

Racesetter[®]



*the epoch making
machine of the age*

BROTHER[®]

*makes all other automatic
sewing machines obsolete*

This is your **BROTHER *PACESETTER*** Guide. It has been written so that you may become acquainted with every phase of this new **BROTHER** fully automatic zigzag machine. Before using Your ***PACESETTER*** read this guide carefully from beginning to end.

The original design and mechanical features embodied in the Pacesetter are protected under Patents applied for in the United States and Foreign countries.



BROTHER INTERNATIONAL CORPORATION

122 WEST 27th STREET, NEW YORK 1, N. Y.

Western Office:

Brother International Corp. of Calif.,
1058 South Flower St., Los Angeles 15.

Copyright ©-1956

BROTHER SEWING MACHINE MANUFACTURING CO. LTD., NAGOYA, JAPAN

CONTENTS

Introduction	2
Parts and Accessories	
Accessories	6
Accessory Table: How to Attach	18
Bobbin: Winding	7
Removing	8
Threading	8
Replacing	9
Calibrated Fabric Indicator	13
Cloth Guide	29
Drop Feed: How to Use	24
Needle: How to Thread	9
How to Change	13
How to Regulate Tension	10
Needle-plate: How to Change	13
Parts	5
Presser Foot: How to Change	14
Sew Light	30
Spring Darning foot: How to Attach	24
Twin Needle	21
Zipper Foot	29
Preparation for Sewing	
How to Start Sewing	11
How to Turn a Corner	12
How to Remove the Work	11
Hints for Better Sewing	15
Hints to remember	14
Oiling your Pacesetter	30
Pacesetter Points to remember	16
Straight Sewing	
Back Tacking	12
Basting	12
Blind Stitching	28
Flat Felled Seams	27
Hemming	26
Hemming Lace	26
Hemstitching	27
Straight Stitching	11
Decorative (Zig Zag) Stitches	
Automatic Sewing	18, 19
Appliqueing	25
Braids: How to Sew On	25
Button holes: How to Make	22
Buttons: How to Sew On	23
Darning	24, 25
Embroidery	25
Monogramming	25
Overlock Stitch	28
Shell Stitching	26
Type of Stitches: How to Make	18-21

PACESETTER FASHIONS

And How to Sew Them



SUSAN FOSTER
is Director of the
Brother International
Corporation's Fashion
Sewing Center.

by Susan Foster,

Fashion Sewing Director

Pacesetter Fashions are tomorrow's fashions, because they are created by the world's very first "Wishing Dial" sewing machine — your Brother Pacesetter Automatic Zig-Zag.

With its built-in "brain" that can actually add numbers, compute pattern relations, and direct stitch combinations — the Pacesetter solves your intricate sewing problems for you. You control its operation by merely setting the "Wishing Dial" to the pattern you desire.

This means that whether the things you sew are designed for your home or your wardrobe, they will be made on a machine wished straight out of the miraculous Tomorrow.

To find out about all the new and marvellous things you can sew with your Brother Pacesetter, read this guide carefully from beginning to end, not once but several times. You'll discover many Pacesetter "exclusives" — such as the "WISHING DIAL" PATTERN SELECTOR, the AUTOMATIC BOBBIN WINDER, the BROTHER BRAIN ZIG-ZAG CONTROL, and the CALIBRATED FABRIC INDICATOR — which will make sewing easier and more expert than you've ever dreamed possible.

You'll see that you can use your Pacesetter's Twin Needles to embroider

in two colors. The free arm will enable you to darn, embroider and mend any kind of tubular or closed garments as simply as flat work. The Pacesetter Drop Feed enables you to quickly set the machine for darning or embroidering.

And, wonders of wonders, the Pacesetter Bobbin is completely accessible! No more groping in a two-finger space when hand-room is needed.

The air-cooled Pacesetter motor is built with direct gear drive which gives it a silent and steady operation. To simplify function and servicing, the major Pacesetter mechanisms are integrated into components — the most advanced step in sewing machine engineering in 100 years.

The two spool pins are retractable and so, concealed when not in use. The Pacesetter feed mechanism is completely oil-cushioned to give trouble-free performance for years, and most Pacesetter parts are lubricated at by oil troughs and other parts are lubricated and factory sealed for life.

It would be easy to go on and on about the wonders of your Pacesetter machine, but you will discover them all for yourself as soon as you begin to sew.

Remember to follow the basic instructions in this guide to the letter, and don't hesitate to write me if I can ever be of any further help to you.

Happy sewing!

Sincerely,

Susan Foster

Removal from Carrying Case



Fig. 1 A

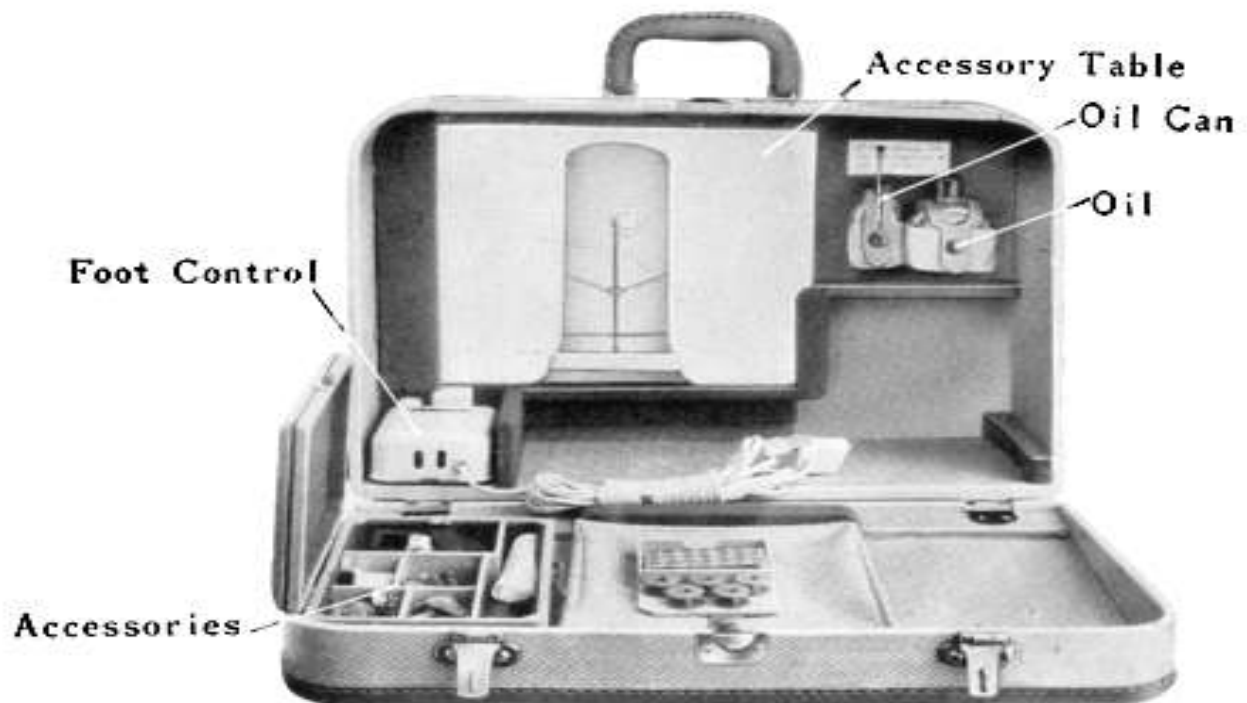


Fig. 1 B

To Remove Accessory Table: Press Table at Right End to The Left ← and Pull Out.

know the parts of your Pacesetter

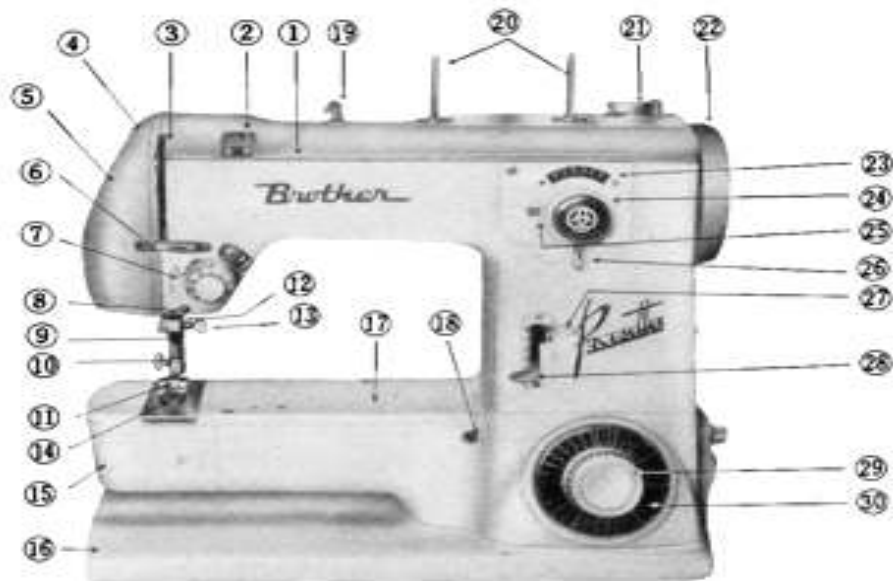


Fig. 2 A

- | | |
|--------------------------------|--|
| 1. Upper Arm | 14. Needle Plate |
| 2. Upper Thread Guide | 15. Hinged Door |
| 3. Thread Take-up Lever | 16. Base Plate |
| 4. Calibrated Fabric Indicator | 17. Lower Arm |
| 5. Front Cover | 18. Table Clamp Seat |
| 6. Thread Guard Bar | 19. Bobbin Winding Thread Guide |
| 7. Upper Thread Tension Dial | 20. Spool Pins |
| 8. Lower Thread Guide | 21. Bobbin Finger |
| 9. Presser Bar | 22. Balance Wheel |
| 10. Presser Foot Thumb Screw | 23. Stitch Width Window |
| 11. Presser Foot | 24. Stitch Width Knob "B" |
| 12. Needle Bar | 25. Needle Position Window |
| 13. Needle Clamp Screw | 26. Needle Position Knob "P" |
| | 27. Feed Reverse Lever "R" |
| | 28. Stitch Regulating Lever "S" |
| | 29. Wishing Dial Pattern Selector knob |
| | 30. Wishing Dial |
| | 31. Sew Light Switch |
| | 32. Speed Control Switch |
| | 33. Presser Foot Lifter |

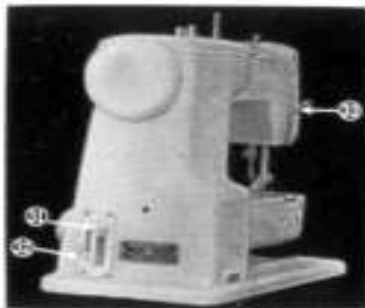


Fig. 2 B

your Pacesetter accessories

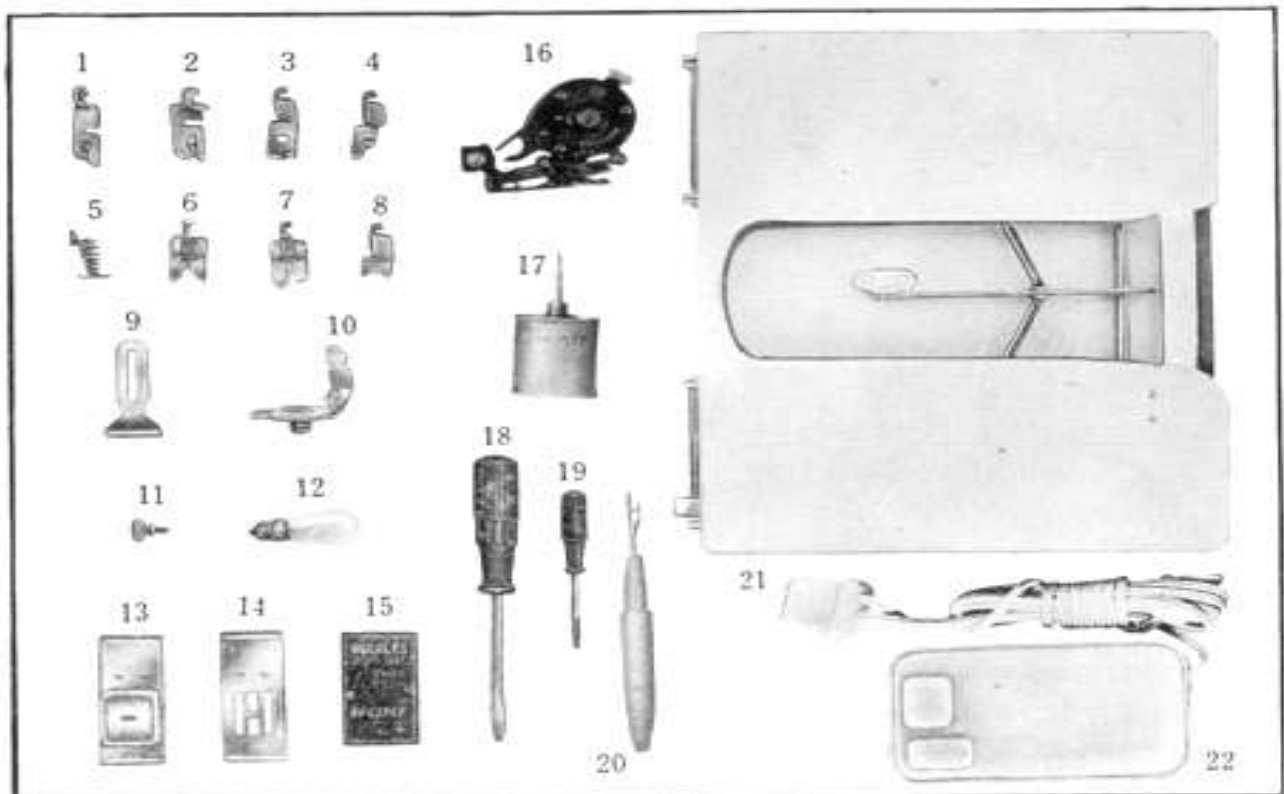


Fig. 3

- | | |
|---------------------------------|--|
| 1. Narrow Hemmer | 13. Needle Plate for Darning or Embroidering |
| 2. Wide Hemmer | 14. Needle Plate for Straight Stitch |
| 3. Buttonhole Foot | 15. Needles |
| 4. Cording Foot | 16. Brother Ruffler |
| 5. Darning Foot | 17. Sewing Machine Oil |
| 6. Satin Stitch Foot | 18. Screw Driver—Large |
| 7. Straight Stitch Foot | 19. Screw Driver—Small |
| 8. Button Foot | 20. Seam Ripper |
| 9. Cloth Guide | 21. Accessory Table |
| 10. Zipper Foot | 22. Foot Control |
| 11. Thumb Screw for Cloth Guide | |
| 12. Sewlight Bulb | |

to wind the bobbin



Fig. 4 A

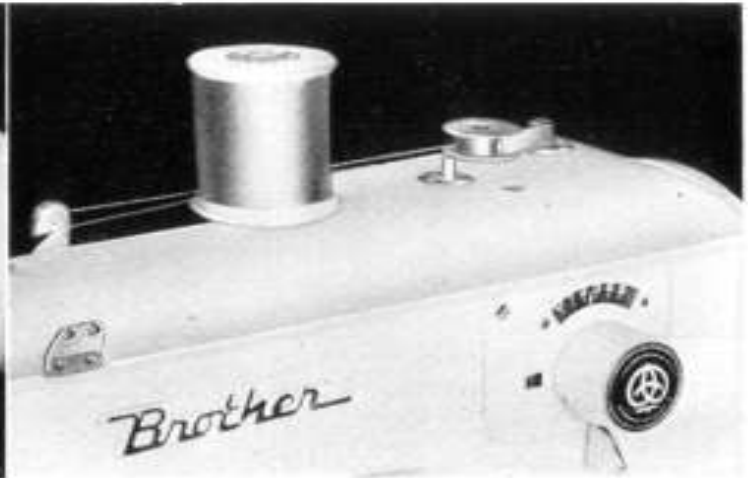


Fig. 4 B

Place the thumb of your right hand at the end of the Bobbin Finger (21) and gently draw it towards you with your right hand. Take an empty Bobbin and place it on the Bobbin Stud, making sure that the little slot in the bobbin engages the pin on the Stud.

Place a spool of thread on either of the spool Pins (20). Pass the thread through the Thread Guides (2), (19) and wind a few turns of thread on the Bobbin in a clockwise direction, pressing down the Bobbin so that the Finger (21) will rest on the Bobbin Hub as shown in Fig. 4B. Now set the Speed Control Switch (32) to Low and gently step on the Foot Pedal. This will start the Bobbin winding the thread. When the Bobbin is fully wound it will automatically stop.

You will recall that when the Bobbin was being wound, the machine itself did not operate. To make the machine operate normally, press the Bobbin Stud downward with your left thumb until you hear a "click". Now it is again concealed in the machine and your Pacesetter is ready for sewing operations.

Note:

1. To make the spool Pins "pop-out", see Fig. 5.
2. If the Bobbin Stud fails to "click" into its resting position when you press it downward with your hand as far as it will go, turn the bobbin stud slowly in a circular direction while pressing it downward until you hear it "click" into its resting position.



Fig. 5 A

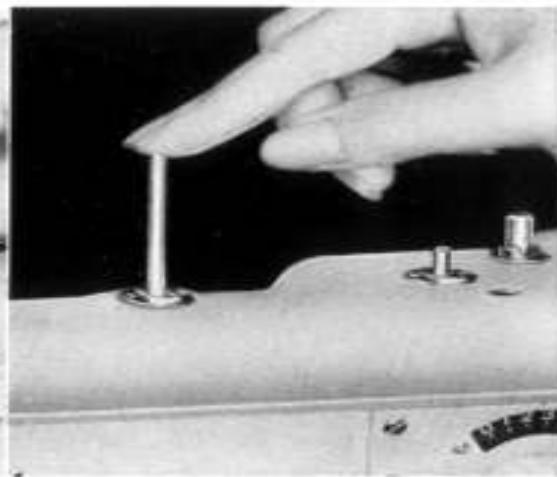


Fig. 5 B

removing the bobbin case

Turn the balance wheel (22) toward you until the needle is at its highest position. Now with your left hand, thumb resting in the thumb groove, grasp the Hinged Door (15) and turn it slightly toward the left to open it. See Fig. 6 A. Again, with the thumb and forefinger of your left hand, open the latch and remove the Bobbin Case as shown in Fig. 6 B. Release the Latch, turn the Bobbin Case downward, and the Bobbin will drop out as shown in Fig. 7A.

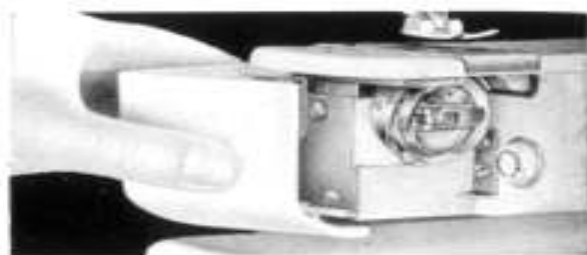


Fig. 6 A

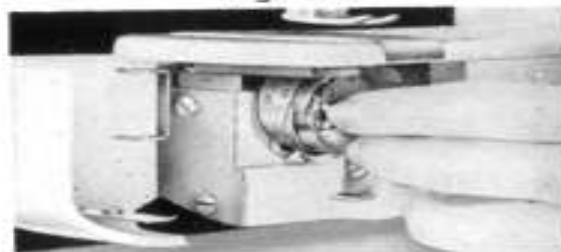


Fig. 6 B

threading the bobbin case

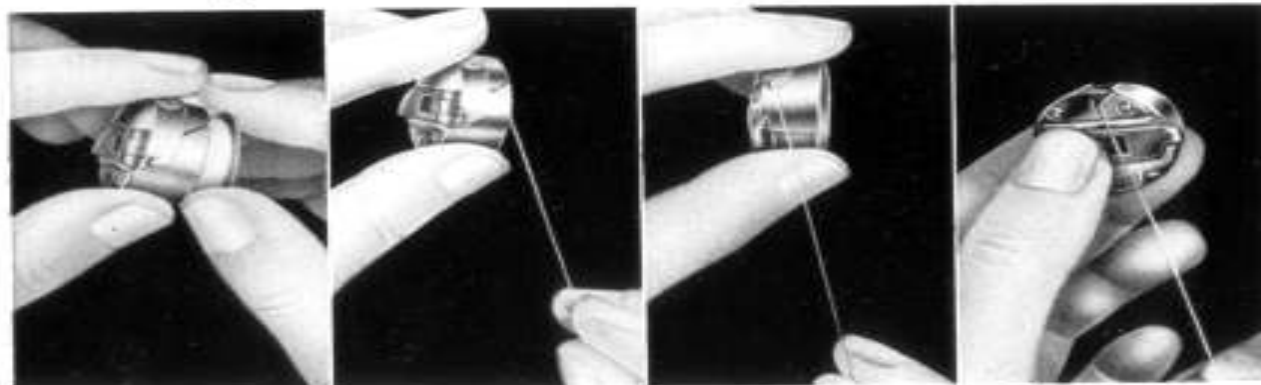


Fig. 7 A

Fig. 7 B

Fig. 7 C

Fig. 7 D

Unwind about 3 or 4 inches of thread from the bobbin. Hold the bobbin case between the thumb and forefinger of your right hand. Take the bobbin between the thumb and forefinger of your right hand place it in the bobbin case. See that the slot in the bobbin case faces upwards, as shown in Fig. 7 A. With the right hand, guide the thread into the slot in the edge of the bobbin case, as shown in Fig. 7 B.

Now pull the thread to the left under the tension spring and into its delivery eye, as shown in Fig. 7 C, and pass the thread through the eye as shown in Fig. 7 D.

adjusting the bobbin tension

The tension has been correctly adjusted at the factory but should you find it necessary to make an adjustment please follow these instructions. In Fig. 8, you will see the larger screw "A." Loosen this screw to loosen the tension and tighten the screw to tighten the tension. To know if the tension is correct, hold the bobbin case as shown in Fig. 7 D. If the thread pulls gently without forcing, then the tension is correct. Otherwise adjust the tension accordingly.



Fig. 8

to replace the bobbin case



Fig. 9

Open the Hinged Door (15).

Now that you threaded the bobbin case, you are ready to replace it in the machine. Hold the bobbin case by the latch between your thumb and forefinger of the left hand. Replace it on the center pin of the bobbin case holder, as shown in Fig. 9.

Then release the latch and press the bobbin case back until the latch catches and holds the bobbin case in its proper position. The 3 or 4 inches of thread you allowed when you threaded the bobbin case should hang freely.

threading the upper thread and the needle

Pacesetter threading is easy. Just do it step by step:

1. Turn the balance wheel (22) by hand towards you until the take-up lever (6) is at its highest point, Fig. 10.
2. Place the spool of thread on the spool pin (20) on the top of the machine and pass the thread through the upper guide (1) and down between the tension discs (2) from the back on the right hand side, Fig. 10.
3. Now bring the thread up and under the thread check spring (3) raising it (the check spring) so that the thread will fall into the hook shaped guide (4).
4. Carry the thread under the thread guard bar (5) from right to left and then up to and into the eye of the thread take-up lever (6) from right to left and down through the thread guides (7) and (8).
5. Now thread the needle (9) from the front to back and draw the thread out about 6 inches.

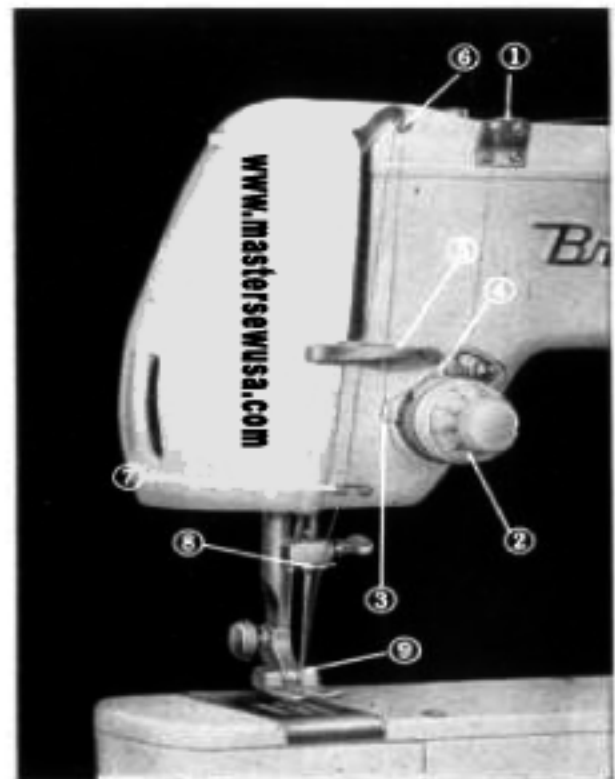


Fig. 10

to regulate the needle tension

For perfect sewing, upper and lower tensions must be equal, so that the threads may be locked in the center of the work as shown in Fig. 12. A the Correct Stitch. If the tensions are not equal, imperfect stitching will result, as shown in B and C.

When the tension of the Needle Thread is too tight, or the tension on the bobbin thread too loose, the tight thread will pull up the loose thread to make a stitch which is not centered. Instead, the Needle Thread will lie straight on the upper surface of the fabric, as shown in B, Fig. 12.

If the tension of the Bobbin Thread is too tight, or the needle thread tension too loose, the Bobbin Thread will lie straight on the under side of the fabric, as in C, Fig. 12, instead of being centered as shown in A.

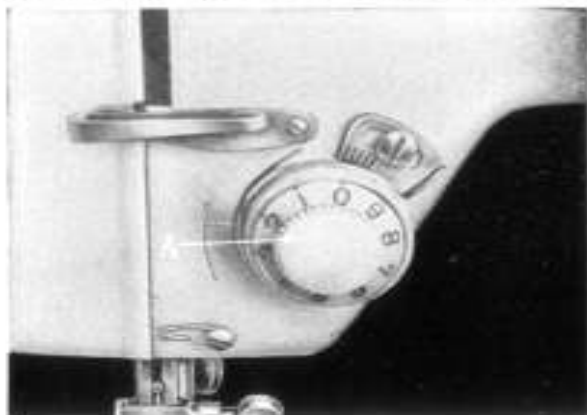


Fig. 11

It is very simple to regulate the tension on this Pacesetter. Merely turn the Thumb Nut (A) Fig. 11 to the right to tighten the upper tension. Amount of tension is indicated by a plus sign before the advancing numbers 0-9. To loosen the tension, you turn the Thumb Nut (A) to the left. Loosening tension is indicated by a minus sign before the decreasing numbers from 9 to 0.

The tension for average sewing is 3 or 4. To set it, merely turn the Dial

and set the plus and minus signs, as shown in Fig. 11. Do not turn the Dial rapidly; a quarter of a turn is all the tension you need.

important note on tension

In order to set your tension properly on the BROTHER PACESETTER, set your machine to manual on pattern selector dial and adjust your top tension so that the stitches are perfect. Remember the number that this tension was set at for manual or straight sewing and always set the tension to this number when sewing manual or straight stitching.

Now that you know this number for manual zig-zagging or straight stitching, set the machine to any of the full automatic zig-zagging stitches by loosening the top tension. You do this by reducing the originally set number for straight stitching or manual zig-zagging 4 or 5 numbers to the left (counterclockwise) and your machine is now ready to make any of the many varieties of automatic stitching that is available on this machine. In returning your machine to manual zig-zagging or straight stitching, retighten the tension by the same 4 or 5 numbers to original setting.

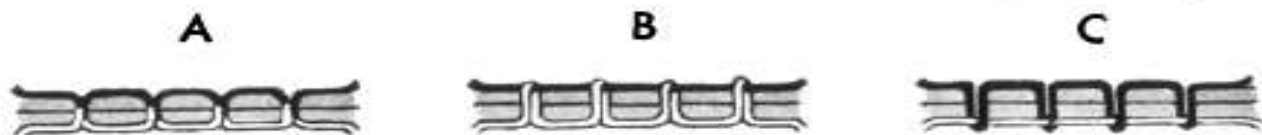


Fig. 12

to prepare for sewing

Raise the presser foot (11) by lifting the presser foot lifter (33) in Fig. 2 B. Place the Bobbin Case, which you have already threaded according to instructions on Page 8, into the machine. Then:

1. Turn the Balance Wheel with your right hand until the needle is at its highest point.
2. With your left hand, hold the end of the needle thread. With your right hand, turn the balance wheel towards you until the needle moves down, and then up again to its highest point, catching the bobbin or lower thread.
3. Pull the thread you are holding gently and it will bring up the bobbin thread, as shown in Fig. 13.
4. Lay both ends of the the thread back under the presser foot (11).

straight stitch sewing

1. Set the Wishing Dial to "MANUAL". See P. 17.
2. Set the Stitch Width Knob "B" to 0. See P. 17.
3. Set the Stitch Regulating Lever "S" to the stitch size required. See P. 12.
4. For reverse sewing, press the Feed Reversing Lever "R" down. See P. 12.
5. Use straight stitch Presser Foot and Needle Plate. See P. 14 and 13.

to start sewing

Raise the needle to its highest point by turning the Balance Wheel (22) slowly towards you.

Place the fabric material under the presser foot (11) and the needle (9). Lower the presser foot lifter (33) (Fig. 2 B) and commence to sew by slowly turning the balance wheel towards you.

The fabric will feed by itself, so do not try to "help it along" by pulling. You may bend the needle.



Fig. 13

to remove the work

1. Stop the machine.
2. Raise needle to its highest point by slowly turning the Balance Wheel towards you.
3. Lift the Presser Foot by lifting the Presser Bar lifter.
4. Move the fabric you have been sewing back and to the left, and break the thread.
5. Place the ends of the loose threads back of the Presser Foot to make ready for your next sewing.

to turn a corner

Stop the machine while the needle is in the fabric you are sewing. Leaving the Needle in place, lift the Presser Foot and turn the fabric in the direction you wish while the needle acts as the axis.

Lower the presser foot and start to sew.

how to baste

1. Set the Wishing Dial to "MANUAL"
2. Set Stitch Regulating Dial to 4.
3. Loosen the upper thread tension slightly. See Page 10.
4. Since the machine when set as above will produce a loose stitch, you will be able to remove the stitch without difficulty.

how to back tack

Set the machine for reverse sewing by pressing down the Feed Reverse Lever to "R"—Reverse. This will enable you to lock the seams.

to regulate the length of stitch and the direction of feed

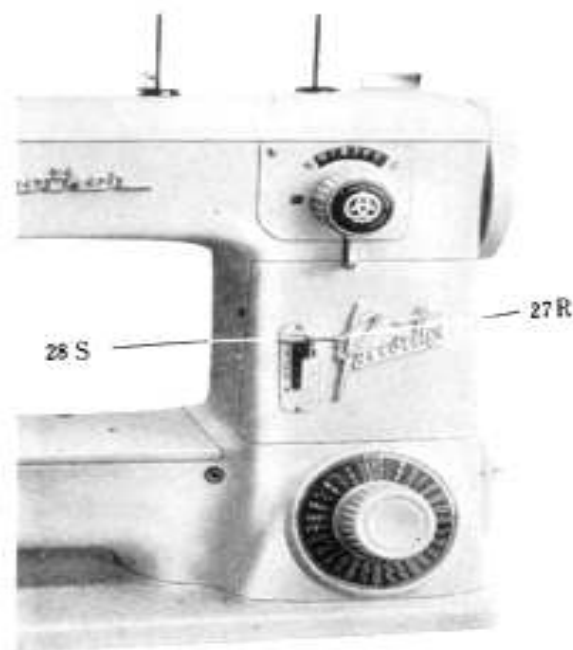


Fig. 14

The Direction, FORWARD or REVERSE, is regulated by lever "R". To sew REVERSE, press the Feed Reverse Lever "R" down as far as it will go and keep it down while you are sewing REVERSE. When you release the Lever "R", it will quickly return to Forward sewing.

To regulate stitch length, use the Stitch Regulating Lever, "S". Set it up or down to the stitch length you desire. The stitch lengths are shown on the Stitch Length Plate, which is graduated from "0" to "4". "0" equals no feed, and "4" equals the longest stitch. See Fig. 14

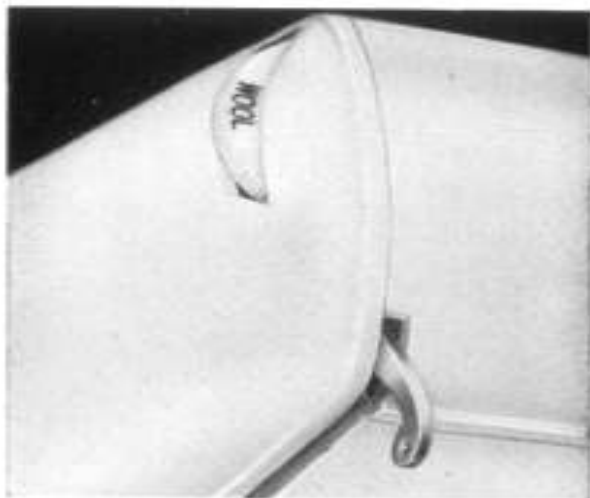


Fig. 15

the calibrated fabric indicator

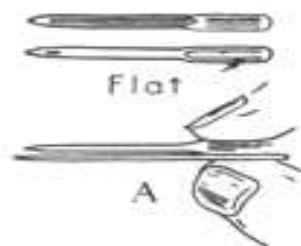
Different fabrics need different pressures if they are to be machine-sewn correctly. To obtain the proper pressure, simply turn your Pace-setter's Calibrated Fabric Indicator (4) to the name of the fabric you are sewing. See Fig. 15.

For darning, embroidering or monogramming, set the Indicator to silk—which is the lightest pressure. See Page 22, the Drop Feed.

to change the needle

1. Raise the Needle Bar by turning the balance wheel toward you.
2. Loosen the needle clamp screw (13 on Fig. 2 A) and remove the old needle.*
3. Insert the new needle in the needle clamp hole and push it up as far as it will go.
4. Make sure that the flatside of the needle faces to the rear, as shown in Fig. 16 B.
5. Tighten the needle clamp screw securely.
6. To make sure the needle is straight, check it by placing the flat side on a straight flat surface, as shown in Fig. 16 A.

※ **Note**: After Loosening the Needle Clamp Screw, move it slightly up and down to ease the removal of the Needle.



B
Fig. 16

to change the needle plate

1. Remove the Presser Foot. See P. 14.
2. Raise the needle to its highest position.
3. Grasp the needle plate with your index and forefinger on the back of the needle plate, and gently lift it up. Make sure you do not strike the needle.
4. To replace the needle plate, merely press the plate into its position.



Fig. 17

to change the presser foot

1. Raise the Needle to its highest position by turning the Balance Wheel toward you.
2. Raise the presser foot by lifting the Presser Bar Lifter (33).
3. Loosen the presser foot thumb screw and remove the Presser Foot.
4. Place the grooved side of the new Presser Foot against the flat of the Presser Bar. Press the Foot upward and tighten the thumb screw.

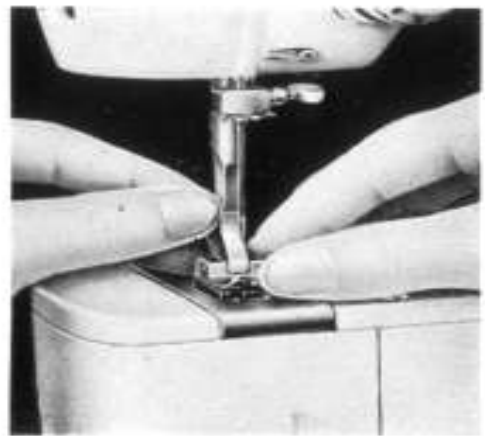


Fig. 18

hints to remember

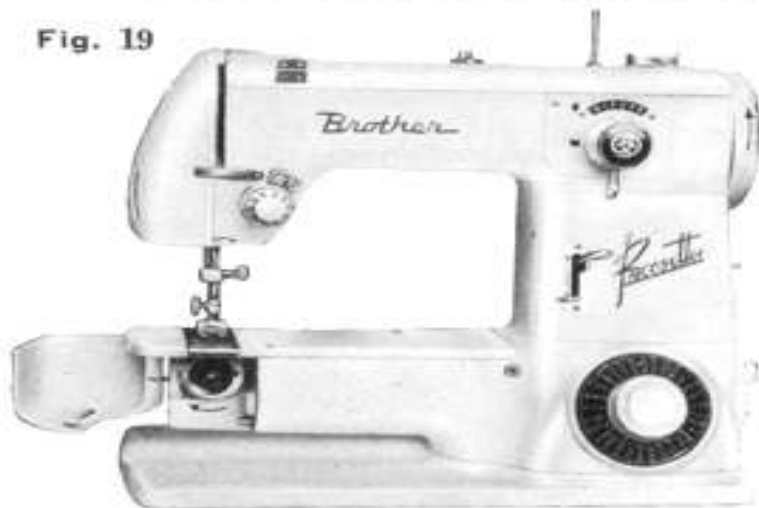
You will enjoy your Brother Pacesetter a good deal more if you give it the consideration it deserves as a highly developed, specialized machine. Remember, it was designed specifically to fill the needs of your fashion sewing. Now and then, you may run into temporary difficulties. If you do, remember these simple suggestions:

hand wheel hard to turn

Then the thread may be caught in the hook.

1. Remove the Bobbin and Bobbin Case. See P. 8.
2. Pull out the piece of thread or lint.
3. Hold the Hook firmly with your left hand and the Balance Wheel with your right hand, and simultaneously move the Hook and Balance Wheel in the direction indicated by arrows in Fig. 19. This will cause the parts to rotate freely. Turn the Balance Wheel several times.
4. Replace the Bobbin and Bobbin Case and commence to sew.

Fig. 19



To make Balance Wheel turn easier, first "pop-out" the Bobbin Winding Stud. This will disengage the motor. See P. 7.

hints for better sewing

• *Needle Breaks :*

It may be wrongly inserted or bent; change it. The presser foot may be loose; tighten it. You may be using an inferior quality needle; change to Brother needles. The thread is not proper for the needle; see the Table below.

• *Upper Thread Breaks :*

The machine may be improperly threaded; check and rethread. Tension too tight; loosen accordingly. Needle bent, blunt or incorrectly inserted; change it. Starting the machine too fast and stopping suddenly; start and stop gently.

• *Breaking the Lower Thread :*

The bobbin case may be improperly threaded; rethread it. The lower tension may be too tight; loosen it gently. See Page 10.

• *Stitch Skipping and Uneven Sewing :*

Needle may be bent, blunt or incorrectly inserted; change it. Lint accumulated under the needle plate; remove the lint. Stitch too short; lengthen it. Pulling the material; don't pull, let it feed itself.

• *Needle and Thread Sizes :*

Needles	Threads	Cloth	Remarks
9	Silk & 100 Cotton	Thin Linen Silk	Thread should always be thinner than the needle eye. When you must use heavier thread than those shown here, select special needle (18, 19 etc.).
11	80, 100 Cotton	Calico Shirting	
14	50, 60 Cotton	Cotton Poplin	
16	30, 40 Cotton	Wool Suiting	

pacesetter points to remember

1. DON'T set your stitch regulator for a stitch so short that the material won't move.

REASON: This may cause your new sewing hook to jam. Twenty-four hours of sewing time is necessary to wear your sewing hook in properly. The sewing hook will never jam after it has been worn in properly.

2. DON'T attempt to change the stitch pattern when your stitch regulator lever is down.

REASON: To avoid jamming the pattern selector mechanism and to avoid mixed or wrong patterns, always push the stitch regulator up to zero before selecting a new pattern.

3. DON'T become concerned if the bobbin winder does not pop up when released.

REASON: Your machine is new. Parts are a little stiff. Pull the release lever towards you as far as it will go and hold it in that position. Step on the foot control and the bobbin winder will pop up.

4. DON'T become alarmed if you don't get the proper pattern you have selected.

REASON: You have not pushed the pattern selector button in far enough to engage the releasing mechanism. Set your stitch regulator to zero. Now push your pattern selector button inwardly as far as possible. You will hear a click

indicating that the automatic unit has now selected the proper cams. Start sewing and you will find that the machine is creating the pattern you have selected.

5. DON'T become alarmed if you step on the foot control and the machine does not run.

REASON: You have forgotten to push the motor speed selector switch up. This will happen when the machine is new. When the machine is broken in, it will start easily no matter what position the speed selector switch is set at.

6. DON'T wind bobbins at high speeds.

REASON: The bobbin winder automatic release arm rests on the bobbin. Excessive speeds heats up the bobiin unnecessarily. Push your motor speed selector switch lever down. This will insure proper bobbin winding speeds.

attaching the accessory table

1. Open the table as you would do a book.
2. Lower the support A. See Fig. 20 B.
3. Slide the table over the free arm as far as it will go. See Fig. 20 A.
4. With your right

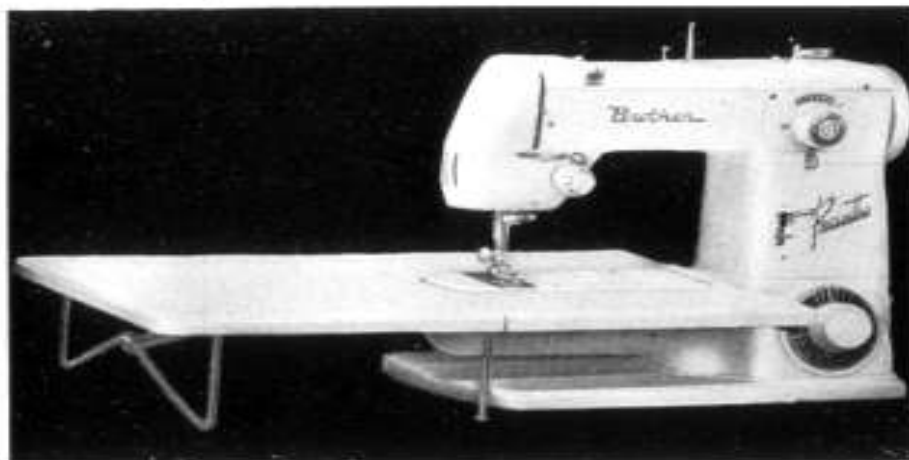


Fig. 20 A

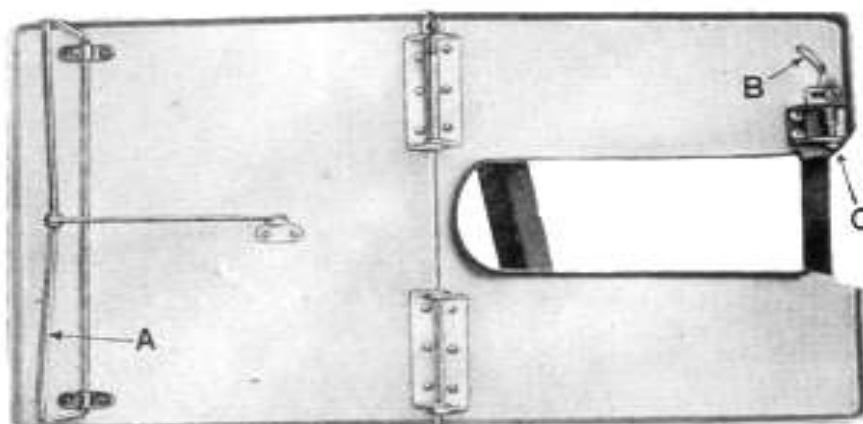


Fig. 20 B

thumb, press the Lever (B) so that the pin (C) gets into the seat on the free arm. See Fig. 20 A.

To remove the table from the machine, reverse the instructions.

pacesetter automatic zig-zag sewing

As its name implies, this machine sews a large variety of decorative and ornamental stitches automatically. Its operation is based on the computing principle, so that it can add, co-ordinate, synchronize and control the sewing of the patterns you wish it to sew, by the mere setting of Wishing Dial Pattern Selector, as shown in Fig. 21.

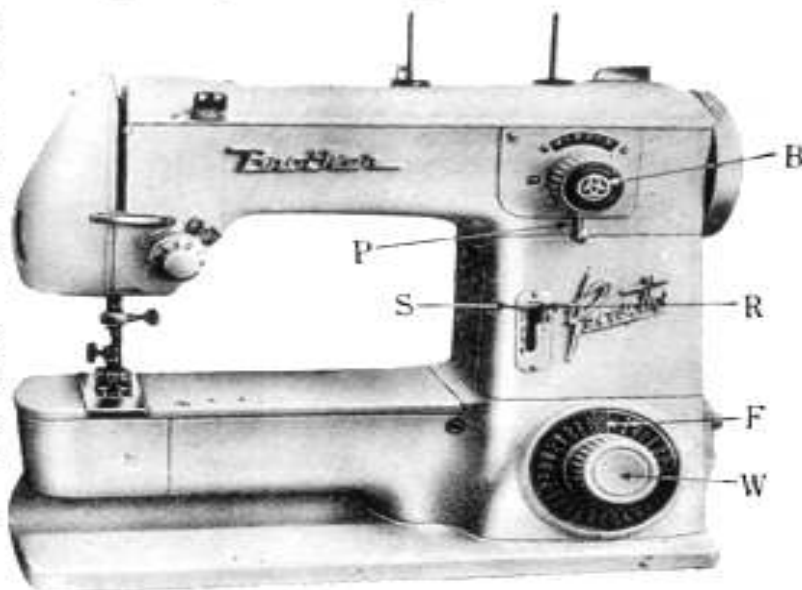


Fig. 21

using the "WISHING DIAL" pattern selector

1. Find the pattern you desire on the "Wishing Dial".
2. Turn the Balance Wheel until the Needle is at its highest point.
3. Push the Pattern Selector Knob (W) in as far as it will go and turn the knob (W) either clockwise or counter clockwise until the pattern appears in the Frame (F).
4. Release Knob and the knob will return to its original position.
5. Set the Stitch Regulating Lever "S" to the Length of Stitch you wish, say number 4, and the Stitch Width Knob "B" to the width of the stitch you wish, say number 5. Now the Pacesetter will sew this pattern you selected automatically.

Note:

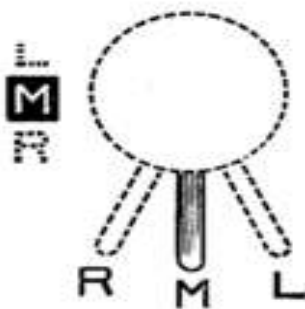
1. For Straight Stitch and Manual Zig-zag sewing, set the Wishing Dial to "MANUAL" —See P. 11, and P. 20.
2. Before pressing the Knob (W), it is advisable to set both "B" and "S" to 0. This will make it easier to press the Knob (W) in.

knob "B" is the width regulating knob



By setting it, you regulate the width of the stitch the Pacesetter will sew. To set Knob "B", turn it (the red arrow will turn with it) to the stitch width number you wish. The numbers in the window represent the stitch-width in millimeters from 0 to 5. 0 is the position you use for straight stitching.

knob "P" is the needle position knob



By setting it, you position the sewing of the Straight or Zig-zag stitch on the LEFT, MIDDLE or RIGHT side, (L-M-R). You can check the needle position in the little window.

manual zig-zag sewing

The variety of zig-zag designs that your Pacesetter can make by simple manual manipulation is unlimited. It depends entirely on the sewer's creative ability and the skill acquired in timing the movements of Knob "B" or "P". For manual zig-zag sewing, always set Wishing Dial to "MANUAL". "S" is the Stitch Regulating Lever.

A. To make "Satin Stitch" Full Width

1. Set "B" to 5.
2. Set "S" near 0.

B. To make this stitch

1. Set "B" to 5.
2. Set "S" to 3 or 4.

C. To make the Width Controlled Satin Stitch

1. Set "S" near 0.
2. Set "P" according to Chart 1.
3. Move "B" according to Chart 1.
















Move "B"	Set "P" to		
	L	M	R
Slowly from 0 to 5 and from 5 to 0			
Diamond Design(Same as above)			
Arrow Head Design Slowly 0→5 rapidly 5→0			
Combination of Full Width Satin Stitch and Diamond			
Rapidly 2→4 and 4→2			

Chart 1.

D. Position Controlled Satin Stitch

1. Set "S" near 0.
2. Set "B" to 2 or 3.
3. Move "P" according to Chart 2.





TO SEW THIS	MOVE "P"
	Alternately from L to R and R to L
	Alternately place R, M, L.
	Slowly from R to L and L to R
	Same as above but more quickly

Chart 2

using the twin needle

1. To insert the Twin Needle follow the same rules as for single needle insertion. See Page 13.
2. To thread the Upper Thread, follow the same rules as for a single thread, (see Page 9.), and thread each needle separately.
3. You can sew any stitch variety or pattern with the Twin Needle, but remember that too large a width will break the needles. Therefore, you must set knob "B" to a narrower width (2 millimeters) so that the Twin Needle will not strike the ends of the Needle Plate Slot. Set the Position Knob "P" to "M" the middle position.



Fig. 22

Before starting to sew, turn the Balance Wheel slowly toward you to make sure the Twin Needle will enter the Needle Plate Slot without touching any part of the Needle Plate. See Fig. 22.

how to make buttonholes and sew on buttons

1. Change the zigzag foot and attach the Buttonhole Presser Foot. See Page 14.

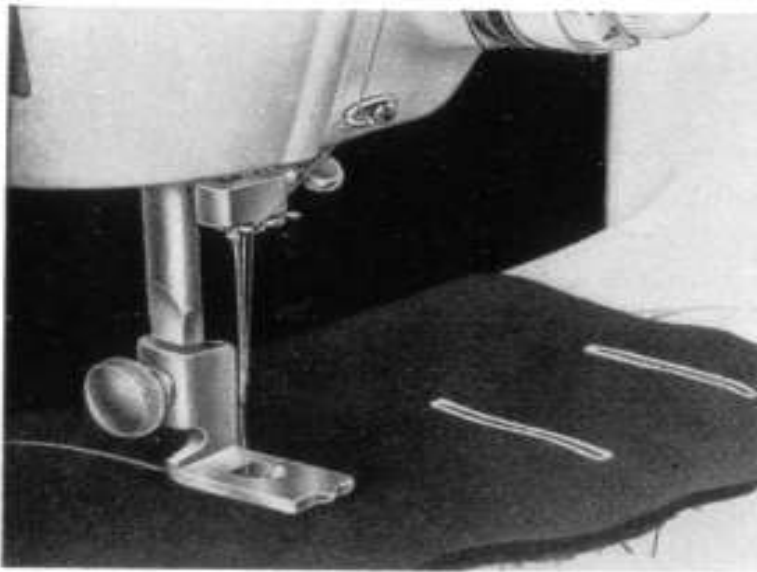


Fig. 23

2. Set Wishing Dial to "MANUAL"
3. Set P to L.
4. Set B near 2.
5. Set "S" near 0.
6. Start sewing to length "X" as shown in Fig. 24 A.
7. Now turn the fabric 180 degree so that now X appears on bottom as shown in Fig. 24 B.
8. Raise the needle to its highest position and turn Knob "B" to the right as far as it will go (largest stitch width) and make a few full width

stitches as shown in Fig. 24 C.

9. Set "B" to about 2 and sew the other side of the button hole, as shown in Fig. 24 D.
10. Make a few full width stitches to close the ends as shown in Fig. 24 E.
11. Now separate the two sewn rows with the seam ripper.

Note: For added button-hole strength in soft materials, use a cord or "gimp" which you insert into the small hole in front of the buttonhole foot. As you sew, the zigzag stitches cover the cord, thus giving added strength and body to the buttonhole.

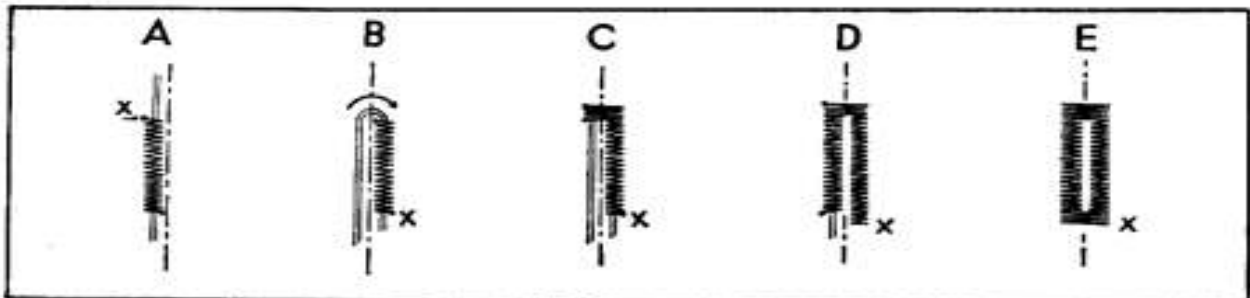


Fig.24

In order that you make the perfect buttonhole you desire, we suggest that you make a few practice buttonholes on fabric scraps before you attempt the ones on the garment you are making.

how to sew on buttons

• *Two-Hole Buttons*



1. Remove the Zigzag Foot and attach the Button-Sewing Foot. See Page 14.
2. Drop the Feed Dog. See Page 22.
3. Raise the Presser Foot.
4. Set Wishing Dial to "MANUAL"
5. Set "B" to 5 or less, according to the distance of the holes in the button.
6. Set the Stitch Regulating Lever to O.
7. Set Knob "P" to "R".
8. Place fabric under Presser Foot.
9. Place the button between the Presser Foot and the fabric with the holes in a horizontal line, which is the direction the needle zigzags from left to right, and lower the presser foot.
10. Turn the Hand Wheel slowly towards you, making sure the needle enters the holes in the button. Slowly start the machine, making about six or seven stitches. To knot the thread, set Knob B to O and make three or four stitches.

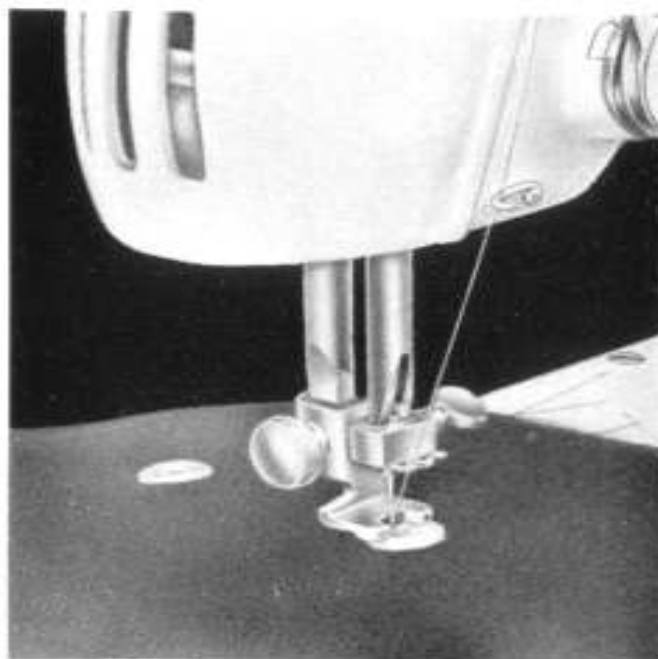


Fig. 25

• *Four-Hole Buttons*



1. Proceed the same as for two-hole buttons for the first two holes.
2. Then lift the Presser Foot and move the fabric so that the next two holes are in line with the needle. Lower the Presser Foot and sew slowly.
3. To knot the thread, set "B" to O and make three or four stitches.

• *Four-Hole Buttons—Cross-Stitch*



1. Proceed the same as for the first two holes as for the two-hole buttons, but hold the button under the presser foot in a cross position.
2. Turn the fabric so that the holes in the button will be at right angles to the first two holes. Sew slowly.
3. To knot the thread, set "B" to "O" and make three or four stitches.

to attach the spring darning foot

1. Remove the Zig-Zag Foot. The Spring Darning Foot is not attached to



Fig. 26

Presser Bar. It is attached to the Needle Bar as shown in Fig. 26.

2. Hold the Spring Foot in your left hand with the arch-shaped part toward you as shown.
3. Direct the needle into the center circle by tilting the Spring Foot as shown.
4. Raise it up and with your right hand, lift the free end of the arch-shaped part over the shank of the Needle Clamp and the Spring Foot will spring into place.
5. To remove the Spring Foot reverse the procedure.

the drop feed

When you use your Pacesetter for darning, embroidering or monogramming, you should regulate the feeding of the material according to the design you are following, or the form the darning takes. For this reason, you must first completely drop the Feed Dog by turning the Drop Feed Knob in the direction of the arrow marked DROP as far as it will go. This makes it possible for you to feed the fabric into the machine in any direction, according to the requirement of the work.

By opening the Hinged Door (15), you can easily reach the Drop Feed Knob.

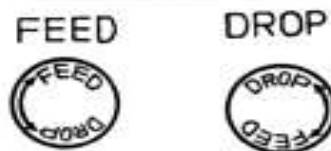
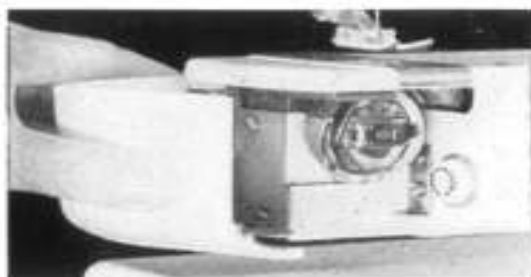


Fig. 27

embroidering, darning and monogramming

1. Remove the Zig-Zag Foot and place the Spring Darning Foot. See Page 22.
2. Remove the Zig-Zag Needle Plate and place the Darning plate in position.

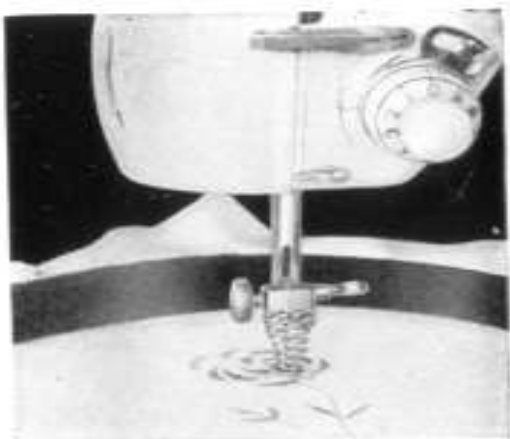


Fig. 28

See Page 13.

3. Drop the Feed Dog.
4. Set "B" to "O" or move accordingly.
5. Set Wishing Dial to "MANUAL".
6. Set "P" to "M".
7. Set "S" to "O".
8. Place your work in embroidering or darning hoop.
9. Operate the machine at *Slow Speed* and feed the work accordingly.

how to sew braids and raised applique stitches

1. Remove the Zig-Zag Foot and attach the Cording Foot. (See Page 14)
2. Set Wishing Dial to "MANUAL"
3. Set "B" according to the size of the cord or "gimp" you are using. For thin cord, use a small zig-zag stitch. For thick cord, use a wide zig-zag stitch.
4. Pull the "gimp" through the hole in the front of the Cording Foot.
5. Start to sew slowly and follow the design carefully. See Fig. 29.

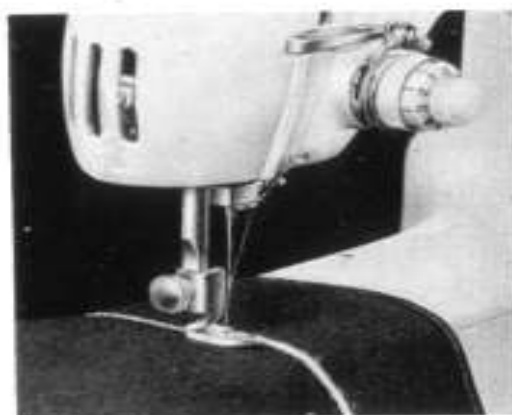


Fig. 29

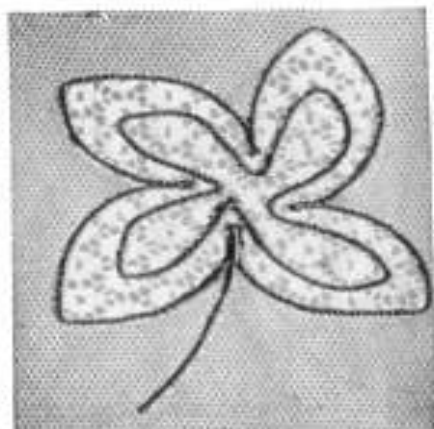


Fig. 30

how to make cut-out applique work

1. Baste the design to the material. See Page 12.
2. Place the work under the Presser Foot and embroider carefully following the design. See Fig.
3. Cut away the surplus material close to the design, taking care not to cut the stitches.

how to make a hem

1. Remove the Zig-Zag Foot and attach the Hemmer Foot. See Page 14.

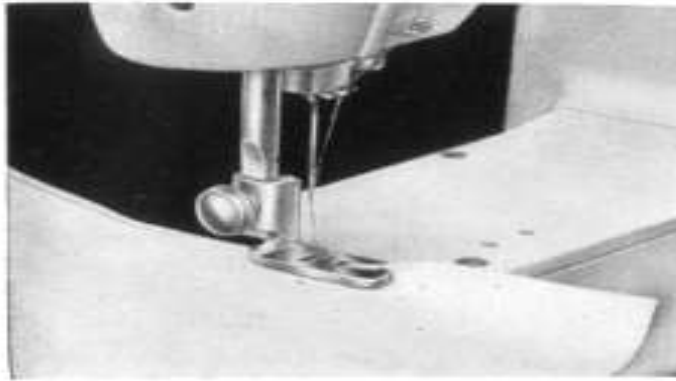


Fig. 31

2. Set Wishing Dial to "MANUAL",

3. Set "B" to 0 or 2 or 3.

4. Set "S" to 2, 3 or 4.

5. Insert the edge you wish to hem into the scroll opening of the Hemmer, and lower the Foot.

6. Guide the fabric evenly and

make sure that one half of the scroll opening is filled with the edge of the material. Start to sew slowly.

NOTE: You can use the narrow hemmer or the wide hemmer depending on the hem you desire.

how to make the shell stitch

This stitch is especially useful for thin fabrics such as silk, chiffon, or rayon. To make this stitch, proceed the same as for hemming. Use Hemmer Foot. Important: Make sure that the upper tension is a little tighter than normal.

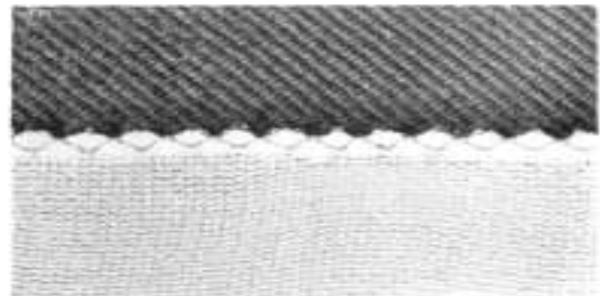


Fig. 32

to hem lace

Proceed as for hemming. (See above). Insert the lace in the Hemmer Foot and guide the lace evenly.



Fig. 33

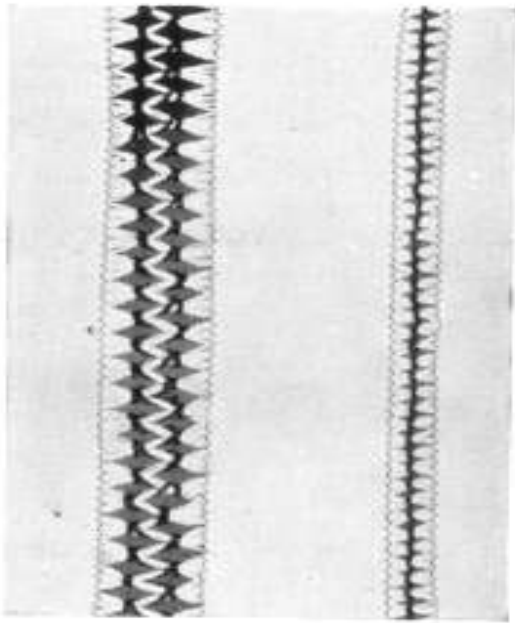


Fig. 34

how to hemstitch

1. Set Wishing Dial to "MANUAL"
2. Set B to 2 or 3.
3. Set "S" to 2 or 3.
4. Draw out desired number of threads from the fabric.
5. Place the material under the Zig-Zag Presser Foot and start to sew slowly.
6. Make sure the stitch is close to the edge of the space from which you drew the threads.
7. After stitching the one side, stitch the other side in the same manner.

Note: You can obtain a picot edge by cutting between the parallel lines of stitching.

to make flat felled seams

1. Remove the Zig-Zag Foot and attach the Wide Hemmer. See Page 14.
2. Set Wishing Dial to "MANUAL"
3. Set "P" to M.
4. Set "B" to 0.
5. Set "S" to 2 or 3.
6. Lay the fabric pieces on top of each other so that the "right" side of each piece is inside and the "wrong" side is on the outside. The right edge of the bottom fabric should extend about 1/8 of an inch beyond the edge of the top fabric piece.
7. Place the fabric under the Foot using the long toe as a guide. See Fig. 35.
8. Flatten out fabric, keeping the "right" sides down with the edge of the fabric upright as shown in Fig. 35.
9. Now lift the Foot and fold over the edges of the material to the left and insert them into the scroll opening of the Foot.
10. Lower the Foot and start to sew slowly (guiding the fabric evenly.)

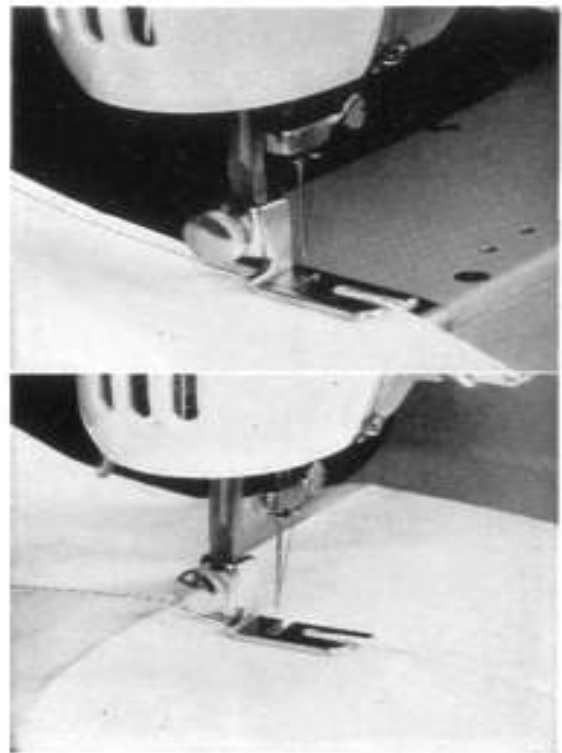


Fig. 35

to make the overlock stitch

1. Set the "S" to 2 or longer, depending upon the closeness of the overlock you desire.

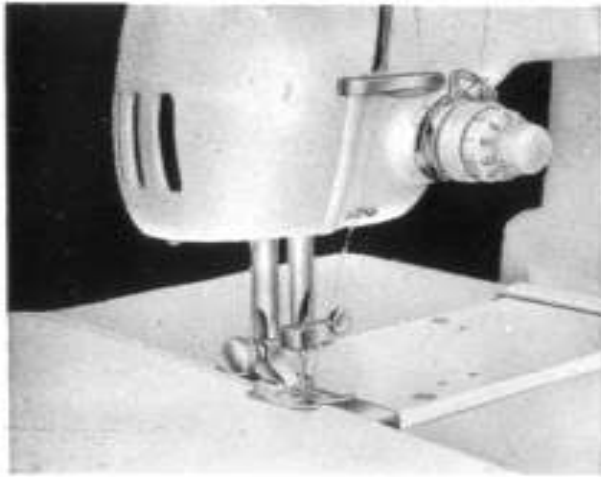



Fig. 36

2. Set Wishing Dial to "MANUAL".
3. Set "B" to 4 or less, depending upon the width of the overlock you desire.
4. Place the edge of the material under the Presser Foot and make sure that the stitch is formed slightly outside the raw edge of

the material. See Fig. 36.

how to make the blind stitch

1. Use the Zig-Zag Foot.
2. Set Wishing Dial to 
3. Set "B" to 2 or 3.
4. Set "S" to 2, 3 or 4.
5. Fold the material to the size of hem desired.
6. Now fold the material as shown in Fig. 37 A
7. Make the stitch as shown in Fig. 36 B.
8. After stitching is finished, unfold the material as shown in Fig. 36 C and you will have the Blind Stitch.

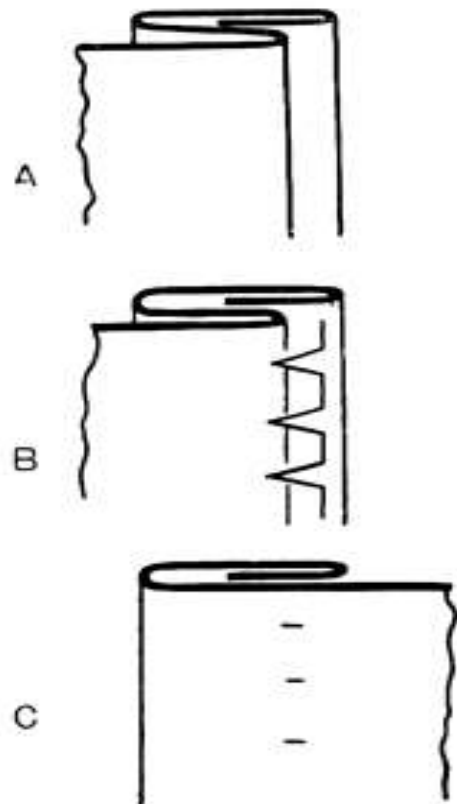


Fig. 37

using the cloth guide

When you desire to sew close to the edge of a seam (up to $1\frac{1}{4}$ inches) in a straight and uniform line, the Cloth Guide will help you.

To attach the cloth guide place it over the hole to the right of the Needle in the

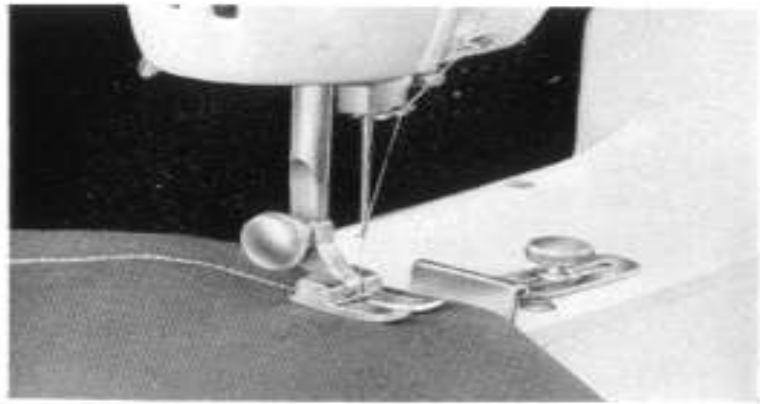


Fig. 38

bed of the machine. Place the thumb screw through the Guide slot, adjusting the Guide to the desired distance and fasten it firmly.

how to use the adjustable zipper foot

1. Set the machine for Straight Stitch Sewing. See Page 11.
2. Remove the Presser Foot and attach the Adjustable Zipper Foot. See Page 14.
3. Fig. 39 shows the Zipper Foot set to sew on the right of the needle and close to the edge of the fabric.

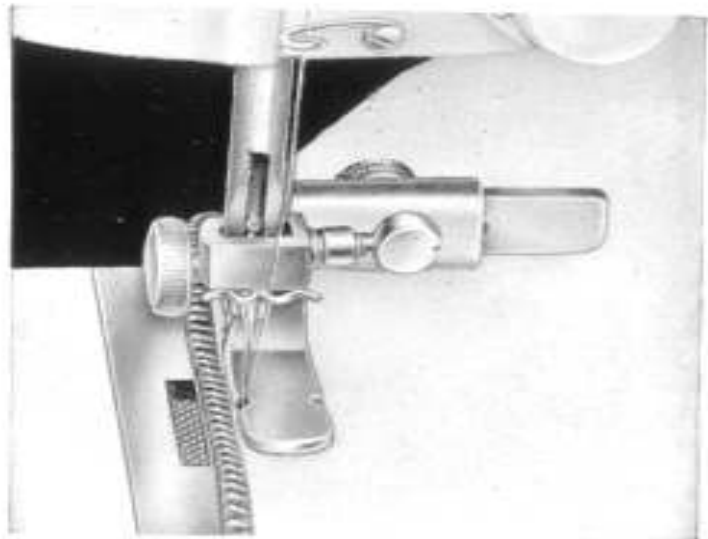


Fig. 39

The fabric is turned to form a placket or opening so as to avoid striking the zipper links.

4. To sew on the opposite side of the zipper fastener, loosen screw and slide the Zipper Foot over to the left of the needle. Now sew close to the edge without striking the zipper links.

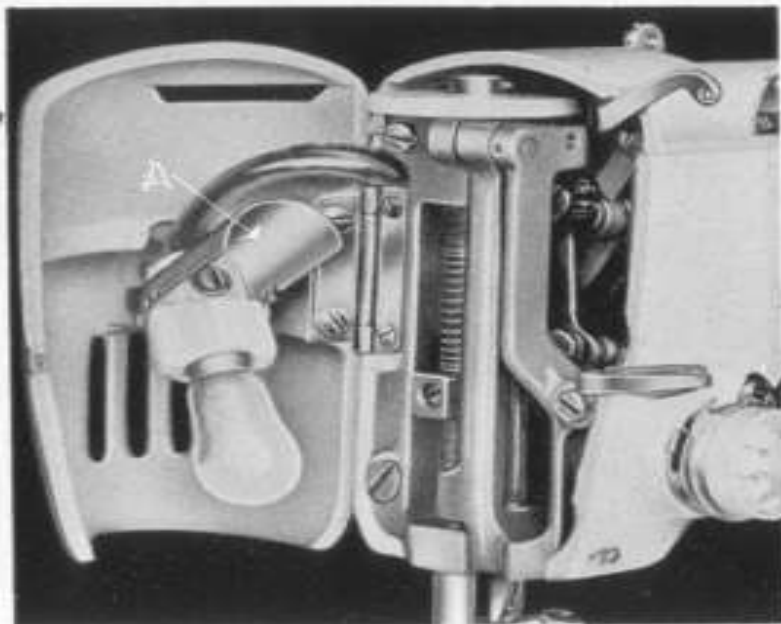


Fig. 40

the sewlight

By turning the switch (31) you can turn the sewlight on or off as you wish. To change the sewlight bulb open the Front Cover (5) by grasping it with your left hand and twisting it rearward, and open the sewlight reflector (A) by lifting it upward, as shown in Fig. 40. Now remove the bulb by unscrewing it and replace

with a new bulb. To close the sewlight reflector and front cover merely press them shut.

to oil the Pacesetter

If you use the machine on an average of one hour daily you must lubricate it once a week with machine oil through three oil holes — one on the upper arm, the free arm and the upright column. Also put one drop of oil in rotary hook. Other portions are set up for permanent automatic lubrication and need not to be lubricated periodically.

Note: To the Serviceman:

After the machine has been used for 3 or 5 years it is advisable that you check it and relubricate the parts that required little lubricating attention such as the parts of the automatic unit located in the upright column, the pattern selector parts and the motor. Use Liquid-Moly Booster or lubricant of similar quality on the above parts and regular sewing machine oil for the motor.

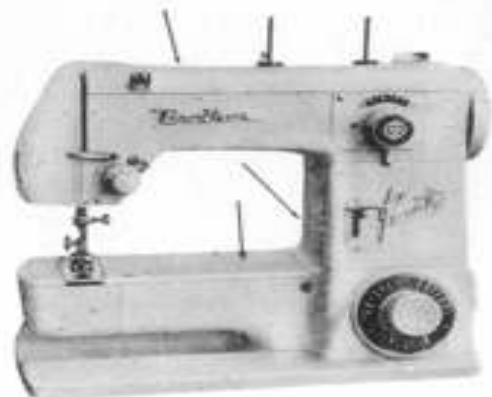


Fig. 41

M E M O

M E M O

BROTHER

Lifetime Guarantee Bond

This world-famous Brother Sewing Machine is guaranteed for a lifetime of pleasurable sewing use.

This Lifetime Guarantee applies on all parts (excepting needles, belts, pulleys, bobbin-case, lamp bulbs and electrical equipment) entering into the manufacture and assembly of the sewing machine head which it accompanies, providing it is used for normal family sewing and is given reasonably good care in accordance with guides furnished, and under the conditions printed on the reverse side of this certificate.

To be filled in by BROTHER Dealer:

BROTHER Serial No. _____ Date of Purchase _____

Purchaser _____

BROTHER INTERNATIONAL CORPORATION

Sold By: _____

Authorized Brother Dealer



assures you a lifetime of pleasurable sewing satisfaction

Brother Pacesetter Sewing Machines are precision-built to satisfy the most exacting specifications and assure absolute mechanical perfection and dependability.

Complete units are assembled, tested and given a final, thorough inspection in our distribution plants throughout the United States to assure that you receive your machine in perfect condition. Your authorized Brother Dealer maintains a thoroughly qualified service department to render expert factory service. All movable and wearable parts, such as needles, bobbin cases, hooks, etc., which require ordinary replacement, are standard and interchangeable with parts immediately available at your nearest Brother Dealer.

