



WHEN YOU OWN A FEATHERWEIGHT CONVERTIBLE

You own a machine with a tradition of superior craftsmanship—a tradition you will recognize in the smooth, efficient operation of this light-weight machine. Operating either forward or backward with full rotary motion, it forms a perfect lock stitch. The machine and the foot-operated speed control are stored in a convenient carrying case with extra room for sewing accessories.



SINGER SERVICE

Wherever you go you will find expert, dependable SINGER Service nearby. SINGER is interested in helping you keep your SINGER Sewing Machine in top condition. That's why it makes sense to call your SINGER Representative if your machine ever requires attention. He will submit a



written estimate for your approval. Look for the familiar Red "S" on your SINGER SEWING CENTRE and the handy SINGER Service Car.



EVERYTHING FOR THE WOMAN WHO SEWS

The answer to your sewing needs is at your SINGER SEWING CENTRE. There you will find a wide choice of buttons and thread, as well as Finishing Services such as covering buttons, hemstitching, making belts and buckles, to mention a few. Look under Singer Sewing Machine Company in your telephone

directory for the SINGER SEWING CENTRE nearest you.

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ELECTRICAL INFORMATION

MOTOR CAN BE OPERATED ON EITHER ALTERNATING CURRENT OR DIRECT. CURRENT

Motors are available for all of the commonly used voltages between 95 and 250, and are suitable for use on alternating current or direct current. Special motors suitable for operation on 32 volts D.C. and on 50 volts A.C. or D.C. are also available.

POINTS TO DETERMINE BEFORE CONNECTING MOTOR TO ELECTRIC SERVICE LINE

The voltage of the household supply and, if alternating current, the

number of cycles can be verified by looking at the name plate on the meter installed by the local supply authority for measuring the consumption of electricity.

- The correct motor to use is one on which the range of voltage on the motor name plate includes the voltage on the meter.
- If current is alternating the number of cycles quoted on the meter must be within the range of cycles on the motor name plate.
- 3. In the event of there being any doubt about the supply voltage and cycles, this information should be obtained from the Supply Company.

TO CONNECT THE MACHINE TO ELECTRIC SERVICE LINE

Slide the foot controller (D, Fig. 3) to the right out of its holder in the lid of the carrying case and unwind the electric cord. Push the terminal plug at one end of the electric cord as far as it will go on the three-pin terminal block at the right of the machine. Attach the plug at the other end of the cord to the nearest electric point.

Place the foot controller in a convenient position on the floor and the machine is ready for operation.

CAUTION

When you have finished your sewing, always disconnect the plug from the electric point.

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LIGHT

Turn the Light "on" or "off," by means of the switch A, Fig. 1.

To Remove and Replace the Bulb Do not attempt to unscrew the bulb. It is of the bayonet and socket type and does not unscrew.



Fig. 1

To Remove the Bulb. Press the bulb into the socket and at the same time

turn the bulb over from you as far as it will go, then withdraw the bulb.

To Insert a New Bulb. Press the bulb into the socket and turn it over toward you until the bulb pin (B) enters the notch in the socket, as shown in Fig. 1.

TO INSURE PERFECT ACTION OF THE MACHINE

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

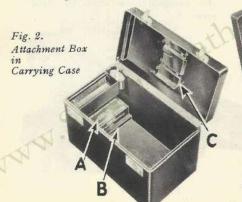
Do not run the machine when both bobbin case and needle are threaded, unless there is material under the presser foot.

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



(See Figs. 2 and 3)

Put the box of attachments A at the left of cleat B at bottom of carrying case and place machine in case with



hand wheel at right, and base of machine at right of cleat B. Slide controller D from right to left into

its holder C inside lid of case and place electric cord at rear of machine.

Fig. 3. Machine and Foot Controller in Carrying Case

TO USE THE TUBULAR BED

(See Fig. 4)

By using the tubular bed it is possible to perform stitching operations on articles of clothing of a curved or

cylindrical nature which would be inconvenient or impossible to handle on a machine having a flat bed plate. Refer to pages 33 to 63 for Application of Tubular Bed to Clothing Construction. The tubular bed measures 2" across and 17/8" in height, with a circumference of 71/2". There is a clear space under the tubular bed of 3/4".

To convert the machine, loosen screw E and remove the cloth plate and extension plate assembly F by pulling it to the left. When replacing the assembly be sure to tighten screw E.

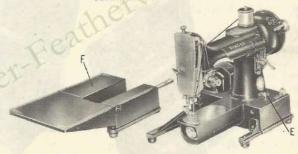


Fig. 4

TO OPERATE THE MACHINE

Raise the presser foot H by means of the presser bar lifter J to prevent

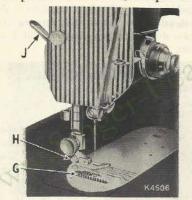


Fig. 5

injury to the foot and the feed G.

Place a piece of material under the presser foot and lower the latter upon

Turn on the electric current, place the right foot on the rest at the right of the foot controller and turn the foot inward to depress the pedal. This will set the machine in motion, the speed being perfectly controlled by the amount of pressure which should be gradually applied. Operate the machine in this way, without its being threaded, until accustomed to guiding the material and operating the foot controller.

TO REMOVE THE BOBBIN CASE AND BOBBIN.

(See Fig. 6)

Turn the hand wheel over toward you until the thread take-up lever (6, Fig. 15) is at its highest position. Raise the bed extension L as far as it will go, and with the thumb and forefinger of the left hand, open the latch K and withdraw the bobbin case. While the latch is held open, the bobbin is retained in its case. On releasing the latch and turning the case downward, the bobbin will drop out.

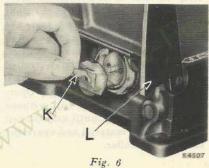
TO REMOVE AND REPLACE BOBBIN CASE BASE

(See Figs. 7 and 8) Remove throat

plate and take out screw P so that



the gib O can be displaced as shown in Fig. 8. Turn the bobbin



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Fig. 7

case base so that the small point U on the base is beneath the point of the sewing hook, as shown in Fig. 8 and take out the bobbin case base Q. To replace the base, reverse the operation.

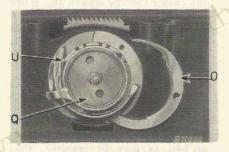


Fig. 8

TO WIND THE BOBBIN

(See Fig. 9)

It is necessary to understand the stop motion by which the hand wheel Y can be released when required, thus permitting the winding of bobbins without running the stitching mechanism. Release the hand wheel by turning the stop motion screw X over toward you. It is necessary to hold the hand wheel while loosening the stop motion screw.

Place the bobbin on the bobbin winder spindle and push it on as far as it will go. Put a spool of thread on the spool pin R and pass the thread from the spool into the thread guide S.

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then under and between the tension discs T at the front of the bed and through one of the holes in the left

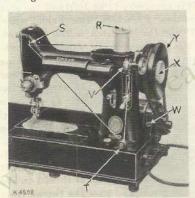


Fig. 9. Winding the Bobbin

side of the bobbin V from the inside. Press down the bobbin winder pulley against the belt. Then press the foot controller as for sewing.

The end of the thread must be held by hand until a few coils are wound and should then be broken off. When sufficient thread has been wound upon the bobbin, pull the bobbin winder pulley away from the belt and remove the bobbin from the

If the thread does not wind evenly on the bobbin, loosen the screw which holds the tension bracket T in position on the bed of the machine and slide the tension bracket to the right or left, as may be required, then tighten the screw.

TO THREAD THE BOBBIN CASE

Hold the bobbin between the thumb and forefinger of the right hand with the thread leading from right to left, as shown in Fig. 10.

With the left hand hold the bobbin case as shown in Fig. 10, the slot in the edge being at the top, and place the bobbin into the bobbin case.

Then pull the thread into the slot as shown in Fig. 11, and back under the tension spring into the slot at the end of the tension spring, as shown in Fig.



Fig. 10





Fig. 11

Fig. 12.

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TO REPLACE THE BOBBIN CASE

(See Fig. 13)

After threading the bobbin case hold its latch between the thumb and forefinger of the left hand. Place the

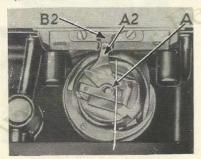


Fig. 13

bobbin case on the centre stud A of the bobbin case base with the thread drawing from the top of the bobbin case. Release the latch and press the bobbin case back until the latch catches the groove near the end of the stud. Allow about three inches of thread to hang free, and turn down the bed extension.

Caution.—If the throat plate is removed for cleaning the stitch-forming mechanism, etc., make certain when replacing the throat plate that the position finger A2 enters the notch B2 of the position plate attached to the underside of the throat plate.

CHART SHOWING THE RELATIONSHIP OF TYPES OF FABRICS, THREAD AND NEEDLE SIZES AND MACHINE STITCHES TO THE INCH

Types of Fabrics	THREAD SIZES	NEEDLE Sizes	MACHINE STITCHES PER INCH	
			Inside Seams	Top Stitching
Very thin Silk, Muslin, Cambric, Light- weight Delicate Fabrics, etc.	100 to 150 Cotton, 50 Silk, 80 Mercerised Darning Cotton	CAL COLOR	20	25 to 30
Fine Calicoes, Linens, Shirtings, Fine Silk Goods, etc.	80 to 100 Cotton, 50 Silk, 50 Mercerised Darning Cotton	11	16	20
Plastic Materials	50 to 80 Mercerised Cotton	11	10	12
Shirtings, Sheetings, Bleached Calicoes, Silk and General Domestic Goods, Light Woollen Goods and all classes of general work	60 to 80 Cotton, 50 Silk, 50 Sylko	14	12	18
All kinds of heavy Calicoes, Drill, Woollen Goods, etc.	40 to 60 Cotton	16	10	12
Tickings, Heavy Woollens, Trousers, Boys' Clothing, Corsets, Cloaks, Mantles, Heavy Coats, and Heavy Clothing generally	24 to 40 Cotton, 60 to 80 Linen	18	8	10

When ordering needles, always specify "Class and Variety 15x1" and state the size and quantity required. You will obtain the best stitching results from your Sewing Machine if it is fitted with a SINGER* Needle.

TO SET THE NEEDLE

(See Fig. 14)

Turn the hand wheel over toward you until the needle bar is at its highest position, and loosen the

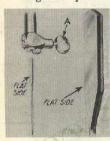


Fig. 14
Positioning Needle
in Needle Clamp

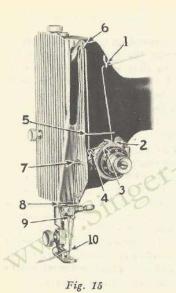
thumb screw A in the needle clamp. Insert the needle into the needle clamp, to the left of the thread guide, as far as it will go, with the flat side of its shank to the left, as shown in the illustration. Then tighten the thumb screw.

To select the correct needle, see page 15.

UPPER THREADING

(See Fig. 15)

Turn the hand wheel over toward you until the thread take-up lever 6 is raised to its highest point. Place a reel of thread on the spool-pin at the top of the machine, and lead the thread into the thread guide I at the left, down, under and from right to left between the tension discs 2. Hold the reel tightly with the right hand and with the left hand pull the thread up under the take-up spring 4 until it enters the retaining fork 3. Then pass the thread up and back of the wire thread guide 5 and from right to left through the hole in the take-up lever 6, down into the eyelet 7 at the side of the face plate, into the



lower wire thread guide 8, into the guide 9 in the needle clamp and from right to left through the eye of the needle 10, leaving about three inches of thread with which to commence sewing.

To obtain best results it is absolutely necessary that the needle should be of the size stated for the number of cotton, linen or silk, as shown on page 15. If rough or uneven thread is used, or if it passes with difficulty through the eye of the needle, the machine will not function satisfactorily.

The SINGER* Needle Threader saves time, trouble and patience and is invaluable to those having defective sight.

TO PREPARE FOR SEWING

Hold end of needle thread with left hand and turn hand wheel over toward you until needle moves down and up again to its highest point.

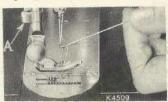


Fig. 16

Pull up needle thread and bobbin thread will come up with it, as shown in Fig. 16. Lay both threads back under presser foot diagonally across the feed, as shown in Fig. 17 to right or left, depending upon which side of the needle the material is to be located, so that when presser foot is lowered, the threads will be held firmly between the feed and the presser foot.

Note: Distinct markings on throat plate are to guide edges of seams and hems. These markings at \(\frac{1}{8}\)" intervals from \(\frac{1}{4}\)" to \(\frac{3}{4}\)" in distance from



Fig. 17. Threads in Position to Start Sewing.

right of needle, assist in guiding fabric uniformly. Crosslines on throat plate indicate pivot point of needle when turning square corners.

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To Commence Sewing

Be sure to have thread take-up lever 6, Fig. 15 at its highest position. Place material to be sewn beneath the presser foot, turn hand wheel to bring point of needle into fabric, lower presser foot, and commence to sew.

When sewing thick material, it may be necessary to turn the hand wheel over toward you by hand to start the machine. This should also be done if the machine stops when sewing across thick seams.

NOTE.—Do not try to help the feeding of the work by pulling the material, as this may deflect the needle and cause it to break.

TO REMOVE THE WORK

Stop the machine with the thread

take-up lever (6, Fig. 15) at its highest position, raise the presser foot and draw the fabric back and to the left, pass the threads over the thread cutter (A, Fig. 16) and pull down lightly to sever them. Leave the ends of the threads under the presser foot.

TO TURN A CORNER

Stop the machine when the needle eye, making its upward stroke, is still in the fabric. Raise the presser foot and turn the work as desired, using the needle as a pivot, then lower the presser foot.

TO REGULATE THE PRESSURE ON THE MATERIAL

Medium light weight fabrics require an intermediate pressure. If sewing fine silk or filmy fabrics, lighten

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pressure by turning the thumb screw (C, Fig. 25) on top of the machine over to the left so that it screws upward. If sewing heavy napped fabrics increase the pressure by turning this thumb screw over to the right so that it screws downward. The pressure should be only heavy enough to prevent side creeping of the material and to obtain a uniform stitch.

Pile fabrics require a lighter pressure than their appearance of thickness would indicate and stitching should be in the direction of the nap on napped fabrics and in the direction of the pile on pile fabrics.

TO REGULATE THE DIRECTION OF FEED

To feed the goods from you, push

down the stitch regulator lever (C, Fig. 18) as far as it will go.

To feed the goods toward you, raise the stitch regulator C as high as it will go.

The direction of the feed can be reversed at any point of a seam without removing the work from the machine. Back stitching is therefore readily accomplished and the fastening of the ends of seams is made easy.

TO REGULATE THE LENGTH OF STITCH

(See Fig. 18)

The machine can be adjusted to make from 6 to 30 stitches to the inch, as indicated by the numerals on the stitch indicator plate A. The number of stitches to the inch that the machine is set to make is indicated by the number which is in line with the stitch regulator lever C. To change the length of stitch, screw the thumb nut B away from the

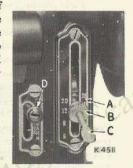


Fig 18

stitch indicator plate A as far as it will go. Then move the stitch regulator lever C until it is in line with the number designating the desired length of stitch and screw the thumb nut B

inward until it touches the stitch indicator plate. The machine will now make the indicated number of stitches to the inch in either a forward or reverse direction, depending on whether the lever C is at its lowest or highest position.

BASTING

The longest stitch, No. 6 on the stitch indicator, is found satisfactory for basting and is easily removed by clipping every sixth stitch and withdrawing the long continuous thread. Machine basting is firmer and more even than that done by hand in addition to being much quicker.

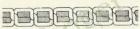
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TO SEW BIAS SEAMS

Use a shorter stitch when sewing bias or curved seams to increase the elasticity of the seam and to prevent seam failure under strain.

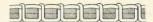
TENSIONS

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



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:



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:



Loose Needle Thread Tension

Caution: It is important for the tension thumb nut (B, Fig. 19) to have a firm fit on tension stud (O, Fig. 20) to keep the numbered dial D in the position set for the required tension. To remedy a loose fit of the nut, remove parts B, D, E, F and G, Fig. 20, and slightly spread the stud, then re-assemble the parts as instructed on pages 25 to 27 inclusive.

TO REGULATE THE NEEDLE THREAD TENSION

(See Fig. 19)

The tension on the needle thread can be tested only when the presser foot is down.

The numbered dial D is marked with arbitrary numbers ranging from 0 to 9 which indicate different degrees of tension that can



sion that can Fig 19 Needle be produced. Thread Tension

The numbers do not denote a particular size of thread. By noting the number which is opposite the centre line between the plus and minus signs, on the indicator G when set for a satisfactory tension on the work being stitched, the number can be readily reverted to when a change is made in the tension or size of thread.

To Increase the Tension, turn the thumb nut B over to the right until the desired number on the dial D is opposite the centre line, the higher numbers denoting increased tension.

To Decrease the Tension, turn the thumb nut B over to the left, the lower numbers indicating less tension.

The tension indicator G is marked with the signs + and -, which also indicate the direction in which to turn the thumb nut B for more or less tension.

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TO REGULATE THE BOBBIN THREAD TENSION

The tension on the bobbin thread is regulated by the screw A, Fig. 11 which is nearest the centre of the tension spring on the outside of the bobbin case. To increase the tension, turn screw A over to the right. To decrease the tension, turn this 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 DISASSEMBLE THE NEEDLE THREAD TENSION

(See Fig 20)

Turn the thumb nut B to the left until it stops at "0" on the numbered dial, then press in the dial to disengage the pin C in the thumb nut from the dial, and remove the thumb nut and dial, stop washer E, tension spring F, indicator G and tension disc assembly H which includes the thread take-up spring, thread guard plate and two discs.

Note: It is not necessary to remove the stud O from the machine arm to disassemble the thread tension. It is shown removed in Fig. 20 only for the purpose of illustration.

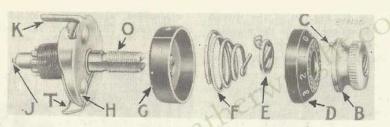


Fig. 20

TO REASSEMBLE THE NEEDLE THREAD TENSION

(See Figs. 21 and 22)

First make sure that the tension releasing pin J, only the end of which is shown in Fig. 20, is in place in the stud O.

Place the two tension discs L with their flat thread-bearing sides together in position on the thread guard M, then pass the eyelet N of the thread take-up spring under the thread guard, having the coils of the spring above the tension discs as shown in Fig. 21. Guide the tension disc assembly on to the stud so that the

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extension K, Fig. 20 of the thread guard enters the hole in the machine arm, and the tail (inside the coil) of the thread take-up spring enters one

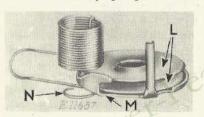


Fig. 21

of the grooves in the stud. Next replace the indicator with the large open side facing the end of the stud so that the plus and minus marks will be at the top (with the minus sign at the left) and hold the parts, thus assembled, against the shoulder of the stud. Then insert the tension

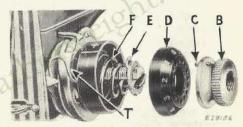


Fig. 22

spring F in the indicator with the first (half) coil of the spring straddling the lower half of the stud. Guide the stop washer E on to the stud so that the extension will be above the tension stud. If the spring and stop

washer are in correct position, the tension S will clear the first (half) coil of the tension spring as shown in Fig. 23.

Next place the numbered dial on the stud so that the numeral 2 is opposite the stop washer extension, then push the dial to compress the



Fig. 23

spring so that the thumb nut can be turned on to the stud, carefully guiding the pin in the thumb nut into one of the holes of the numbered dial. Then 'lower the presser bar and turn the thumb nut B to the left until it stops at "0." Thread the tension and pull the thread through the tension discs to test the amount of tension on the thread at the "0" position. At this point there should be a slight pull on the thread to indicate that there is a minimum tension, which gradually increases with the turn of the thumb nut to the right, providing a full range of tensions from light to heavy within one revolution of the thumb nut. If the pull is too strong for a mini-

If the pull is too strong for a minimum tension, press in the numbered dial to disengage the pin in the thumb nut from the dial, and reset the pin in one of the holes to the left of the previous setting.

This resetting of the pin will produce less tension at zero. Repeat this process until the minimum desired

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tension is obtained. On the other hand, should there be no tension at zero, press in the dial and reset the pin in one of the holes to the right of the previous setting, repeating this process until a slight minimum tension is obtained. The tension on the thread take-up spring T, Fig. 22 should be just sufficient to take up the slack of the needle thread until the eye of the needle reaches the goods in its descent.

If the tension on the thread take-up spring requires adjustment, remove the tension disc assembly, disengage the end of the spring from the groove in the tension stud, revolve the spring and place its end in the groove which produces the correct tension.

IF CORRECT STITCHING IS NOT OBTAINED

If the bobbin thread tension has been disturbed, or a correct stitch cannot be obtained without a very heavy or very light needle thread tension, then the following procedure is recommended: Using No. 50 thread in the needle and on the bobbin, adjust the needle thread tension as instructed on pages 27 and 28. Then turn the tension thumb nut to "4" and, with two thicknesses of thin material in the machine, adjust the bobbin thread tension, as instructed on page 24, until the stitch is correctly locked in the centre of the thickness of the material, as shown on page 22.

A wide range of materials and threads can now be accommodated without further adjustment of the bobbin thread tension.

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TO OIL THE MACHINE

To ensure easy running the machine requires oiling so that all moving

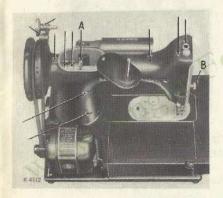


Fig. 24

parts in contact are covered with a film of oil. These should never be allowed to become dry.

If used constantly, the machine should be oiled daily, while with moderate use, an occasional oiling is sufficient. A drop of oil should be applied at each of the points indicated by the unlettered arrows in Figs. 24, 25 and 28. Oil holes are provided in the machine for bearings which cannot be directly reached. When oiling insert the oil can spout well into the oil holes.

Turn back the cover at the top of the machine and oil the moving parts inside the arm as indicated in Fig. 24, and occasionally apply a small quantity of SINGER Lubricant for

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Electric Motors to the teeth of the gear A, then replace the cover.

Take out the face plate thumb screw B. Fig. 24 and remove the face plate.

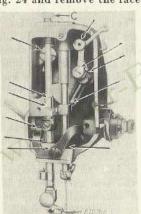


Fig. 25. End View, Showing Oiling Points 30

Put one drop of oil into each of the oil holes and joints thus uncovered, as indicated in Fig. 25, then replace the face plate and thumb screw.

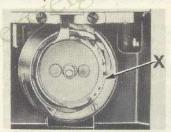


Fig. 26

TO OIL THE HOOK MECHANISM

Occasionally apply a drop of oil at the hook bearing indicated by X, in Fig. 26.

OILING POINTS IN BASE OF MACHINE

(See Fig. 27)

To reach the parts underneath the bed of the machine, turn the machine over on its rear side. Remove thumb nut 1 and take off the large cover plate 2. Take out screw 3 and remove the tubular bed cover 4.

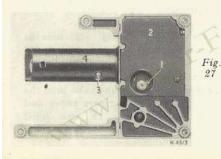
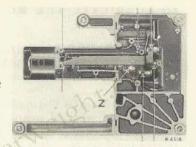


Fig. 28



Apply oil to the oil holes and bearings indicated in Fig. 28, and occasionally apply a small quantity of SINGER Lubricant for Electric Motors to the gears Z. Replace the tubular bed cover 4, Fig. 27 and secure it with the screw 3, Fig. 27, then replace the flat cover plate 2, Fig. 27 and fasten it with the thumb nut 1, Fig. 27, being careful not to turn the thumb nut too tightly.

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TO LUBRICATE THE MOTOR

USE ONLY SINGER LUBRICANT FOR LUBRICATING THE MOTOR. A tube of this lubricant is sent with the machine.

SINGER Lubricant for Electric Motors is a specially prepared non-flowing compound which is not affected by varying temperatures. It is the only lubricant which will positively lubricate the motor. Other lubricants, including oil or ordinary grease, must not be used for lubricating the motor as they are harmful for this purpose.

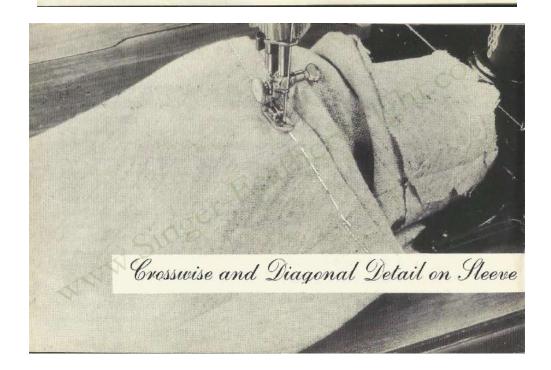
When the machine is despatched from the factory the two motor grease tubes A, Fig. 29, are filled with sufficient lubricant for approximately Fig. 29

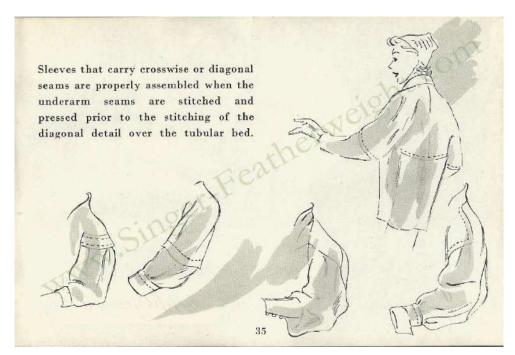
six months' use, under ordinary circumstances.

At least once every six months thereafter, these grease tubes should be refilled with SINGER Electric Motor Lubricant. To do this, insert the tip of the lubricant tube into the hole of each of the grease tubes and force the lubricant through until both grease tubes are filled.

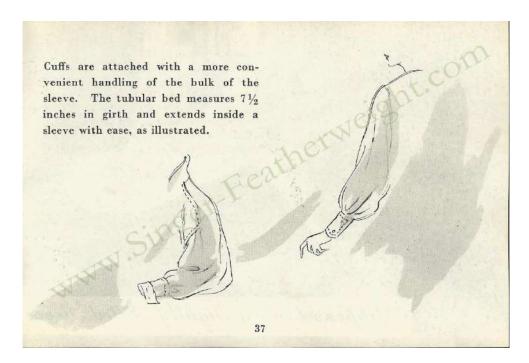
Applications of the Tubular Bed Feature

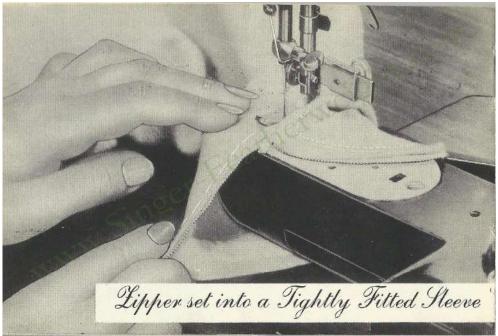
- Crosswise or Diagonal Sleeve Detail.
- · Applying Cuffs and finishing Sleeve Ends.
- Setting Sleeves.
- Stitching Waistline Details and Setting Zippers.
- · Seaming Play Clothes or Trousers.
- Patching Sleeves and Trouser Legs.
- Slip Cover Seams.
- Monogramming Pockets and Cuffs.
- All Stitching within curved or cylindrical areas.

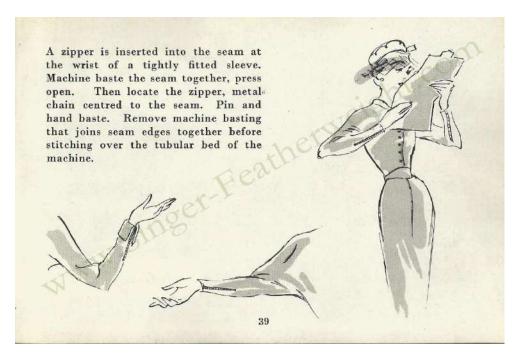


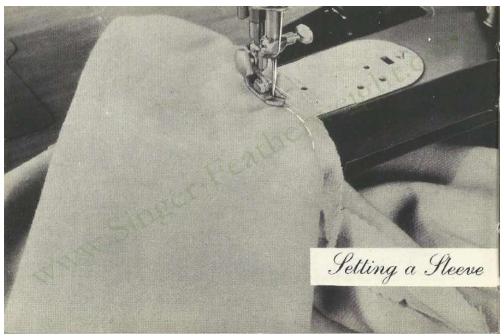


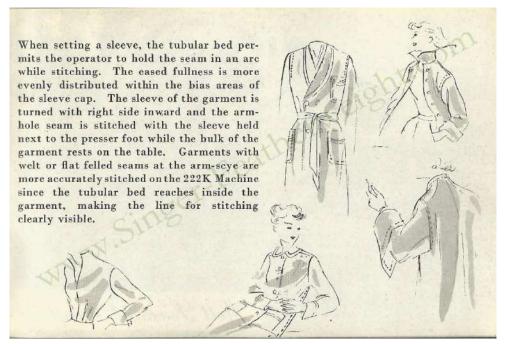












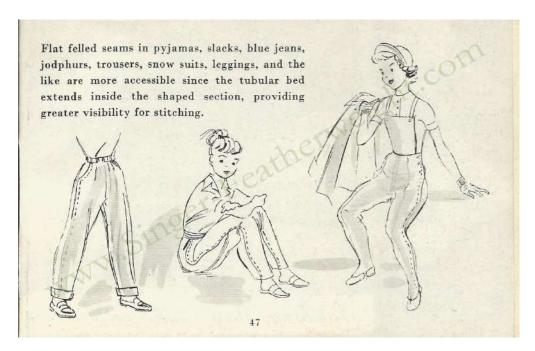




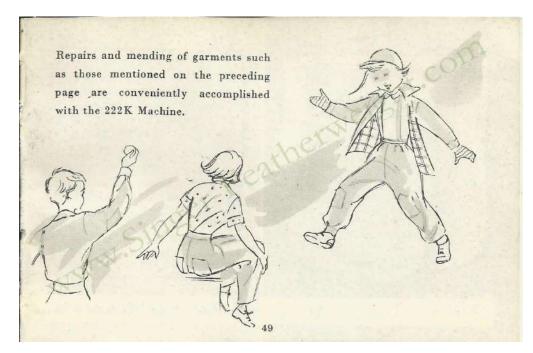


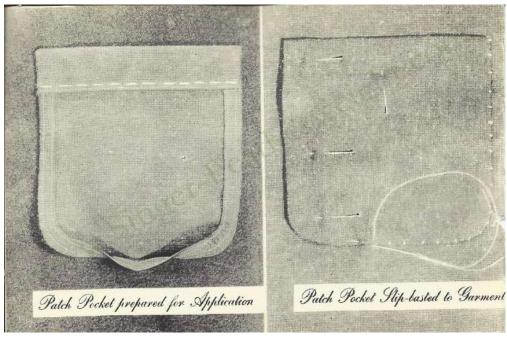












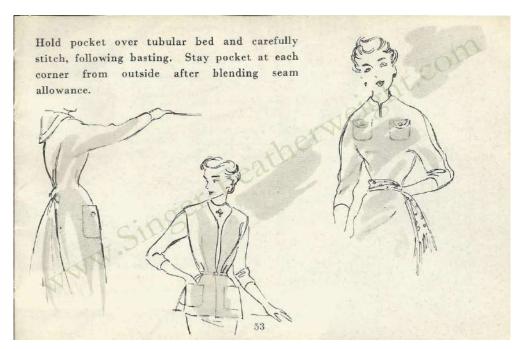
Patch Pockets applied with inside stitching and so difficult to accomplish with the usual sewing equipment, are easily done on this tubular bed machine.

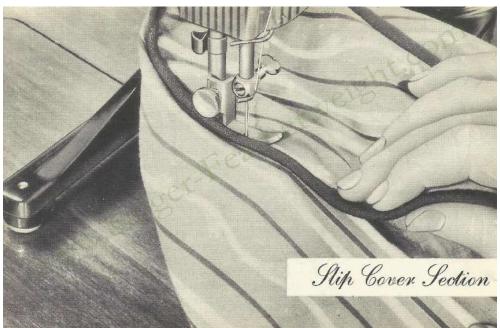
After pocket is finished across top according to styling, place two lines of No. 10 or No. 12 stitching along sides and bottom, the first slightly less than the seam width from the cut edge, and the second a quarter inch outside the first. Draw bobbin thread slightly to control fullness of seam allowance around curved portion of pocket. Press with steam to shrink away excess between the stitchings and trim the seam away close to the second stitching. Slip baste pocket section to garment from right side of garment.

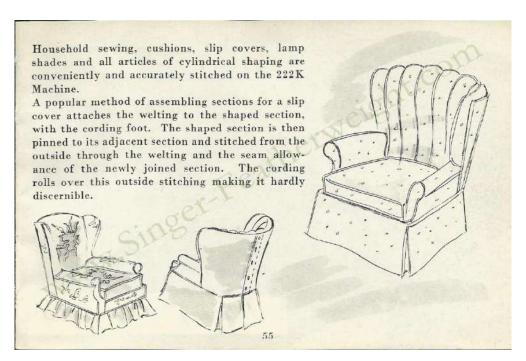


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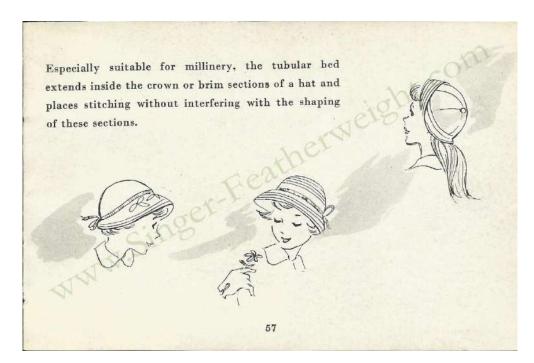




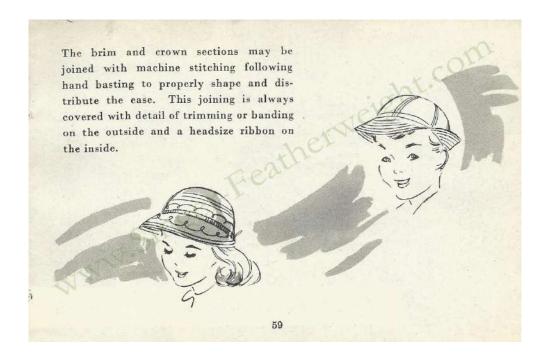




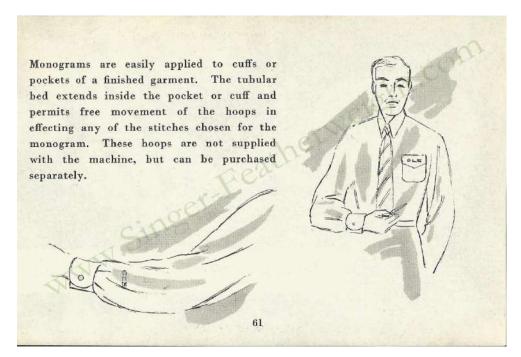
















HINTS

The Belt. The belt tension should be only enough to keep the belt from slipping. If the tension is incorrect, loosen the screw W, Fig. 9, about one turn to allow the motor to drop downward. Now retighten the screw and the belt will be found to have the correct tension.

Needles Breaking. See that the needle is not bent, the upper tension is not too tight, and the presser foot or attachments are securely fastened. Avoid pulling the material and do not sew heavy seams or thick goods with too fine a needle (see table on page 15). Breaking of Needle Thread. This may be caused by:—

A knot in the thread. Improper threading. Tension being too tight.

Thread being too coarse for size of needle.

Needle being bent, having a blunt point, or being set incorrectly.

Inferior needles and thread are often the cause of breaking. The eye in SINGER Needles is specially finished to prevent cutting of thread, while the best thread resists strain and is free from knots. SINGER SEWING CENTRES sell the best machine sewing thread.

Breaking of Bobbin Thread. This 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 clamp. It may be blunt or bent, or too small for the thread in use.



THE ATTACHMENTS

NOTE.—Before applying any of these attachments raise the needle and remove the presser foot. After substituting the attachment turn the balance wheel slowly toward you to make sure that the needle passes through the centre of the needle hole. Pull up bobbin thread as instructed on page 18.

THE BINDER

Pass the binding through the scroll of the binder and draw it under the needle. Place the edge of the material to be bound between the



Fig. 30

scroll of the binder and under the needle, lower the presser-bar lifter and sew as usual.

Bias binding should be cut 15 inch wide.

To Bind with Dress Braid.—Proceed as when using bias binding; but as dress braid and binding purchased already folded are narrower than bias binding they should be inserted in the outer slot of the binder. The edges of dress braid are not turned under as in the case of bias binding.

To make French Folds.—Proceed as directed for binding, but pass the cloth beneath the binder-foot so that the fold is stitched on to the face of the material instead of on the edge.

THE ADJUSTMENT AND OPERATION OF THE BINDER

The edge to be bound should be held well within the centre slot of the scroll, and with a little practice this is quite easy. If the material is allowed to slip away from the scroll when near the needle, the edge will not be caught in the binding.

Various materials and conditions require different adjustments of the Binder to bring the stitching close to the edge. A wider adjustment of the Binder is necessary when binding curves than when binding a straight edge.

To adjust the Binder, loosen its small screw and move the scroll to the right for a narrower adjustment, or to the left for a wider adjustment, after which securely tighten the screw. To become perfectly familiar with the adjustment of the Binder, a little practice is necessary

BINDING OUTSIDE CURVES

Practice is required to bind a curved edge properly. The edge to be bound must be allowed to pass freely



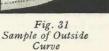




Fig. 32
Sample of Inside
Curve.

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through the scroll and should not be crowded in or against it. Guiding should be from the back of the binder and to the left, allowing unfinished edges to swing naturally into the scroll of the binder.

Never pull the binding as it feeds through the Binder, as bias material is very easily stretched and would be too narrow when it reaches the needle. If this occurs the edges will not be turned.

When binding a curved edge, turn the material only as fast as the machine sews. It is not possible to hold the material in the entire length of the scroll when binding a small curve.

Do not push the material in too fast, as the edge will then become puckered, and do not stretch the material or the curve will not be the proper shape when finished. If the stitching does not catch the edge of the binding the scroll should be adjusted a little to the left.

BINDING INSIDE CURVES

This curve is found on nearly all garments which are finished with a bound edge, but practice is necessary on various materials.

When binding an inside curve, straighten out the edge as it is being fed into the Binder. When doing this, take care not to stretch the edge of the material.

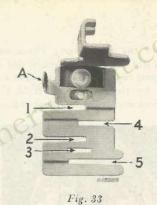
If the material is soft, like batiste or crepe de chine, add a row of machine stitching close to the edge of the curve before binding.

THE EDGE-STITCHER

A Combined Edge-Stitching, Lace-Joining and Piping Attachment

This attachment is an indispensable aid whenever stitching must be kept accurately on the extreme edge of the material. The slots numbered 1 to 5 in Fig. 33 serve as guides for sewing together laces, insertions and embroideries, sewing in position hemmed or folded edges, piping or sewing flat braid to a garment.

The distance of the line of stitching from the edge of the material in the slots can be regulated by pushing the lug A to the right or left. If it moves hard, put a drop of oil under the blue spring, then wipe it dry.



SEWING LACE TOGETHER WITH THE EDGE-STITCHER

It is difficult to sew two lace edges together even after basting, but the edge-stitcher makes it possible to

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stitch on the very edge. Place one edge in slot I and the other in slot 4, and adjust lug A until both edges are caught by the stitching. Hold the two pieces slightly overlapped to keep



Fig. 34 Sewing Lace Together



Fig. 35. Setting in Lace Insertion

them against the ends of the slots. The thread tensions should be loose to avoid puckering of fine lace. Lace and ribbon or other insertions can be set in by using the same slots (1 and 4). The material may be

folded over before placing it in the slot so that a double thickness is stitched and will not pull out. The surplus material is trimmed away close to the stitching as shown in Fig. 35.

PIPING WITH THE EDGE-STITCHER

Piping is very attractive if the correct contrasting colour is chosen for the piping material. Place the piping, with its finished edge to the left, in slot 3. Place the edge to be piped in slot 4, as shown in Fig. 36.

Piping should preferably be cut bias, and should be cut to twice the width of the slot (3) in the edge-stitcher so that it can be folded once.

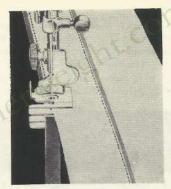


Fig. 36. Piping with the Edge-Stitcher

APPLYING BIAS FOLDS WITH THE EDGE-STITCHER

Folded bias tape or military braid, used for neat and colourful trimming,

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may be sewn on by placing the garment under the edge-stitcher, the same as under a presser foot, and placing the tape in slot 1 or 4. To make a square corner, sew until the turning point is reached, then remove

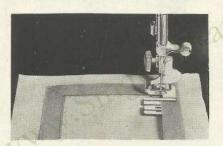
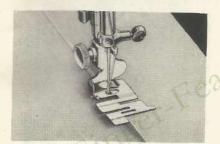


Fig. 37. Applying Bias Folds with the Edge-Stitcher

the tape from the attachment and form the corner by hand, replace it in the slot and continue stitching, as shown in Fig. 37. To space two or more parallel rows, a guide line such as a crease, chalk mark or basting thread should be used.

STITCHING A WIDE HEM WITH THE EDGE-STITCHER

A wide hem on sheets, pillow slips, etc., may be stitched evenly with the edge-stitcher after the hem has been measured and the edge turned. Insert the edge in slot 5 as shown in Fig. 38 and adjust to stitch as close to the edge as desired.

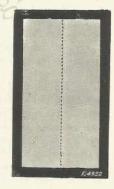


Making a Wide Hem

MAKING A FRENCH SEAM

An even French seam may be made by inserting the two edges to be

joined, wrong sides together, in slot 1 or 2 and stitching close to the edge; then folding both right sides to-gether and inserting the back of the seam into slot 1 again and stitching with just enough margin to conceal the raw edges. Fig. 39. A French See Fig. 39.



Seam

TUCKING WITH THE EDGE-STITCHER

Dainty narrow tucking may be produced on the edge-stitcher by inserting creased folds in slot 1 as shown in Fig. 40, and adjusting the edgestitcher to right or left for the desired width of tuck, up to 1/8 inch. Successive tucks may be easily creased by folding the material at the desired distance from the previous tuck, and then running the length of the fold over a straight edge such as the edge of the sewing machine cabinet. The secret of good tucking lies in a light tension, short stitch, and fine thread and needle.

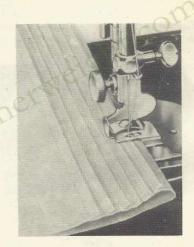


Fig. 40. Tucking with the Edge-Stitcher

THE GATHERING FOOT

To Shirr with the Gathering Foot

Material placed under the gathering foot and stitched in the usual way will be slightly gathered. Any fabric

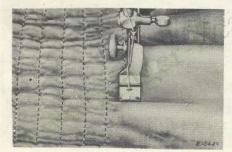


Fig. 41

that drapes well is especially suited for shirring with the gathering foot, generally with a long stitch and tight tensions. To increase the fullness of the gathers, lengthen the stitch. To decrease the fullness, shorten the stitch.

With the gathering foot, it is possible to shirr in narrow rows as shown in Fig. 41. The material may be guided as easily as when sewing with the presser foot. Fine materials, such as batiste, silk or net, may be very attractively shirred, as shown by the sample in Fig. 42. The gathering foot locks fullness into each stitch, holding it permanently in position. Adjustable eased fullness is accomplished with the regular presser foot.

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A very pleasing effect may be gained by using thread or embroidery silk of contrasting colour on the bobbin.



Fig. 42, Shirring

Fig. 43 shows a white organdic collar and cuff set with red and green smocking made with the gathering foot, using fine crochet cotton or tatting thread on the top and white cotton on the bobbin.



Fig. 43. Smocking

THE FOOT HEMMER



The Foot Hemmer Fig. 44 may be used for hemming edge of material, making hemmed and felled seams and for hemming and sewing on lace

Fig. 44. The Foot in one operation.
Hemmer

HOW TO START HEM. AT VERY EDGE

- Fold edge of material twice, about 1/8 inch each time, for a distance of about two inches. Crease folds.
- Lay about three inches of needle and bobbin threads back under hemmer. Place creased edge of material under hemmer with end of hem directly under needle. Lower hemmer and tack end of hem with two machine stitches.
- Raise hemmer. Pull threads and hem slightly from you with left hand; then while holding threads, draw material toward you with right hand into scroll of hemmer until tacked end is caught in hemmer, as shown in Fig. 45.

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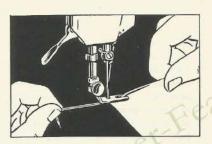


Fig. 45. Starting Hem at Very End of Material

 Lower hemmer and start to sew, slightly pulling threads back while sewing. Keep mouth of hemmer full to produce a smooth, even hem, as shown in Fig. 46.

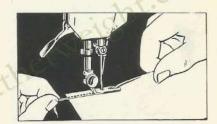


Fig. 46. Hemming Edge of Material and Pulling Back Threads While Sewing

HOW TO MAKE A HEMMED SEAM WITH FOOT HEMMER

When making this seam, the garment must first be fitted and the edge of the material trimmed, allowing for about ½ inch seam. Insert the two edges of the material, right sides together, in the hemmer in the same manner as a



Fig. 47. Making a Hemmed Seam (First Operation)

- single hem as shown in Fig. 47. If the material is bulky, place the edge of the upper piece of material about 1/8 inch to the left of the edge of the under piece.
- The free edge of the hemmed seam may be stitched flat to the garment, if desired.

To do this, open the work out flat,

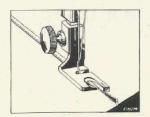


Fig. 48. Making a Hemmed Seam (Second Operation)

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wrong side up, then insert the hem in the scroll of the hemmer, holding the edge of the hem in position while it is being stitched. If the seam is stitched flat to the garment, one row of stitching is visible on the right side.

HOW TO MAKE A FELLED SEAM WITH FOOT HEMMER

Place the right sides of the material together, having the edge of the upper piece about ½ inch to the left of the edge of the under piece.
 Stitch the two pieces together, using the hemmer as a presser foot. Guide both pieces by the

projection toe of the hemmer, as shown in Fig. 49.

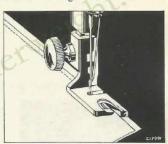


Fig. 49. Making a Felled Seam (First Operation)

2. Open the work out flat, wrong side up, and hem the free edge of the seam, stitching it flat to the garment, as shown in Fig. 50.

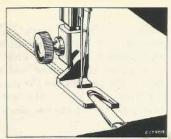


Fig. 50. Making a Felled Seam (Second Operation)

HOW TO HEM AND SEW ON LACE IN ONE OPERATION

- 1. Start the hem in the regular way.
- 2. Hold the hem in position with the needle.
- 3. Raise the presser bar and insert the edge of the lace in the slot of



Fig. 51. Hemming and Sewing on Lace the hemmer and back under the hemmer.

- Lower the presser bar and start sewing, catching the edge of the lace with the needle.
- 5. Guide the hem with the right hand and the lace with the left, being careful not to stretch the lace as it enters the hemmer.

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THE ADJUSTABLE HEMMER

HOW TO MAKE HEMS FROM $\frac{3}{16}$ " TO $\frac{15}{16}$ " WIDE

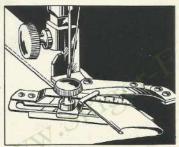


Fig. 52. Showing How Adjustable Hemmer is Used for Making Hems Up to 1/2 Inch Wide

- Loosen the thumb screw on the hemmer and move the scale until the pointer registers with the number of the desired width of hem; No. 1 indicating the narrowest hem and No. 8, the widest; then tighten the thumb screw.
- Place the cloth in the hemmer and draw it back and forth until the hem is formed, as shown in Fig. 52.
- Draw the end of the hem back under the needle, lower the presser bar and start to sew.
- 4. Guide sufficient cloth into the hemmer to turn the hem properly.

HOW TO MAKE HEMS WIDER THAN 15 "

- 1. Loosen the thumb screw on the hemmer, move the scale to the right as far as it will go, then swing it toward you, as shown in Fig. 53, and tighten the thumb screw.
- 2. Fold the crease the desired width of hem.
- 3. Place the fold under the extension at the right of the hemmer and the edge into the folder, as shown in Fig. 53.
- 4. Draw the end of the hem back under the needle, lower the presser bar and start to sew.
- 5. Guide the cloth to keep the hem flat.



Fig. 53. Showing How Adjustable Hemmer is Used for Making Hems Wider than \frac{15}{16} Inch

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RUFFLER

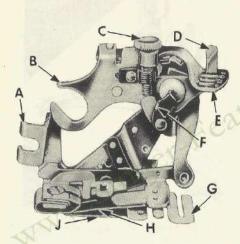


Fig. 54. Principal Parts of the Ruffler

Principal Parts of the Ruffler

- A-Foot-attaches ruffler to presser bar.
- B-Fork Arm-straddles needle clamp.
- C—Adjusting Screw—regulates fullness of gathers.
- D-Projection-engages the slots in adjusting lever.
- E—Adjusting Lever—sets ruffler for gathering or for making a pleat once at every six stitches or once every twelve stitches, as desired; also for disengaging ruffler when either pleating or gathering is not desired.
- F-Adjusting Finger regulates width or size of pleats.

- G—Separator Guide—contains slots into which edge of material is placed to keep heading of ruffle even; also for separating material to be ruffled from material to which ruffle is to be attached.
- H—Ruffling Blade—pushes material in pleats up to the needle.
- J—Separator Blade—prevents teeth of ruffling blade from coming into contact with feed of machine or material to which ruffle or pleating is to be applied.

TO ATTACH THE RUFFLER TO THE MACHINE

Loosen presser foot thumb screw and attach ruffler to presser bar, at the

same time placing fork arm B astride the needle clamp.



Fig. 55. Gathering with the Ruffler

TO ADJUST RUFFLER FOR GATHERING

- 1. Swing adjusting finger F away from needle.
- Raise adjusting lever E and move it until projection D can be entered in slot marked "1."

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 Insert material to be ruffled between two blue blades and under separator guide (Line 2, Fig. 56).



Fig. 56. Correct Position for Material to be Ruffled

- Draw material slightly back of needle, lower presser bar and start to sew.
- For fine gathering, turn adjusting screw C upward to shorten stroke.
 Set the machine for a shorter stitch.
- For full gathering, turn adjusting screw C downward to lengthen

stroke. Set the machine for a longer stitch.



Fig. 57. Making a Ruffle and Attaching it in One Operation

TO MAKE A RUFFLE AND SEW IT TO A GARMENT IN ONE OPERATION

 Insert material to be ruffled between two blue blades and under separator guide (Line 2, Fig. 58).

- Place material to which ruffle is to be attached under separator blade and under separator guide (Line 1, Fig. 58).
- 3. Proceed the same as for plain gathering.



Fig. 58. Correct Positions for Materials

TO MAKE A RUFFLE AND ATTACH IT WITH A FACING IN ONE OPERATION

1. Insert material to be ruffled between two blue blades and under separator guide (Line 2, Fig. 60). Place material to which ruffle is to be attached under separator guide (Line, 1 Fig. 60).

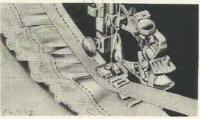


Fig. 59. Making a Ruffle and Attaching it with a Facing in One Operation

- 3. Place facing material over upper blue blade (Line 4, Fig. 60).
- If facing is to be on right side of garment, place wrong sides of garment and ruffle together.

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Fig. 60. Correct Position for Materials

If facing is to be on wrong side, place right sides of garment and ruffle together.

TO PIPE A RUFFLE

 Insert material to be ruffled between two blue blades from the right (Line 3, Fig. 62). This material must not exceed 1½ inches in width.

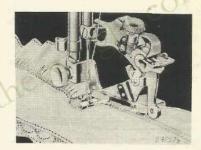


Fig. 61. Piping a Ruffle

2. The piping material is usually cut on the bias and it should be about ¼ inch wide when folded in centre. Place piping material in ruffler, following Line 5, Fig. 62 with folded edge of piping to right.



Fig. 62. Correct Positions for Materials

 Fold edge of material to which piping and ruffling are to be attached and insert it in ruffler, from the left following Line 6, Fig. 62.

TO ADJUST RUFFLER FOR PLEATING

 Raise adjusting lever E and move it until projection D can be entered in slot marked "6." The ruffler will then pleat once every six stitches. To pleat once every 12 stitches, have projection D enter slot "12" in the adjusting lever E.

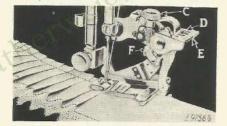


Fig. 63. Pleating with the Ruffler

 Insert the material to be pleated between two blue blades and under separator guide (Line 2, Fig. 64).

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Fig. 64. Correct Position for Material

 To increase width of pleat, move adjusting finger F back toward needle and turn adjusting screw C downward.

To make a smaller pleat, turn adjusting screw C upward. The distance between pleats is regulated by length of stitch.

TO ADJUST RUFFLER FOR GROUP PLEATING

 To make the space between the groups of pleats, raise adjusting lever E and move it until projection D can be entered in small

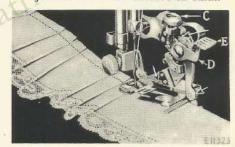


Fig. 65. Group Pleating with the Ruffler

slot indicated by star on adjusting lever E. The ruffler will then stop pleating and plain stitching will be made.

- When the desired space is made, set projection D in either of slots 6 or 12.
- Insert material to be pleated between two blue blades and under the separator guide (Line 2, Fig. 66).

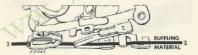


Fig. 66. Correct Position for the Material

TO OIL THE RUFFLER

Occasionally apply a drop of oil to the working parts of the ruffler at the places indicated by the unlettered arrows in Fig. 65.

DARNING

(See Figs. 67, 68 and 69)

Thread or yarn comparable to that used in the material to be darned is recommended. Fine soft thread used with a fine needle will produce a soft, comfortable darn that will outwear the rest of the material.

Draw up bobbin thread through needle hole in throat plate as described on page 18, leaving the end of thread M as shown in Fig. 69. Press down lever K to its lowest position by pulling its spring knob to release the lever from the keyway, which will drop the feed below the throat plate. Set stitch regulator R to its neutral position at centre of slot as in Fig. 69.



Fig. 67

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Fig. 68

Fit spring darning and embroidery foot No. 171071 in place of the presser foot, taking care that extension C slips into slot D, lug P is above needle clamp Q as shown in Fig. 68, and that the needle passes through centre of hole in foot.

Large flat work can be more conveniently darned by using wooden embroidery hoops in which is stretched the article to be repaired. Smaller holes may be darned by the use of the special darning and embroidery hoop No. 171074. These hoops are not supplied with the machine but can be purchased separately.

To fit hoop No. 171074 to the machine,

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Fig. 69

remove solid ring E from split ring L and, while holding split ring and arm extension F at right angle to machine bed, slip hook G into rectangular hole H in throat plate. Raise foot lifter J and slide split ring L under the foot as shown in Fig. 69. Place material to be darned over split ring L and under the foot, so that the hole to be repaired is centred in the hoop. Raise foot lifter J and place solid ring E under the foot and over the material, then press solid ring firmly into place in split ring. When darning tubular work, such as socks or stockings, loosen the thumb screw S and remove cloth plate by pulling it to the left (also see Fig. 4). Slide material to be darned over free end of arm N, under darning and embroidery foot and over split ring L. Trim the hole to be darned so that a ragged edge will not be left when the darn is finished. Run the machine slowly and move the hoop steadily with both hands in time with the needle, either back and forth or to the right and left. After two or three stitches are made, cut off the loose ends of thread so that they will not be stitched into the darn. It is advisable to make

two or three rings of stitches around any large hole and then to start stitching from one side across to the other and gradually cover the hole with threads running in one direction. When the hole is so covered, move the hoop in the other direction to complete the darn with a few lines of cross stitches. After darning replace the presser foot for ordinary sewing, raise lever K to its highest position, and set stitch regulator to the required number of stitches.

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