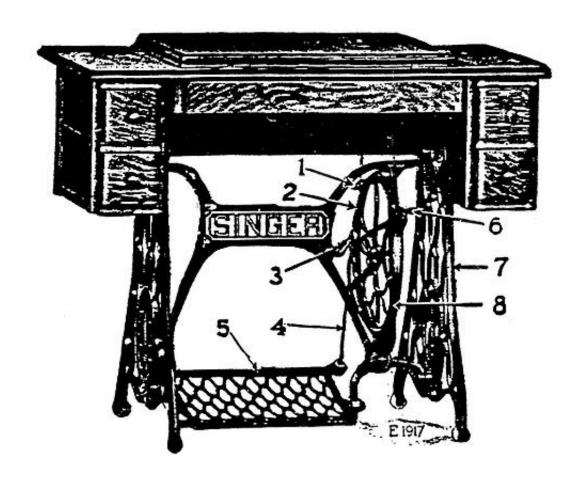


(WITH ATTACHMENTS 120603) OSCILLATING SHUTTLE, FOR FAMILY USE



## No. 15 Instruction Manual

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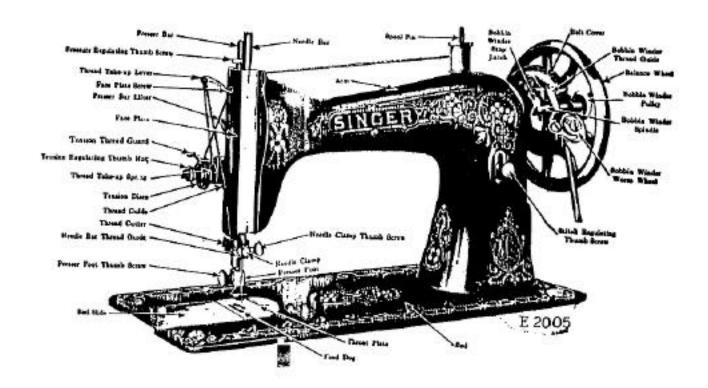
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## **Main Parts**





## INSTRUCTIONS FOR OPERATING THE MACHINE

Raise the presser foot (2, Fig 3) by means of the presser bar lifter (3, Fig. 3) to prevent injury to the foot (2, Fig. 3) and feed (1, Fig. 3).

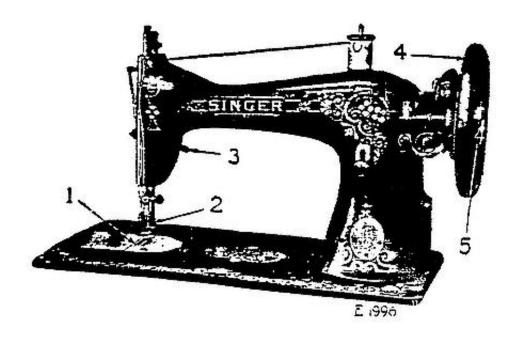


FIG. 3. FRONT VIEW OF THE MACHINE

It is necessary to understand the stop motion (5, Fig. 3) by which the balance wheel (4, Fig. 3) can be released when required, thus enabling the operator to become proficient in the use of the treadle, and permitting the winding of bobbins without running the stitching mechanism. It also allows the operator to wind bobbins without removing partially sewn work and without unthreading the machine.



To release the balance wheel (4, Fig. 3, page 3) turn the stop motion screw (5, Fig. 3, page 3) over toward you. It will be necessary to hold the balance wheel while loosening the stop motion screw.

After releasing the balance wheel, place your feet upon the treadle and with the right hand turn the balance wheel over toward you. This will start the band wheel, treadle and pitman. the sewing mechanism having been disconnected.

Continue the motion thus begun by an alternate pressure of heel and toe, until a regular and easy movement is acquired, and the balance wheel kept continuous rotation by use of the feet alone.

When you are thoroughly familiar with the treadle movement, and can restart the machine without turning the balance wheel in the wrong direction tighten the stop motion screw to connect the balance wheel with the stitching: mechanism.

Place a piece of cloth under the presser foot, let the foot down upon it, and operate the machine in this way without being threaded, until you have become accustomed to guiding the material.

## To Ensure Perfect Action of the Machine

The balance wheel must always turn over toward the operator.

Do not run the machine with the presser foot resting on the feed without cloth under the presser foot.

Do not run the machine when both bobbin case and needle are threaded unless there is material under the presser foot.

Do not try to help the machine by pulling the fabric lest you bend the needle. The machine feeds the work without assistance.

The slide over the bobbin case should be kept closed when the machine is in operation.

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## To Take Out the Bobbin

Draw to the left the slide in the bed of the machine Reach down with the thumb and forefinger of the left hand, open the bobbin case latch (2, Fig. 4) and lift out the bobbin case. While the latch remains open, the bobbin is retained in the bobbin case. Release the latch, turn the open end of the bobbin case downward and the bobbin will drop out.

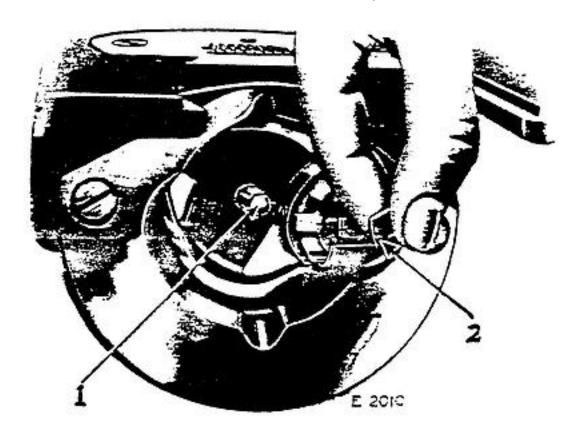


FIG. 4. TAKING OUT THE BOBBIN CASE

### To Wind the Bobbin

Release the balance wheel (4, Fig. 3) by turning the stop motion screw (5, Fig. 3) over toward you.

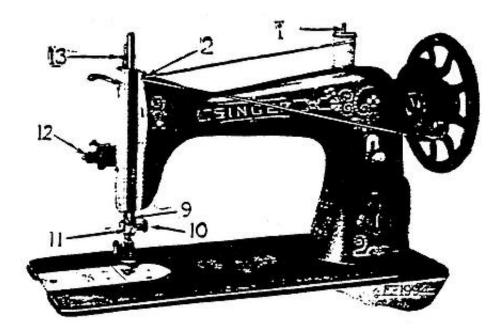


FIG. 5. MACHINE THREADED FOR WINDING THE BOBBIN

Place the bobbin on the bobbin winder spindle (8, Fig. 6) and push it up closely against the shoulder, having the small pin in the spindle enter the slot in the side of the bobbin. Put the spool of thread on the spool pin (1, Fig. 5). Pass the end of the thread into the thread guide (2, Fig. 5) at the left and near the top of the arm, then up into the lower eyelet (3, Fig. 6) of the bobbin winder thread guide, into the notch (4, Fig. 6) and pass the thread through the slot in the left side of the bobbin from the inside. Press the bobbin winder pulley (5, Fig. 6) down on the balance wheel hub, and the latch (7, Fig. 6) will drop down and hold it. Then operate the treadle the same as for sewing.



The end of the thread must be held by the hand until a few coils are wound and should then be broken off. When sufficient thread has been wound upon the bobbin, the bobbin winder is automatically released from the balance wheel.

If the pressure of the rubber ring (5, Fig. 6) against the hub of the balance wheel is insufficient for winding the bobbin, loosen the adjusting screw (6, Fig. 6) and press the bobbin winder lightly until the rubber ring is in contact with the hub of the balance wheel; then tighten the screw.

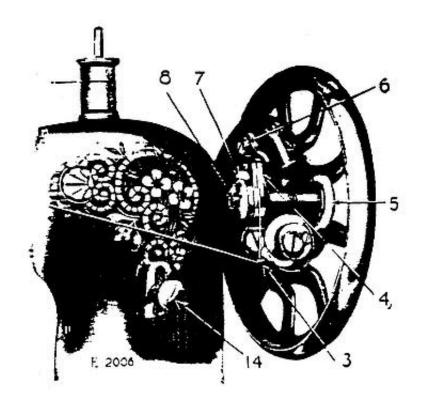


FIG. 6. WINDING THE BOBBIN

## SINGER Sewing Machine No. 15

## To Thread the Bobbin Case

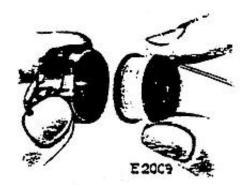


FIG. 7

With the left hand hold the bobbin case as shown in Fig. 7, the slot in the edge being at the top, and place the bobbin into it.

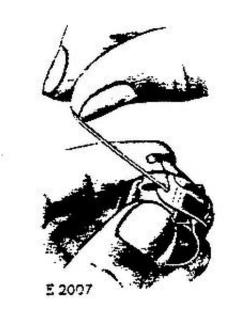


FIG. 9

Hold the bobbin between the thumb and forefinger of the right hand, the thread leading on top from the left toward the right (see Fig. 7).

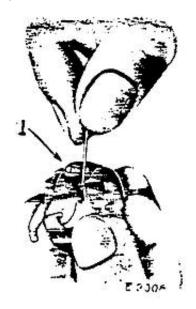


FIG. 8

Then pull the thread into the slot in the edge of the bobbin case (see Fig. 8), draw the thread down under the tension spring and into the delivery at the end of the tension spring (see Fig. 9).

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## To Replace the Bobbin Case

After threading, take the bobbin case by the latch, holding it between the thumb and forefinger of the left hand. Place the bobbin case on the centre stud (1, Fig. 4) of the shuttle body with the position finger (1, Fig. 10) opposite the notch at the top of the shuttle race, release the latch and press the bobbin case back until the latch catches the groove near the end of the stud. Allow the thread to hang free and close the slide in the bed of the machine.

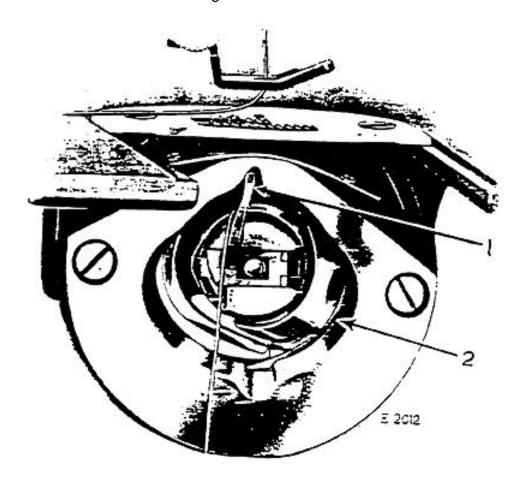


FIG. 10. BOBBIN CASE THREADED AND REPLACED



### To Set the Needle

Turn the balance wheel over toward you until the needle bar (9, Fig. 5) moves up to its highest paint, loosen the thumb screw (10, Fig 5) in the needle clamp (11, Fig. 5) and put the needle up into the clamp as far as it will go, with its flat side toward the right, then tighten the thumb screw.

## To Thread the Needle

(See FIG. 11)

Turn the balance wheel over tow toward you until the thread take-up lever (5) is raised to its highest point. Place the spool of thread on the spool pin at the top of the machine, lead the thread toward the left through the thread guide (1) at the back and at the top of the face plate, down, under and from back to front between the tension discs (2) up back of the tension thread guard (3), down into the loop of the takeup spring (4), up and from back to front through the hole in the end of the thread take-up lever (5), down into the eyelet (6) in front of the face plate, into the lower wire guide (7), then from left to right through the eye of the needle (8).

Draw about two inches of thread through the eve of the needle with which to corn commence sewing.

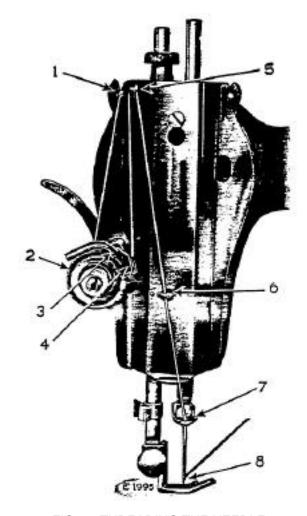


FIG. 11 THREADING THE NEEDLE

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## To Prepare for Sewing

With the left hand hold the end of the needle thread, leaving it slack from the hand to the needle.

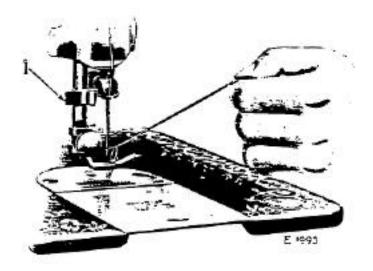


FIG. 12 DRAWING UP THE BOBBIN THREAD

Turn the balance wheel over toward you until the needle moves down and up again to its highest point, thus catching the bobbin thread; draw up the needle thread and the bobbin thread will come up with it through the hole in the throat] plate (see Fig. 12). Lay both threads back under the presser foot.

## To Commence Sewing

Place the material beneath the presser foot, lower the presser foot and commence to sew, turning the balance wheel over toward you.

## To Remove the Work

Let the thread take up lever rest at its highest point, raise the presser foot and draw the fabric back and to the left, pass the threads over the thread cutter (1, Fig. 12) and pull down lightly to sever them. Leave the ends of the threads under the presser foot.

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## **Tensions**

For ordinary stitching, the needle and bobbin threads should be locked in the centre of the thickness of the material, thus:



FIG. 13. PERFECT STITCH

If the tension on the needle thread is too tight, or if that on the bobbin thread is too loose, the needle thread will lie straight along the upper surface of the material, thus:



FIG. 14. TIGHT NEEDLE THREAD TENSION

If the tension on the bobbin thread is too tight or if that on the needle thread is too loose, the bobbin thread will lie straight along the under side of the material, thus:



FIG. 15. LOOSE NEEDLE THREAD TENSION

## To Regulate the Tensions

The tension on the needle thread should only be regulated when the presser foot is down. Having lowered the presser foot, turn the small thumb nut (12, Fig. 5) at the front of the tension discs over toward you to increase the tension. To decrease the tension, turn the thumb nut over from you.

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The tension on the bobbin thread is regulated by the screw (1, Fig. 8) in the bobbin case tension spring. To increase the tension, turn the screw over to the right. To decrease the tension, turn the screw over to the left.

When the tension on the bobbin thread has been once properly adjusted, it is seldom necessary to change it, as a correct stitch can usually be obtained by varying the tension on the needle thread.

## To Regulate the Length of Stitch

The length of stitch is regulated by the large thumb screw (14, Fig. 6) in the slot on the front of the arm near the bobbin winder.

To lengthen the stitch, loosen this screw and move it downward. To shorten the stitch, move the screw upward. When the desired length of stitch is obtained, tighten the thumb screw.

### To Turn a Corner

Stop the machine with the needle at its lowest point. Raise the presser foot and turn the work as desired, using the needle as a pivot.

## To Regulate the Pressure on the Material

For ordinary family sewing, it is seldom necessary to change the pressure on the material. If sewing fine silk or flimsy material, lighten the pressure by turning the thumb screw (13, Fig. 5) on the top of the machine over to the left. To increase the pressure, turn this screw over to the right. The pressure should be only heavy enough to prevent the material from rising with the needle and to enable the feed to move the work along evenly; a heavier pressure will make the machine run hard.

## To Sew Flannel or Bias Seams

Use a short stitch and as light a tension as possible on the needle thread so as to have the thread loose enough in the seam to allow the goods to stretch if necessary.

## A Stitch to Ravel Easily

can be made if desired, by having the tension on the needle thread so light that the bobbin thread will not draw into the goods but lie straight, as shown in Fig. 15.

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### HINTS

**The Belt.** See that the belt is not too tight; it should always be tight enough to not slip. If too loose, remove the hook at one end, shorten the belt and rejoin.

Machine Working Heavily. If the machine runs hard after standing idle for some time, use a little kerosene in the oiling places. run the machine rapidly, then wipe clean and oil.

To Avoid Breaking Needles. See that the presser foot or attachments are securely fastened by the thumb screw. Do not sew heavy seams or very thick goods with too fine a needle. A large needle and thread to correspond should be used on heavy work.

See that the needle is not bent and avoid pulling the material when stitching.

**Breaking of Needle Thread.** If the needle thread breaks it may be caused by:

- Improper threading.
- Tension being too tight.
- The thread being too coarse for size of needle.
- The needle being bent, having a blunt point, or being set incorrectly

**Breaking of Bobbin Thread.** If the bobbin thread breaks it may be caused by:

- Improper threading of bobbin case.
- Tension being too tight.

**Skipping of Stitches.** The needle may not be accurately set into the needle bar or the needle may be blunt or bent. The needle may be too small for the thread in use.

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## To Oil the Machine

To ensure easy running, the machine and stand require oiling and if used continuously should be oiled each day. With moderate use, an occasional oiling is sufficient. Oil should be applied at each of the places shown by arrows in Figs. 10, 16 and 17. One drop of oil at each point is sufficient. Oil holes are provided in the machine for bearings which cannot be directly reached.

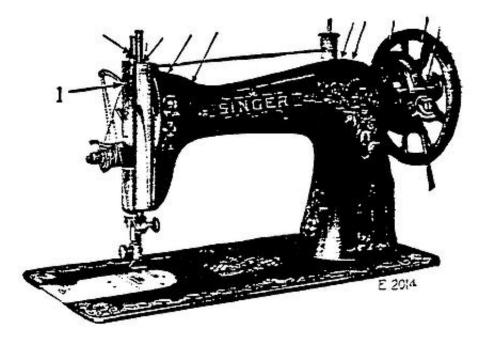


FIG. 16. OILING POINTS AT THE FRONT OF THE MACHINE

Draw to the left the slide in the bed of the machine and apply a few drops of oil to the shuttle race (2, Fig. 10). The slide should then be closed.

Loosen the screw (1, Fig. 16) near the upper end of the face plate, raise the plate and slip it off over the head of the screw; put one drop of oil into each of the oil holes and joints.

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On the back of the arm is a round plate or cover, fastened by a thumb screw; loosen the screw, turn the plate upward and fasten by tightening the screw; turn the balance wheel slowly and oil the moving parts inside, then turn the cover down and fasten it as before.

To reach the parts underneath the bed, the belt must be thrown oil the band wheel on the machine stand. For this purpose a belt shifter (6, Fig. 1) is placed at the front of the band wheel. By pressing the belt shifter lever to the left and working the treadle meanwhile, the belt is released and the head can then be turned back on its hinges. The places to be oiled are indicated in Fig. 17, by arrows pointing to the oil holes and bearings.

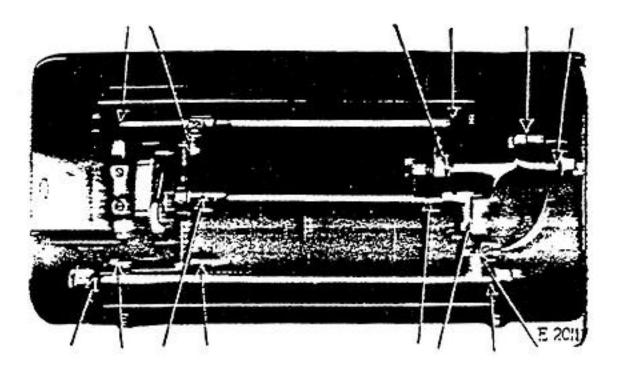


FIG. 17. OILING POINTS IN BASE OF MACHINE

To oil the stand, put a drop of oil on the centres on which the band wheel and treadle work, and both ends of the pitman rod which connects the treadle with the band wheel.

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## INSTRUCTIONS FOR USING THE ATTACHMENTS

## **FOOT HEMMER - Hemming**

Raise the needle to its highest point. Remove the presser foot and attach the foot hem mer in its place (see Fig. 18). Clip off the right hand corner of the cloth, so that it will take the roll easily, turn up the edge about a quarter of an inch, insert it in the mouth of the hemmer and draw or push it along until under the needle. Then let down the presser bar and after taking two or three stitches, draw gently on the ends of the threads to help the work along till the feed catches it. In order to produce a smooth even hem, the mouth of the hemmer must be kept just full.

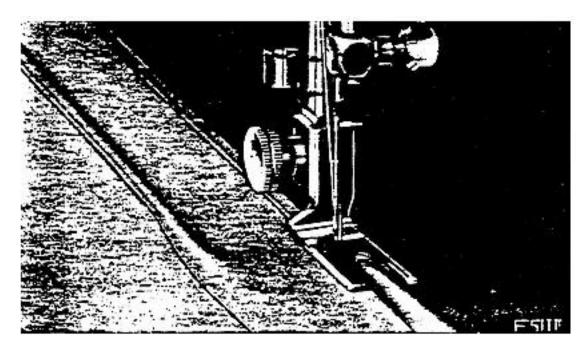


FIG. 18

Fig. 18 shows also what is known as a bag seam or fell, made by passing two pieces of fabric through the hemmer together and hemming them down.

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## **FOOT HEMMER - Hemming and Sewing on Lace**

Start the hem as previously explained, and when it is well started, raise the needle to its highest point. Raise the hemmer to relieve its pressure on the hem, pass the end of the lace through the slot in the side of the hemmer, under the back of the hemmer and over the hem, as shown in Fig. 19.

Take care that the hem is not displaced in the hemmer and that the needle goes down through the lace and hem together. Then let down the presser bar and guide the lace over the front of the hemmer, keeping it well into the slot.

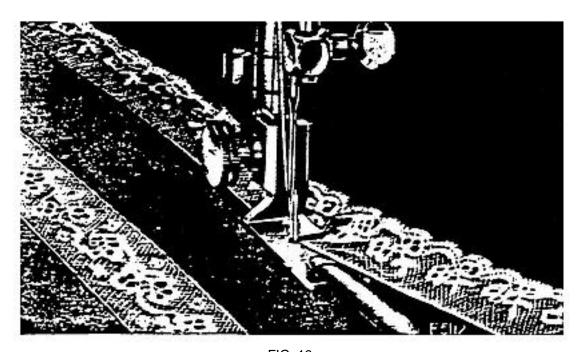


FIG. 19



## **FOOT HEMMER - Felling**

The two pieces of cloth to be felled should be laid one over the other, rightsides together, the edge of the under piece being a little farther to the right than the upper piece. Stitch them together, using the hemmer as a presser foot, the front end of the hemmer forming a guide for the edges of both pieces, the upper piece being guided by the inside and the under piece by the outside of the projecting front of the foot hemmer (see Fig. 20).

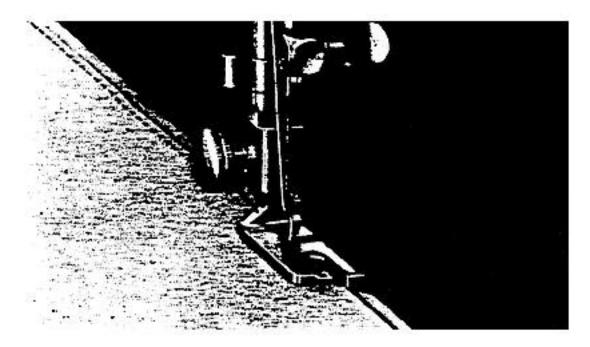


FIG. 20



Then open the work out flat, wrong side up, the edges standing up straight, and taking the edges near the beginning of the seam in the right hand and the ends of the threads in the left hand, draw the edges into the hemmer which will turn them as in hemming. Guide the second row of stitching by following the first row with the inside of the projecting front of the foot hemmer (see Fig. 21.)

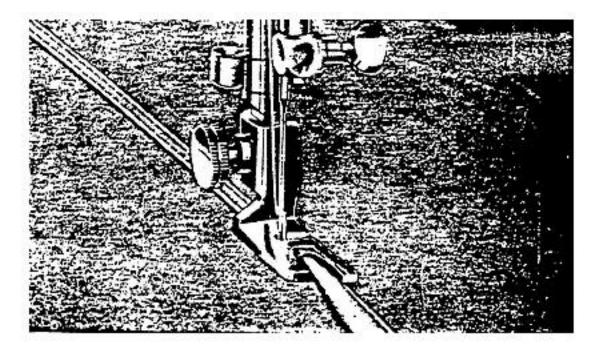


FIG. 21



## ADJUSTABLE HEMMER - Hemming

Remove the presser foot and attach the adjustable hemmer in its place as shown in Fig. 22. This hemmer will turn hems from 3/16 inch to 1 in. wide. The adjustment is made by loosening the thumb screw on the hemmer and moving the slide to the right or left until the hem turned is of the desired width. Enter the edge of the cloth into the hemmer under the scale and draw it back and forth until the hem is formed, stopping with the end under the needle. Lower the presser bar and commence to sew being careful to so guide cloth as to keep hemmer full. Felling can also be done with the adjustable hemmer by following instructions on pages 19 and 20.

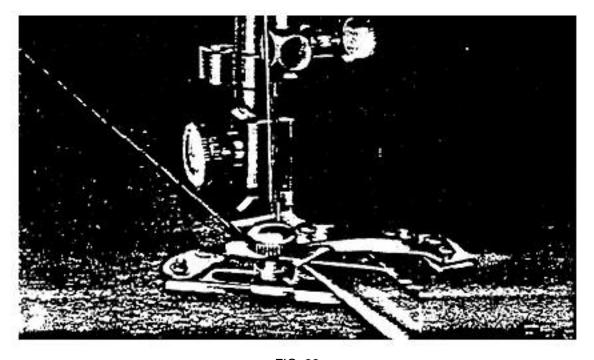


FIG. 22



## **ADJUSTABLE HEMMER - Wide Hemming**

To make a hem more than one inch wide, take out the thumb screw in the hemmer and remove the slide and pointer; fold and crease down a hem of the desired width; pass the fold under the extension at the right of the hemmer, and the edge into the folder as shown in Fig. 23 and proceed to stitch the hem.

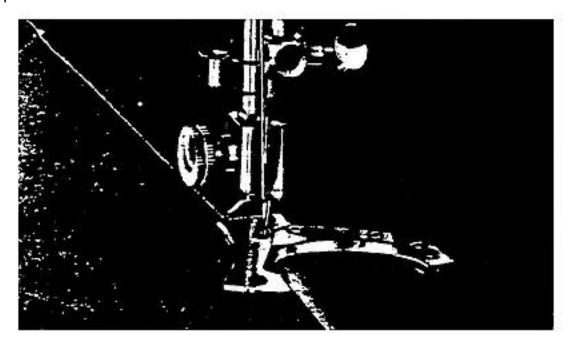


FIG. 23



## **BINDER - Binding**

Remove the presser foot and attach the binder in its place. Pass the binding through the scroll of the binder and draw it back under the needle. Place the edge of the goods to be bound between the scrolls of the binder and draw it under the needle. Lower the presser bar and sew as usual. To make French folds, proceed as directed for binding except that the fold is stitched on to the face of the material instead of on the edge (see Fig. 24). After loosening the binder set screw and adjusting the binder, the line of stitching can be brought nearer the centre, this being more effective when making French folds.

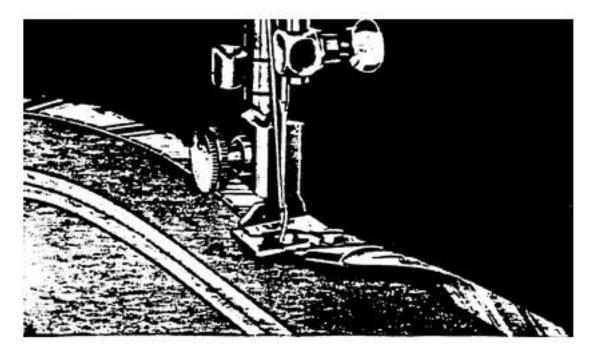


FIG. 24



## **TUCKER**

Remove the presser foot and attach the tucker in its place. The width of the tuck is determined by the scale of figures nearest the needle, which shows in eighths and sixteenths of an inch the distance of the edge of the fold from the line of stitching.

The crease or mark for the second and following tucks is determined by the scale nearest the operator and this is set by the line in front of the needle hole in the presser foot. For blind tucks without spaces, adjust the scale nearest the operator so that the figure opposite the line on the presser foot will be the same as that at which the guide is located on the scale nearest the needle. To make spaces between the tucks, move the front scale farther to the left until the desired space is obtained.

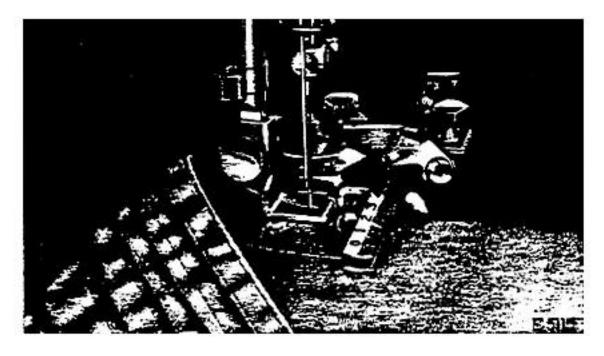


FIG. 25



Having adjusted the scales for tuck and space as desired, fold the material and crease by hand; pass the folded edge between the spring and spur near you, then between the two blades of the second scale, and back under the presser foot; draw to the right against the guide, lower the presser bar; see that the lever for the needle clamp to strike is in its backward position so as to form a crease for the next tuck, then proceed with the first tuck.

For the second tuck, fold carefully at the crease made by the spur and place the edge of the first tuck underneath and against the spur at the left. The spur will serve as a guide and will also make a distinct crease for the next tuck. Always place the last tuck against the spur to ensure perfect work.

When making the last tuck, the lever upon which the needle clamp strikes while tucking should be raised to its highest point; while the lever is in this position no crease for a succeeding tuck is made upon the goods.



## Ruffler

Lines 1, 2, 3, 4 and 5 shown in Fig. 26 indicate where the material is to be placed for various operations, as follows:

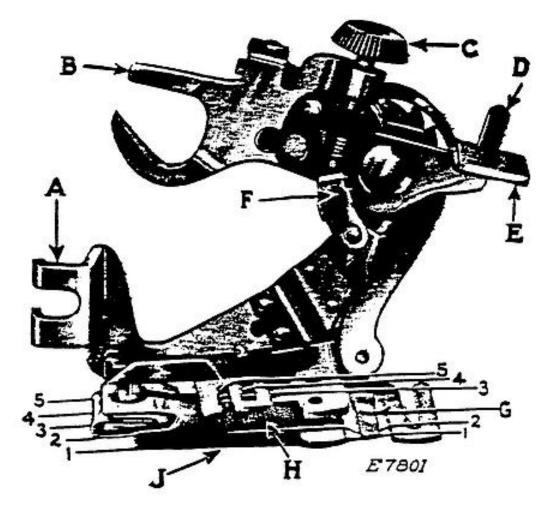


FIG. 26. THE RUFFLER AND ITS PARTS

# SINGER Sewing Machine No. 15

- **Line 1** the correct position for the material to which the ruffled material is applied.
- Line 2 material to be willed.
- **Line 3** the facing for the ruffle.
- **Line 4** the strip of piping material.
- Line 5 the edge to be piped.

Refer to Fig. 26 when inserting the material in the ruffler.

The names and uses of the principal parts of the ruffler are as follows:

(SEE REFERENCES IN FIG. 26)

- **A FOOT** the part by which the ruffler is attached to the presser bar.
- B FORK ARM the section that must be placed astride the needle clamp.
- C ADJUSTING SCREW the screw that regulates the fullness Of the gather.
- **D PROJECTION** the part that projects through the slots in the adjusting lever.
- E ADJUSTING LEVER the lever that sets the ruffler for gathering or for making a plait once at every six stitches or once at every twelve stitches, as desired; also for disengaging the ruffler, when either plaiting or gathering is not desired.

- F ADJUSTING FINGER the part which regulates the width or size of the plaits.
- **G SEPARATOR GUIDE** the guide on the underside of the ruffles, containing slots into which the edge of the material is placed to keep the heading of the ruffle even; also for separating the material to be ruffled from the material to which the ruffle is to be attached.
- H RUFFLING BLADE the upper blue steel blade with the teeth at the end to push the material in plaits up to the needle.
- J SEPARATOR BLADE the lower blue steel blade without teeth, which prevents the teeth of the ruffling blade coming into contact with the feed of the machine, or the material to which ruffle or plaiting is to be applied.

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## To Attach the Ruffler to the Machine

Raise the needle bar to its highest point and remove the presser foot. Attach the presser foot (A, Fig. 26) to the presser bar by means of the thumb screw, at the same time placing the fork arm

(B. Fig. 26) astride the needle clamp as shown in Fig. 27.

## To Adjust the Ruffler for Gathering

The adjusting finger (F. Fig 27) is not intended for gathering and should be moved forward or away from the needle, shown Fig. 27.



FIG. 27

## **SINGER** Sewing Machine No. 15

Raise the adjusting lever (E, Fig. 27) and move it to the left so that the projection (D, Fig. 27) will enter the slot marked "1" in the adjusting lever (E) when the lever is released. The ruffling blade will then move forward and back once at every stitch. Insert the material to be ruffled between the two blue blades, following the line 2 in Fig. 26. Draw the material slightly back of the needle, lower the presser bar and commence to sew.

To make fine gathering, shorten the stroke of the ruffling blade by turning the adjusting screw (C, Fig. 27) upwardly, also shorten the stitch. To make full gathering, lengthen the stroke of the ruffling blade by turning the adjusting screw (C) downwardly, also lengthen the stitch. By varying these adjustments, many pleasing varieties of work can be accomplished.



## To Make Ruffle and Sew it to Garment in One Operation

Insert the material to be ruffled between the two blue blades, as shown in Fig. 28, following the line 2, in Fig. 26. Place the garment to which the ruffle is to be attached, under the separator blade, following the line 1, in Fig. 25. Proceed the same as for gathering.

The edge of the ruffled seam can be bound by using the binder.

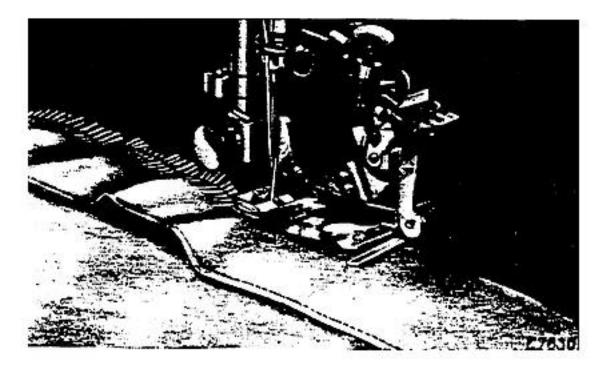


FIG. 27



## To Ruffle and Sew on a Facing in One Operation

Insert the material to be ruffled between the two blue blades, following the line 2, in Fig. 26. Place the garment to which the ruffle is to be attached, under the separator blade, following the line 1, in Fig. 26. Place the material for the facing over the upper blue blade, as shown in Fig. 29, following the line 3, in Fig. 26. The facing may be straight or bias material. If the facing is to be on the right side of the garment, place the garment and the ruffle so that the wrong sides are together. If the facing is to be on the wrong side, place the right sides of the garment and the ruffle together.

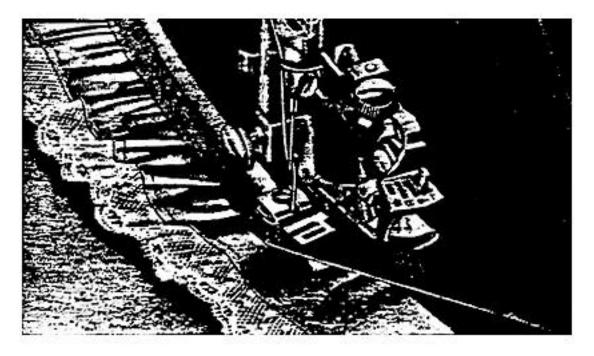


FIG. 29



## Piping a Ruffle

Insert the material to be ruffled between the two blue blades, following the line 2, in Fig. 26. This material must not be over 1 1/4 inches wide, it is carried through the ruffler with the finished edge of the ruffle to the right of the attachment as shown in Fig. 30.

The material for piping must measure about 1/4 inch wide when folded in the centre and is usually cut on the bias. Place the piping material in the ruffler, following the line 4, in Fig. 26, with the folded edge of the piping to the right. The material to which the piping and ruffling are to be sewn should be folded on the edge and inserted in the ruffler following the line 5, in Fig. 26.

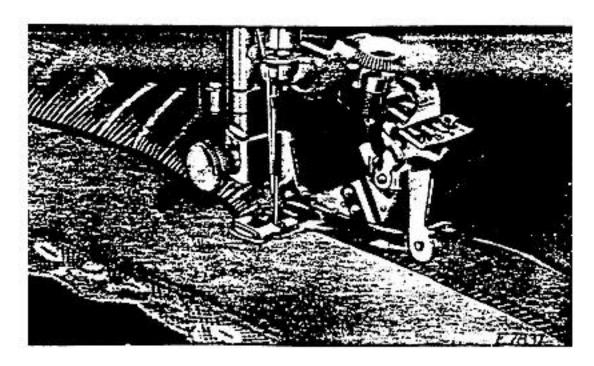


FIG. 30



## To Adjust the Ruffler for Plaiting

Raise the adjusting lever (E, Fig. 31) and move it to the right so that the projection (D, Fig. 31) will enter the slot marked "6" in the adjusting lever when the lever is released. The ruffling blade will then move forward and back once at every six stitches. To adjust the ruffling blade to make a plait once at every twelve stitches, place the adjusting lever (E, Fig. 31) so that the projection (D) enters the slot marked "12" in the adjusting lever. Insert the material to be plaited between the two blue blades, following the line (2, Fig. 26). The size or width of plaits is regulated by the adjusting screw. (C, Fig. 31) and the adjusting finger (F. Fig. 31). To make a wider plait, move the adjusting finger (F) back or toward needle and turn the adjusting screw (C) downwardly. To make a smaller a smaller plait, turn the adjusting screw (C) upwardly. The distance between plaits is regulated by the length of stitch.

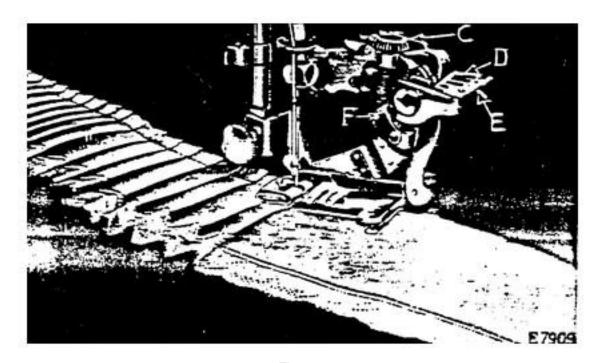


Fig. 31



## To Adjust the Ruffler for Group Plaiting and Gathering

The ruffler can be adjusted for group plaiting by lifting the adjusting lever (E, Fig. 32) and moving it to the right so that the top of the projection (D, Fig. 32) enters the small slot indicated by the star on the adjusting lever. This should be done at the points where you wish to make the space between the plaits. The ruffler will then stop and plain stitching will be made. When the desired space has been made, adjust the lever (E) so that the projection (D) enters either the slot marked "6" or the slot marked "12". By alternately making groups of plaits and plain spaces, as shown in Fig. 32, very attractive work can be produced.

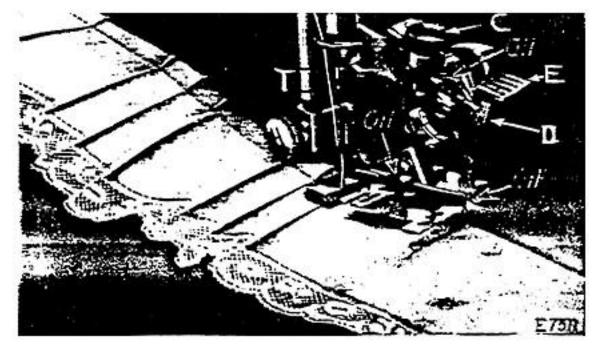


FIG. 32



## To Oil the Ruffler

Occasionally apply a drop of oil to the working parts of the ruffler at each of the places indicated by arrows in Fig. 32. After oiling, operate the ruffler on a waste piece of material to prevent the of] soiling the work If the ruffler does not plait evenly, a drop of oil may remedy the trouble.

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