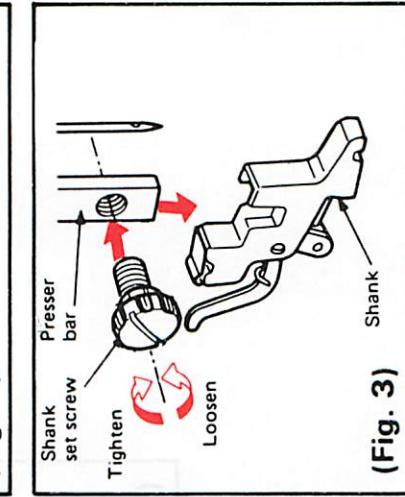
(Fig. 5)



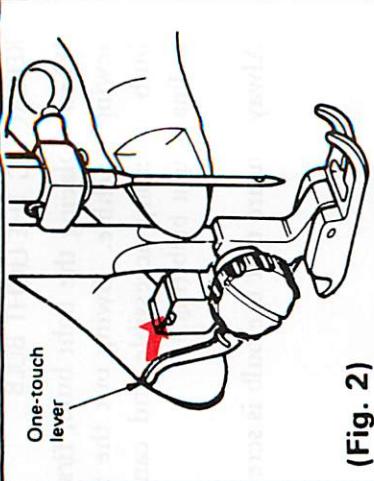
(Fig. 6)



(Fig. 2)



(Fig. 3)



(Fig. 1)

## NEEDLE, FABRIC, THREAD, SELECTION GUIDE

NEEDLE SIZE	FABRICS	THREAD
9-11 (65-75)	Lightweight fabrics—thin cottons, voile, serge, silk, muslin, Qiana, interlocks, cotton knits, tricots, jerseys, crepes, woven polyester, shirt & blouse fabrics.	Light duty thread in cotton, nylon or polyester.
12 (80)	Medium weight fabrics—cotton, satin, kettlecloth, sailcloth, double knits, lightweight woollens.	Most threads sold are medium size and suitable for these fabrics and needle sizes. Use polyester threads on synthetic materials and cotton on natural woven fabrics for best results. Always use the same thread on top and bottom.
14 (90)	Medium weight fabrics—cotton duck, woollens, heavier knits, terrycloth, denims.	
16 (100)	Heavyweight fabrics—canvas, woollens, outdoor tent and quilted fabrics, denims, upholstery material (light to medium).	
18 (110)	Heavy woollens, overcoat fabrics, upholstery fabrics, some leathers and vinyls.	Heavy duty thread, carpet thread. (Use heavy foot pressure—large numbers.)

**IMPORTANT:** Match needle size to thread size and weight of fabric.

## NEEDLE, FABRIC SELECTION

NEEDLES	EXPLANATION	TYPE OF FABRIC
HA x 1 15 x 1	Standard sharp needles. Sizes range thin to large. 9(65) to 18(110)	Natural woven fabrics—wool, cotton, silk, etc. Qiana. Not recommended for doubleknits.
15 x 1/705H (SUK)	Semi-ball point needle, scarfed. 9(65) to 18(110)	Natural and synthetic woven fabrics, polyester blends. Knits—polyesters, interlocks, tricots, single & double knits. Can be used instead of 15 x 1 for sewing all fabrics.
15 x 1/705H (SUK)	Full ball point needle 9(65) to 18(110)	Sweater knits, Lycra, swimsuit fabric, elastic.
130 PCL	Leather needles. 12(80) to 18 (110)	Leather, vinyl, upholstery. (Leaves smaller hole than standard large needle.)

Note:

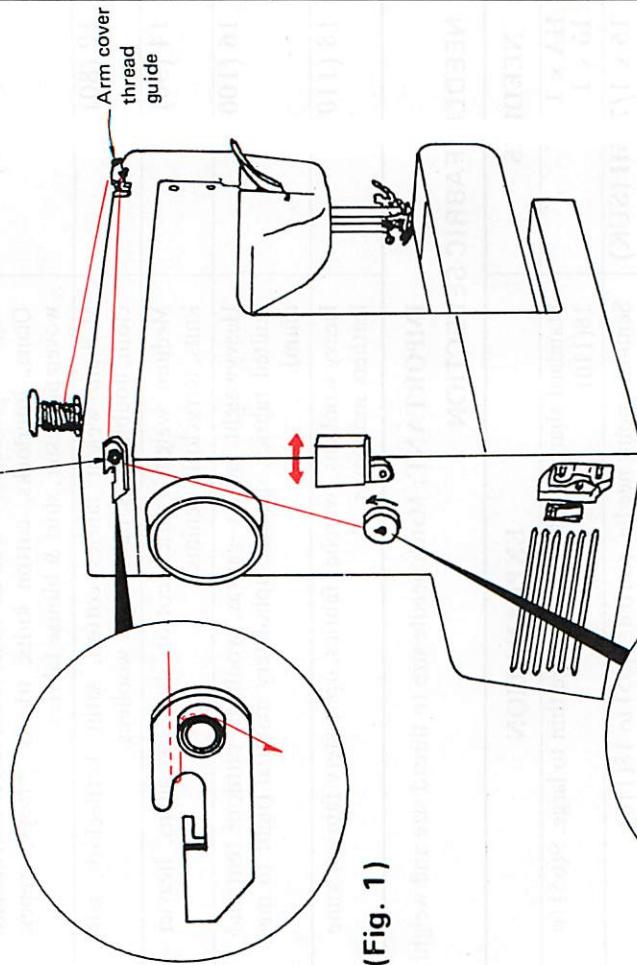
1. Twin needles, can be purchased for utility and decorative work.
2. European needles show sizes 65, 70, 80 etc. American and Japanese needles show sizes 9, 11, 12 etc.
3. Replace needle often (approximately every other garment) and/or at first sign of thread breakage or skipped stitches.

## HOW TO WIND BOBBIN BOBBIN WINDER SPINDLE COVER

Open the bobbin winder spindle cover as illustrated.  
Don't forget to close the cover when you have finished winding.

### THREADING FOR BOBBIN WINDING

1. Pass the thread under and round the arm cover thread guide.
2. Pass thread through bobbin winder thread guide as illustrated. (Fig. 1)



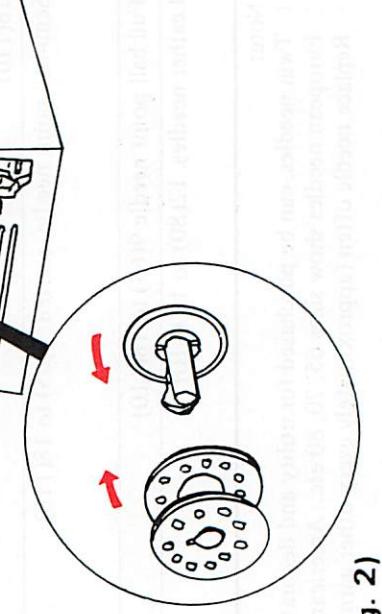
(Fig. 1)

### SETTING BOBBIN ON SPINDLE

Push the bobbin onto the bobbin winder spindle, until it is firmly engaged. (Fig. 2) Needle drive will automatically be dis-engaged.

### WINDING THREAD AROUND BOBBIN

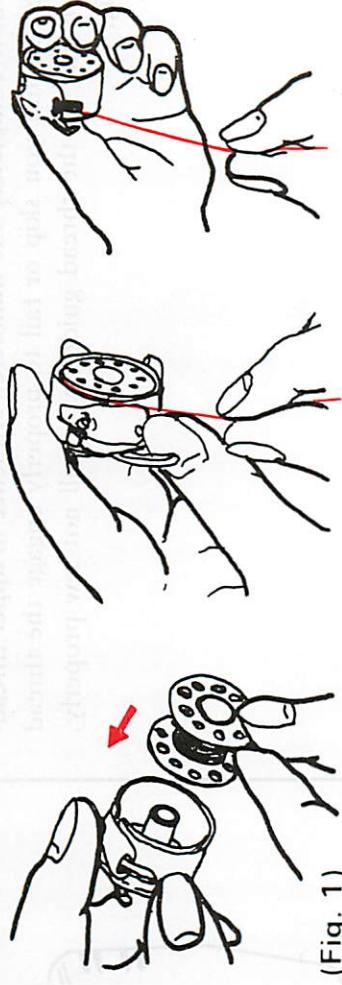
Wind the thread by hand seven or eight rounds in the direction of the arrow on the machine and gently press down the foot control pedal with the end of the thread still held between your forefinger and thumb.



(Fig. 2)

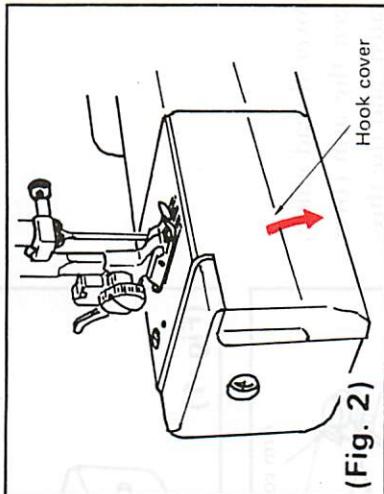
## INSERTING BOBBIN INTO BOBBIN CASE

Insert the loaded bobbin into the bobbin case with the thread held in the direction of the arrow (clockwise). Pass the loose end of the thread into the slot and underneath the tension spring toward the opening. Leave about 10cm (4 inches) of thread out of the opening. (Fig. 1)



## HOW TO OPEN HOOK COVER

To open the hook cover, put your finger tip into the groove at the end of the cover, and pull the cover toward you (in the direction of the arrow). (Fig. 2)



## HOW TO TAKE OUT BOBBIN CASE

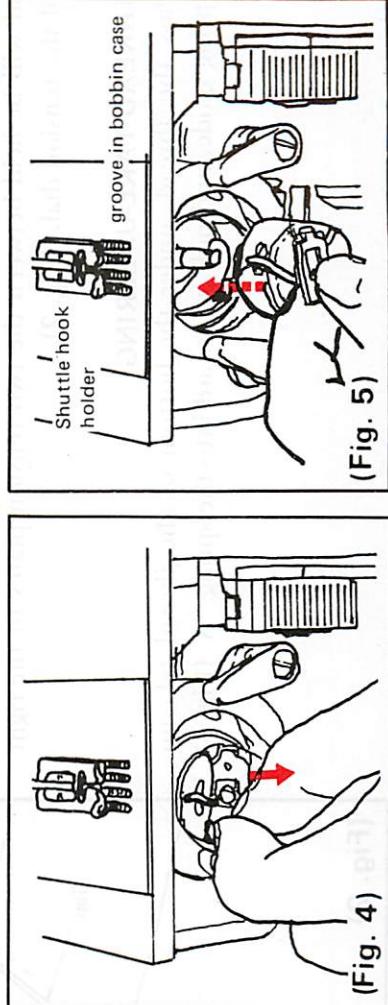
With the needle up pull out and hold the hinged latch, and raise the bobbin case toward you as illustrated. (Fig. 3 & 4)

(Fig. 3)  
(Fig. 4)

## HOW TO PUT IN BOBBIN CASE

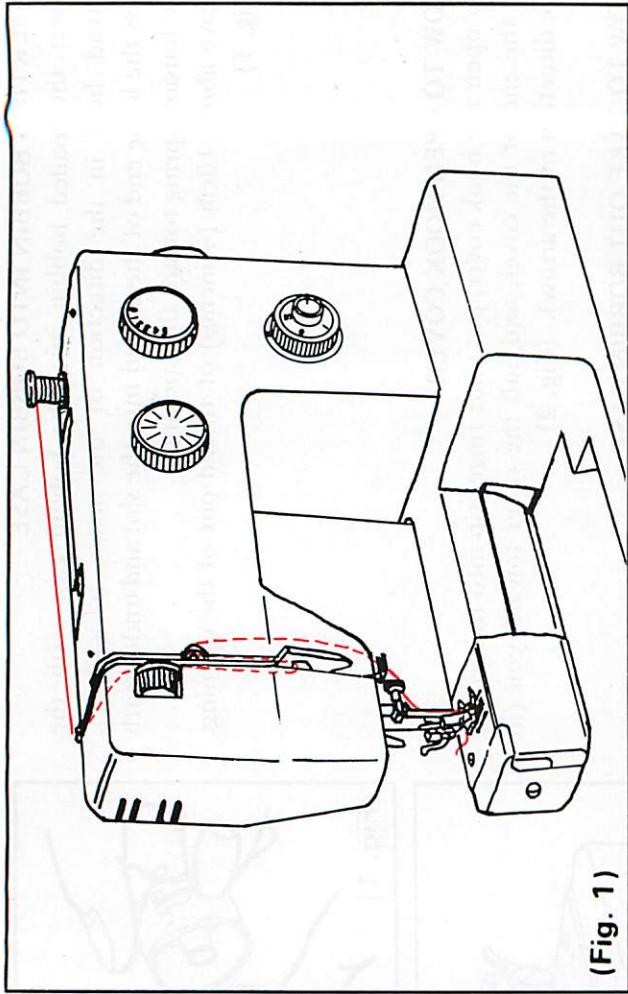
Release the hinged latch checking to see that the positioner of the bobbin case fit into the recess at the top of the shuttle hook assembly. (Fig. 5)

When the bobbin case is set, leave about 10cm (4 inches) of thread from bobbin case. The bobbin case is properly set in position when thread pulls smoothly.



## UPPER THREADING

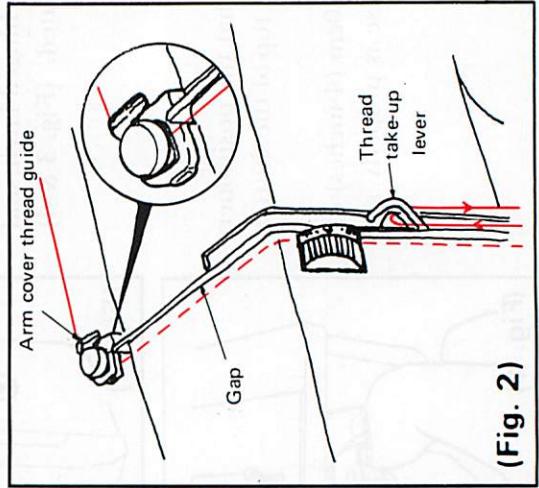
Follow completely the numbered sequence in upper threading. Should you skip or fail to properly engage the thread with any of the thread guides, you will not sew properly. (Fig. 1)



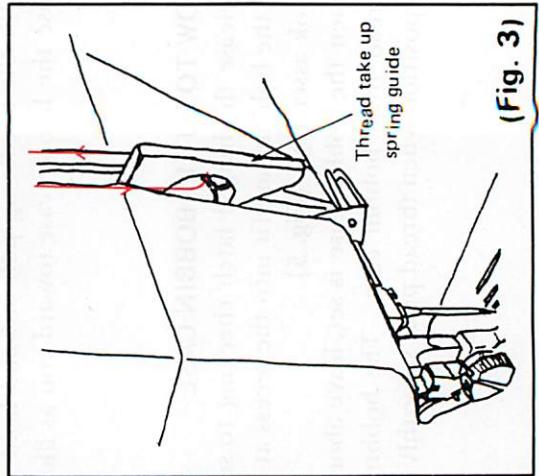
(Fig. 1)

## ARM COVER THREAD GUIDE

Pass the thread under and beneath the cover thread guide, as shown, pass it through the gap between the arm cover and the face plate, pull it down as illustrated, and the thread will be held between the two tension plates to the right of the tension dial. (Fig. 2)



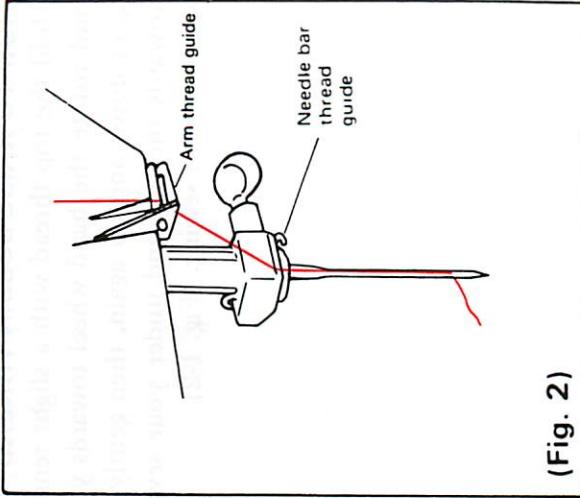
(Fig. 2)



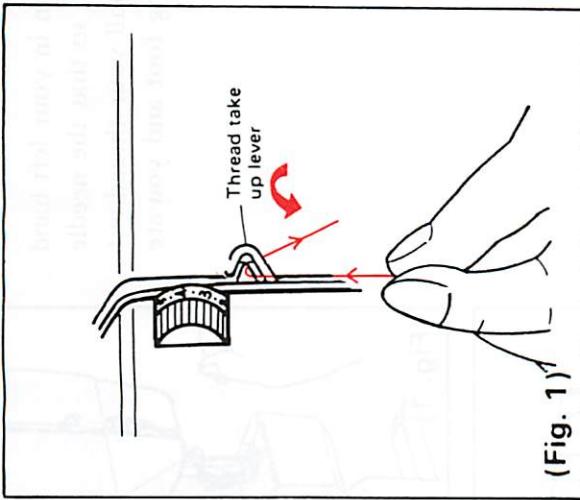
(Fig. 3)

## THREAD TAKE-UP SPRING

Pass the thread under and beneath the bottom of the thread take-up spring guide, and pull it upward into the spring. A (Fig. 3)



(Fig. 2)



(Fig. 1)

#### **THREAD TAKE-UP LEVER**

Set the **thread take-up lever** in its top position. Slip the thread over and down into the slot of the take up lever from left to right. (Fig. 1)

#### **ARM THREAD GUIDE**

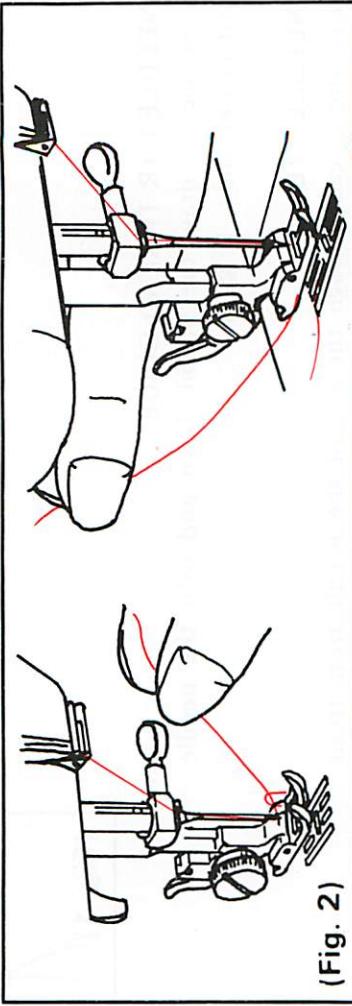
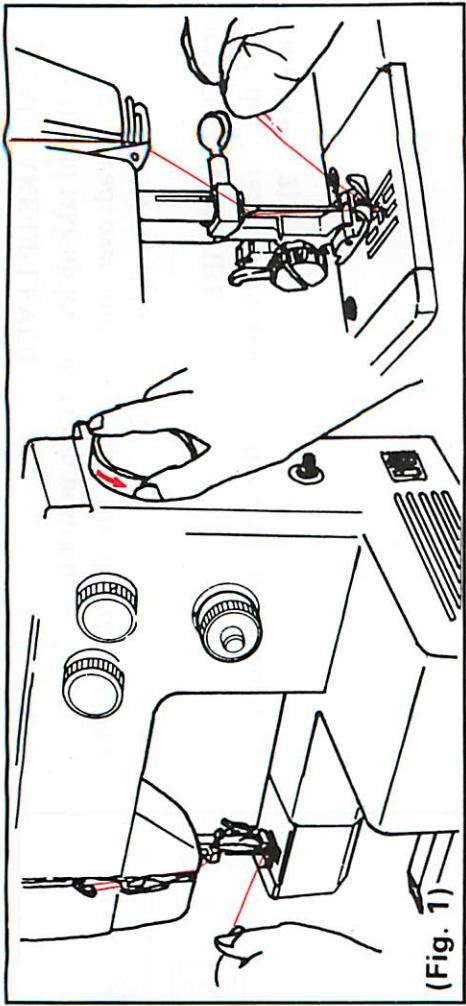
Draw the thread down and into the arm thread guide as shown. (Fig. 2)

#### **NEEDLE BAR THREAD GUIDE**

Continue to draw the thread down and into the needle bar thread guide. (Fig. 2)

#### **NEEDLE EYE**

Pass the thread through the eye of the needle from front to back. Leave loose about 10 cm (4") of thread. (Fig. 2)



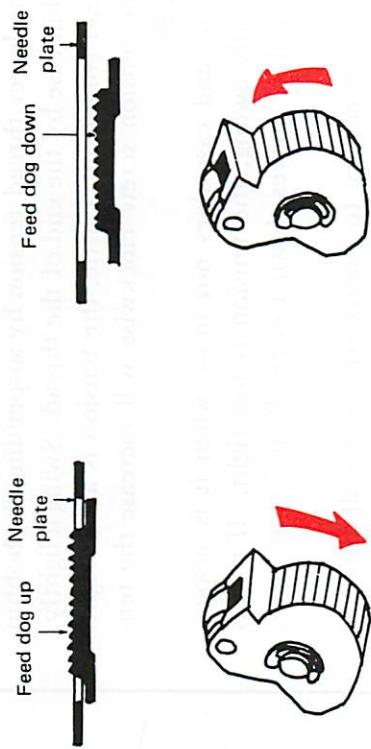
#### HOW TO RAISE BOBBIN THREAD

Hold the top thread with a slight tension in your left hand and rotate the hand wheel towards you so that the needle goes down and up again, then gently pull your thread out towards the rear and under your sewing foot and you are ready to start sewing. (Fig. 1-2)

## HOW TO DROP FEED DOG

For ordinary sewing keep the feed dog up; for freehand embroidery, sewing on buttons and damming, drop the feed dog.

To raise and lower feed dog. (Fig. 1)



## HOW TO SELECT STITCHES BY COLOR CODING

Match selected stitch pattern, with stitch length and stitch width color codes.

### ZIGZAG DIAL

The larger the number on the dial, the wider the zigzag stitch width.

### PATTERN SELECTOR DIAL

Turn this dial to the desired stitch pattern. Be sure to carefully position dial, accurately matching the stitch pattern to the pointer.

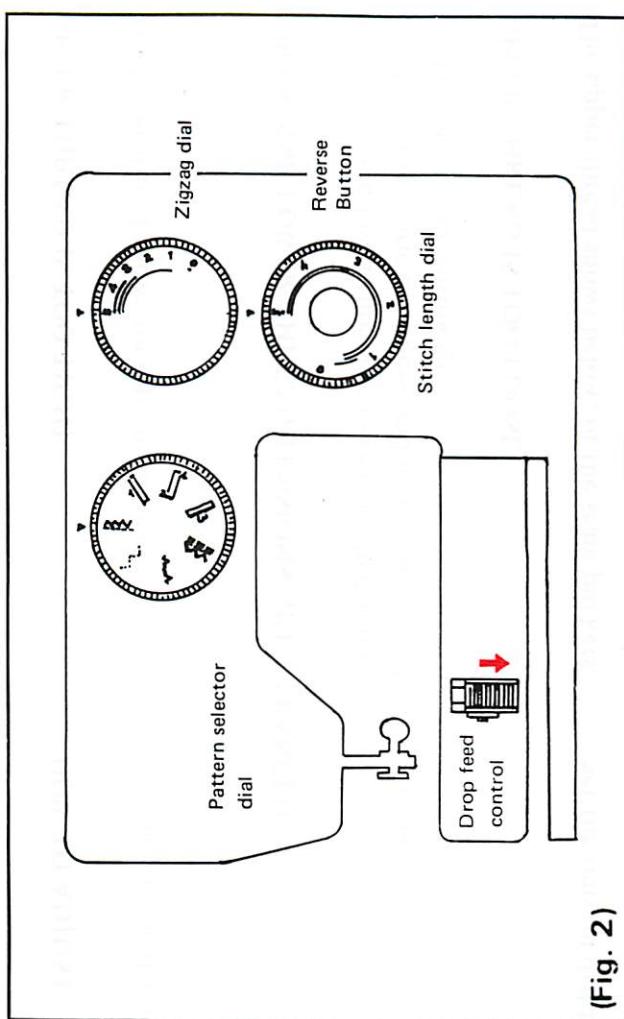
### STITCH LENGTH DIAL

The greater the number on the dial the longer the stitch. At (or near) "0" the fabric will not feed.

### REVERSE FEEDING BUTTON

Press **in** button on stitch length dial to sew backwards. Release **out** button to resume forward sewing.

(Fig. 1)



(Fig. 2)

## HOW TO ADJUST THREAD TENSIONS

Measure the lower thread tension by suspending the bobbin in the bobbin case by the end of the thread. Swing it lightly.

If the thread comes out a little, the tension is about right. Turning the tension screw clockwise will increase the tension. (Fig. 2)

If the bobbin and case does not move when it is suspended and gently swung, the tension is too tight. If it falls to the ground or moves down too freely it is too loose. (Fig. 2)

Note: It is not necessary to change tension for all different fabrics and threads.

Usually it is sufficient to adjust only the upper thread tension. Control it with the tension dial.

### UPPER THREAD IS TOO TIGHT

The lower thread shows on top, or the seam puckers.

### UPPER AND LOWER THREAD TENSIONS ARE BALANCED

The upper and lower threads cross each other in the middle of the fabric thickness, and there is no thread slackening or seam shrinkage.

### UPPER THREAD IS TOO LOOSE

The upper thread shows below, or the seam puckers.

## HOW TO ADJUST

Set the tension dial to a smaller number. (Fig. 1)



(Fig. 1) (Fig. 2)

Tension dial

Loosener

About 1cm  
(2/5') of  
thread will  
come out

Tighten

Tension screw

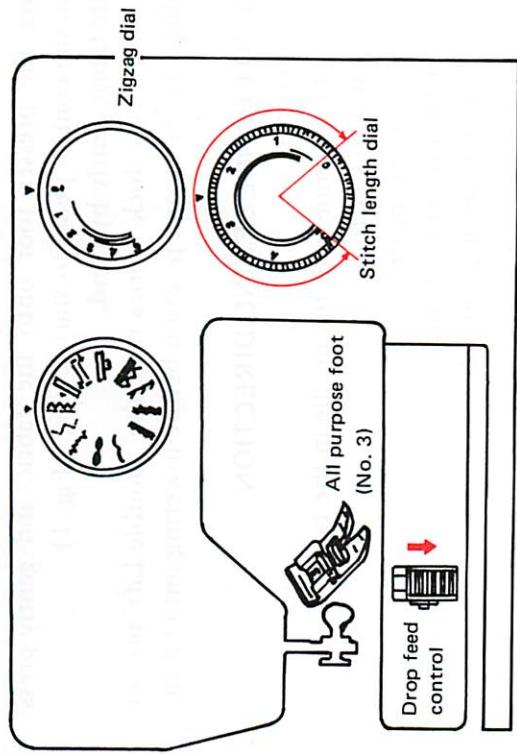
Set the tension dial to a larger number. (Fig. 1)

## STRAIGHT STITCHING

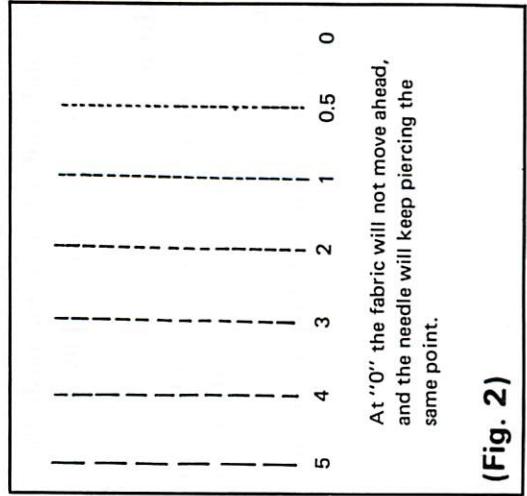
Every mark relating to straight stitching is orange-colored. Turn selector knob so that the pointer is set to the straight stitch position.

The stitch length is controlled with the stitch length dial. While "2" or "3" on the dial gives a suitable stitch length for ordinary purpose, the proper stitch length varies with the weight of fabric, thickness of thread and purpose of sewing.

Generally speaking the finer the fabric the finer the thread and shorter the stitch length, the heavier the fabric the thicker the thread and longer the stitch length.



(Fig. 1)



(Fig. 2)

## STARTING TO SEW — 1

Raise the presser foot, and place the ends of both the upper and lower threads away from you under the foot.

Lower the presser foot onto the fabric and gently press down the control pedal to start sewing. (Fig. 1)

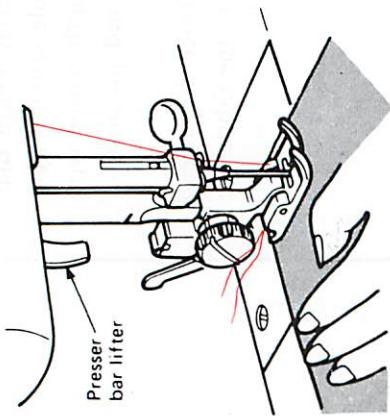
Guide fabric gently by hand.

To insert extra thick fabrics raise the 'Double Lift' presser bar lifter to its second position before lowering onto fabric.

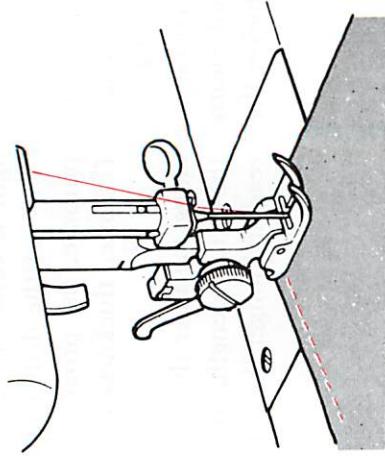
## HOW TO CHANGE SEWING DIRECTION

To sew a corner:

1. Stop the machine with the needle in the fabric.
2. Raise the presser foot.
3. Change the sewing direction.
4. Lower the presser foot, and
5. Gently restart sewing. (Fig. 2)



(Fig. 1)

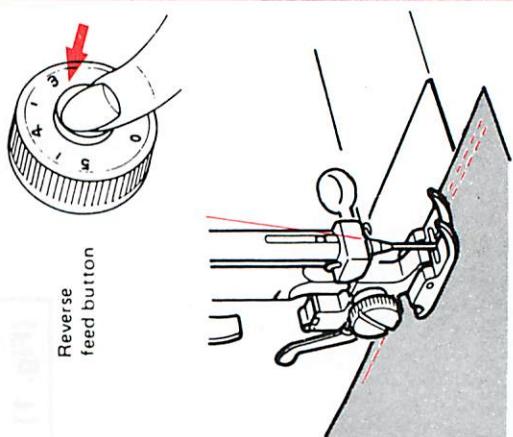


(Fig. 2)

## REVERSE STITCHING

Push in reverse button to sew backwards.

At the beginning and end of a seam, push the reverse button to backstitch and lock in stitches. (Fig. 3)



(Fig. 3)

## REMOVING FABRIC

Stop the needle in its top position, and threads will pull out easily. Raise the presser foot and remove the fabric diagonally away from you.

Thread cutter is a slot on the back of the presser bar. (Fig. 4)

## ZIGZAG STITCHING

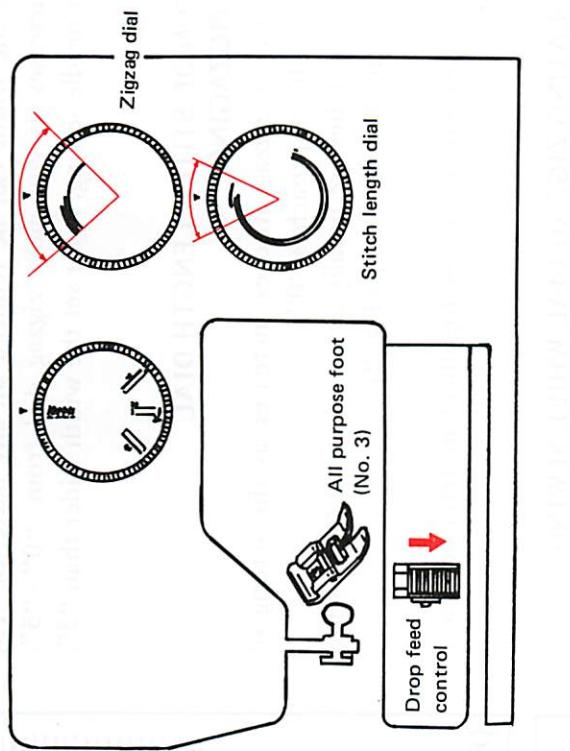
### MANUAL ZIGZAG STITCHING

As a first step toward mastering this sewing machine, you should learn the basic setting for zigzag stitching.

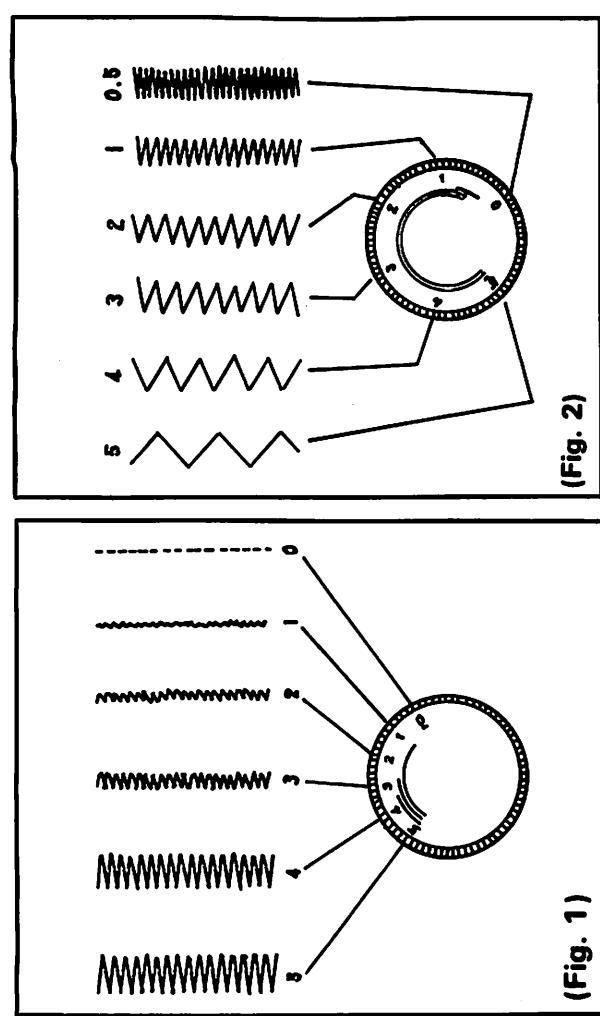
There are three different settings. These involve the setting of the stitch width, and stitch length dials. (Fig. 1)

Manual zigzag patterns and positions of dials are indicated in blue.

Warning: when twin needle sewing never set the stitch width greater than setting no. 3.



(Fig. 1)



**FUNCTION OF ZIGZAG DIAL**  
The maximum zigzag stitch width for zigzag stitching is "5"; however, the width can be reduced on any patterns. The width increases as you move zigzag dial from "0" - "5". For twin needle sewing, never set the width wider than "3". (Fig. 1)

#### FUNCTION OF STITCH LENGTH DIAL WHILE ZIGZAGING

The density of zigzag stitches increases as the setting of stitch length dial approaches "0". Neat zigzag stitches are usually achieved at "2.5" or below (within the range of blue line). (Fig. 2)

Closed up zigzag stitches (close together) are referred to as a 'satin stitch.'

#### MANIPULATING ZIGZAG DIAL WHILE SEWING

Varying the zigzag stitch width while sewing will result in such patterns as are illustrated. Freehand embroidery with this machine is an application of this technique. (Fig. 3)

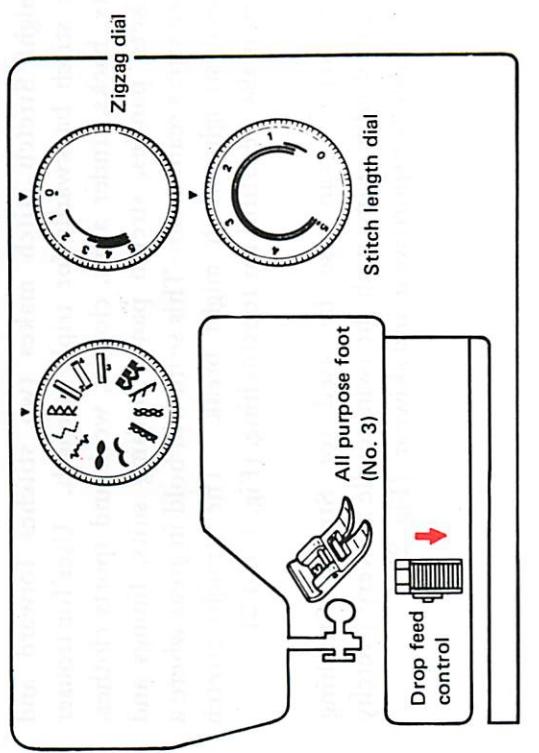
PATTERN				
ZIGZAG DIAL	Set dial between 1-5.	Turn dial from 0 to 5 and return it from 5 to 0 at the same speed.	Turn dial from 0 to 5 and return it from 5 to 0 drawing same curved lines.	Turn dial slowly and at the same speed from 0 to 5 and return it quickly from 5 to 0.
STITCH LENGTH DIAL	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1

(Fig. 3)

## ZIGZAG PATTERN STITCHING

Zigzag patterns and positions of dials are indicated in blue.

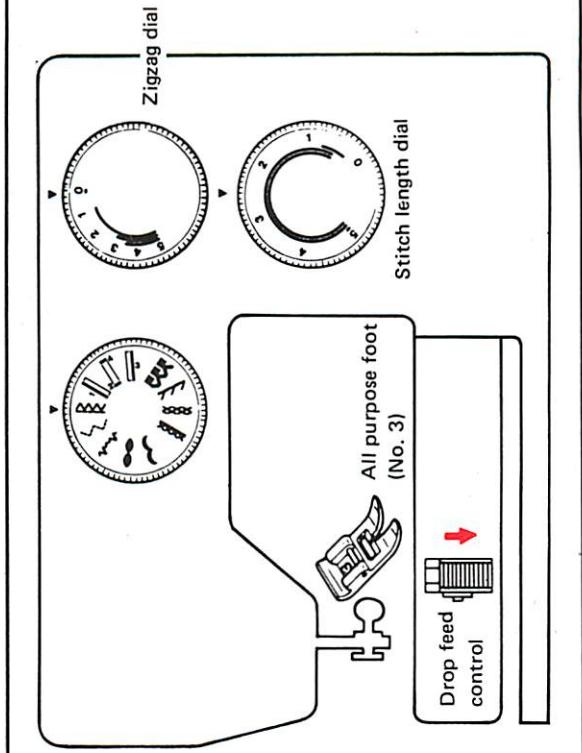
The standard zigzag stitch width for these zigzag patterns is "5".



(Fig. 1)

## SUPER STRETCH PATTERN STITCHING

Super stretch patterns and their positions on the dials are indicated in red.



(Fig. 2)

The standard zigzag stitch width and stitch length for these super stretch patterns is "5" except stretch straight stitch (≡≡≡).

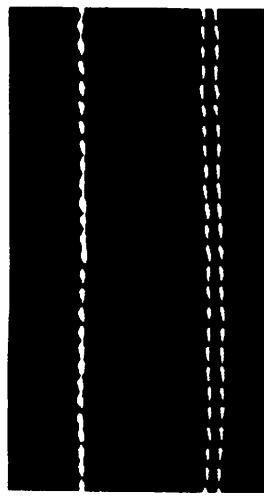
The zigzag dial for stretch straight stitching must be set to "0".

The zigzag stitch width, however, may be varied. Please refer to "manual zigzag sewing".

## STRAIGHT STRETCH STITCHING

Straight Stretch stitch makes two stitches forward and one stitch backwards for triple strength. User for trouser seats, backs, under arms, clothes, work and sports clothes, pockets, panties, stretch pants, bathing suits, linings and other stress seam areas. This seam will hold in areas where a normal straight stitch might break. The straight stretch stitch is also beautiful for topstitching. (Fig. 1 and 2)

Twin Needles can also be used for Stretch Stitching. Straight double seams with the twin needle are very stretchy and suitable for sportswear and skiwear. (Fig. 2)



## HOW TO SET THE MACHINE

Twin Needles can also be used for Stretch Stitching. Straight double seams with the twin needle are very stretchy and suitable for sportswear and skiwear. (Fig. 2)

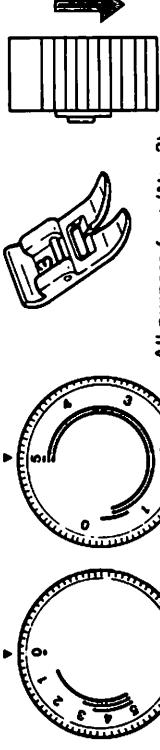


• Patterns

• Zigzag Dial

• Stitch Length Dial

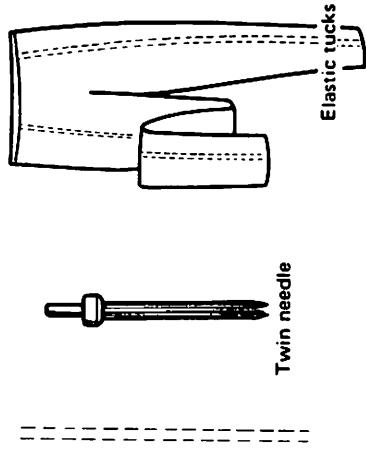
• Drop Feed Control



(Fig. 1)

(Fig. 2)

All purpose foot (No. 3)



(Fig. 2)

## BLIND HEM STITCH

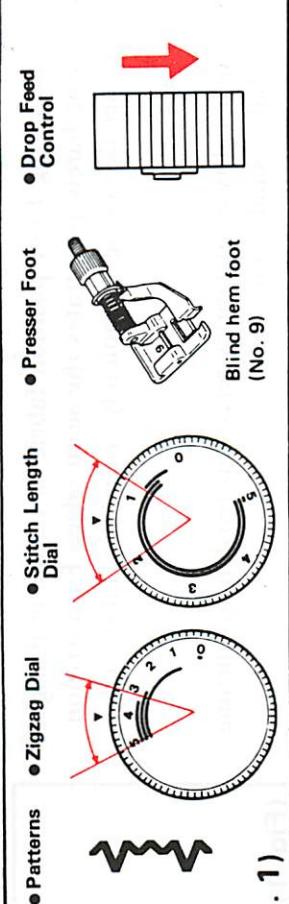
The Blind hem stitch will make invisible hems on most fabrics. Use it for hemming dresses, skirts, slacks, etc.

### HOW TO FOLD FABRIC

Place the fabric with its wrong side up, and fold it as illustrated. (Fig. 2)



### HOW TO SET THE MACHINE



(Fig. 1)

### PREPARATION

Turn the hand wheel towards you until the needle swings to its extreme left position and the point is just above the blind hem foot.

Position the fabric so that the needle will just pierce the fold. Lower the presser foot. If the needle penetrates too deeply inside the fold, stitches will show on the right side of the fabric. (Fig. 3) Use adjustable guide to gauge bite of needle into fabric by turning the thumb screw on the blind hem foot right or left.

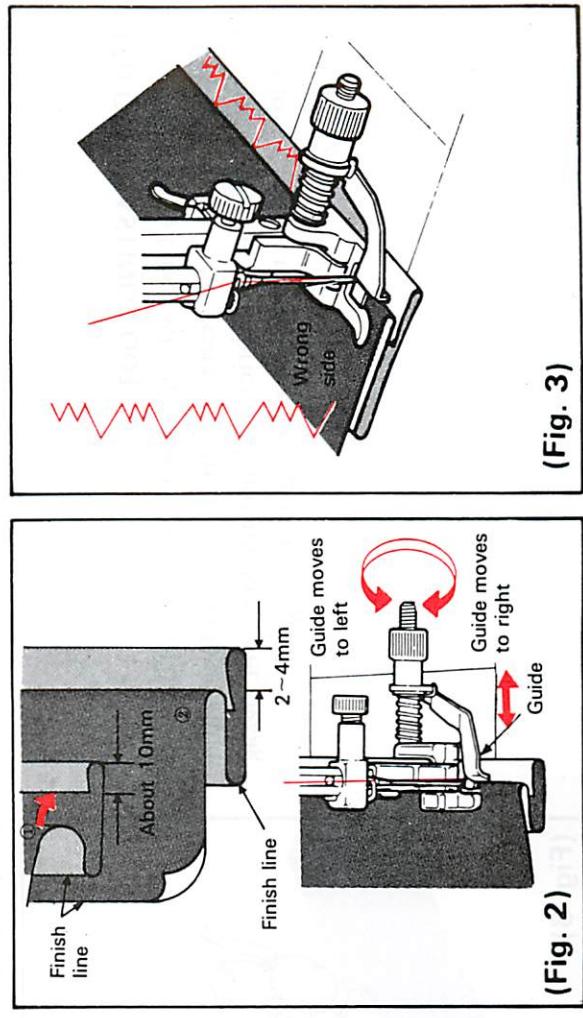
Turn the thumb screw until the guide rests against the fold.

### HOW TO SEW

Sew very carefully, keeping the fold of the fabric in contact with the guide of the blind hem foot. Constantly make sure that the needle in its extreme left position barely penetrates the fold. (Fig. 2)

### FINISH

When you have completed sewing, open the fold and press with an iron.



(Fig. 3)  
(Fig. 2)

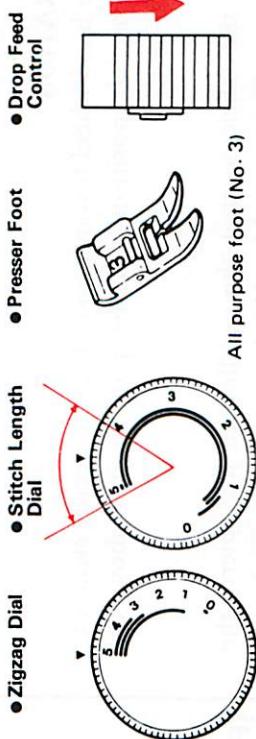
## OVERCASTING EDGES

Overcasting fabric edges prevents fraying and creates a neat finished seam edge. Machine overcasting is quick and efficient. On some fabrics, the overcasting and overlocking stretch stitches may be used.

Using the zigzag foot, position fabric so needle so needle in its rightmost swing barely penetrates the seam edge. For variation, let the needle swing completely over the fabric edge. (Fig. 2)

On certain lightweight fabrics relax top tension by turning tension dial to smaller numbers.

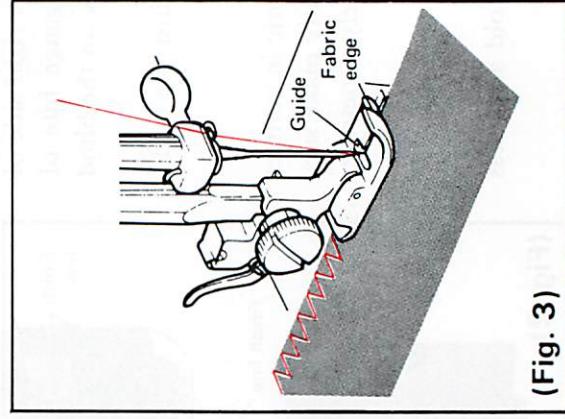
## HOW TO SET THE MACHINE



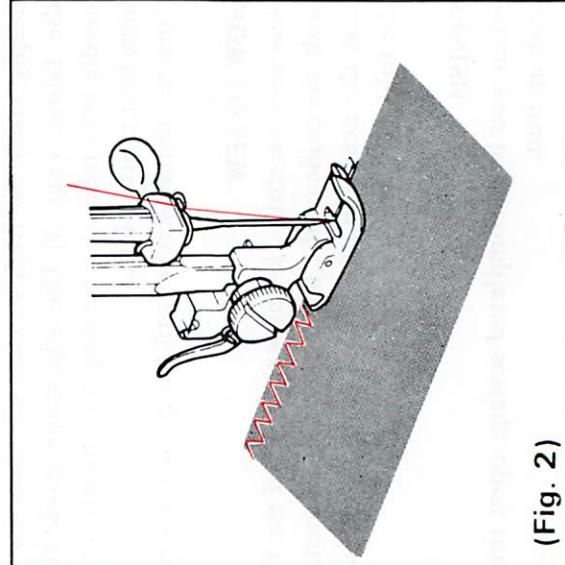
(Fig. 1)

## WITH OVERCASTING FOOT

For overcasting a fabric which is apt to ravel or curl, use the overcasting foot. The center bar in the foot helps regulate thread tension, so fabrics will not pucker. Set zigzag width to "5". Rest the fabric edges against the guide.

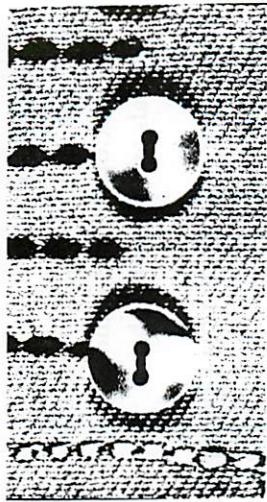


(Fig. 3)



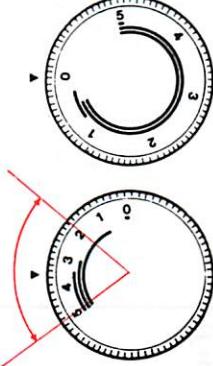
(Fig. 2)

## SEWING ON BUTTONS



### HOW TO SET THE MACHINE

- Zigzag Dial
- Stitch Length Dial
- Presser Foot Control
- Drop Feed



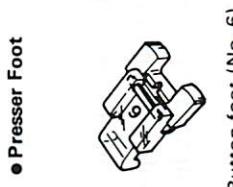
(Fig. 1)

### HOW TO SEW - 1

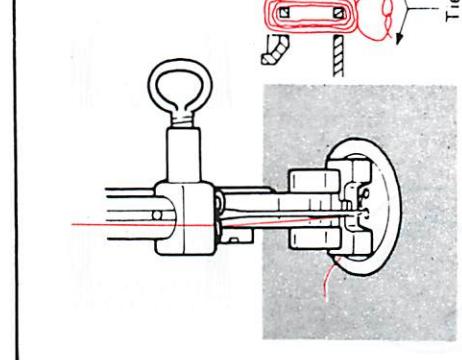
1. Match the zigzag width exactly to the space between the centres of the holes in the button and start from the left hole. Lower drop feed. (Fig. 2)

### HOW TO SEW - 2

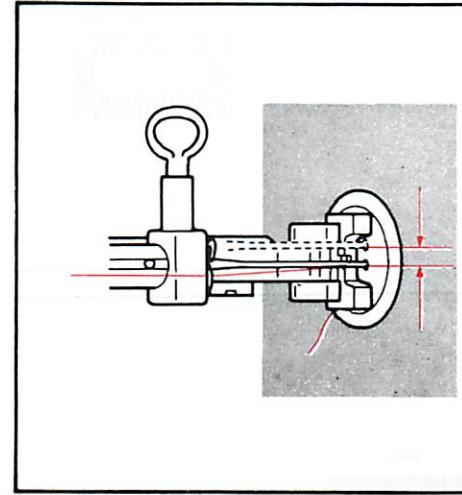
2. After you have sewn seven or eight stitches, stop sewing when the needle reaches its highest point after leaving the left hole. Remove fabric from machine. Pull upper thread to the wrong side of the fabric, and tie off threads underneath. (Fig. 3)



Button foot (No. 6)



(Fig. 3)



(Fig. 2)

## BUTTONHOLES

You can quickly make neat buttonholes on your new machine. Corded buttonholes are ideal for use on stretch materials and delicate fabrics.

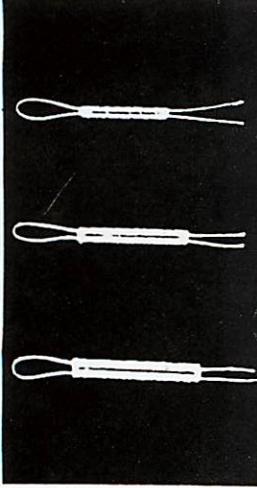
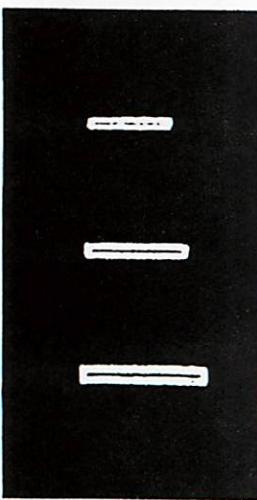
## CONTROL WITH STITCH LENGTH DIAL

Set the stitch length dial within the green range.

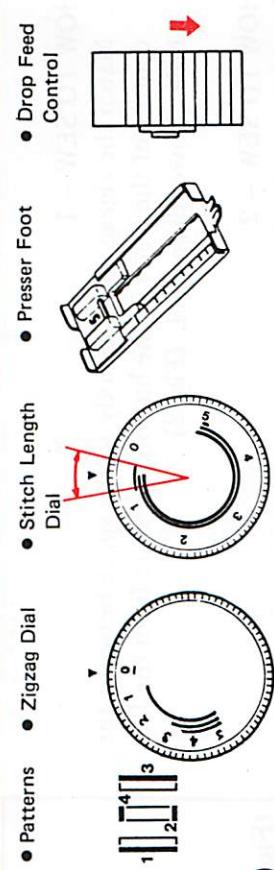
Stitches will be more dense as the dial approaches "0" (Fig. 2)

## SEWING SEQUENCE

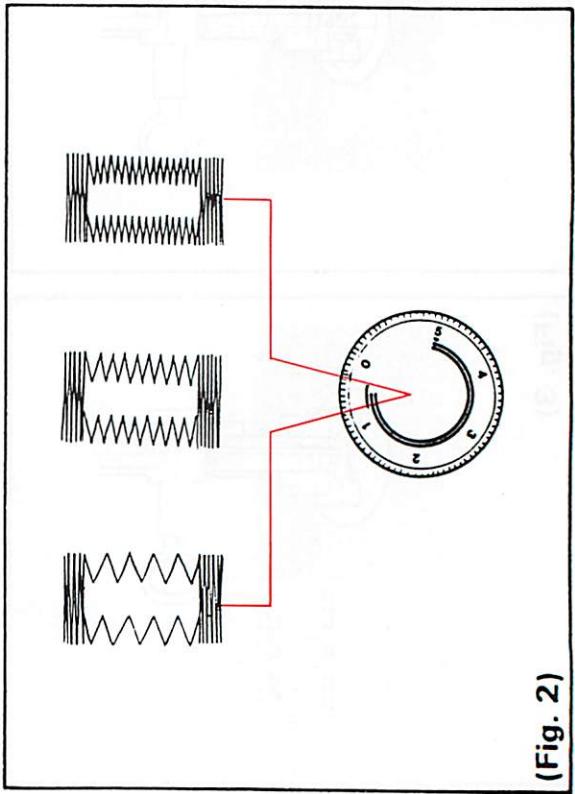
Set the desired stitch/buttonhole (0) width and sew each section of the buttonhole in sequence 1,2,3 and 4. Take care not to sew too many stitches in stages 2 and 4. (Bar-tack)



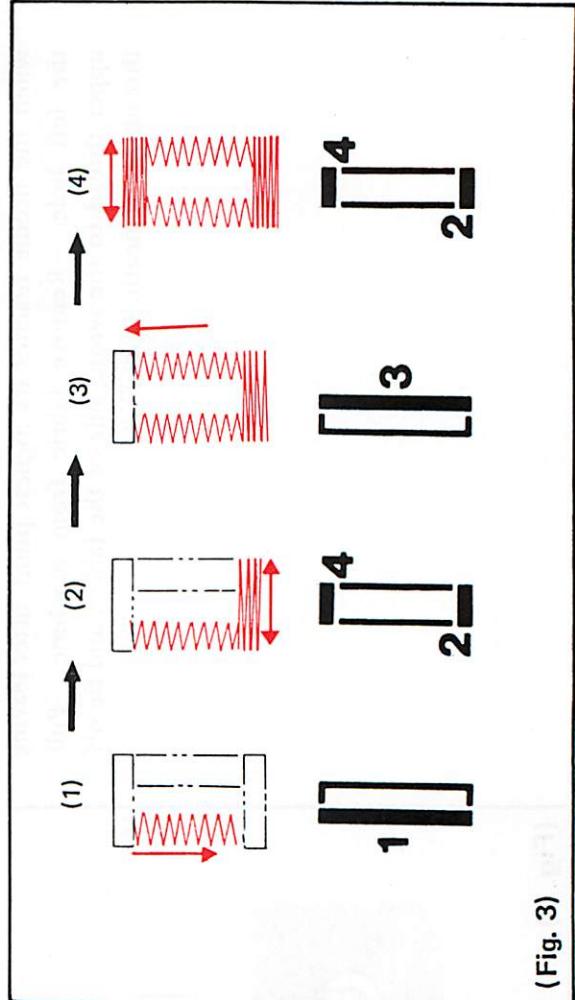
## HOW TO SET THE MACHINE



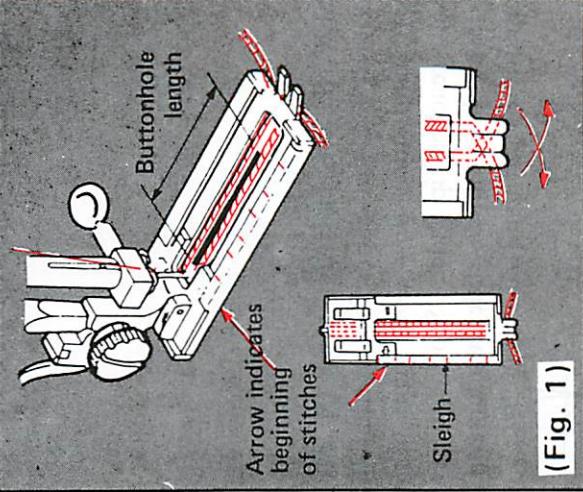
(Fig. 1)



(Fig. 2)



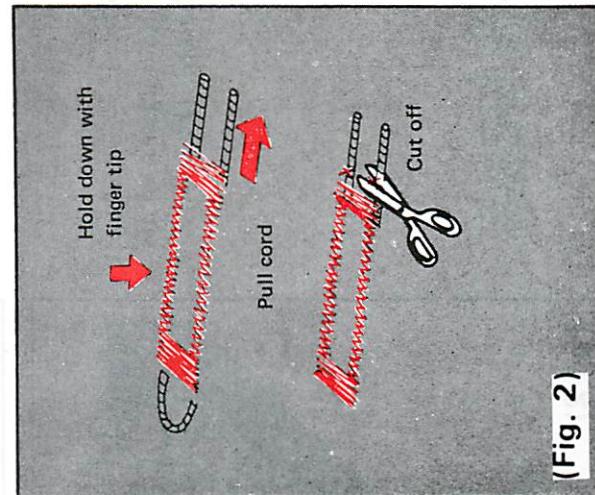
(Fig. 3)



(Fig. 1)



(Fig. 3)



(Fig. 2)

### CORDED BUTTONHOLE

Loop a cord (buttonhole twist, yarn, or heavy thread) on the projection at the rear of the foot as illustrated, and place it under the buttonhole foot.

Slip the ends into clip at the front of the foot to secure threads. Make buttonhole as usual, sewing over the cording. (Fig. 1)

Pull end threads until loop disappears into bar tack. Cut off ends or use a large-eye needle to pull threads into the interfacing area. Tie off and clip. (Fig. 2)

### FINISH

Clip threads, slit buttonhole with the seam ripper or a buttonhole scissors. (Fig. 3)

Note: Buttonhole in light or knitted fabric

To sew a neat buttonhole into a light or knitted fabric always use a suitable interfacing.

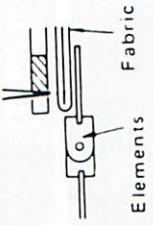
Note:

Stitch illustrations are exaggerated for illustration purposes.



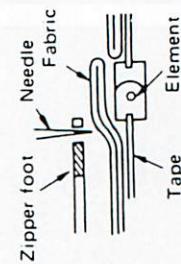
### SEWING RIGHT HAND SIDE OF ZIPPER

Attach snap on zipper foot so that the needle passes on its left hand side. Sew along right hand side of zipper until foot reaches zip slider. Stop with needle in the fabric, raise presser foot, move slider under and away from foot and complete right hand side. (Fig. 2)



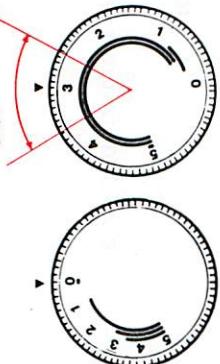
### SEWING LEFT HAND SIDE OF ZIPPER

Change position of foot so that needle now passes on its right hand side. Repeat same process as before. (Fig. 2)

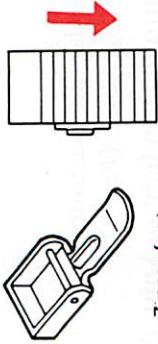


### HOW TO SET THE MACHINE

#### • Zigzag Dial



#### • Drop Feed Control

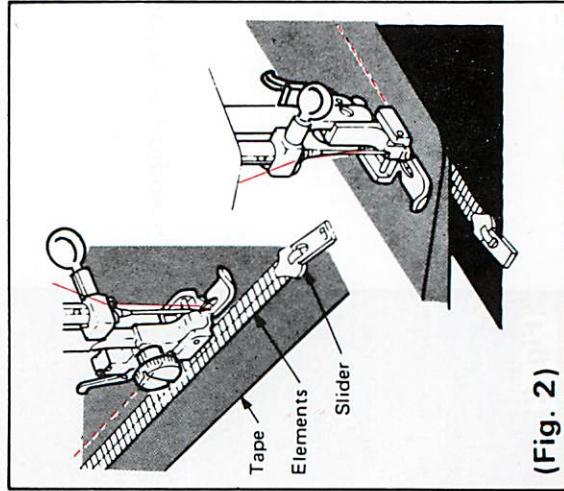


Zipper foot

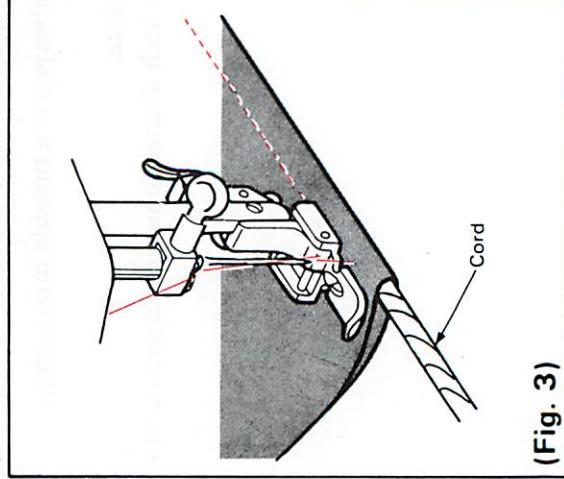
Presser Foot

Drop Feed Control

(Fig. 1)



(Fig. 2)



(Fig. 3)

### APPLICATION – PIPING

The zipper foot can also be used for sewing close to cording for piping. (Fig. 3)

## HEMMING

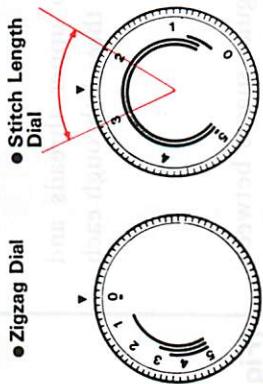
Use the hemmer for neat finished edges.



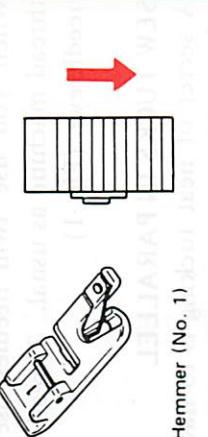
### STEP 1

1. Before sewing, double fold the edge of the fabric as illustrated.
2. Sew four or five stitches on the fold pulling threads of the stitch threads away from you with moderate tension. (Fig. 2)

### HOW TO SET THE MACHINE



(Fig. 1)



Hemmer (No. 1)

### STEP 2

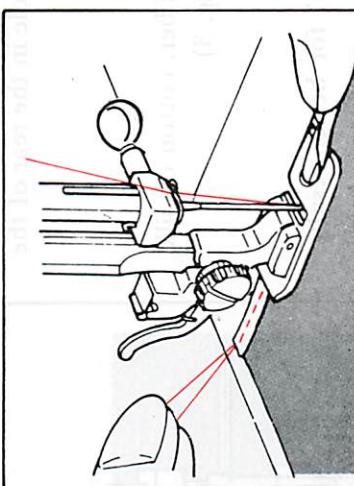
3. After the first stitches, raise the presser foot with the needle in the fabric, hold the edge of the fabric in your right hand and guide fold into scroll portion of the hemmer. Gently pull the fabric edge toward you and lower the presser foot.

### STEP 3

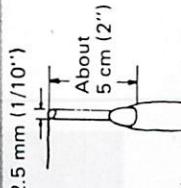
- Begin sewing. Continue to guide fabric into the scroll, holding it upright and slightly to the left. Make sure fabric remains correctly positioned in foot. (Fig. 3)

#### Note:

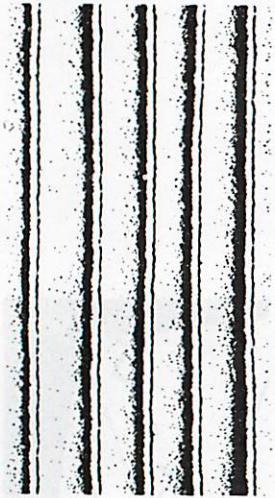
This procedure will require some practice for good and speedy results.



(Fig. 2)



(Fig. 3)



## PIN TUCKING

You can readily and quickly sew neat pin tucks with the twin needle.

Straight tucking can be used to set creases in slacks. Tucking can be used on yokes, pockets, ties, sleeves, etc.

## HOW TO SET THE MACHINE

### UPPER THREADING

When you use twin needles use two upper threads and thread machine as usual. Thread one thread through each needle eye. (Fig. 1)

### SEW TUCKS IN PARALLEL

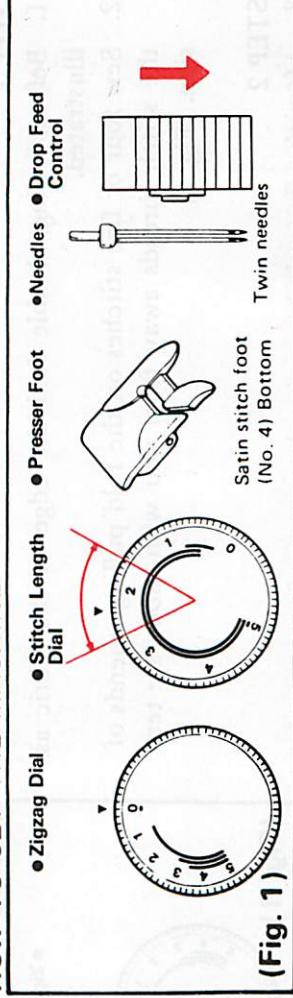
A secret of neat tucking is to have regular spaces between stitches. Either mark each line of tucks beforehand or use the quilter. Insert the quilter into the hole in the rear of the shank (Fig. 2)

### USE FABRIC ON BIAS

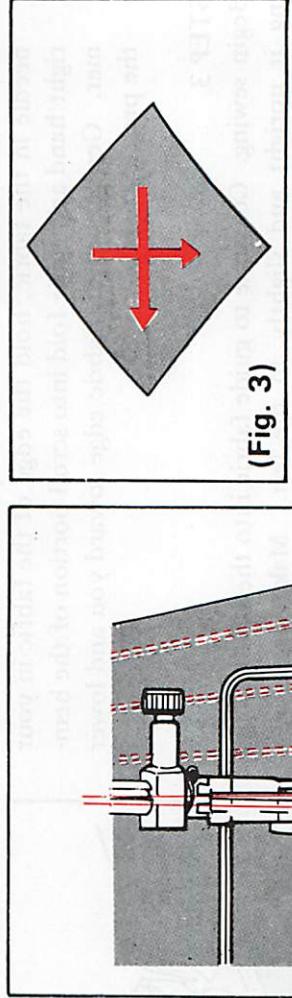
Tucking on a light fabric of chemical fiber, cotton or silk, cut on the bias, will give fine results. (Fig. 3)

### TIGHTEN UPPER THREADS

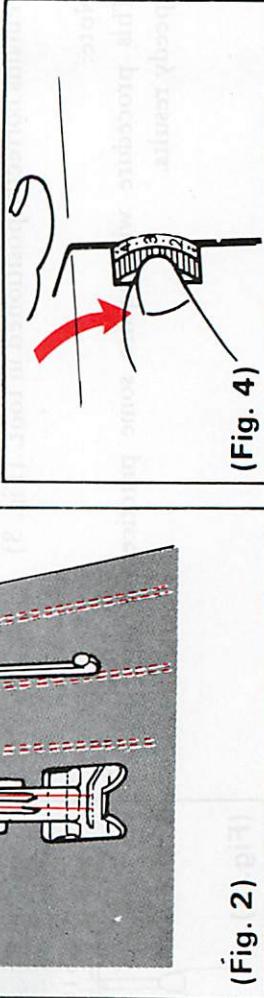
Tighten upper tension (larger numbers) for better results. (Fig. 4)



(Fig. 1)



(Fig. 3)

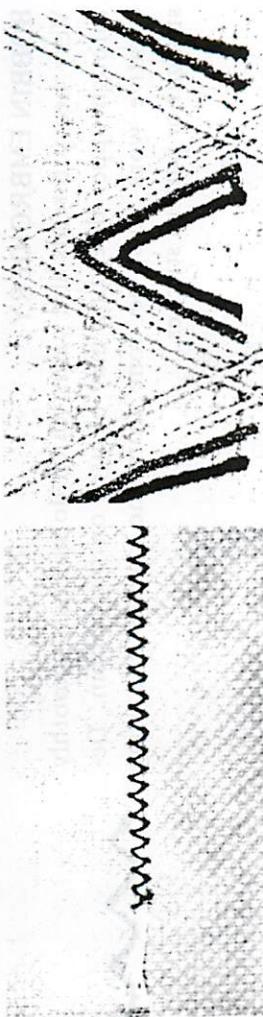


(Fig. 4)

## CORDING

Many unique decorative effects can be created with the cording foot. Crochet threads, yarn, pearl cotton can be used effectively. The cording foot is designed to use from one to three cords.

Invent unusual trims, topstitching, wall hangings, etc., with the cording foot.



### INSERTING THE CORD

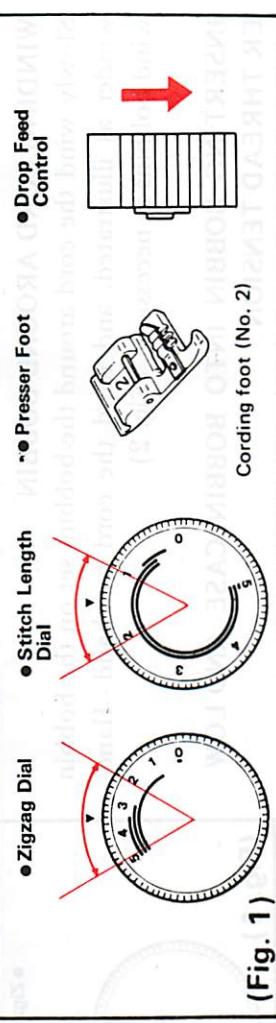
Insert the cord between the spring covering the cord groove and the body of the cording foot from the right side. Then pass the cord away from you through and under the groove on the back of the foot. Lower the foot. (Fig. 2)

### SINGLE CORDING

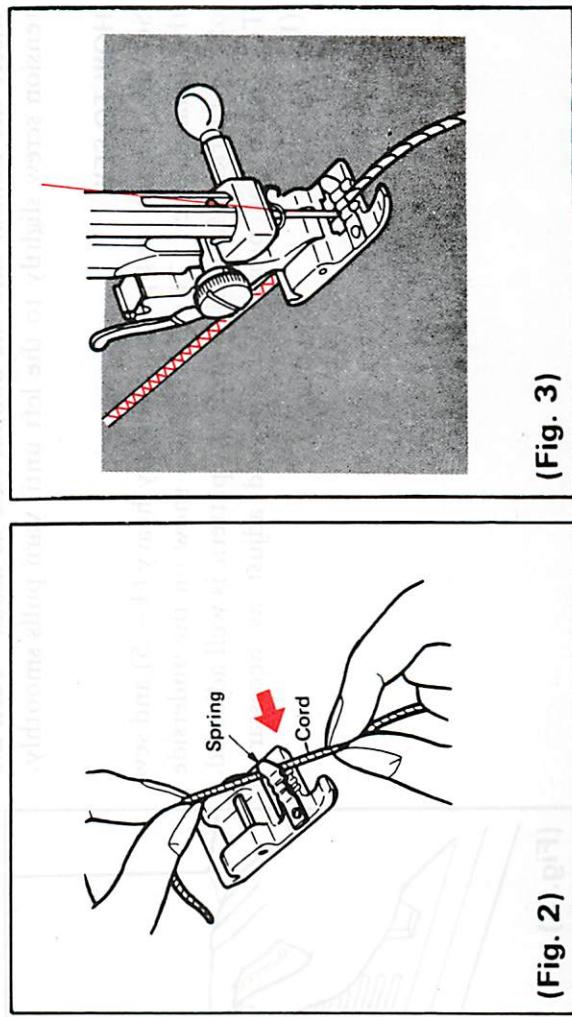
Pass the cord through the center groove of the foot.

Set the zigzag width slightly larger than the thickness of the cord. (Fig. 3)

### HOW TO SET THE MACHINE



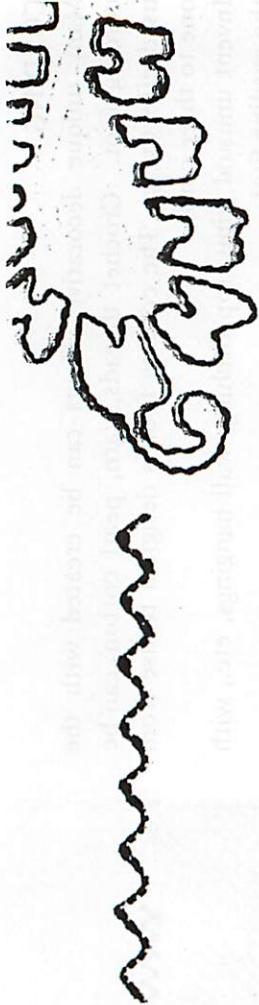
(Fig. 1)



(Fig. 2) (Fig. 3)

## BOBBIN EMBROIDERY

Very heavy threads and yarns which do not pass smoothly through upper threading may be used on the bobbin. Decorative work must be done from the reverse side using straight or pattern stitches.



## HOW TO SET THE MACHINE

### WINDING CORD AROUND BOBBIN

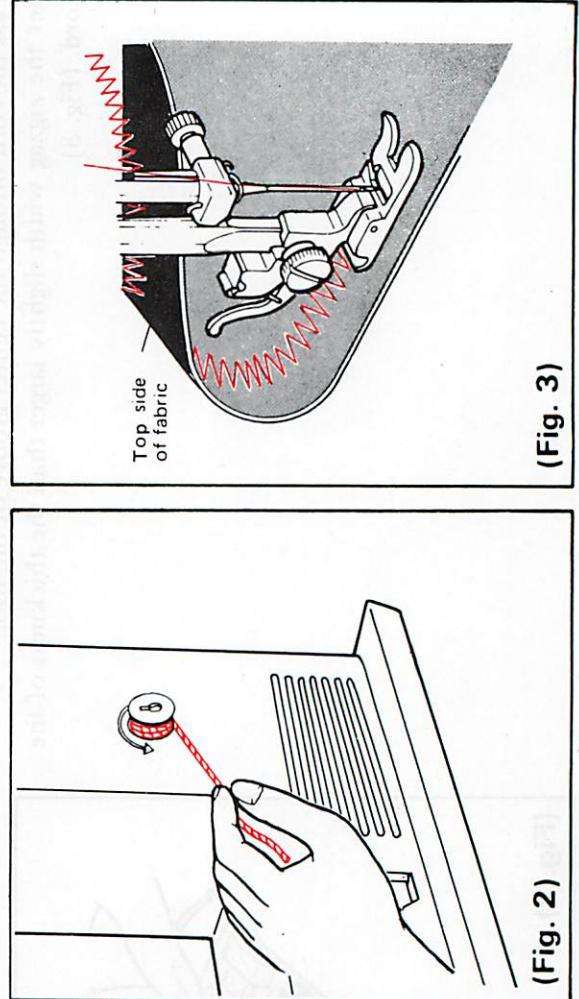
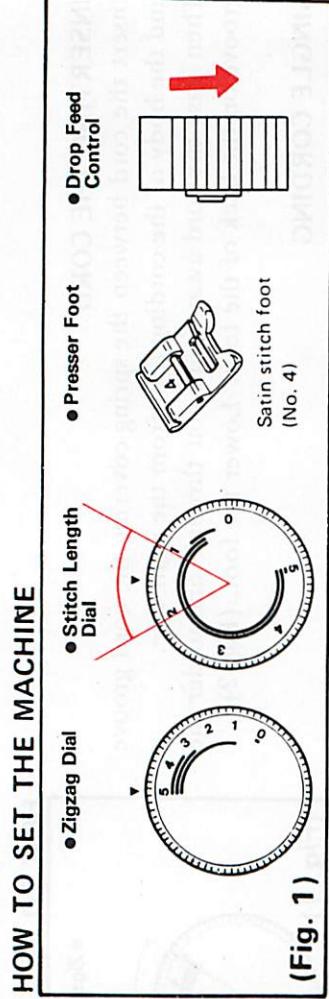
Slowly wind the cord around the bobbin, set on the bobbin winder as illustrated, and wind the cord by hand - Hand-wind bobbins as necessary. (Fig. 2)

### INSERTING BOBBIN INTO BOBBIN CASE AND LOWER THREAD TENSION

Insert the bobbin into the bobbin case as usual. Turn the tension screw slightly to the left until yarn pulls smoothly.

### HOW TO SEW

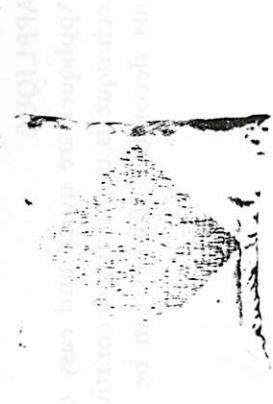
Set the presser foot pressure slightly heavy (4 – 5) and sew the usual manner. The pattern will show on the underside of the fabric. Make trials until the pattern is well adjusted. Test stitch for proper tension and adjust as necessary. (Fig. 3)



(Fig. 3)  
(Fig. 2)

## **SMOCKING**

Smocking is an impressive technique for decorating clothing, pillows, aprons, etc. Use soft, thin fabrics for the best results. Allow extra fabric (about twice that of the finished measurement)



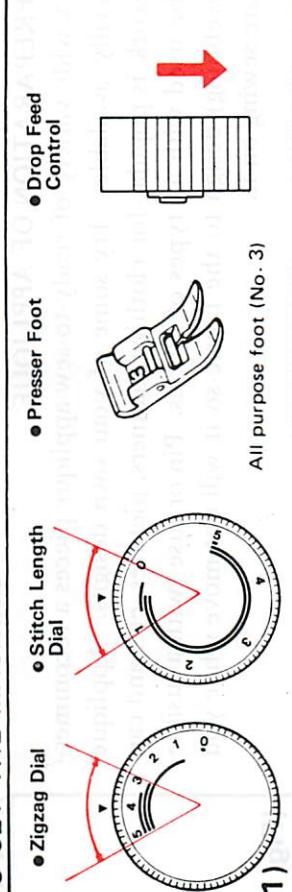
## **PREPARATION BY STRAIGHT STITCHING**

First set the machine for long straight stitching, and adjust the upper thread tension to "0".

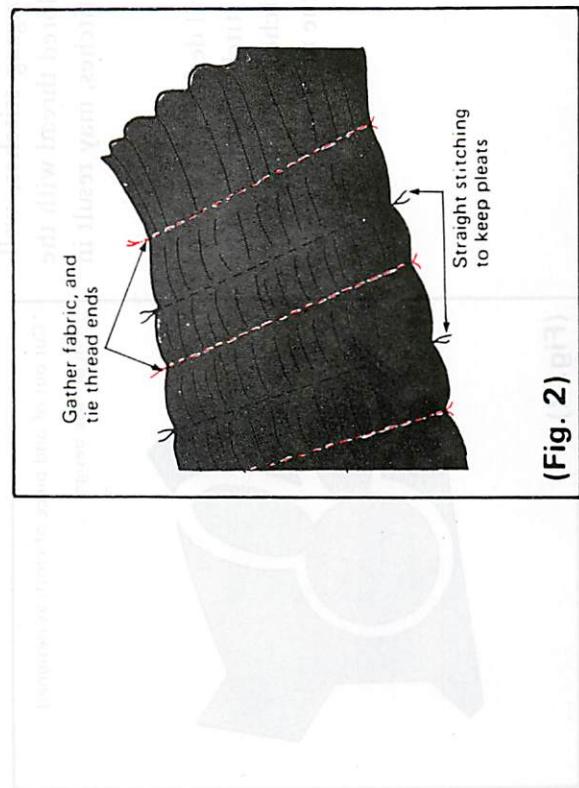
Sew rows of straight stitch and gather. Equalize gathers and tie off thread ends. Reset tension and sew rows of stay-stitching to hold gathers in place. Use zigzag or other decorative stitches and sew over stay-stitching. (Fig. 2 & 3)

Remove original gathering stitches.

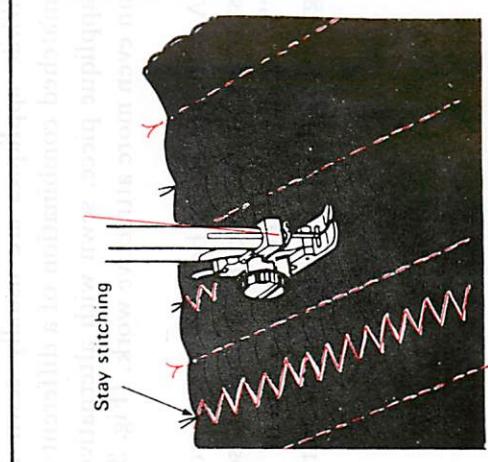
## **HOW TO SET THE MACHINE**



(Fig. 1)



(Fig. 2)



(Fig. 3)

## APPLIQUE

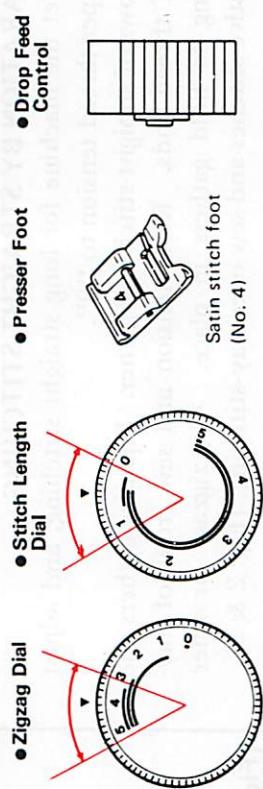
Appliques are quick and easy on the machine. The same technique is useful for decorative work and mending. Various decorative stitches can be used, especially the zigzag.



## PREPARATION OF APPLIQUE

A wide variety of ready-to-sew applique pieces are recommended available. Try some of your own designs. Applique work is popular for clothing, banners, pictures, etc. and can be used with all types of fabrics. Pin or fuse (with a fusible webbing) design to the fabric so it will not move while you are sewing on it.

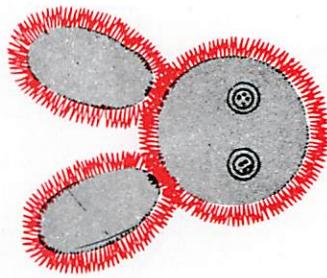
## HOW TO SET THE MACHINE



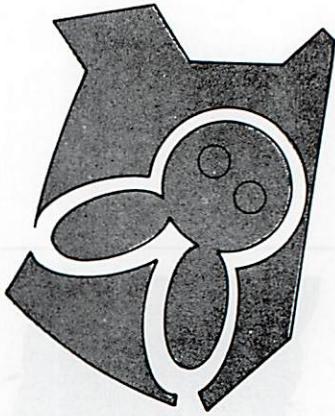
(Fig. 1)

While appliques are usually sewn in zigzag stitches, well-matched combination of a different-colored thread with the applique piece, sewn with alternative stitches, may result in an even more attractive work. (Fig. 3)

A satin stitch can be used to sew around design. To lock in stitches at the end of a project, set stitch length dial to "0" and take a few no movement stitches. Return to regular length setting before going on to the next piece.



(Fig. 3)



(Fig. 2)

## FREE HAND MACHINE EMBROIDERY

In freehand embroidery, unlike mechanically controlled zigzag stitching, feeding of the fabric is done by hand without assistance from feed dogs. There are a number of basic stitches in embroidery. Some of the fundamentals are explained in this booklet.

### NEEDLE, THREAD AND HOOP

In free hand embroidery, a round embroidery hoop is generally used. Use wooden or plastic hoops with an adjusting screw. You can control the zigzag stitch width and length. Use of thinner needles and finer threads is recommended. Cotton and rayon embroidery threads produce beautiful results.

### HOW TO FRAME FABRIC

Loosen the screw of the outer frame, place the fabric on it, fit in the inner frame over the fabric, and tighten the screw. Fabric should be stretched taut in hoops. When tapped with a finger, it should "ping". (Fig. 2)

### FASTENING STITCHES AT THE BEGINNING

At the beginning and the end of dwing, make five or six fastening stitches "0" width and cut off thread ends. Remember to drop presser bar. (Fig. 3)

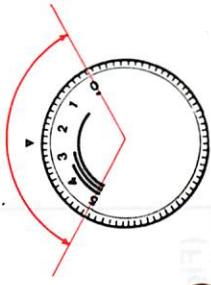
### WHEN YOU USE NO HOOP, PUT ON AN EMBROIDERY FOOT (NOT SUPPLIED, AVAILABLE AS AN EXTRA ACCESSORY)

Place the holder lever on the needle clamp screw as illustrated, and fit the embroidery foot to the shank. The foot works well for small monograms and for stitching on very firm fabrics. (Fig. 3)



### HOW TO SET THE MACHINE

#### • Zigzag Dial

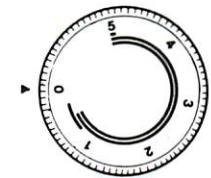


(Fig. 1)

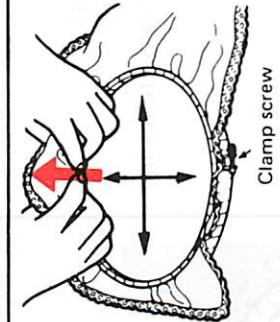
#### • Drop Feed Control



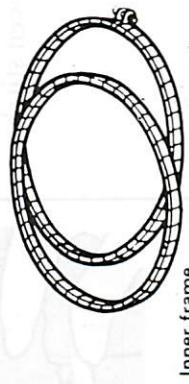
#### • Stitch Length Dial



(Fig. 1)

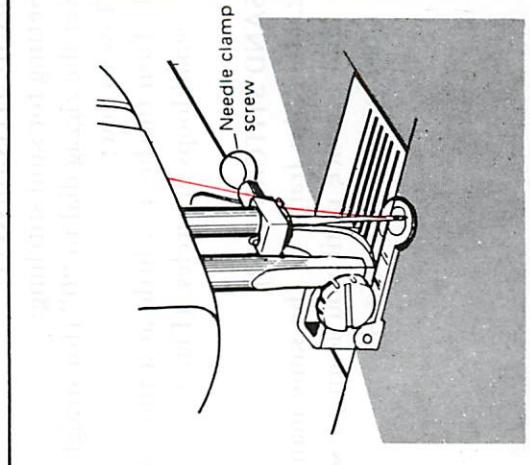


Embroidery thread: #60 ~ #120



Inner frame      Outer frame

(Fig. 2)



(Fig. 3)

## ELEMENTARY EXERCISES IN FREE EMBROIDERY

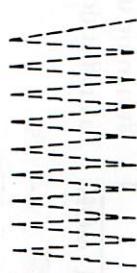
### DOT STITCHING (1)

Set the zigzag dial to "0" (for straight stitching)

1. Move the embroidery hoop back and forth or right and left while sewing, adjusting the moves to make the stitches even. (Fig. 1)

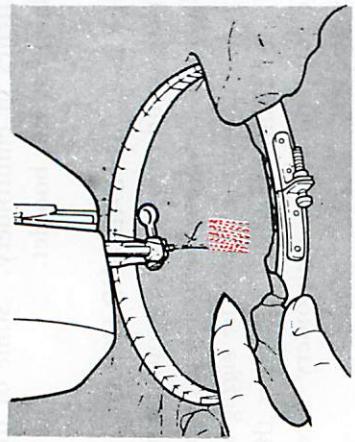
### DOT STITCHING (2)

2. Run the machine slowly, and move the hoop only when the needle is off the fabric. (Fig. 2)



Move frame back and forth  
or right and left

(Fig. 1)



(Fig. 2)

### SAND STITCHING (1)

Setting for sand stitching:

Set the zigzag dial to "0" (for straight stitching)

How to Sew:

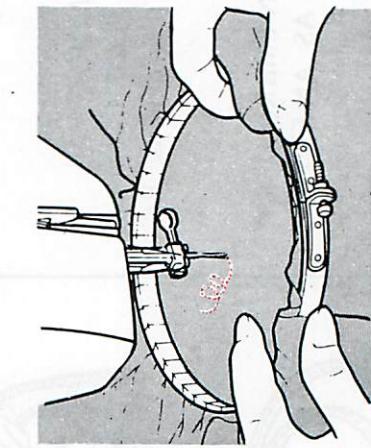
1. Turn the hoop a little at a time, and sew even stitches in small loops or circles. (Fig. 3)

### SAND STITCHING (2)

2. Move the frame in the same manner as in dot stitching, and practice until you learn to sew neat, even stitches, looking like sand. (Fig. 4)



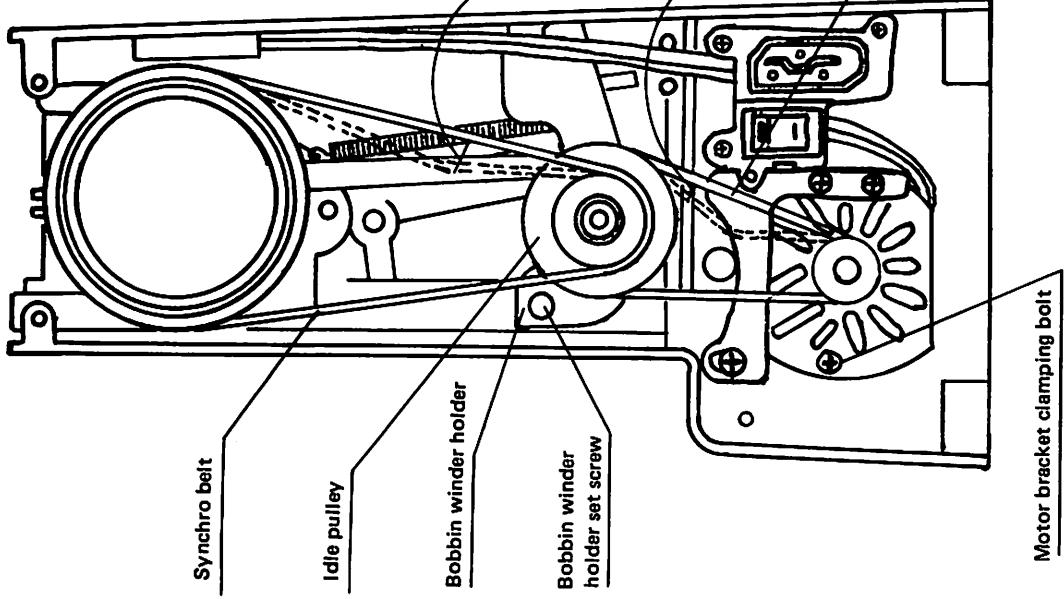
(Fig. 4)



(Fig. 3)

## HOW TO ADJUST THE TENSION OF THE MOTOR BELT

	Belt tension	Belt sagging the middle point
Vbelt	500 g/cm	8 mm ( $1/3''$ )
Synchro belt	500 g/cm	7 – 8 mm ( $1/4''$ to $1/3''$ )



1. Remove the motor drive belt cover and loosen 2 set screws of the bobbinwinder holder.
2. Adjust the position of the bobbin winder holder to such a place at which the synchro belt has a tension of approx. 500 g/cm. You can roughly determine the said tension by pressing the middle point of the belt with your finger and permitting the belt to slacken by 7 to 8 mm ( $1/4''$  to  $1/3''$ ).
3. Loosen the motor bracket clamping bolt. Position the V-belt so that when it is pressed with the finger (about 500 g force) the amount of give in the belt is 8 mm. Tighten the motor bracket clamping bolt in place at this point.

## MAINTAINING THE MACHINE

Use only a drop of oil per point. Use sewing machine oil, or some other high-quality refined mineral machine oil. Avoid poor quality oils and vegetable oil which may result in unsatisfactory operation or unusual wear of the machine.

### Maintaining The Machine CLEANING SHUTTLE RACE AND HOOK

Raise the needle bar to its highest point by turning the hand wheel toward you. Open the slide plate. (Fig. 1 & 2)

- 1) Take out the bobbin case.
- 2) Unlock the shuttle race holder.
- 3) Open the shuttle race cover.
- 4) Take out the shuttle hook.

Clean dust and gummed oil off each part with an oiled cloth. When finished cleaning and oiling, reassemble reversing the above procedure.

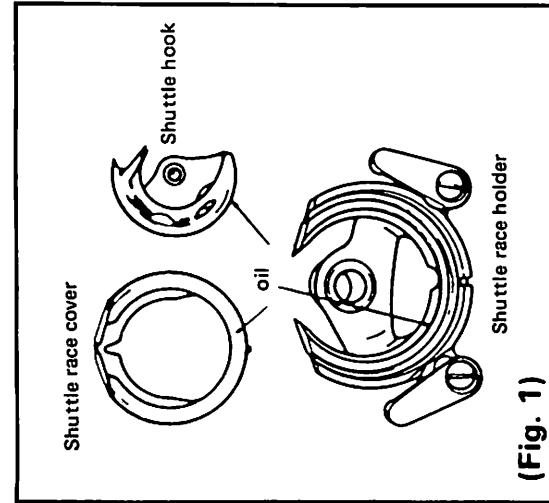
### CLEANING THE FEED DOG

Pieces of thread and/or dust accumulating between the needle plate and feed dog will cause trouble.

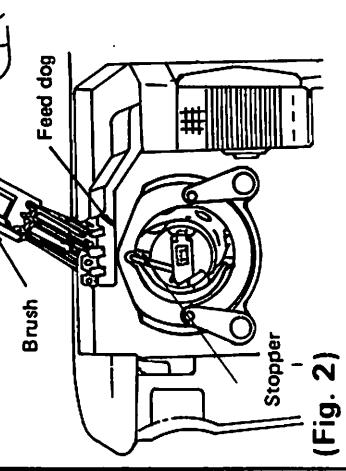
Always keep the machine clean. Remove the needle, presser foot and needle plate with a screw driver. (Fig. 1)

After removing the parts, clean all necessary parts with a brush while turning the handwheel toward you. Be sure that cleaning is thorough. (Fig. 2)

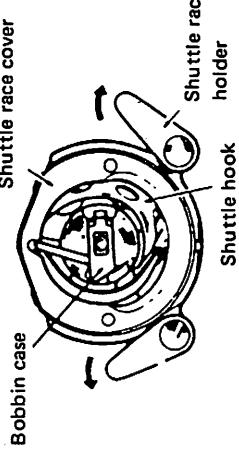
**(CAUTION)** When servicing or changing mechanical parts or accessories, the machine must be disconnected from supply by removing the plug from the socket outlet. Unplug the machine when not in use.



(Fig. 1)



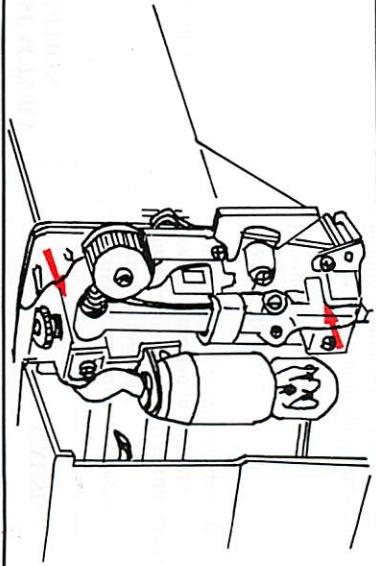
(Fig. 2)



(Fig. 2)

### OILING FACE PLATE AREA

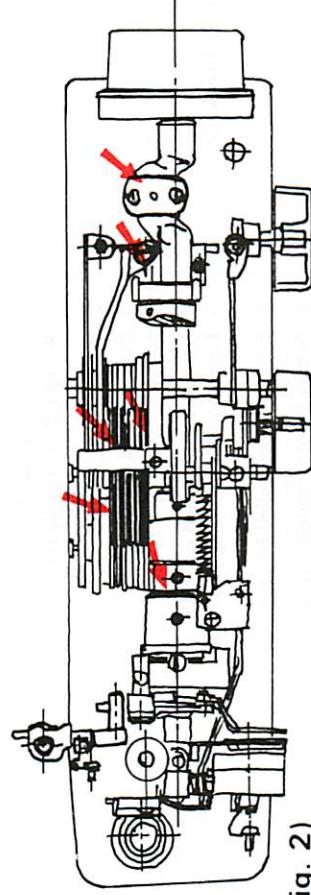
With the oiler, give a drop of oil to each of the arrow-indicated points (oil holes and revolving parts). Open the face plate, and oil the arrow-indicated points in the needle bar area. (Fig. 1)



(Fig. 1)

### OILING THE ARM

To oil the upper part of the arm, loosen the two set screws of the arm cover with one of the accessory screw drivers, and take off the cover. Oil the points indicated with arrows. Slowly turning the hand wheel while oiling will result in even distribution of oil. (Fig. 2)

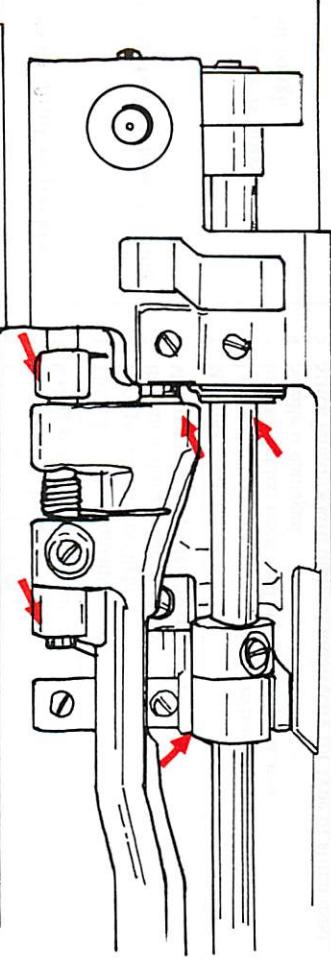


(Fig. 2)

### OILING THE BED

To oil the lower part of the arm, remove the free arm cover set screw and the snap-on work table set pin with one of the accessory screw drivers. (Fig. 3)

Oil the points indicated with arrows.



(Fig. 3)

## TROUBLE-SHOOTING GUIDE

UNSATISFACTORY CONDITION	CAUSE	REMEDY
<b>Top thread breaks</b>	1. Machine is threaded incorrectly. 2. Tension is too tight. 3. Thread is too heavy for needle size (see needle/fabric/thread chart). 4. Needle is inserted incorrectly. 5. Thread may be caught on spool pin. 6. Needle is damaged.	1. Rethread machine and needle. 2. Reduce tension on top (smaller numbers). 3. Use larger needle. 4. Reinsert needle (flat side toward back). 5. Remove spool, rewind excess thread, turn spool over, use felt disc on spool pin. 6. Insert new needle.
<b>Lower thread breaks</b>	1. Bobbin case is not inserted correctly. 2. Bobbin case is improperly threaded. 3. Bobbin tension is too tight..	1. Reposition bobbin. Check by pulling thread. If it pulls smoothly it is correct. 2. Check for correct threading. 3. Change bobbin tension according to instructions.
<b>Skipped stitches</b>	1. Needle is not inserted correctly. 2. Needle is damaged. 3. Wrong type of needle is used. 4. Wrong foot is used. 5. Foot pressure is wrong.	1. Reinsert needle (flat side toward back). 2. Insert new needle. 3. Match needle size to fabric and thread weight. (Check needle/fabric/thread chart.) 4. Check to see if proper sewing foot is used. 5. Check foot pressure regulation for proper setting.
<b>Needle breakage</b>	1. Needle is damaged. 2. Needle is not inserted correctly. 3. Fabric too heavy/wrong needle size.	1. Insert new needle. 2. Reinsert needle correctly (flat side toward back). 3. Match needle size to thread & fabric weight. (Check needle/fabric/thread chart.) 4. Do not pull on cloth. Check for proper foot pressure.
<b>Stitching forms loops</b>	1. Fabric is being pulled by operator. 2. Needle is not threaded correctly. 3. Bobbin is not threaded correctly. 4. Needle/fabric/thread ratio is incorrect.	1. Thread needle front to back. 2. Thread bobbin according to chart. 3. Match needle size to thread & fabric weight. (Check needle/fabric/thread chart).
<b>Seams shrink or pucker</b>	1. Foot pressure is too heavy. 2. Needle is too large for fabric. 3. Wrong stitch length is used.	1. Reduce foot pressure (smaller numbers). 2. Use smaller needle (see chart). 3. Adjust length for proper stitches.
<b>Irregular stitching/feeding and rough</b>	1. Thread is of poor quality. 2. Foot pressure is too light. 3. Bobbin is threaded incorrectly. 4. Material is being pulled by operator.	1. Use quality thread! 2. Increase foot pressure (larger numbers). 3. Thread bobbin again and check for proper insertion. 4. Do not pull on fabric. Let it feed automatically.
<b>Machine is noisy</b>	1. Machine needs oil. 2. Lint and oil residue have collected in hook or on needle bar. 3. Inferior oil has been used and gums-up machine. 4. Needle is damaged.	1. Oil according to instructions. 2. Clean race and hook according to instructions. 3. Clean and oil again only with fine sewing machine oil (not 3-in-1 oil). 4. Replace needle. 5. Follow sew-by-Color chart for proper settings.

021G4002(B) (英) jUL/2000