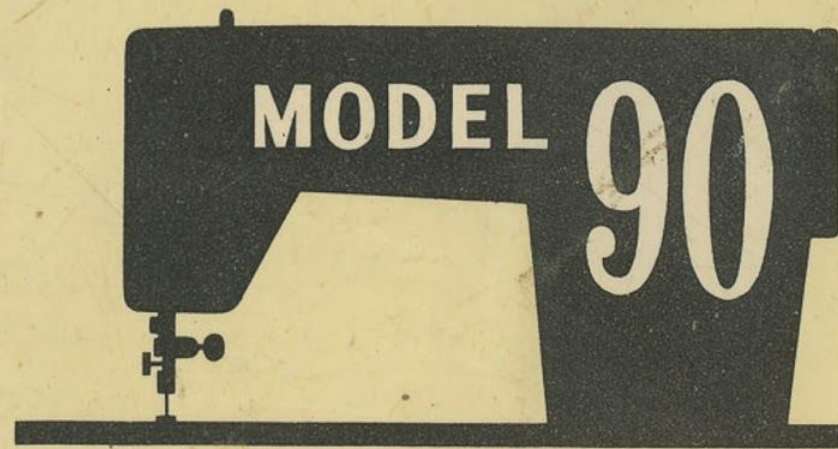




Kenmore

I N S T R U C T I O N S



AUTOMATIC ZIG-ZAG SEWING MACHINE

Sears, Roebuck and Co.

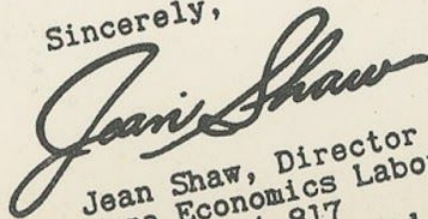
Dear Homemaker:

This booklet has been written for you, to help you use and enjoy fully your KENMORE Automatic Zigzag Sewing Machine.

We urge you to read pp. 2-17 before using your machine. This section explains the operation of the special controls that allow you to do many tedious tasks automatically. The following pages offer suggestions and instructions for specific ornamental and time saving operations. See p. 28 before using the automatic patterns or zigzag stitch.

We feel the KENMORE Automatic Zigzag Sewing Machine is the finest of its kind and we are happy to offer help with any questions you may have regarding the machine.

Sincerely,

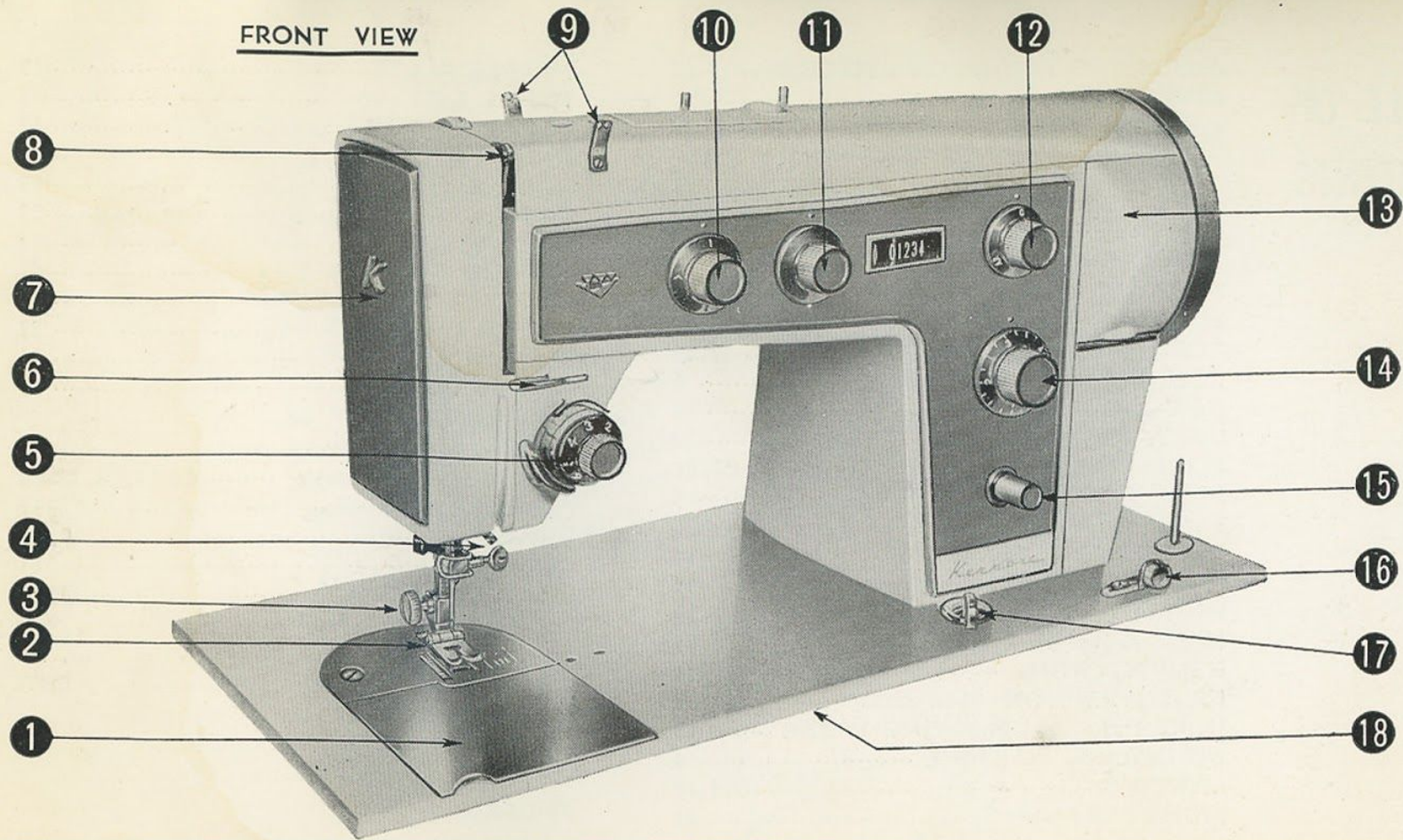


Jean Shaw, Director
Home Economics Laboratory
Department 817
Sears, Roebuck and Co.
Chicago 7, Illinois

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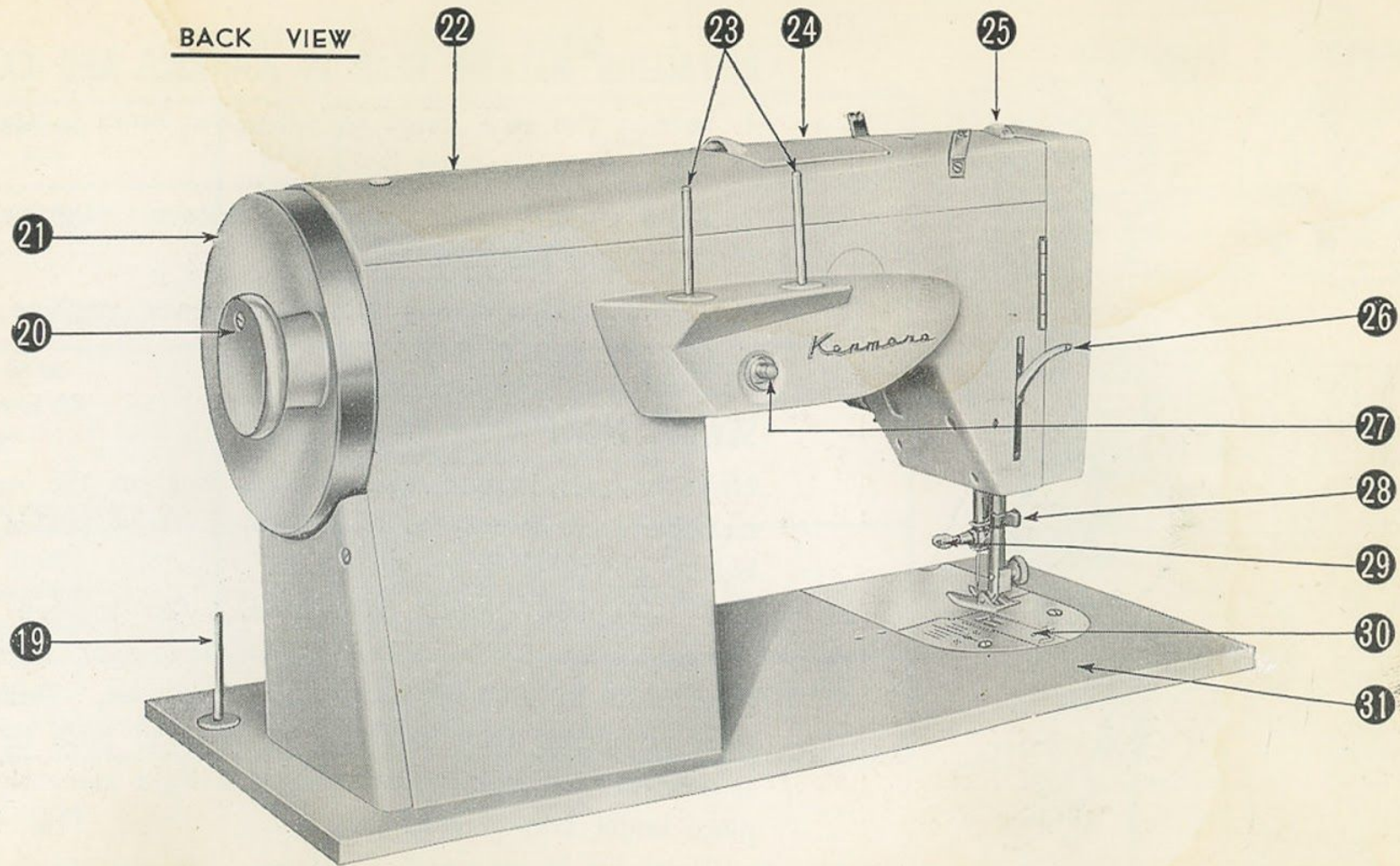
FRONT VIEW



- 1. Hand Hole Cover Plate
- 2. Presser Foot
- 3. Presser Foot Screw
- 4. Face Cover Thread Guide
- 5. Thread Tension Assembly
- 6. Thread Take-up Lever Thread Guide

- 7. Face Cover Plate
- 8. Thread Take-up Lever
- 9. Upper Thread Guides
- 10. Stitch Expander
- 11. Stitch Width Control Knob
- 12. Needle Position Control Knob

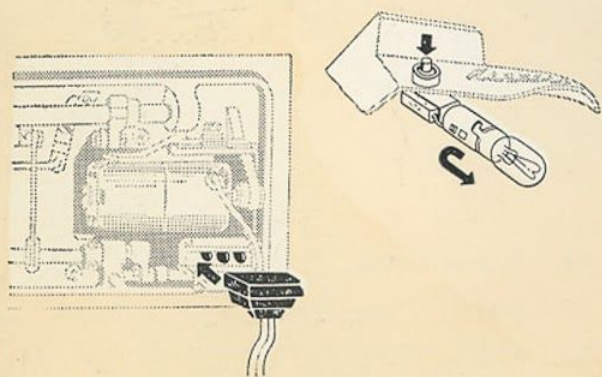
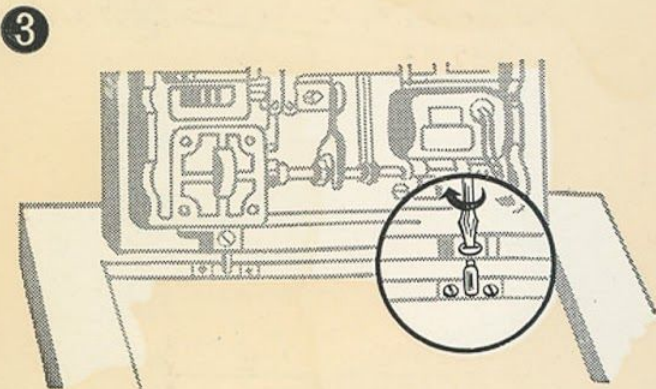
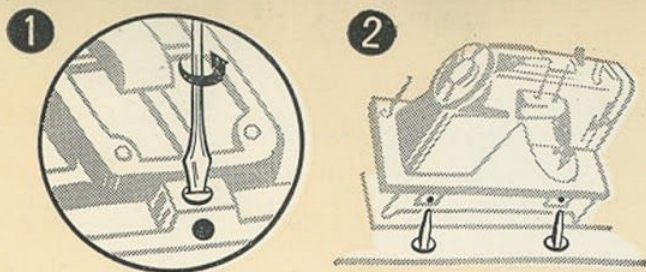
- 13. Bobbin Winder Mechanism
- 14. Stitch Length Control Knob
- 15. Reverse Stitch Push Button
- 16. Bobbin Winder Tension Disc
- 17. Feed Dog Control Knob
- 18. Nomenclature Plate



- 19. Thread Spool Pin for Bobbin Winder
- 20. Clutch Release
- 21. Hand Wheel
- 22. Arm Cover Plate
- 23. Thread Spool Pins

- 24. Cover to Automatic Decorating Stitch Mechanism
- 25. Presser Foot Pressure Regulator
- 26. Presser Foot Lever
- 27. Light Switch

- 28. Thread Cutter
- 29. Needle Clamp Screw
- 30. Needle Plate
- 31. Guide Pin Hole for Buttonhole Attachment



INSTALLING MACHINE HEAD IN PORTABLE AND CABINET

1. Loosen the two hinge screws under holes in the rear edge of the machine bed.
2. Raise hinge pins in the cabinet cutout. Slip machine head onto the pins.
3. Tighten hinge screws securely. Lower machine head to front cabinet flap.

SEWING LIGHT

Light bulb is located under spool pins on the rear of machine arm. It may be turned on or off by pushing the button switch on the light shade.

The light bulb socket is hinged. To remove bulb, disconnect sewing machine, pull down light assembly, push bulb in slightly, turn bulb clockwise. Bulb can then be pulled from socket. To replace, push in, turn it counter clockwise. Then push the light assembly into place under arm of machine.

CONNECTING MACHINE

Push the plug onto three-prong connector under the bed plate. Plug machine cord into any 110-120V wall outlet.

NEEDLE AND THREAD TABLE

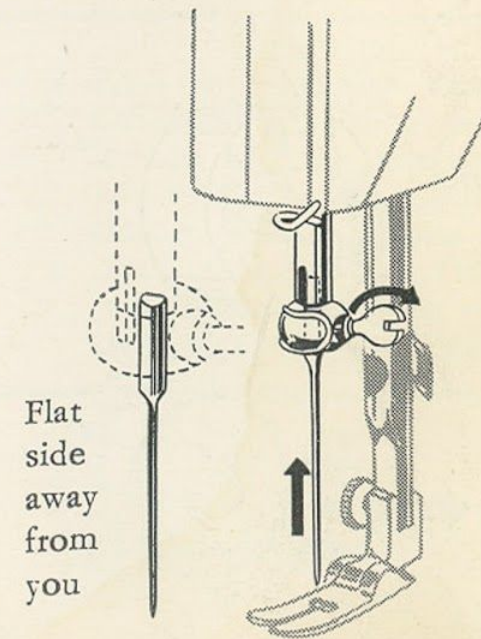
THREAD SIZE	NEEDLE SIZE	FABRIC
Cotton 80-100 Synthetic Silk A Machine embroidery	11	Sheer cottons, silks, and synthetics Fine laces
Cotton 60-80 Mercerized 50 Synthetic Silk A Machine embroidery	14	Light to medium weight cottons Light to medium weight silks Medium weight synthetics Light weight woolens
Cotton 40-60 Mercerized 50 Mercerized heavy duty	16	Heavy weight cottons Medium to heavy weight woolens Heavy drapery fabrics
Cotton 30-50 Mercerized heavy duty	18	Heaviest cottons as for men's work clothes Heaviest woolen coating

NEEDLE SIZE

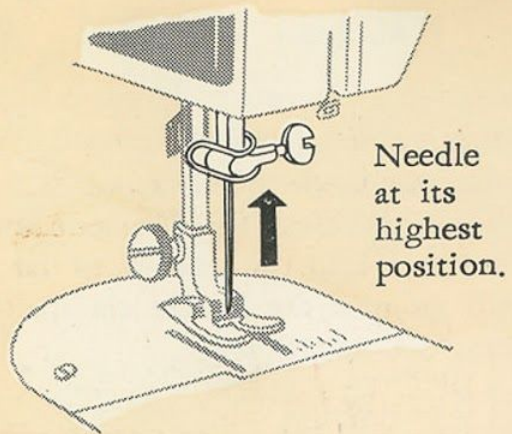
Use KENMORE 6021 needles. The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size thread should be used in the bobbin as on the upper part of the machine for ordinary sewing. Never use a bent needle or one with a blunt point.

PLACEMENT OF NEEDLE

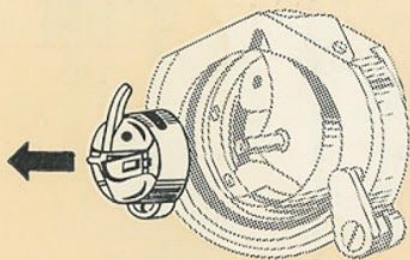
Raise needle bar to its highest position by turning hand wheel toward you. Loosen needle clamp screw. Hold the needle with flat side away from you. Slip the needle as far as it will go into the needle clamp, and tighten the thumb screw.



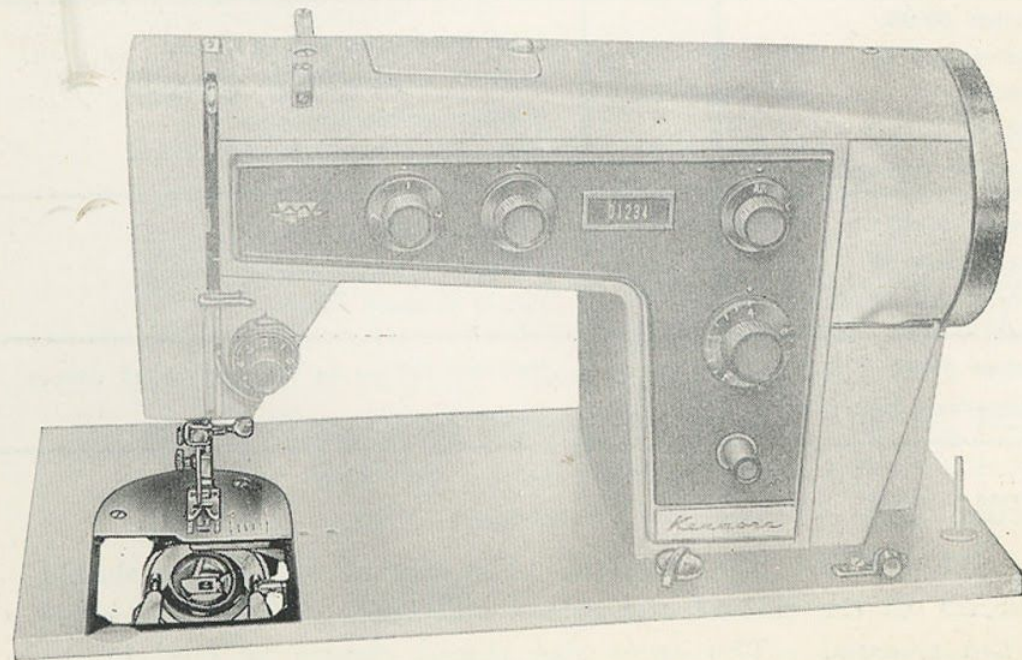
REMOVING BOBBIN CASE FROM SHUTTLE



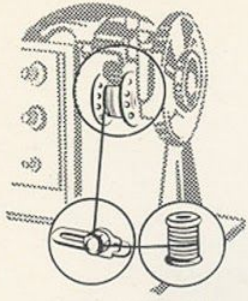
Pull out latch.



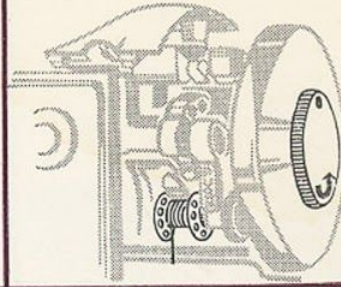
Pull bobbin case out through hand hole.



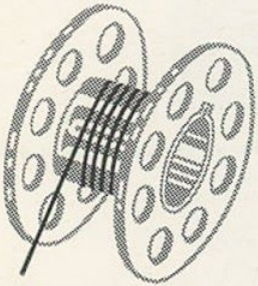
WINDING THE BOBBIN



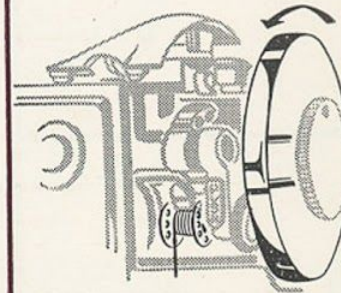
1. Place thread on the base spool pin. Draw thread from right to left under the bobbin winder thread guide. Pull bobbin winder door open.



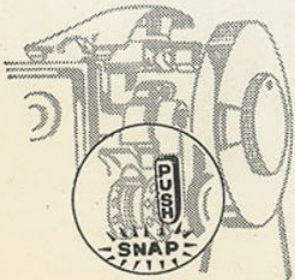
4. Hold the hand wheel with your left hand and turn clutch release toward you with your right hand.



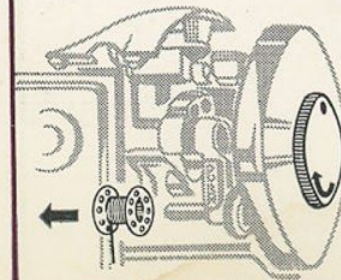
2. Wind the end around the bobbin several times from front to back.



5. Press control to start winding action. When bobbin is full, bobbin winding mechanism will release automatically. Bobbin winder tension disc is adjustable. If thread is not winding evenly, move guide to correct this situation.

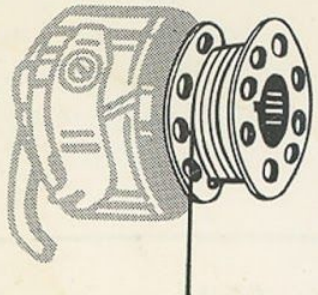


3. Push bobbin onto bobbin winder shaft. Snap bobbin winder lever down to hold bobbin.

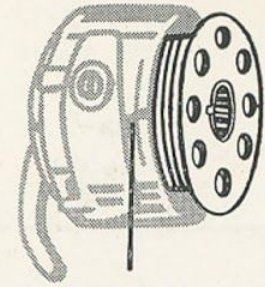


6. Tighten clutch release and remove bobbin.

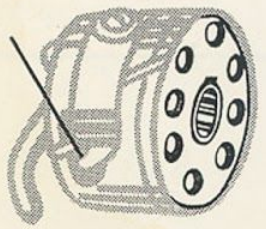
INSERTING BOBBIN INTO BOBBIN CASE.....CASE INTO SHUTTLE



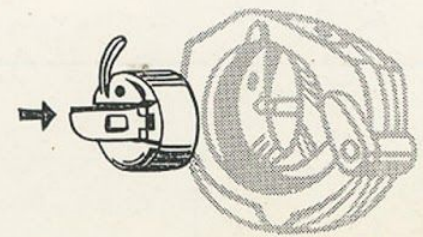
1. Insert bobbin into bobbin case.



2. Pull thread through slot.

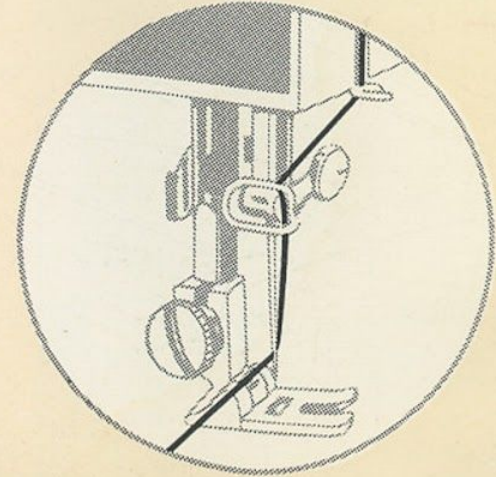
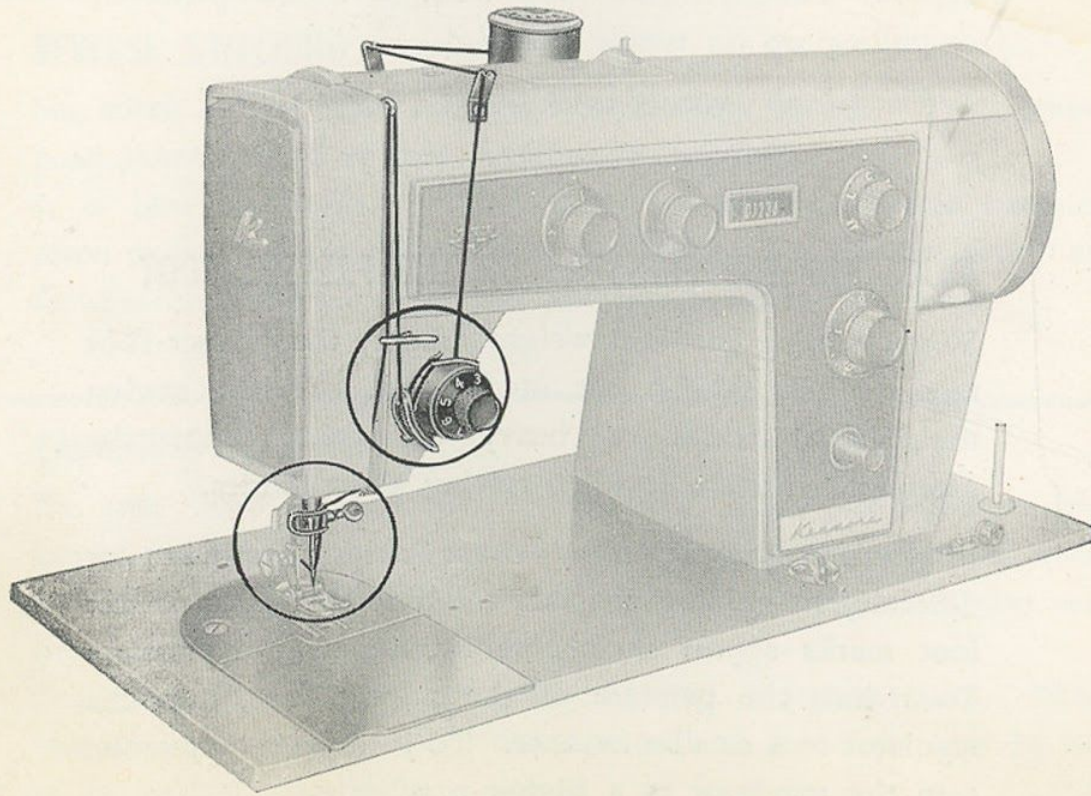


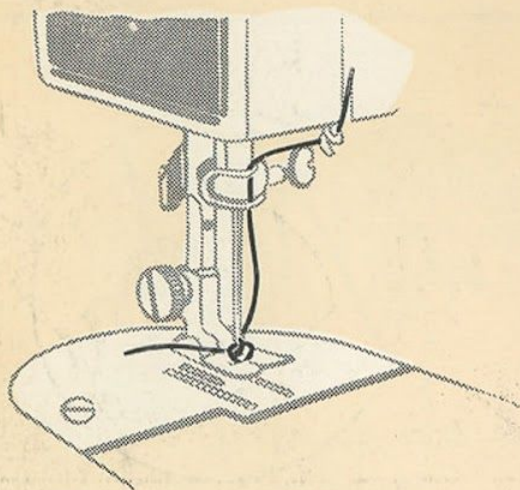
3. Pull thread under tension spring.



4. Position case into shuttle until it snaps.

MACHINE UPPER THREADING





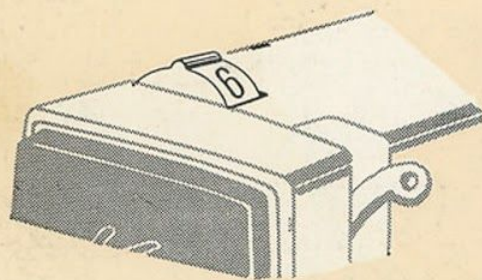
PICKING UP BOBBIN THREAD

1. Hold end of needle thread loosely in left hand. Turn hand wheel toward you so needle enters needle plate hole and returns to its highest point.
2. Draw bobbin thread loop through needle plate, by pulling up on needle thread.
3. Place both threads back under presser foot.

ADJUSTING THE PRESSURE OF THE PRESSER FOOT

When sewing medium weight fabrics, the presser foot regulator should be set at 5 or 6. When sewing multiple thickness or heavy material, reduce the pressure. Increase it when sewing sheer fabrics.

Insufficient pressure may cause skipped stitches or difficulty in guiding the fabric. If feed dog or presser foot marks appear on the fabric, reduce the pressure. To reduce the pressure of the presser foot, turn the regulator to a smaller number. To increase the pressure, turn the regulator to a higher number.



REGULATING STITCH LENGTH

Turn stitch length regulator to the desired point between 0 and 4 on the knob. The 4 setting is the longest stitch. The size of stitch you select will depend on the fabric you are sewing.

REVERSE STITCHING

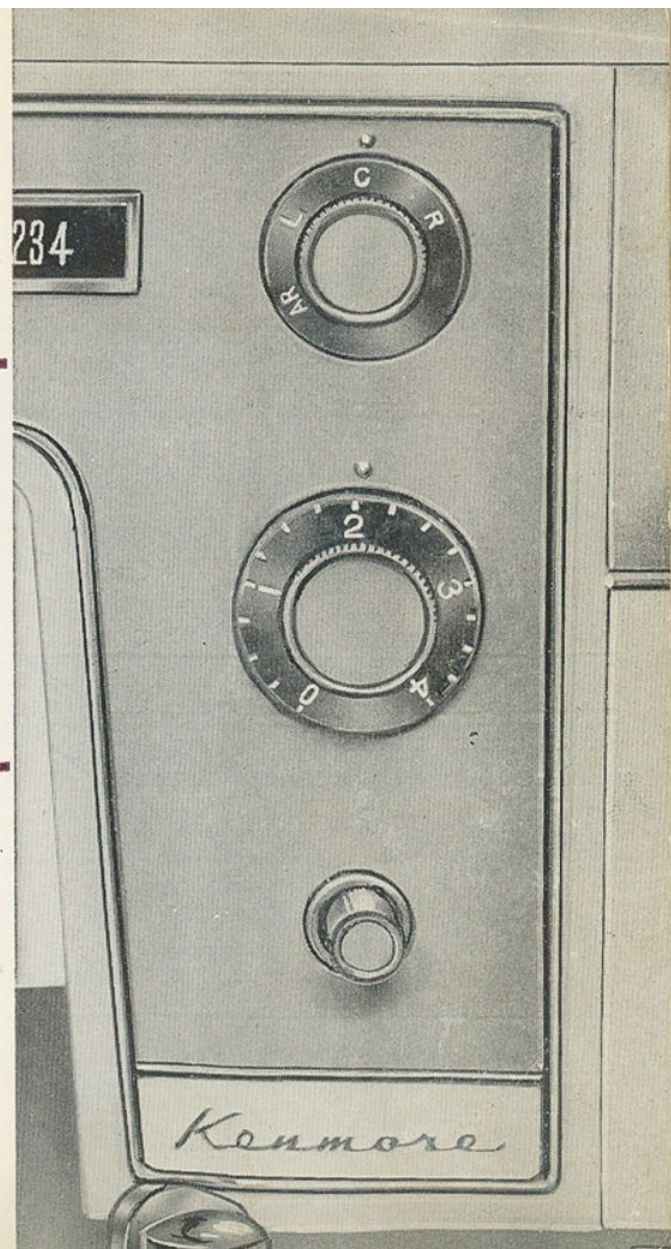
Set stitch length knob for the desired stitch length. Push reverse push button when reverse stitching is required.

It is best to begin and end most seams with reverse stitching, often called back tacking. Back tacking is a quick backward and forward stitching for reinforcement and finishing of seams.

FASTENING A SEAM

Be sure both threads are drawn back under the presser foot. Lower needle into fabric about $\frac{1}{2}$ inch from beginning of seam. Push reverse button for reverse stitching. Stitch in reverse until needle reaches beginning of seam.

Release button for forward stitching and complete seam. When you reach the end, push reverse button and sew back over $\frac{1}{2}$ inch of completed seam.



ADJUSTING TENSIONS

A perfect stitch will have threads locked between the two layers of fabric with no loops on top or bottom. (Refer to page 42)

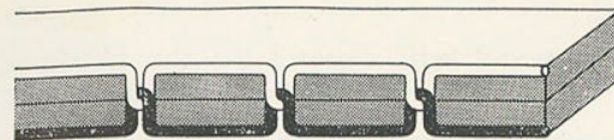


Fig. 1

PROBLEM

REMEDY

Upper thread too tight

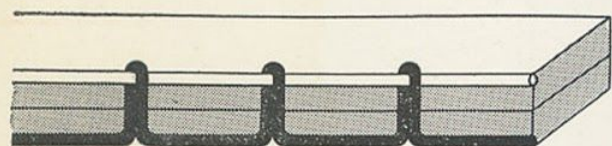
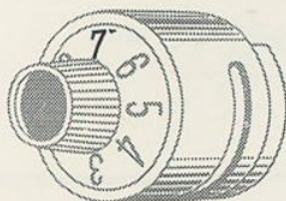
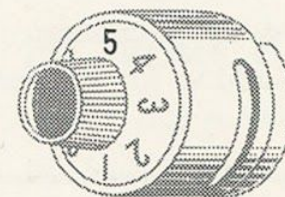


Fig. 2



Decrease Tension



Upper thread too loose

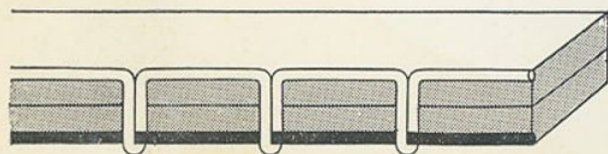
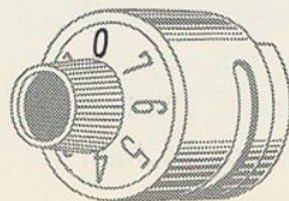
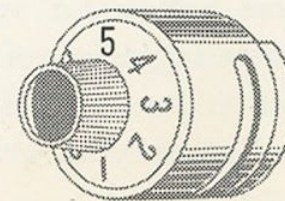


Fig. 3

12



Increase Tension

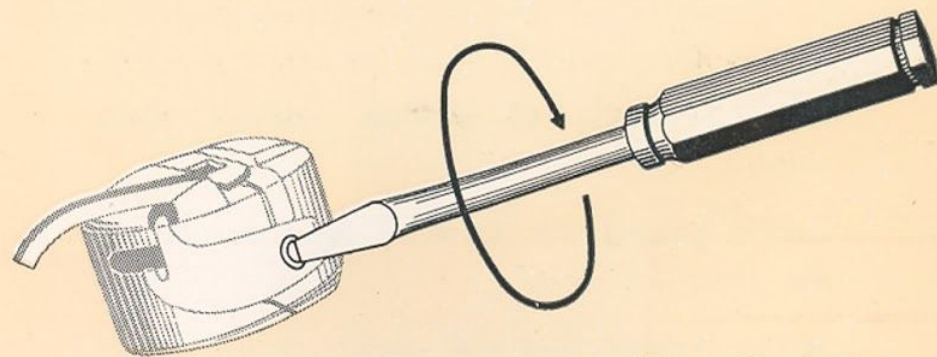


When stitching is unsatisfactory as in figures 2 and 3, adjust the upper thread tension. Lower thread tension requires adjustment less frequently than upper thread tension.

When stitch is satisfactory, as in figure 1 and seam is badly puckered, the cause may be tight tensions and both upper and lower may be adjusted. (See page 42)

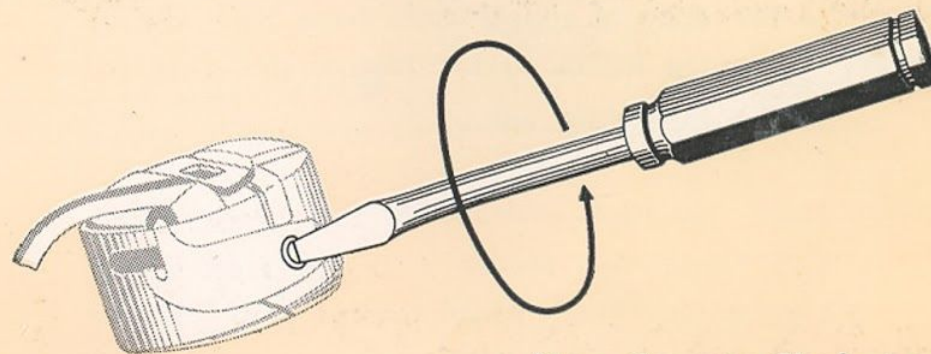
When adjusting the tension on the bobbin case, make slight adjustments with a screwdriver. (See page 42)

INCREASE TENSION



Turn Clockwise

DECREASE TENSION



Turn Counter Clockwise

INSERTING AND REMOVING THE MATERIAL

For all kinds of sewing, consult chart page 5.

Before placing the material on the machine see that:

- * The presser foot and needle clamp screws are both tight.
- * The sizes of needle and thread suit the kind of work to be done.
- * The tensions have been properly adjusted.
- * The ends of the threads have been drawn about 4 inches to the rear of the machine.
- * The feed dogs are up.

Place material underneath the presser foot and insert the needle into the material by turning the hand wheel toward you. Lower presser foot. Start sewing

To remove the work, first turn the hand wheel toward you until the needle is at its highest position, then raise the presser foot, draw material to the rear and cut off excess thread with the thread cutter located on the presser bar. To avoid "sewing off the end of material", back tack each seam.

IMPORTANT: Always turn the hand wheel toward you! When machine is not being used, place a piece of material over the feed dog and lower the presser foot. Always have fabric under the presser foot when operating the machine. Operating threaded machine without fabric will cause it to jam.

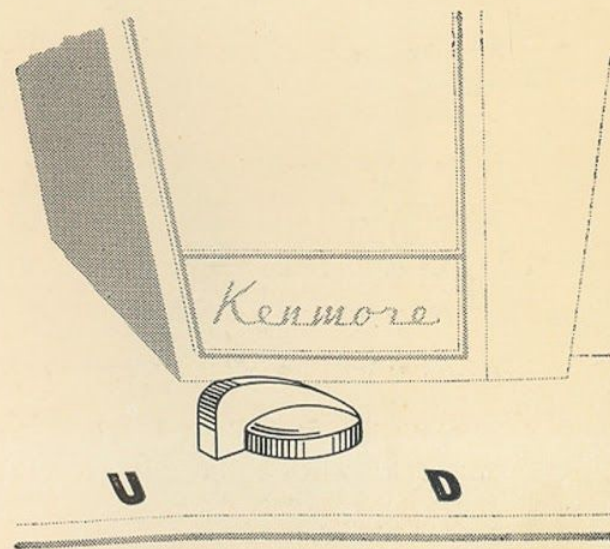
BASTING

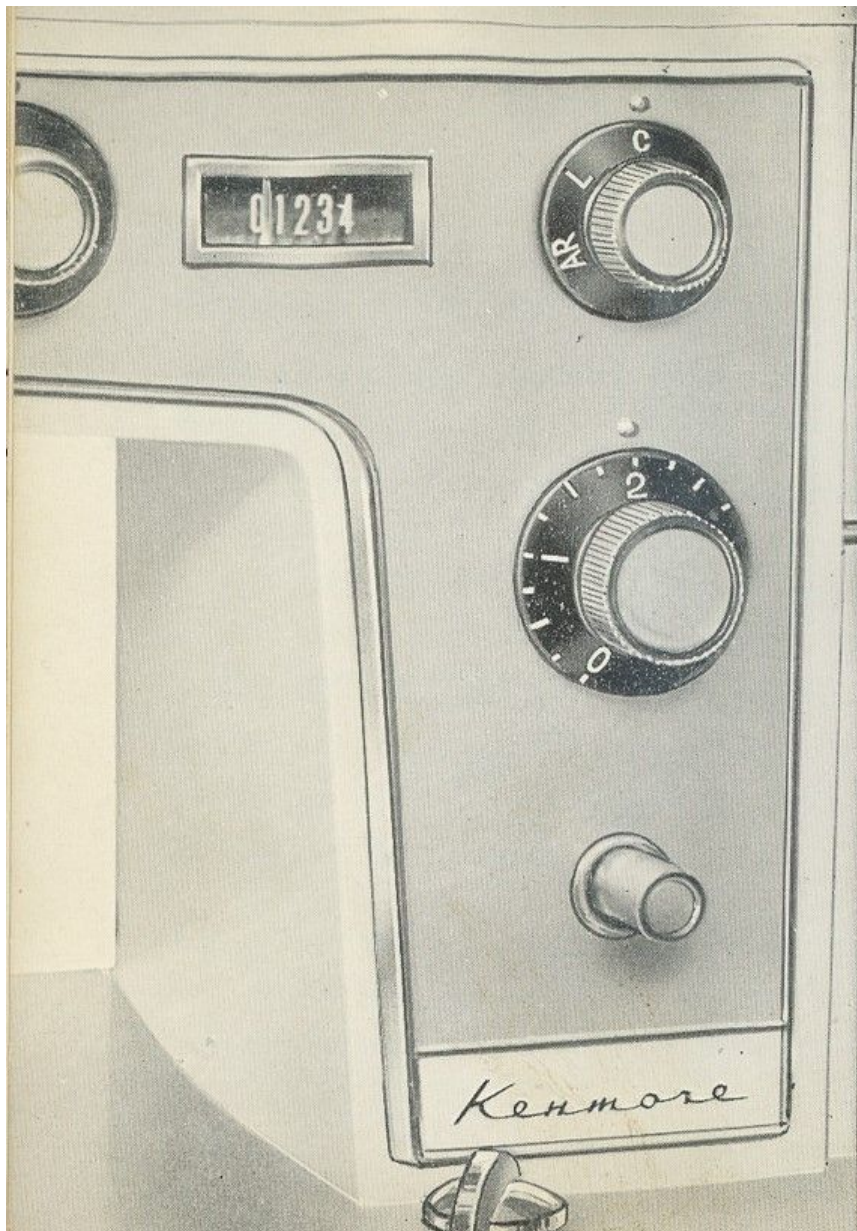
Set stitch length regulator knob at 4 for the longest possible stitch. Basting is easily removed by pulling one thread.

If you prefer to use pins for basting, your KENMORE will sew over the pins. Be sure to keep the pins at right angles to the seam and the head of the pin away from the presser foot. Also reduce pressure on presser foot.

DROP FEED CONTROL

This knob is situated on right front of machine bed. When knob is turned to the right, feed dog does not pull material. This allows the operator freedom of movement of material. For regular sewing, turn knob to the left.





SETTING STITCH WIDTH

To produce a zig zag stitch, push in knob and turn to desired setting between 0 and 4 on the stitch width indicator window. Zigzag stitch width increases from 0 to 4. Straight stitching is possible only with knob on 0. When stitch width lock is released, stitch width setting is locked.

SETTING NEEDLE POSITION

Turn needle position knob to right-center or left for corresponding needle position. The needle bar should be at its highest point when adjusting needle position or stitch width while the machine is stopped.

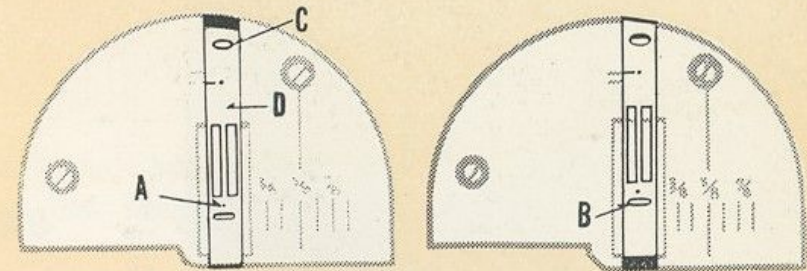
With 'AR' position of the needle position control knob, you can sew the automatic reverse stitches, using one of the 10 AR patterns #21 to #30.

DUAL PURPOSE NEEDLE PLATE

The dual purpose needle plate provides a small round needle hole (A) for straight stitching and a wide oval hole (B) for zigzag and decorative stitching. Use the notched hole (C) as a grip to slide the center plate (D) forward until it stops for straight stitching. Slide the center plate back until it stops for zigzag stitching. Be sure that the indicator mark on the center plate aligns with one of the lines on the needle plate. See illustrations.

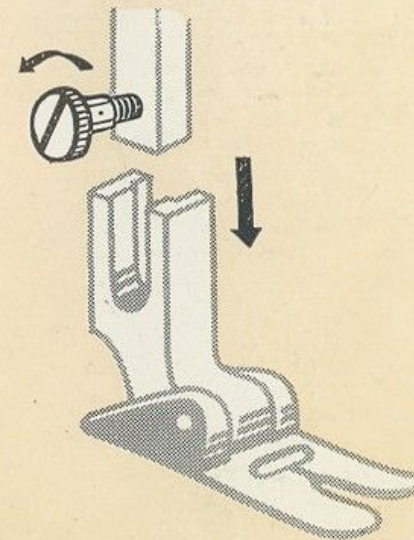
CHANGING THE ATTACHMENT FOOT

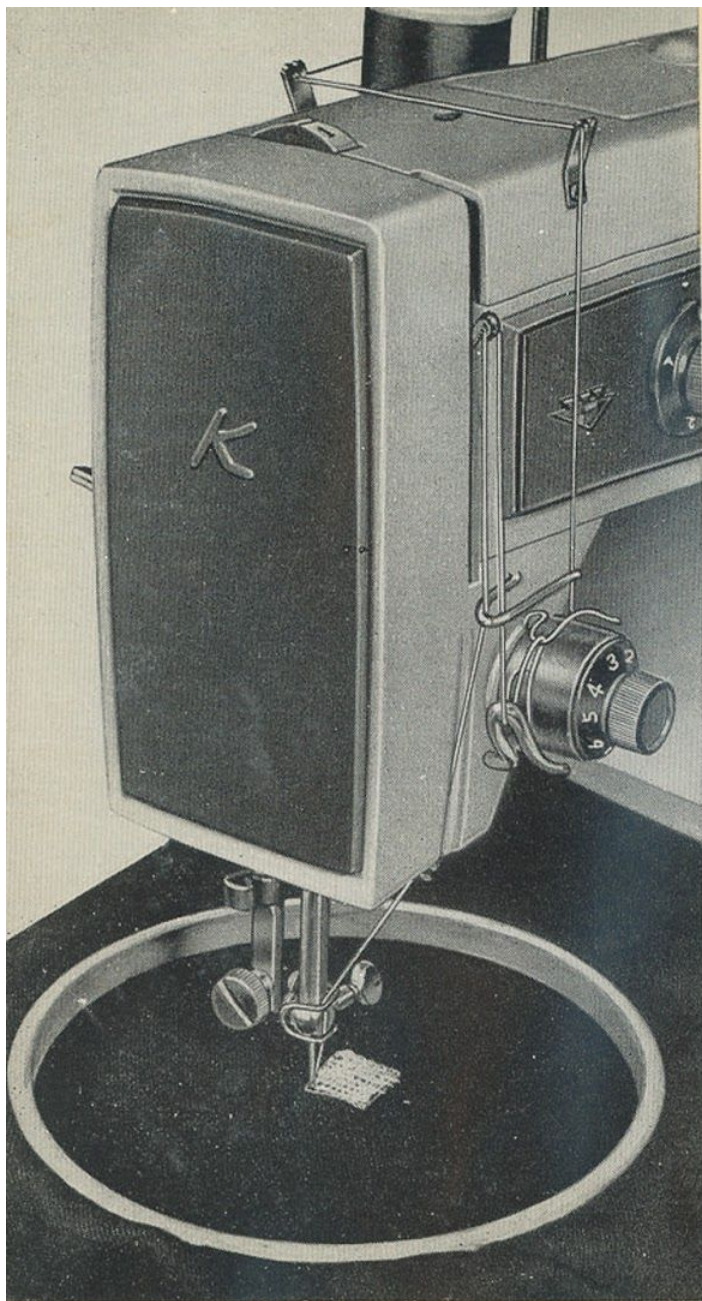
The various attachment feet available for certain kinds of work are to be fastened to the presser bar. To attach the foot, raise the presser bar to its highest position by raising the presser foot lever. Loosen the presser foot thumb screw, choose the proper foot, insert from the front. Tighten the screw using the large screw driver and make sure that the foot is secure.



FOR STRAIGHT STITCHING

FOR ZIGZAG STITCHING





MENDING

DARNING

Stitch width	0
Needle Position	"C"
Feed dog position	Down

Remove presser foot. Stretch fabric between embroidery hoops and place under needle. Draw the bobbin thread up through fabric by holding the upper thread and taking one stitch at the spot where you wish to begin darning. Lower presser bar. Start sewing at a medium machine speed. Move the fabric back and forth with a steady rhythm to cover the darning area. Then turn the fabric and sew another layer of stitching at right angles to the first. Move the fabric fast for long stitches, slowly for short stitches.

If you wish to darn without using embroidery hoop, leave the presser foot attached, move feed dog control to the right, and set foot pressure regulator at 1, thereby the pressure on the presser foot is released. Then proceed as above, stretching fabric tightly between hands.

OVERCASTING WORN EDGES

Stitch width 3 cr 4
Stitch length about 3/4
Needle position "C"

Zigzag stitch along the worn edge, catching the fabric as the needle swings to the left, and allowing the needle to just pass over the edge of the fabric on the right.

PATCHING

Machine baste patch into place under hole or worn area.

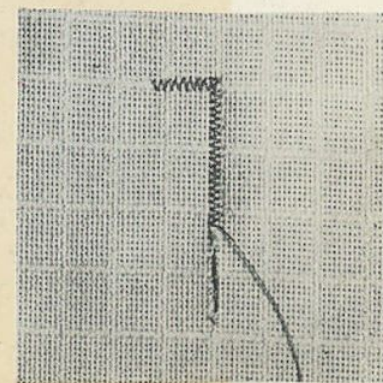
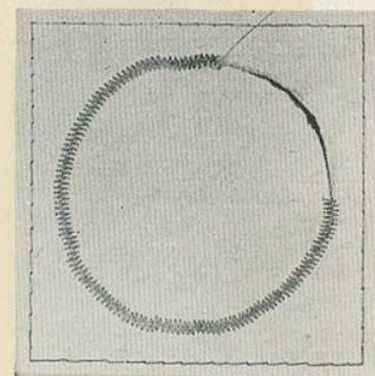
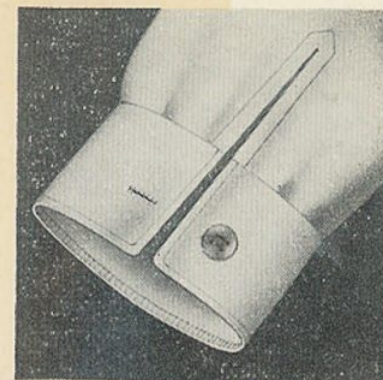
Stitch width 3
Stitch length about 3/4
Needle position "C"

Zigzag stitch the patch into place around edge of hole or worn area. Trim raw edges close to zigzag stitching.

STRAIGHT OR THREE-CORNERED TEAR

Stitch width 3 or 4
Stitch length about 1/2 to 3/4
Needle position "C"

Zigzag stitch along a straight tear, catching fabric on left side of tear on left swing of needle, and fabric on right side of tear on right swing of needle. In mending a three-cornered tear, zigzag stitch from each end to the center.

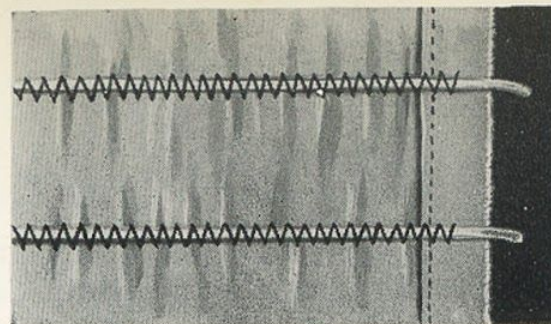


SEWING ELASTICS

LINGERIE ELASTIC

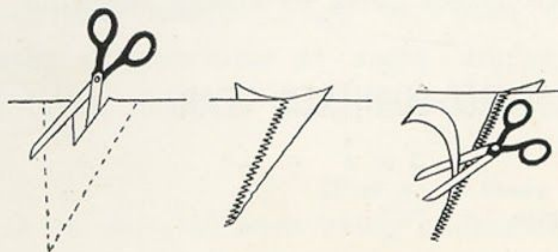
Stitch width 2 to 3
Stitch length 1
Needle position "C"

Stretch elastic while zigzag stitching to fabric.



SHAPING DARTS IN INTERFACINGS

Stitch width 3
Stitch length 3/4
Needle position "C"



Cut interfacing down center between dart lines. Overlap cut edges, matching dart lines. Zigzag stitch along marking line from point to wide end of dart. Trim both raw edges close to stitching.

WRITING AND MONOGRAMMING

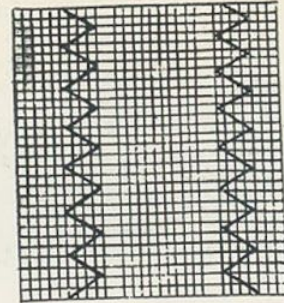


FREE HAND

Stitch width 0 to 4
Feed dog Down

Draw initials or words to be sewn on fabric and fit fabric into embroidery hoops.

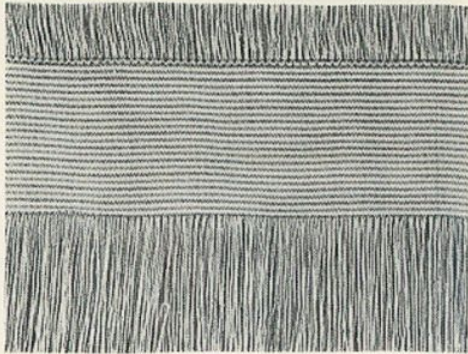
WRITING is done with either zigzag or straight stitching. Remove presser foot. Set stitch width for straight or zigzag stitches as desired. Slip hoop and fabric under the needle, lower presser bar and take one stitch to raise bobbin thread through fabric. Using a medium speed, stitch along marked outline, guiding fabric carefully by hands.



HEMSTITCHING

Stitch width 2 to 3
Stitch length 1 to 1½
Needle position "L"

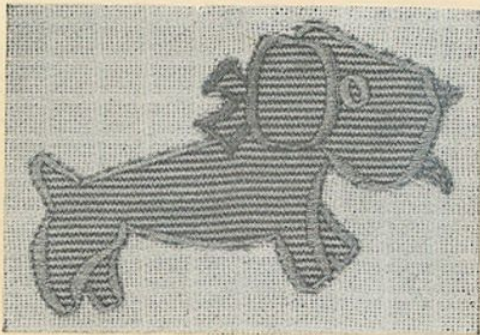
Draw two threads from fabric, on each side of desired depth of hemstitching. Zigzag stitch along drawn thread line so needle enters fabric on one side of zigzag stitch and drawn thread line on the other. When one edge of the hemstitching is sewn, turn fabric and stitch second side similarly. Match lines of stitching as illustrated. Draw threads between the two rows of stitching to complete the hemstitching.



FRINGE

Set machine controls as for hemstitching.

Decide on fringe length and draw one thread that distance from the raw edge of fabric. Lower needle and stitch along the drawn thread line, as for hemstitching. Unravel all threads from the raw edge to the line stitching.



APPLIQUE

Baste applique to fabric. Set stitch width 2 to 4. Set stitch length about $\frac{1}{2}$. | Zig-zag stitch around applique, completely covering the raw edge.

RICK-RACK

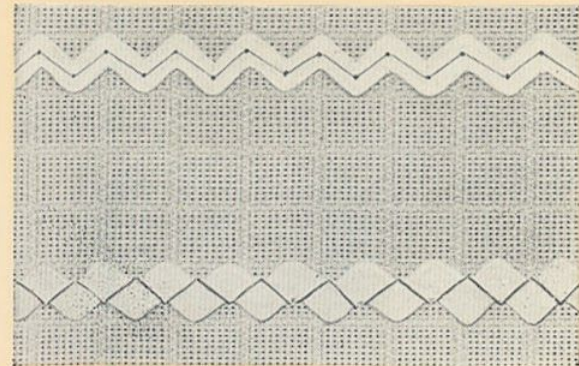
Needle position "C"

Place rick-rack on fabric under center of presser foot.

TO FOLLOW; Lower needle into a scallop. Turn hand wheel manually and adjust stitch width and length until needle enters opposite scallop. Zigzag stitch entire length of rick-rack.

TO ENCLOSE; Lower needle into fabric between two scallops. Adjust as above until needle enters fabric between opposite scallops. Needle should not pierce rick-rack.

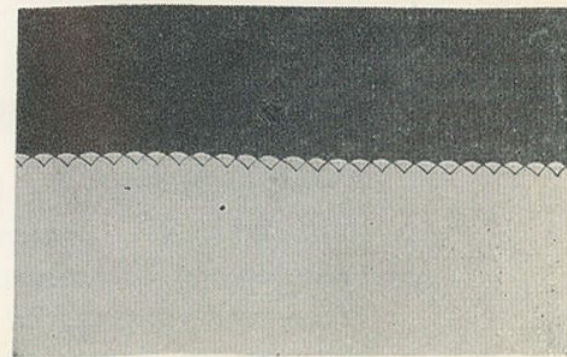
These instructions apply only to small size - for commercial size, sew down the middle.

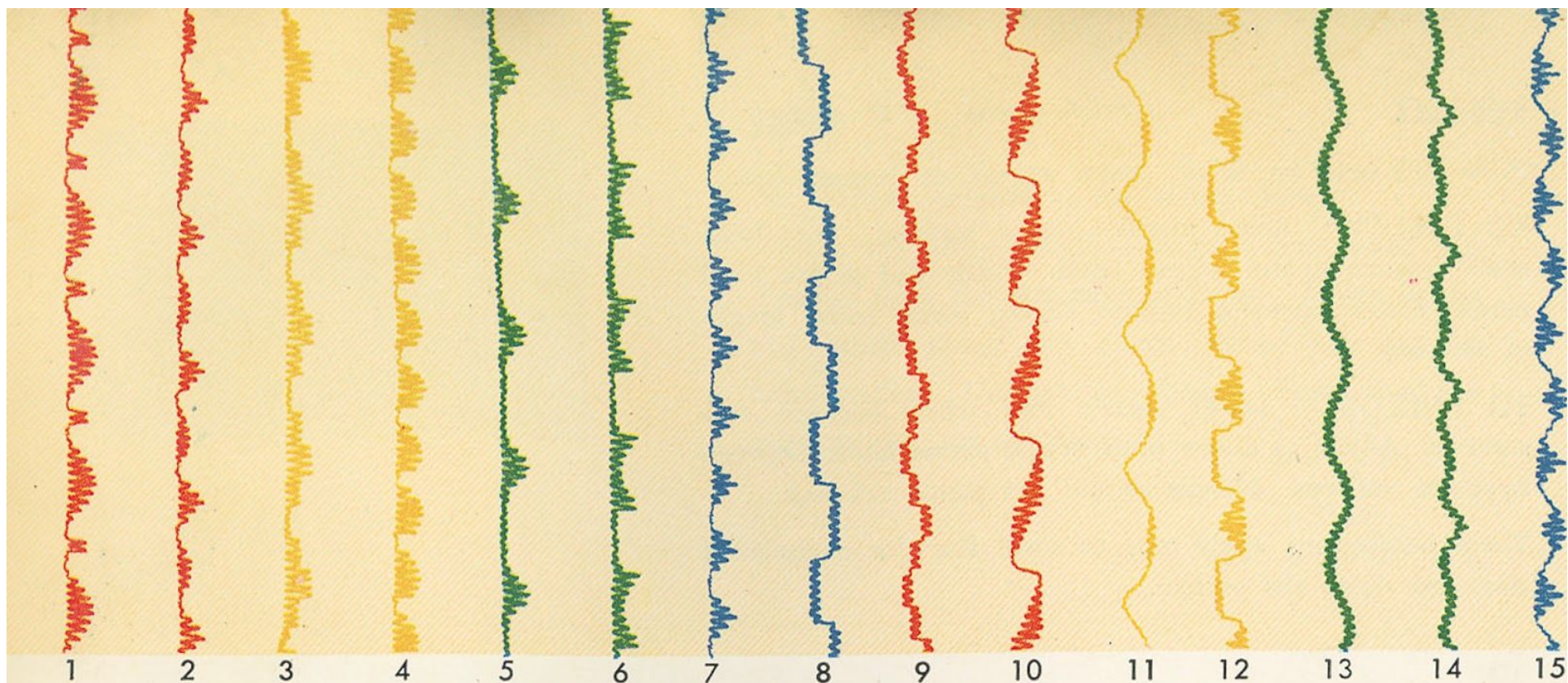


SHELL STITCH EDGING

Needle position "C"

This decorative edge treatment may be done on most soft fabrics. Set machine for a plain zigzag stitch, and tighten both thread tensions. Sew along folded edge.

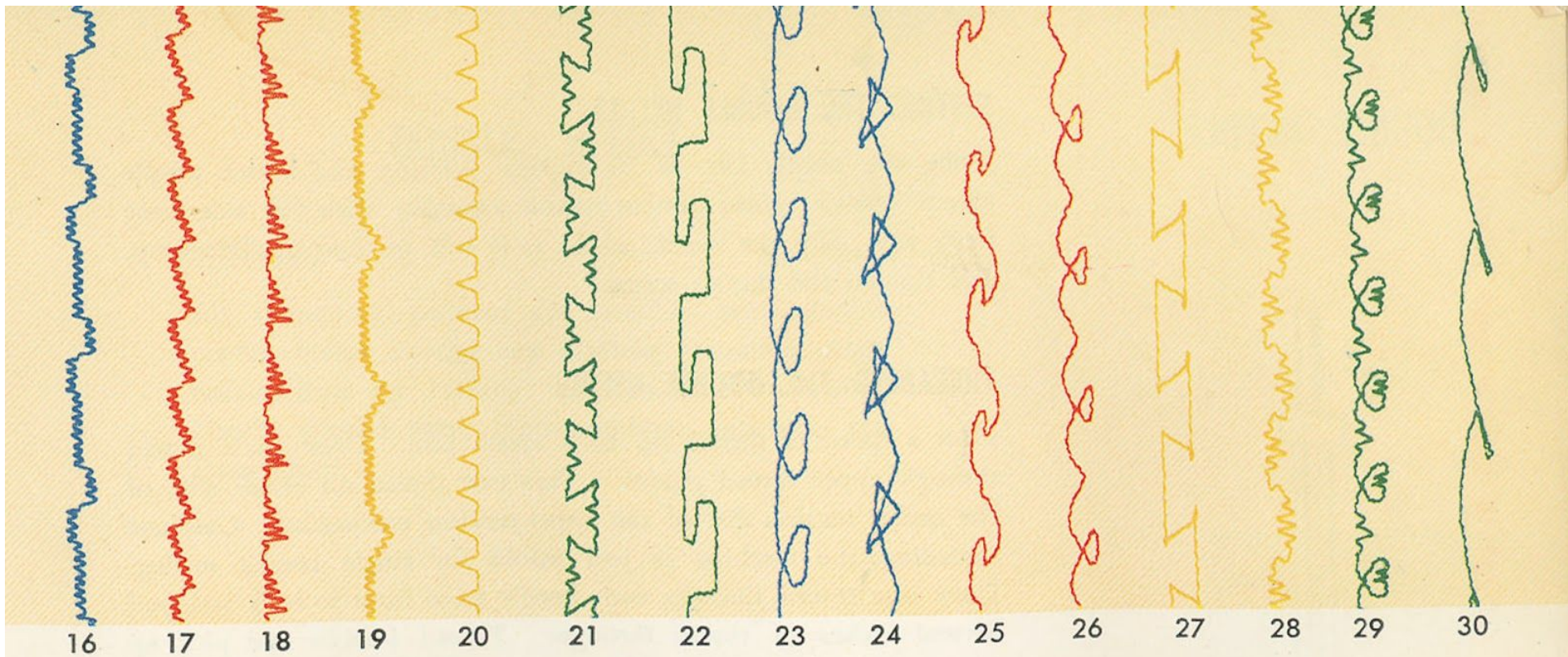




AUTOMATIC DECORATIVE STITCHING

Besides the above basic patterns, by setting the needle position to the right, left or center, an almost endless variety of beautiful decorative stitches are automatically available. Any one of these patterns can be made with either the single or double needle.

The stitch expander permits you to change the length of the stitch without changing the character of the pattern.



REMEMBER THE FOLLOWING REFERENCES

- | | |
|---|----------------|
| 1. Pattern disc, pattern and number engraved on it | 28 |
| 2. Needle position knob | 16, 30-31 |
| 3. Stitch expander | 29, 30-33 |
| 4. Stitch length knob.....tighter or looser patterns..... | 11, 30-33 |
| 5. Stitch width control | 16, 30-33 |
| 6. Double needle | 26, 27, 31, 33 |
| 7. Automatic reverse | 28, 32, 33 |

DOUBLE NEEDLE



SETTING THE DOUBLE NEEDLE

Raise the needle bar to its highest position and loosen needle clamp screw. Hold double needle assembly with flat side away from you. Slip the needle as far as it will go into needle clamp, and tighten the thumb screw.

THREADING THE DOUBLE NEEDLE

Place a spool of thread on each spool pin. Draw each thread through upper thread guides. Pass one thread on either side of the center tension disc of the upper tension mechanism. Continue threading the machine as you would for single needle sewing. Draw one thread through each needle from front to back and pull several inches of thread through. Thread bobbin and pick up bobbin thread as for single needle sewing.

THREAD SELECTION

Use only mercerized machine embroidery thread or mercerized sewing thread size 50 and finer. Machine embroidery thread is recommended for both upper and lower threading.

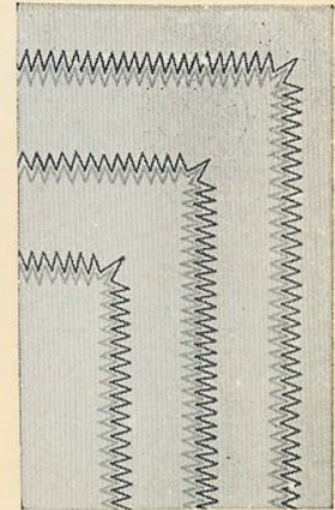
DOUBLE NEEDLE

STITCHING

All decorative patterns are possible with double needle. Before starting any stitching operation, check needle drop by turning the handwheel manually. Needle should enter fabric without touching the presser foot.

TURNING A CORNER

To turn a square corner in double needle stitching, stop stitching with the needle tips just piercing the fabric. Raise the presser foot, shift fabric half the turn, lower presser foot and take one stitch. Raise the presser foot again, complete the turn, and begin stitching in the new direction.



AUTOMATIC DECORATIVE STITCHING

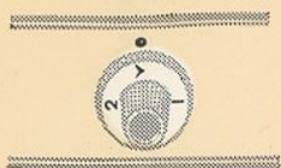
INSERTING PATTERN DISCS

1. Open automatic stitch mechanism cover and grasp knob of pattern disc. Slip disc onto the shaft so that the retaining pin enters hole in disc. See illustration 1.
2. To time the disc to the beginning of decorative stitching, turn the STITCH EXPANDER KNOB clockwise until it clicks in at an arrow mark between positions 1 and 2, thereby the shaft is freed for manual rotation. See illustration 2. Turn the shaft in either direction so that the dot mark engraved on disc is aligned with the point on cam follower. See illustration 3.
3. Shut cover and set the stitch expander knob at 1 for the original decorative stitching or 2 for a pattern of doubled length.
4. To remove pattern disc, open cover and pull it out from the shaft.

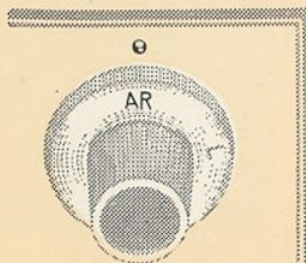
1



2



3



AUTOMATIC REVERSE STITCHING

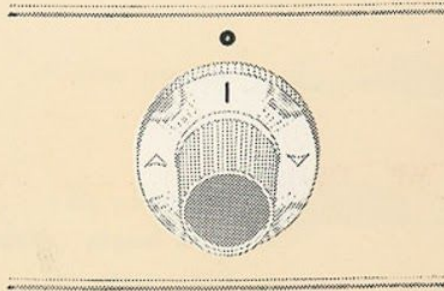
Your machine is provided with 10 automatic reverse pattern discs, disc numbers 21 to 30. When using these pattern discs, the needle position control knob should be in AR position. With this position, the machine feed is automatically controlled.

STITCH EXPANDER

The stitch expander knob regulates the length of automatic decorative patterns. This knob has two settings and thus your KENMORE offers you doubled variations of the basic decorative patterns.

Position 1 is for the original decorative stitching.

Position 2 makes a pattern of doubled length without any change in the stitch length.



To operate the stitch expander, turn the knob clockwise until it clicks in position, with the marking on it lining up with a point on the control plate. Variations of pattern length are illustrated on pages 30 through 33.

AUTOMATIC DECORATIVE STITCH VARIATIONS

For countless variations of the patterns illustrated on pages 24 and 25, we have taken cam No. 1 to show just a fraction of the possibilities of which this single unit is capable. A change in stitch length will alter the pattern. A small stitch length produces a more compact and usually a more desirable pattern. For best results try experimenting with the stitch length. Loosen the upper tension slightly for more effective decorative stitching. When the stitches are too close together, they may jam. Use an interfacing on soft fabrics.

Needle Position

WITH THE 3 POSITION NEEDLE CAMS 1 TO 20

Right position



Center position



Left position



Stitch length about 1/2
Stitch width 0
Stitch expander 1
Single needle

USING THE STITCH EXPANDER

Needle Position

Right position



Center position



Left position



Stitch length about 1/2
Stitch width 0
Stitch expander 2
Single needle

Needle Position

USING THE DOUBLE NEEDLE

Right position



Center position



Left position



Stitch length about 1/2
Stitch width 0
Stitch expander 1
Double needle

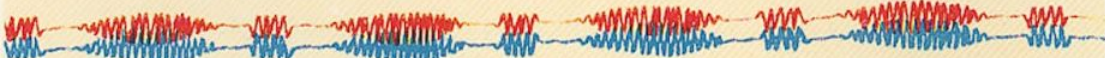
Needle Position

USING THE DOUBLE NEEDLE AND STITCH EXPANDER

Right position



Center position



Left position



Stitch length about 1/2
Stitch width 0
Stitch expander 2
Double needle

SATIN STITCH

The satin stitch requires no cam and can be any width from 1-4. Regulate the stitch length to produce effect desired. Use either a single or double needle. Sample was made with stitch width at 4.



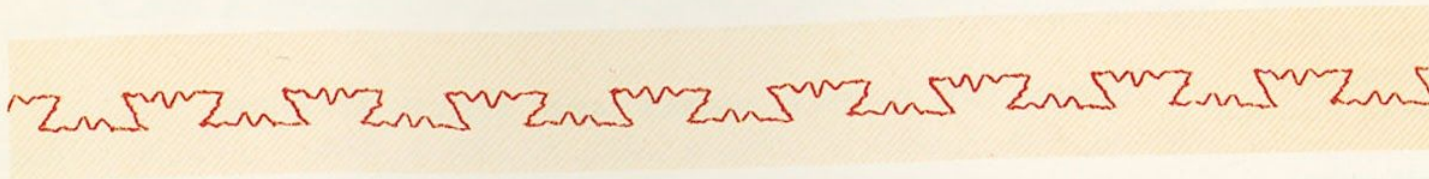
Stitch length about 1/2
Stitch width 1 to 4
Stitch expander 1

AUTOMATIC DECORATIVE STITCH VARIATIONS CAMS 21 TO 30

More intricate patterns are made with the automatic reverse cams. Set the needle position at AR and vary the other settings to produce the pattern desired.

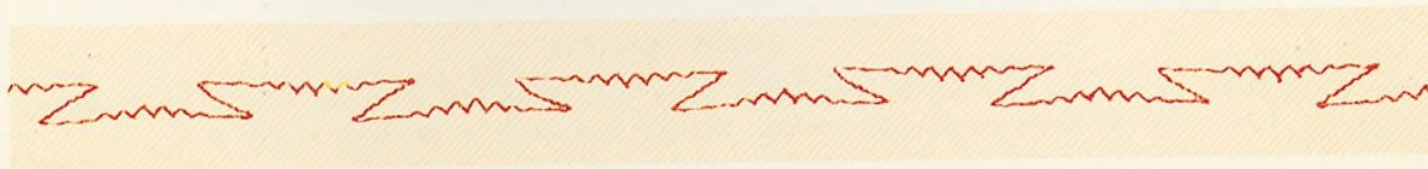
The following variations were accomplished with cam No. 21.

SINGLE NEEDLE



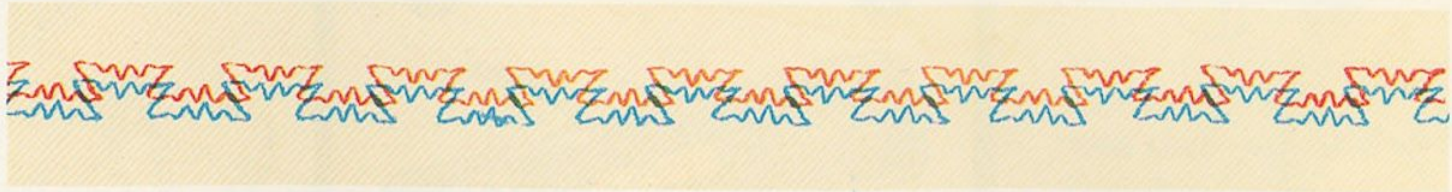
Needle position	AR	Stitch width	0
Stitch length	about 3/4	Stitch expander	1

SINGLE NEEDLE AND STITCH EXPANDER



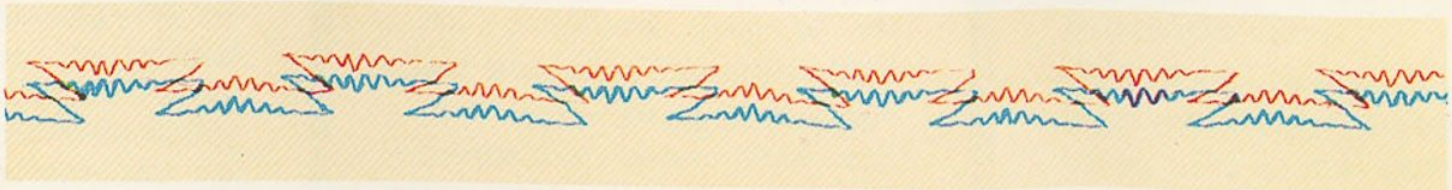
Needle position	AR	Stitch width	0
Stitch length	about 3/4	Stitch expander	2

DOUBLE NEEDLE



Needle position	AR	Stitch expander	1
Stitch length	about 3/4	Double needle	
Stitch width	0		

DOUBLE NEEDLE AND STITCH EXPANDER

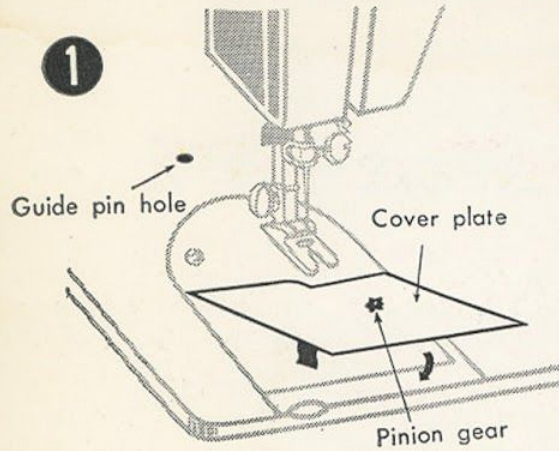


Needle position	AR	Stitch expander	2
Stitch length	about 3/4	Double needle	
Stitch width	0		

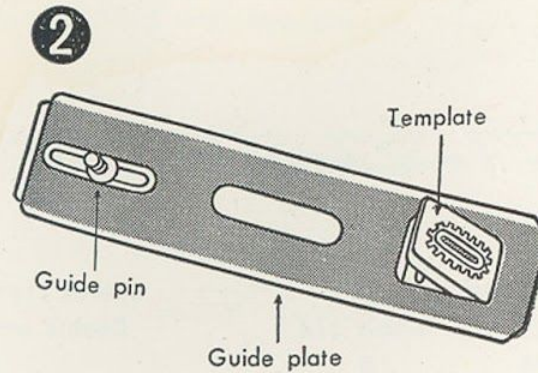
BUTTONHOLES

Stitch width knob - about 2
Needle position knob - C
Feed dog - Down

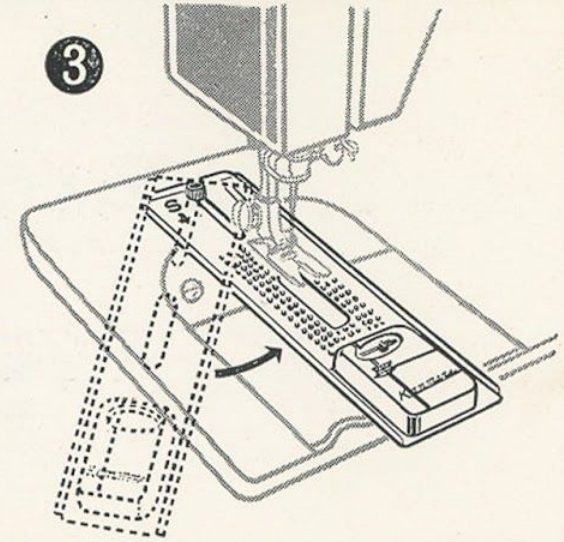
Cover plate for buttonholes
Remove pattern disc from machine



Remove regular cover plate and insert buttonhole cover plate.

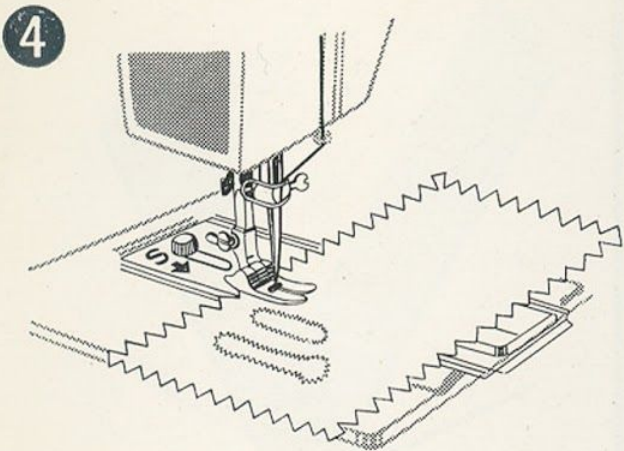


Select desired template and snap into guide plate.

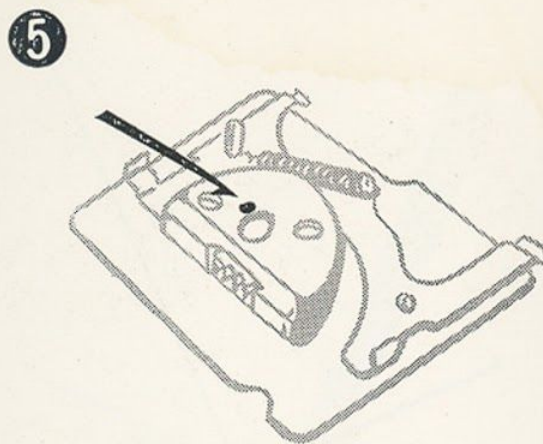


Pull guide plate all the way forward so that guide pin is at S. This will enable you to start at one end of the buttonhole. Screw guide pin on guide plate into guide pin hole on machine bed.

Drop guide plate into place with template fitting over the pinion gear.



4 Pick up bobbin thread through guide plate and draw threads toward back. Place material on the guide plate. Drop presser foot and start sewing. Button hole will be formed automatically. The buttonhole size and shape is not influenced by either the stitch length knob or the stitch expander knob so they may be set on any position.



5 An occasional drop of oil on the oiling hole provided on the back of the buttonhole cover plate will provide smooth operation of your buttonhole maker.

Hints for Perfect Buttonholes

Mark the position of each buttonhole on the garment with chalk or a line of basting.

Loosely woven fabrics and fabrics that stretch easily such as jersey should have an interfacing of a firm fabric. Use cambric or taffeta between woolens and rayons - organdy or lawn between light weight and sheer fabrics.

Use buttonhole scissors or buttonhole cutter to cut buttonhole open.

Always make a practice buttonhole on a piece of the fabric to be used in the garment.

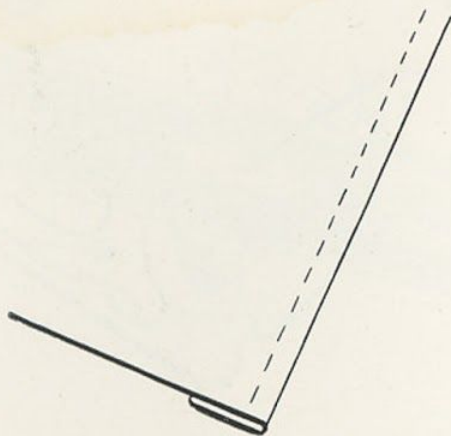
A wider stitch width may be desirable on heavy weight fabrics.

HEMS

BLIND STITCHED HEM

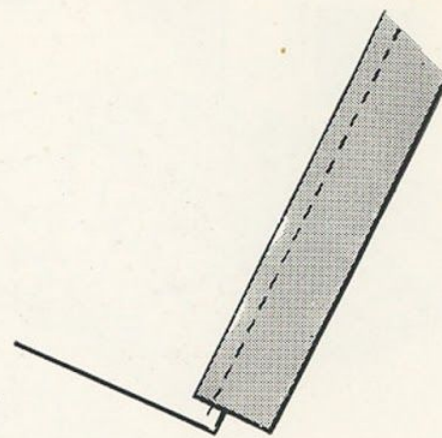
Disc	#20
Stitch width to	0
Stitch length adout	2-4
Needle position	"R"
Stitch Expander	Position 1

1



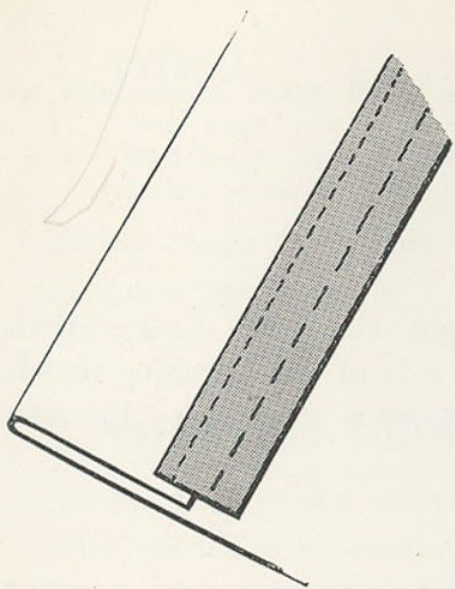
1. Prepare the hem with a turned and edgestitched finish or;

2



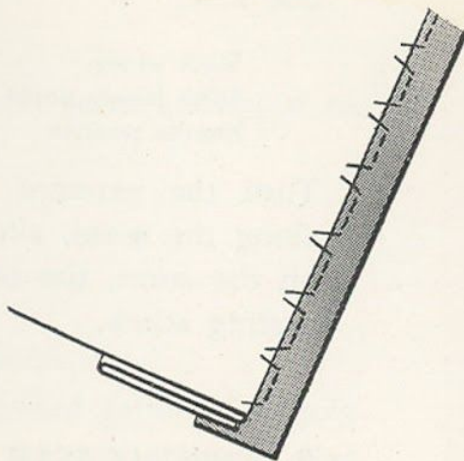
2. Apply seam tape along the raw edge with either straight or zig zag stitching.

3



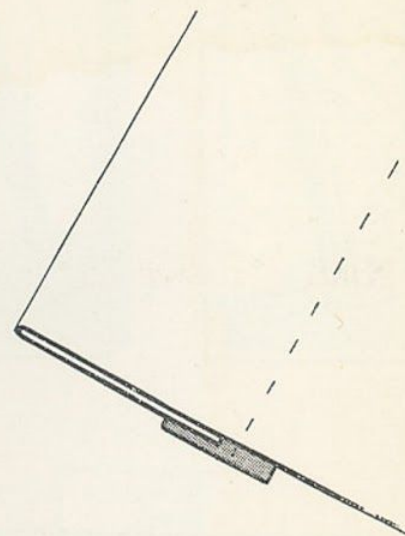
3. Turn hem and baste $\frac{1}{8}$ inch from the edge of the seam tape using longest stitch on the sewing machine.

4



4. Fold garment back along basting line and stitch along garment fold using disc #20.

5



5. Remove basting and press hem. The basting step may be eliminated in a straight hem.

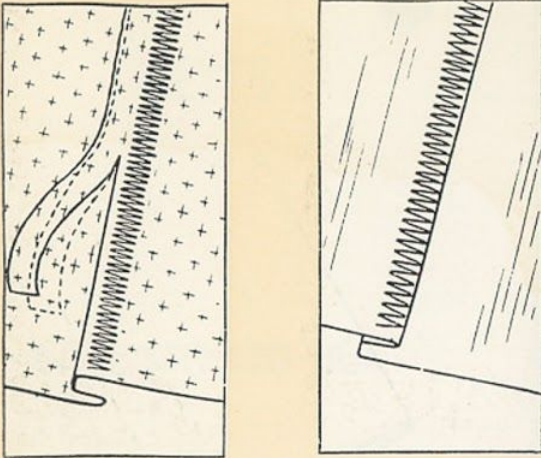
SPECIAL PURPOSE SEAM

1. LINGERIE SEAM

Machine baste seam and press both seam allowances to one side.

Stitch width	2 to 4
Stitch length about	1
Needle position	Center

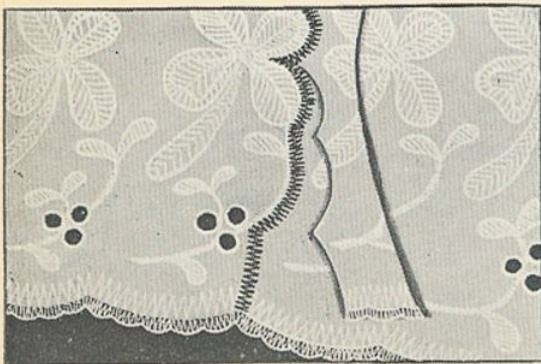
Turn the garment to the right side and zigzag stitch along the seam, allowing one side of the stitching to fall on the seam, the other on the seam thickness. Remove basting stitch.



2. INVISIBLE SEAM FOR LACES AND EMBROIDERED FABRICS

Set stitch width to	1
Set stitch length to	1 or 2

Place fabric under the presser foot and place lace on top of fabric overlapping edge by $\frac{1}{4}$ inch. Start sewing with the needle at the left side. Position fabric and lace so that needle goes into left edge of lace. To sew two pieces together to make a continuous pattern, use the same method.



SEAM FINISHES

1. OVERCAST

Stitch width 2 to 4
Stitch length about 1 to 2
Needle position "C"

Zigzag stitch along raw edge of each seam allowance to eliminate ravelling.

2. TURNED AND STITCHED

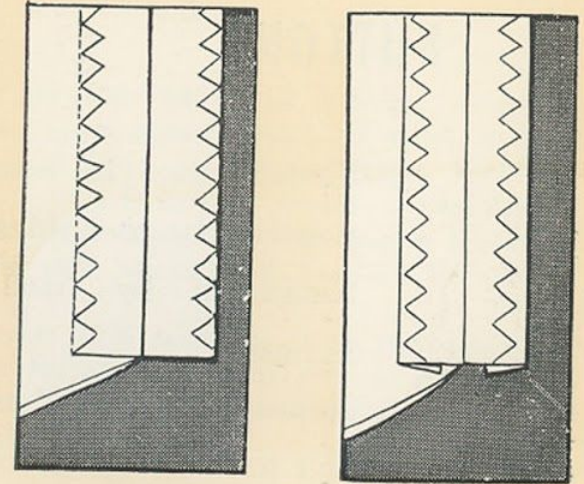
Set machine as for overcast seam finish.

Fold raw edge of seam allowance toward garment. Zigzag stitch along fold, allowing needle to pierce exact edge of fold.

3. BARTACK POINTS OF STRAIN (REINFORCEMENTS)

Stitch width 2 to 4
Stitch length about $\frac{1}{2}$
Needle position "C"

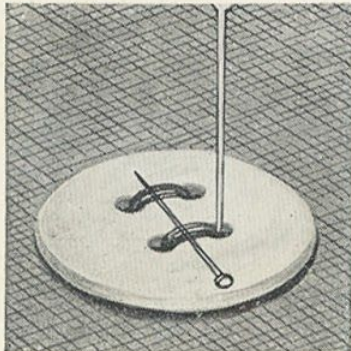
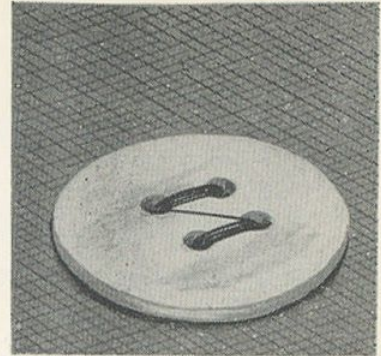
Zigzag stitch bartack to length desired.



BUTTONS

Center holes in button in slit in presser foot. Lower presser foot to hold securely. Drop feed dogs. Turn handwheel by hand until needle goes into hole in button.

Adjust stitch width so that needle goes into second hole and lock. Stitch a number of times to hold securely.



NOTE: To make a small thread shank when sewing on a flat button, place a straight pin or needle between the holes of the button.

SYNTHETICS

Your KENMORE will sew all the new fabrics of synthetic fiber, such as nylon, *Orlon, **Dacron, rayon, acetate, blends of these, and combinations of synthetic and natural fibers. When stitching a fabric of blended or combined fibers, handle it as you would a material of the fiber present in the largest percentage. For example, a fabric woven of 60% Orlon and 40% silk should be handled as one made entirely of Orlon.

When stitching a fabric that is over 50% synthetic fiber, remember:

- a. Select patterns of the loose fitting type with cap or kimono sleeves, because most synthetic fiber fabrics cannot be eased with steam pressing, and are not absorbent.
- b. Use a synthetic thread.
- c. Use a fine needle as recommended in chart on page 5.
- d. Wind the bobbin in the usual way, but do not pass thread between tension discs. Guide thread by hand for a smoothly wound bobbin.
- e. Choose the stitch length that gives the most satisfactory seam.
- f. Check thread tensions by sewing on a double thickness of the fabric to be used. Usually the upper thread tension must be loosened. Sometimes both bobbin and upper thread tensions must be loosened (page 12, 13).

SEWING ON PLASTIC FILMS

Set the machine with normal thread tensions and a large size stitch. Use a fine needle and mercerized thread. Hold plastic pieces together with cellophane tape or paper clips rather than pins. Sew corners slightly rounded rather than square.

*Trademark for Dupont's Acrylic fiber. **Trademark for Dupont's Polyester fiber.

ADJUSTING YOUR SEWING MACHINE FOR GOOD STITCHES

When your sewing machine does not sew a properly locked stitch, check the following:

1. Insert a new needle of the correct size for the thread and fabric you are using. Consult chart on page 5 for needle size.
2. The upper and bobbin threads should be matched in size and type.
3. Check threading carefully. See page 9.
4. Check the thread tension balance. Use #50 mercerized thread, size 14 needle, and a firm cotton fabric.

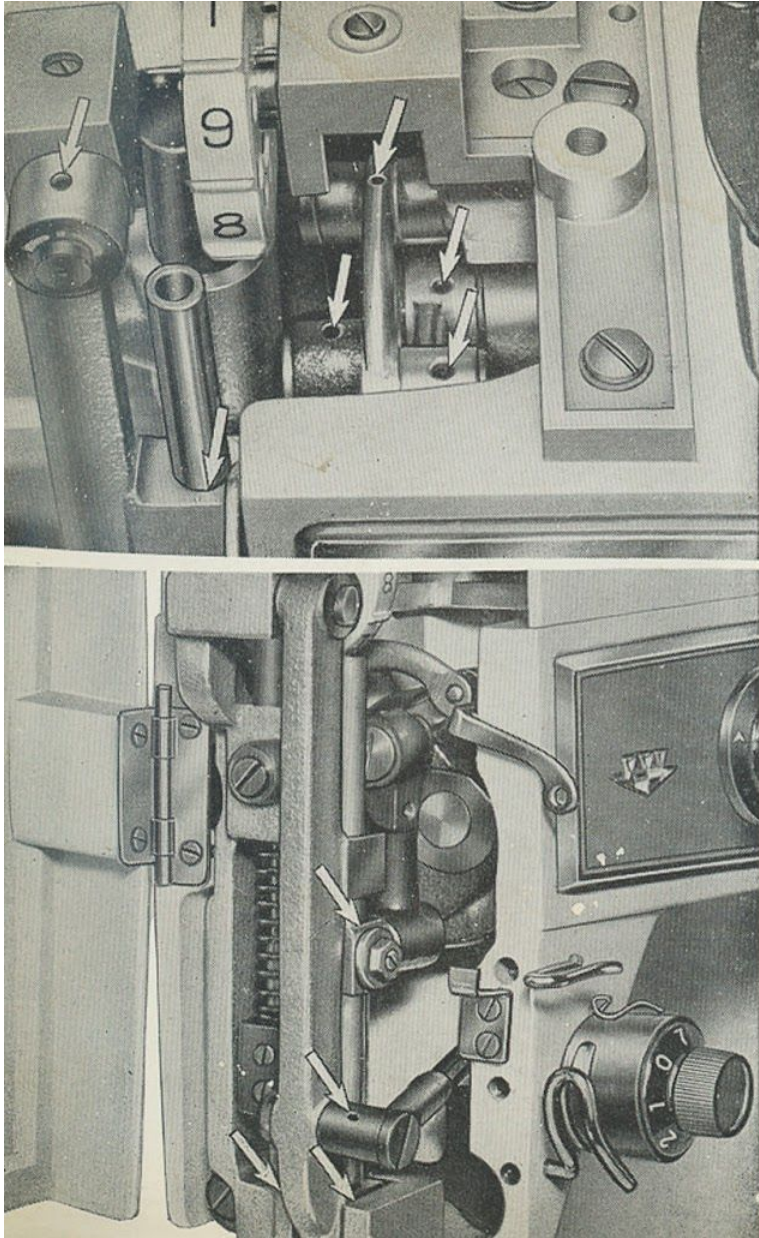
Begin with a full bobbin, properly threaded into the case. Set the stitch length at about 12 stitches per inch. Make a row of bias stitching on a double thickness of your fabric.

- a. If seam is puckered - both tensions are too tight.
- b. If bottom thread is looped - tighten upper thread tension.
- c. If top thread lays on top of fabric - loosen upper thread tension.

Then grasp a good bias seam and pull evenly and firmly until one or both threads break.

- a. If both threads break - tensions are balanced.
- b. If neither thread breaks - both tensions are too loose.
- c. If upper thread breaks - loosen upper tension.
- d. If lower thread breaks - tighten upper tension.

Bobbin tension may also be reset by this procedure. Start with a loose bobbin thread tension. Tighten the spring screw gradually until bobbin case and full bobbin can be gently lifted from your hand by the end of the bobbin thread.



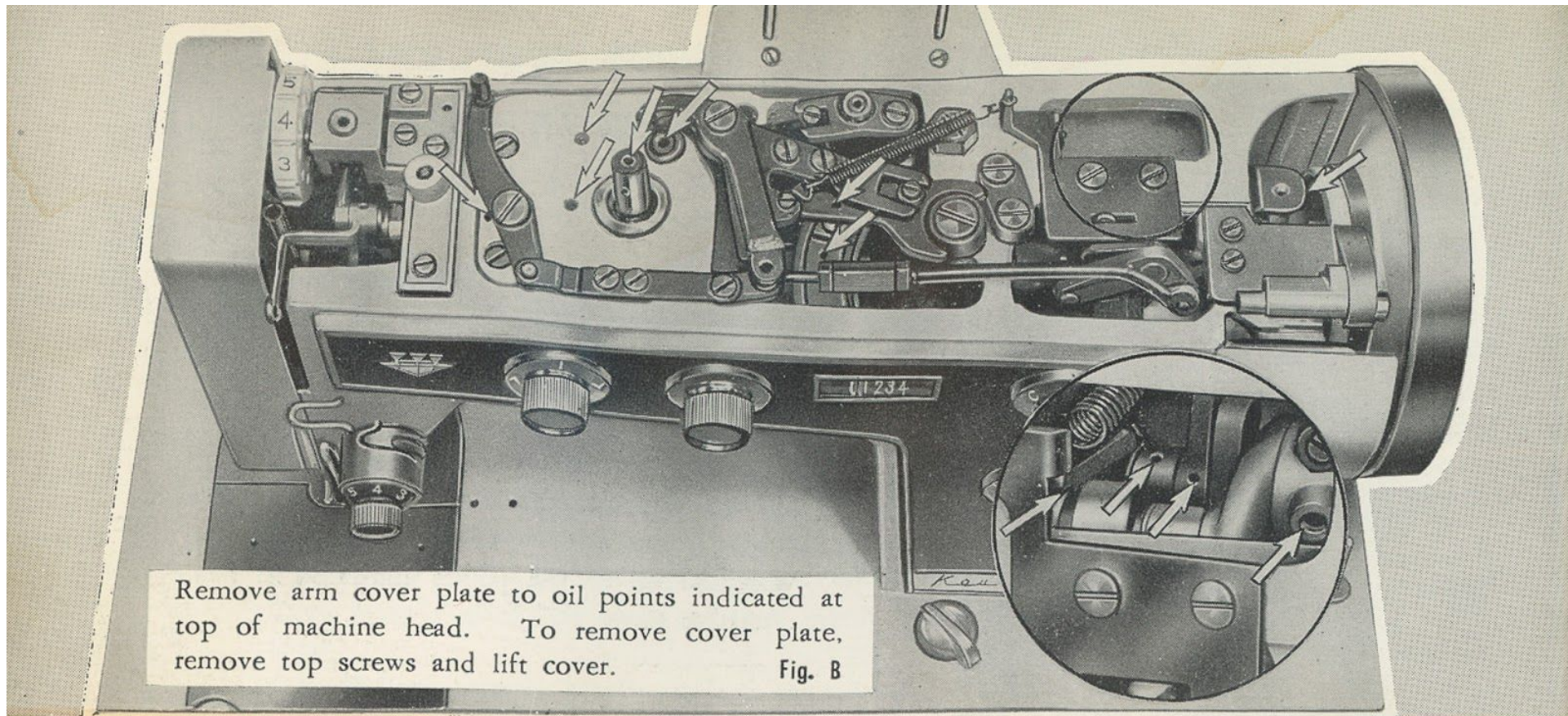
CLEANING AND OILING.....

Keep the moving parts from dust and threads for quiet and efficient operation. Cleaning should be done with a small brush.

When machine runs hard or makes excessive noise, place a drop of KENMORE sewing machine oil at the points indicated in figs. A, B & C.

Swing hinged face cover plate open to oil points indicated at end of machine head.

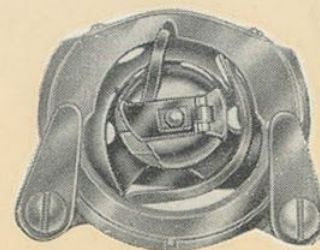
Fig. A



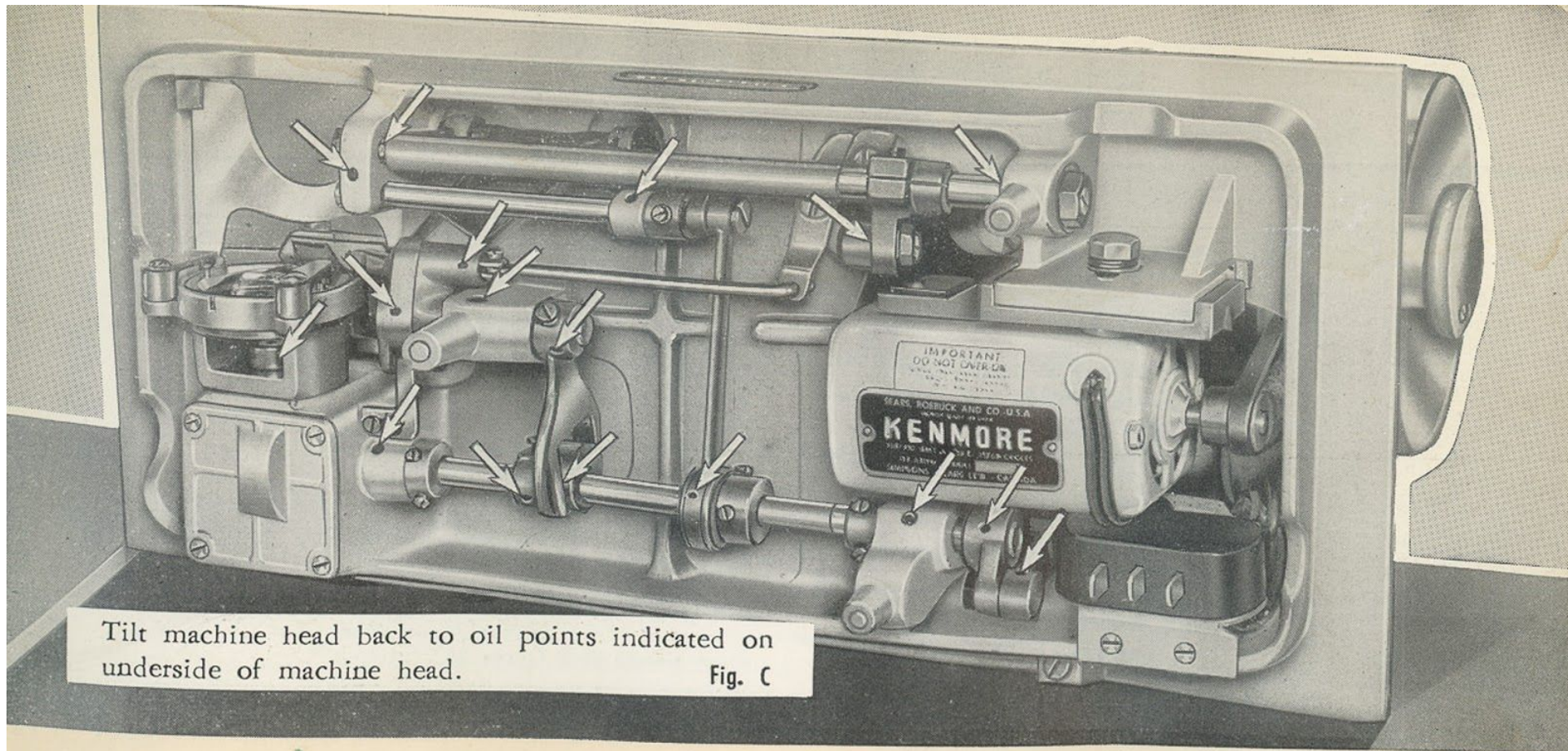
Remove arm cover plate to oil points indicated at top of machine head. To remove cover plate, remove top screws and lift cover. Fig. B

It may be necessary to clean the shuttle area occasionally.

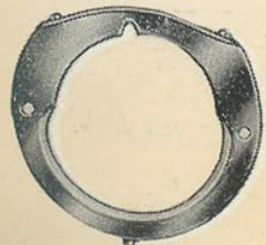
1. Raise the needle bar to its highest point and remove bobbin case.
2. Push levers sideways of the shuttle assembly and lift hook ring and hook out by the center pin.
3. Clean the shuttle race or any lint or small particles of thread with a small brush.
4. Put a drop of oil on the center pin and on race in back of the hook.



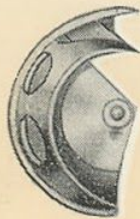
Shuttle Assembly



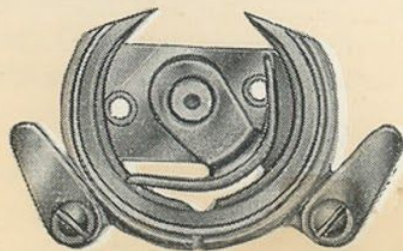
Tilt machine head back to oil points indicated on underside of machine head. Fig. C



Hook Ring



Hook



Hook Race

To reassemble, hold hook by center pin and fit carefully into assembly opposite the hook driver. Slip hook ring into place. Snap the lever into position.

Occasionally, remove the needle plate and clean feed dog with a soft brush.



WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Irregular Stitches	<p>Incorrect size needle. Improper threading. Loose upper thread tension. Pulling fabric. Light pressure on presser foot. Loose presser foot. Unevenly wound bobbin.</p>	<p>Choose correct size needle for thread and fabric (page 5). Rethread machine (pages 8, 9). Tighten upper thread tension (page 12). Do not pull fabric; guide it gently. Increase pressure on presser foot (page 10). Reset presser foot (page 17). Rewind bobbin (page 7).</p>
Breaking Needle	<p>Pulling fabric. Incorrect size needle. Incorrect setting of needle. Loose presser foot. Incorrect needle position. (with double needle only) Too wide stitch width. (with double needle only)</p>	<p>Do not pull fabric; guide it gently. Choose correct size needle for thread and fabric (page 5). Reset needle (page 5). Reset presser foot (page 17). Reset needle position to center (pages 16, 26). Check needle drop (page 26).</p>
Bunching of Thread	<p>Upper and lower threads not drawn back under presser foot. Feed dog down.</p>	<p>Draw both threads back under presser foot (page 10). Raise feed dog (page 15).</p>
Puckering	<p>Incorrect thread tension(s). Light pressure on presser foot. Using two different sizes or kinds of thread. Bent or blunt needle. Loose presser foot. Fabric too sheer or too soft.</p>	<p>Reset thread tension(s) (pages 12, 13). Increase pressure on presser foot (page 10). Upper thread and bobbin thread should be same size and kind. Insert new needle (page 5). Reset presser foot (page 17). Use underlay of tissue paper when stitching.</p>

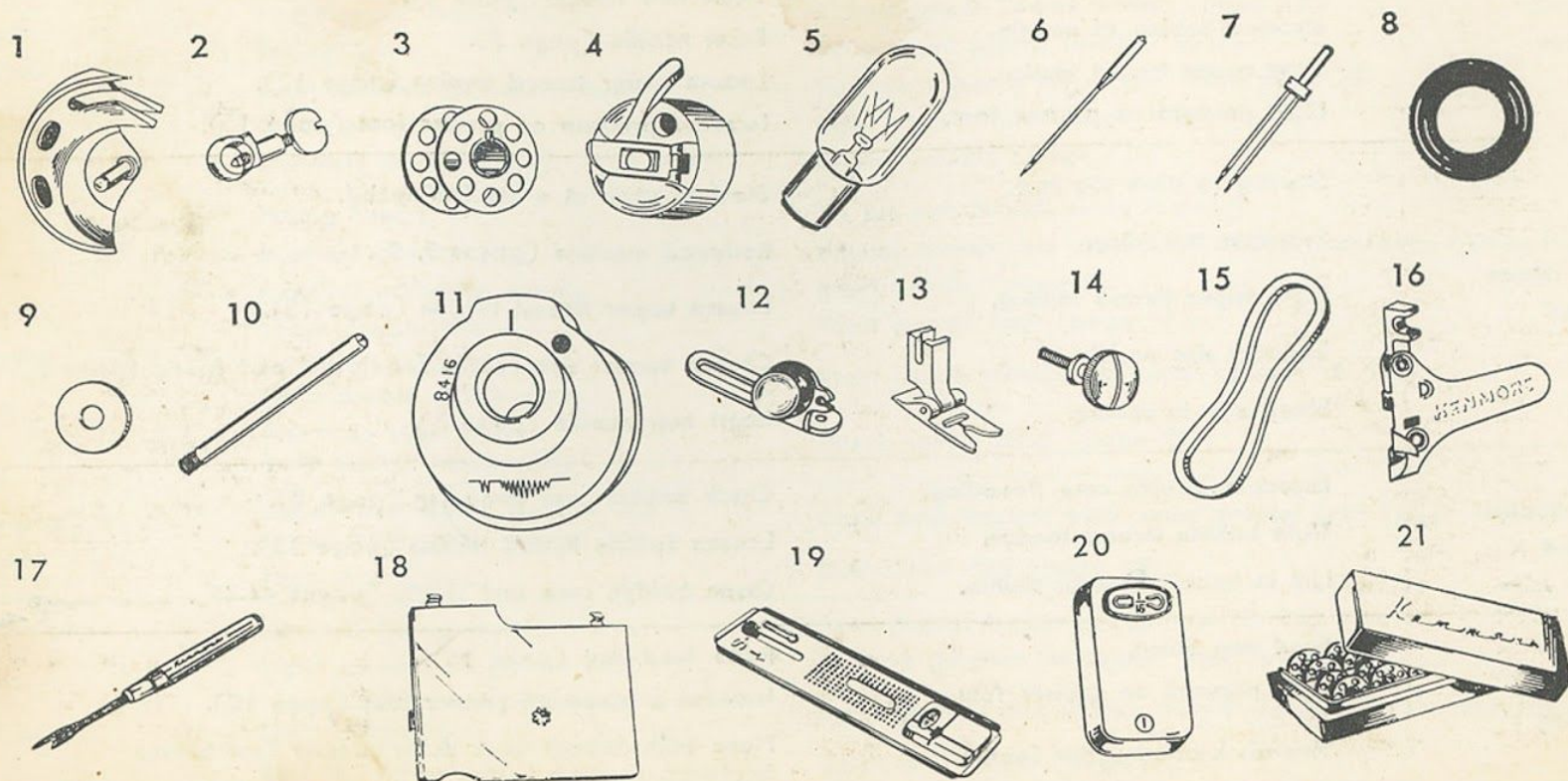


WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Skipping Stitches	Incorrect size needle. Bent or blunt needle. Incorrect setting of needle. Tight upper thread tension. Light pressure on presser foot.	Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5). Reset needle (page 5). Loosen upper thread tension (page 12). Increase pressure on presser foot (page 10).
Breaking Upper Thread	Starting to stitch too fast. Improper threading. Tight upper thread tension. Incorrect size needle. Sharp eye in needle.	Start to stitch at a medium speed. Rethread machine (pages 8, 9). Loosen upper thread tension (page 12). Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5).
Breaking Bobbin Thread	Improper bobbin case threading. Tight bobbin thread tension. Lint in bobbin case or shuttle.	Check bobbin case threading (page 8). Loosen bobbin thread tension (page 13). Clean bobbin case and shuttle (pages 44-45).
Fabric not Moving	Feed dog down. Light pressure on presser foot. Threads knotted under fabric.	Raise feed dog (page 15). Increase pressure on presser foot (page 10). Place both threads back under presser foot before beginning to stitch (page 10).
Machine Jamming (Knocking Noise)	Thread caught in shuttle.	Disassemble and clean shuttle (pages 44-45).

PARTS LIST

All parts listed here may be ordered through your nearest Sears or Simpsons - Sears retail store, catalog sales office or mail order house.



When ordering these parts, please be sure to mention the following references :

1. Model & serial numbers of machine shown on the nomenclature plate. See page 2.
2. Parts number(s) and description(s) here.

When ordering by mail, prices will be furnished on request, or parts will be shipped at prevailing prices and you will be billed accordingly.

<u>Ref. #</u>	<u>Parts #</u>	<u>Description</u>	<u>Ref. #</u>	<u>Parts #</u>	<u>Description</u>	<u>Ref. #</u>	<u>Parts #</u>	<u>Description</u>
1	51	Shuttle hook	11	8426	Pattern disc #11	12	8516	Bobbin winder thread guide
2	8524	Needle clamp		8427	Pattern disc #12	13	8522	Presser foot
3	60502	Bobbin		8428	Pattern disc #13	14	135	Presser foot thumb screw
4	8541	Bobbin case		8429	Pattern disc #14	15	60903	Motor rubber belt
5	3815	Light bulb		8430	Pattern disc #15	16	9184	Needle threader
6	6021	Needle		8431	Pattern disc #16	17	60861	Seam ripper
7	6026	Double needle		8432	Pattern disc #17	18	9187	Buttonhole cover plate
8	8123	Bobbin winder rubber ring		8433	Pattern disc #18	19	9162	Buttonhole guide plate
9	8285	Nylon disc		8434	Pattern disc #19	20	8939	① 1- $\frac{1}{16}$ " Keyhole template
10	8286	Thread spool pin		9074	Pattern disc #20		8940	② 1- $\frac{1}{16}$ " Regular template
11	8416	Pattern disc #1		8884	Pattern disc #21		8941	③ 13/16" Regular template
	8417	Pattern disc #2		8885	Pattern disc #22		8942	④ 5/8" Regular template
	8418	Pattern disc #3		8886	Pattern disc #23		1293	⑤ 5/16" Regular template
	8419	Pattern disc #4		8887	Pattern disc #24			& eyelet template
	8420	Pattern disc #5		8888	Pattern disc #25		9021	⑥ 15/16" Regular template
	8421	Pattern disc #6		8889	Pattern disc #26		9022	⑦ 1/2" Regular template
	8422	Pattern disc #7		8890	Pattern disc #27		9023	⑧ 3/8" Regular template
	8423	Pattern disc #8		8891	Pattern disc #28		9020	⑨ 5/8" Keyhole template
	8424	Pattern disc #9		8892	Pattern disc #29		60860	Bobbin Box with 10 Bobbins
	8425	Pattern disc #10		8893	Pattern disc #30			



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