

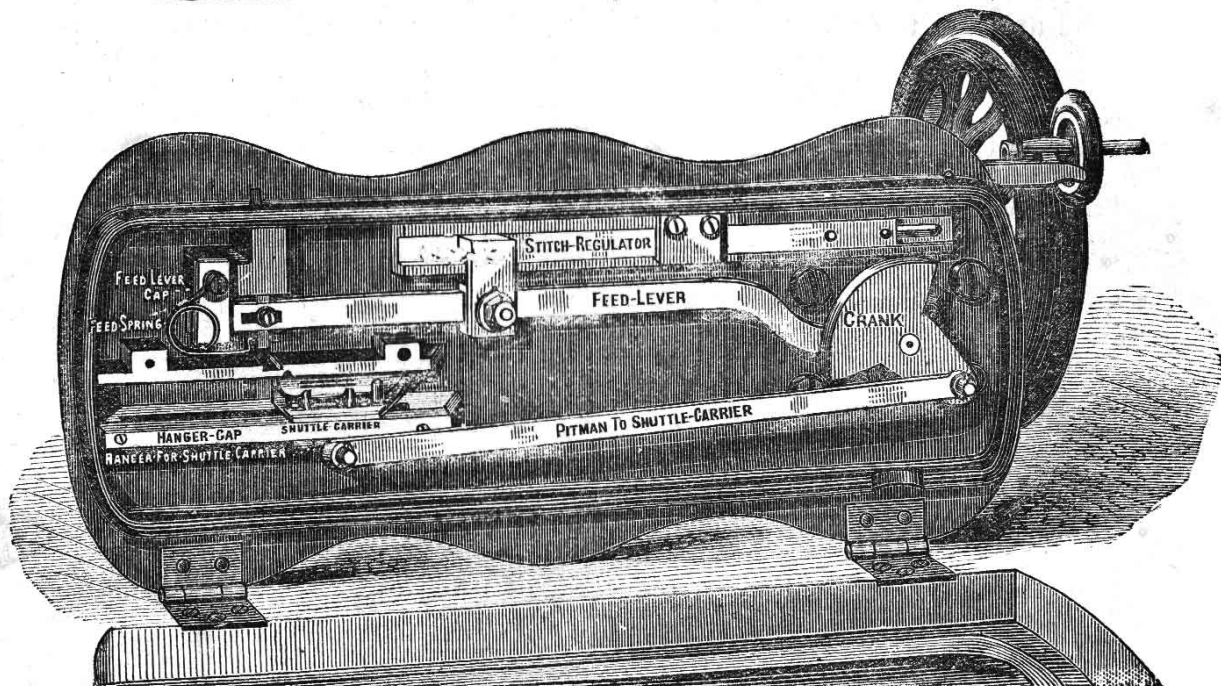
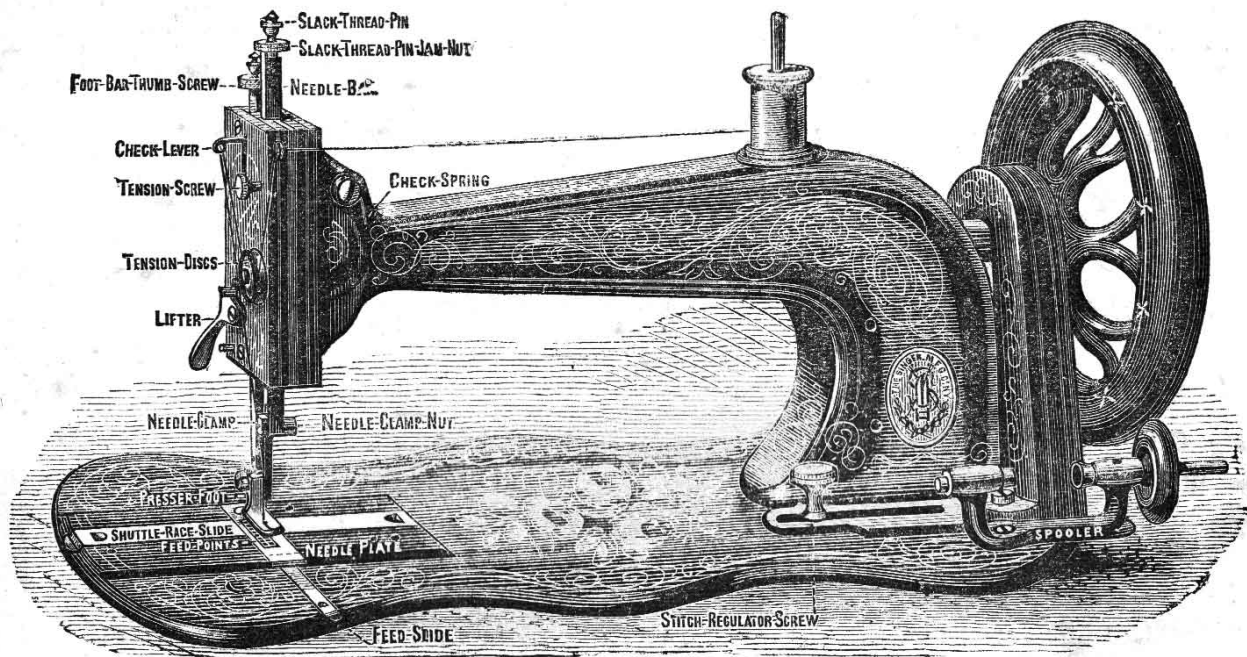
DIRECTIONS FOR USING
THE SINGER MANUFACTURING COMPANY'S
"MEDIUM"
SEWING MACHINE.

HEAD OFFICE: 34, UNION SQUARE, NEW YORK.

Chief Office in Europe:

39, FOSTER LANE, CHEAPSIDE, LONDON.

REFER TO THESE CUTS FOR THE TECHNICAL NAMES OF THE PARTS OF THE MACHINE.



This Cut represents the Machine turned on its hinges, showing the parts on the underside.

IF THE TABLE FOR THE MACHINE IS RECEIVED DISMOUNTED, PUT IT TOGETHER
IN THE FOLLOWING MANNER:—

Hold the two supports of the table upright, having to the right the one with the hole for the band-wheel axle, the other to the left, and the projections at the top inward; the treadle being fixed upon its traverse-bar, place it between the supports, having from you the arm to which the wooden pitman is to be fastened. Insert the two ends of the traverse-bar into the supports and put on the screw-nuts, turning them only two or three times round; put the cross-brace upon the traverse-bar, with the metal washers on the side towards the treadle, insert the two screw bolts through the supports and the top extremities of the cross-brace; put on the screw-nuts, tightening them and those of the traverse-bar firmly; fasten the band-wheel in its place, connect the pitman with the wheel and treadle, screw the wood top upon the supports, and the machine to the table, then fix the leather band upon the wheels.

In learning to use the Machine, first cut the thread just above the eye of the needle, then raise the lifter, remove the fabric, and proceed as hereinafter directed.

CAUTION.—Be sure the shuttle slides are closed before the Machine is put in motion.

THE TREADLE MOTION.

Place the feet lightly upon the treadle; then turn towards you the wheel on the top of the machine, allowing the feet to move freely with the motion thus given; continue this motion, by pressing with the heel and the toe alternately, until a regular movement is acquired.

TO THREAD THE NEEDLE.

Pass the thread from the reel through the eye at the top of the arm, downward under and between the tension discs, upward through the eye of the check-lever, then through the hole in the needle-clamp, and through the eye of the needle.

TO THREAD THE SHUTTLE.

Put the bobbin in the shuttle by inserting one end towards the shuttle point, pressing the other end down to its place, having the thread to draw from the side of the shuttle in which are the two slots; pass the thread out through the lower slot, in through the upper slot, and out through the tension-hole nearest the round end; then through as many holes as may be necessary to obtain the

tension required; and *always through the hole nearest the point, either from the inside outward, or from the outside inward, (in the latter case pass it out through the slot,) and finally in every case under the spring.*

TO REGULATE THE TENSIONS.

Test the tension of the shuttle-thread by drawing it towards the round end of the shuttle; if it draws as tightly as it will bear without breaking, it is right for fabrics of firm texture; thin, soft fabrics require less tension. To obtain more or less tension, pass the thread through more or less holes. (See p. 2, "To Thread the Shuttle.")

The tension of the needle-thread is regulated by turning the tension-screw. To test the tension, draw the thread downward from the check-lever, turning towards you the tension-screw, until the thread draws as tightly as it will bear without breaking, except for thin, soft fabrics, when the same rule applies to the *needle-thread* as to that of the *shuttle*.

TO COMMENCE SEWING.

Open the left hand shuttle-slide, place the shuttle in its carrier, leaving out about two inches of thread, and close the slide within an eighth of an inch; draw about two inches of thread downward from the check-lever and through the eye of the needle, holding the end with the left hand, *allowing it to be slack from the hand to the needle*, while you turn the wheel towards you, until the needle moves down and up again to its highest point; pull the needle-thread gently, and the shuttle-thread will appear with it, then close the slide. Leave the threads to the left across the feed points, place the fabric under the needle, lower the lifter, and commence sewing. Having made a few stitches, stop and examine them. *Should there be loops projecting or a straight thread upon the lower surface, turn the tension-screw on the face-plate towards you, so as to TIGHTEN the tension on the needle thread. If the thread lies straight upon the upper surface, turn the tension-screw from you TO LOOSEN the tension of the needle thread.* The secret of perfect sewing lies in the adjustment of the tension of the needle thread, so that it will be equal to that of the shuttle, and the adjustment of either may be regulated as before described.

TO ADJUST THE NEEDLE.

Allow the needle-bar to rest at its highest point, and loosen the needle-clamp nut. Take the needle between the thumb and fore-finger of the left hand having its long groove towards you, and put the point down through the hole in the needle-plate; turn the wheel gently towards you while you guide the needle under the needle-clamp; then tighten the clamp-nut; with the left hand insert the point of a fine needle into the eye, resting it on the needle-plate; loosen the clamp-nut, and pressing the fine needle into the eye in a direct line from you, turn the wheel gently either way, as required, until the gauge mark (a line graven in the needle-bar near the top) is level with the top of the arm; then tighten the clamp-nut.

TO ALTER THE LENGTH OF STITCH.

The stitch regulator screw is adjustable in a slot. (See cut, first page.) To lengthen the stitch, loosen the screw, and move it to the right; to shorten the stitch, move it to the left. After adjusting the length of stitch, tighten the screw.

NOTE.—*When the screw is at the end of the slot, and the stitch not as short as desired, change the screw into the hole at the end of the stitch-regulator-slide, then move it still further to the left.*

TO REMOVE THE WORK.

Allow the needle-bar to rest at its highest point, draw the thread downwards from the check-lever about three inches; raise the lifter, and draw the fabric from the left side of the presser-foot upwards about three inches; then cut the threads, leaving the ends long enough to recommence sewing. Seams requiring to be extra strong at the ends should be secured by taking a few stitches in the opposite direction before removing the work, *the same as in hand sewing.*

TO WIND THE BOBBIN.

Raise the lifter, take out the shuttle, place the reel of thread on the spindle, and fix the bobbin in the spooler. *In commencing, secure the end of the thread by placing it between the end of the bobbin and the cup of*

the spooler ; then put the machine in motion, guiding the thread upon the bobbin slowly from one end to the other, always having the thread a trifle higher at the ends than in the centre.

TO OIL THE MACHINE.

If the machine is only used occasionally, it requires but little oil and in the following places : the sides of the needle-bar, in the four holes on the top of the arm, the two holes on the side of the arm, the shuttle-carrier slide, both ends of the pitman and feed-lever, the feed-raising cam (attached to the screw at the end of the feed-lever), the swivel joint of the feed-lever, and the feed-dog, by opening the feed-slide. Occasionally oil the places indicated in the Note below. After oiling, put the machine in rapid motion for a few minutes, then wipe off the superfluous oil from the lower end of the needle-bar, the presser-bar, and from the shuttle-race and shuttle.

NOTE.—*If the Machine is in constant use, it requires to be well oiled twice a day in all the places enumerated above, and also on the following places : each side of the treadle where it rests upon the traverse-bar, both ends of the wooden pitman, the axle of the band-wheel, the hinge of the check-lever, the points of the bobbin, the face of the shuttle, the stitch-regulator-slide, the spooler-spindle, and the top of the lifter.*

If the machine works hard while in constant use, it is certain that some place requiring oil has been overlooked ; if it works hard after having been out of use for some time, or after using inferior oil, use a little paraffin oil, then oil it with the best machine oil. To be sure of good oil, purchase it at one of the Company's offices or agencies.

ACCESSORIES GIVEN WITH EACH MACHINE.

*1 BRAIDER - Illustrated on page 7	12 NEEDLES - - - -
*1 HEMMER - " " 7	1 WRENCH - - - -
1 STRAIGHT GUIDE - - -	1 SCREWDRIVER - - -
1 SCREW FOR STRAIGHT GUIDE -	1 BOTTLE OF OIL - - -
1 EXTRA NEEDLE-PLATE - -	1 OILER - - - -
1 EXTRA CHECK-SPRING - -	1 BOOK OF INSTRUCTIONS - -
5 SHUTTLE BOBBINS - - -	

The preceding Instructions are full and complete for the perfect use of the Machine.

A few special notes are added below in explanation of every adjustment that may be necessary during the long continued use of the Machine.

THE SLACK-THREAD-PIN presses down the check-lever. It is adjusted properly for all classes of general sewing, AND SHOULD NEVER BE ALTERED unless the thread breaks in sewing very thick cloth; then loosen the Jam Nut, adjust the Slack-Thread-Pin a very little lower and tighten the Jam Nut again. Should it become displaced re-adjust it according to the following rule—It should begin to press down the check-lever when the needle-gauge mark is one-eighth of an inch above the top of the arm.

THE CHECK-SPRING draws up the check-lever. Should it break or wear out, insert another as follows: let the needle-bar rest when the gauge-mark is level with the top of the arm, take out the screw that holds the spring, draw the check-lever out half its length, holding it while you put in the spring with its hooked end downward, then move the check-lever back into its place. Replace the screw, turning it around a few times only, press down the end of the spring into the first hole, (or into the second or third hole if using coarse thread), and tighten the screw.

THE PRESSER-SCREW regulates the pressure upon the fabric: turn it to the right to increase the pressure, and to the left to decrease it. Fabrics of thick or firm texture require more pressure than thin and soft fabrics.

THE LEATHER BAND must be tight enough to work the machine without slipping. If it is too loose, cut about half an inch from one end and refasten it as before.

IF THE NEEDLE-THREAD BREAKS when the needle is adjusted properly, it is caused by the tension being too tight, the eye of the needle being too small, the slack-thread-pin becoming displaced (see Note above), a roughness on the shuttle or its carrier, or sometimes, when using coarse silk, by the point of the needle being bent.

IF THE SHUTTLE-THREAD BREAKS, loosen the tension by passing the thread through less holes. (See page 2—"To Thread the Shuttle.")

IF THERE ARE MISSED STITCHES, they are caused by the needle being adjusted too high or too low, by it being bent away from the shuttle, it being too small for the thread, or by the point of the shuttle having become blunted.

IF THE NEEDLE-THREAD FORMS SMALL LOOPS on the top of the fabric, it is caused by the check-spring having become broken, (see Note above, "The Check-Spring,") and sometimes when sewing with coarse silk or linen thread, by the needle being too fine, or its point being bent. In the latter case smooth the point of the needle on an oil stone.

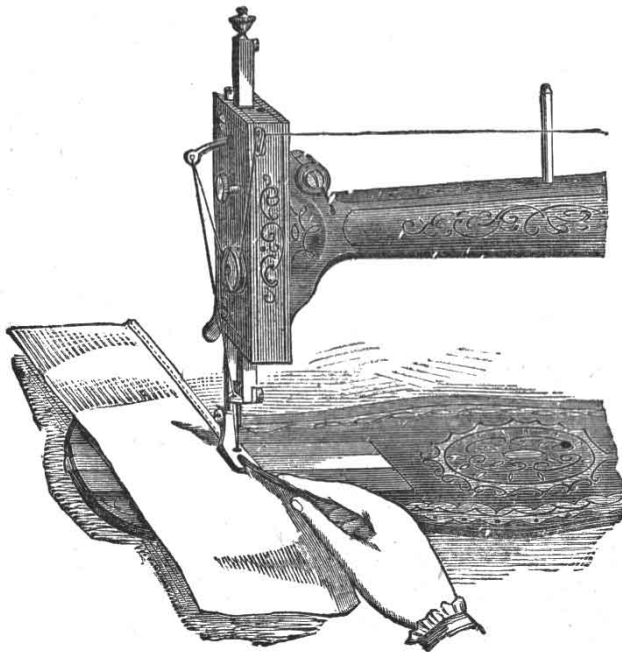
IF THE STITCHES VARY IN LENGTH while hemming or sewing very thick and soft fabrics, loosen the screw attached to the feed-raising-cam at the end of the feed lever, and move it a little to the right to raise the feed-points, then tighten it firmly; do not raise the feed-points too high; when they drop down in working they should be a little below the surface of the needle-plate.

SEAMS IN HARD COTTON FABRICS should be passed over slowly, and if extra thick, rub a little white soap on them, which will facilitate the passage of the needle.

THE EXTRA NEEDLE-PLATE, which has a large hole, is only required when using a No. 4 or 5 needle with 25 to 60 linen thread: never use it for any other numbers.

See pages 11 and 12 for sizes of needles and threads.

The following pages explain the use of the Accessories.



HEMMER.

TO MAKE A NARROW HEM.

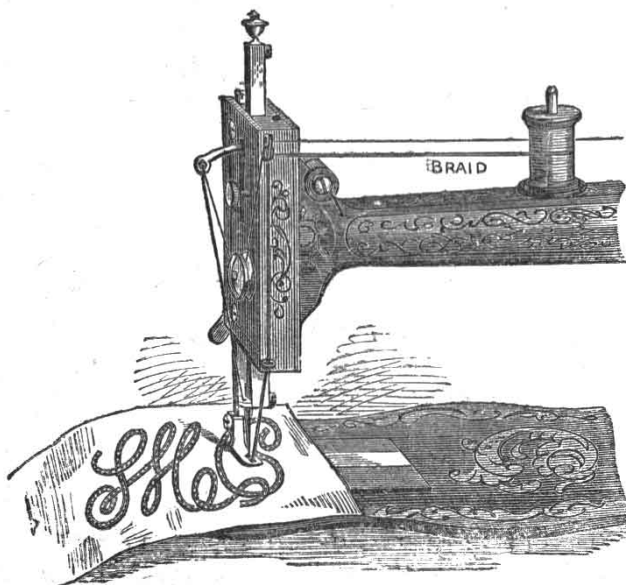
Adjust the hemmer to the presser-bar; commence the hem by folding it at the end, then pass a thread through it by means of a needle, drawing the thread and the fabric into the hemmer (or pass the edge of the fabric into the hemmer without a thread) lower the lifter, and commence sewing, guiding the edge of the fabric with the RIGHT hand. IF THE EDGE UNFOLDS OUT OF THE HEMMER, MOVE THE FABRIC TO THE RIGHT; IF IT FOLDS TOO MUCH INTO THE HEMMER, MOVE IT TO THE LEFT.

TO MAKE A WIDE HEM.

Turn ONE fold only, the width required, adding about one-eighth of an inch. Proceed as with the narrow hem, fix the straight guide to gauge the width, and guide the fabric as usual.

TO MAKE A FELL SEAM.

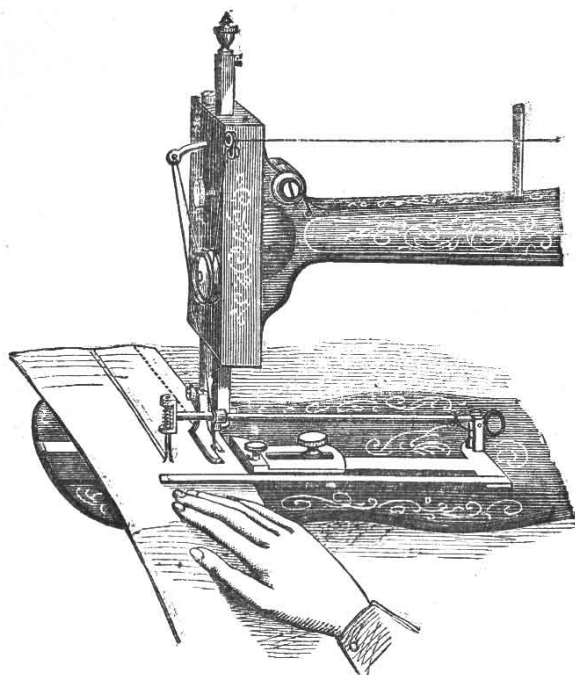
Join the two edges of the fabric by a seam about three-eighths of an inch from the edge, then open out the seam, trim one edge and pass the other one into the hemmer to turn the Fell.



BRAIDER.

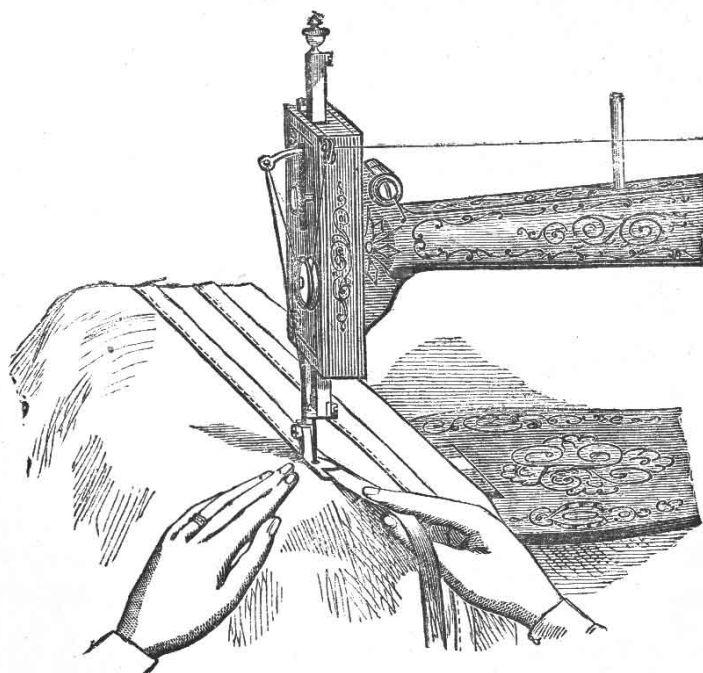
Adjust the braider to the presser-bar, pass the braid through the eye at the top of the arm, then take a short piece of thread and pass the ends through the slot in the braider, forming a loop; place the end of the braid into the loop, and drawing the thread through the slot, the braid will pass through with it. (Or pass the braid through by pushing the end with the point of a needle.) Stamp or trace the design on the fabric and guide it as required.

The following supplementary Accessories being for special classes of work, are supplied at a small extra charge. Price Lists forwarded gratis by post.



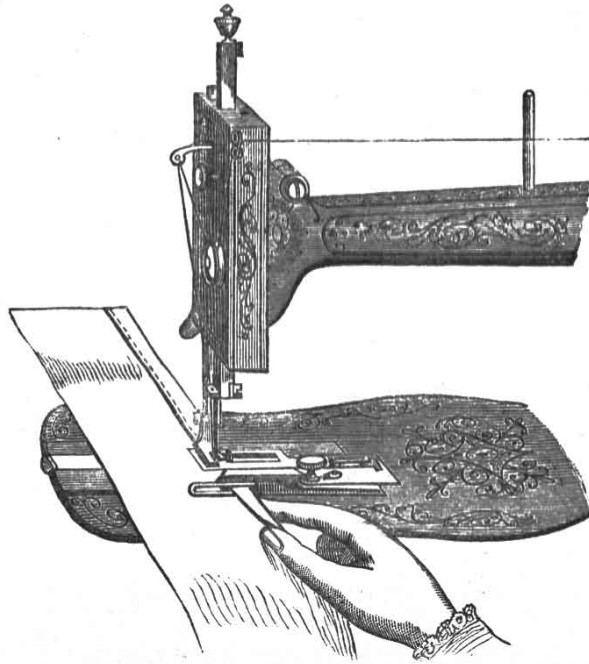
TUCK-MARKER.

Attach the marker to the machine by the thumb-screw, passing the needle through the eye in the tongue upon the marker lever. Adjust the guide to the desired width for the tuck, and the marker to the required distance from the line for stitching for the centre of the next tuck. Fix both thumb-screws firmly, then stitch the tuck, and the action of the marker will gauge and mark the next one ready for folding.



TRIMMER.

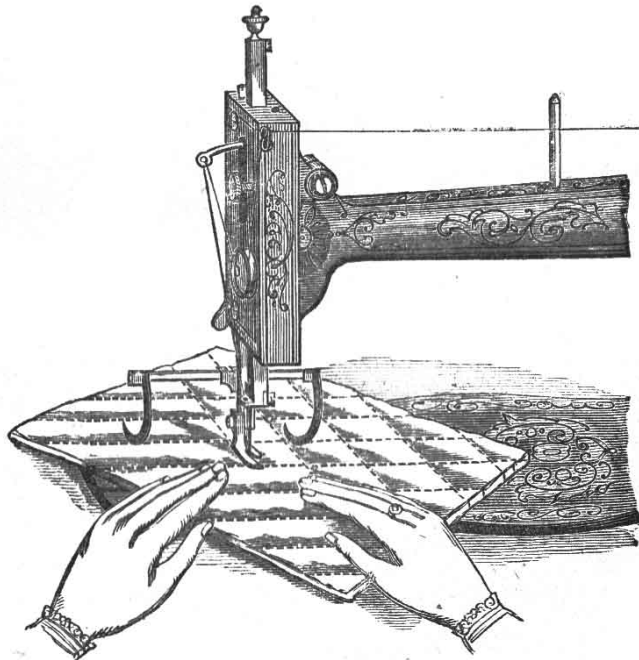
Adjust the trimmer to the presser-bar; place the braid, velvet, or ribbon in the slot and under the needle; then guide the fabric and the trimming to stitch on the desired line or pattern.



ADJUSTABLE HEMMER.

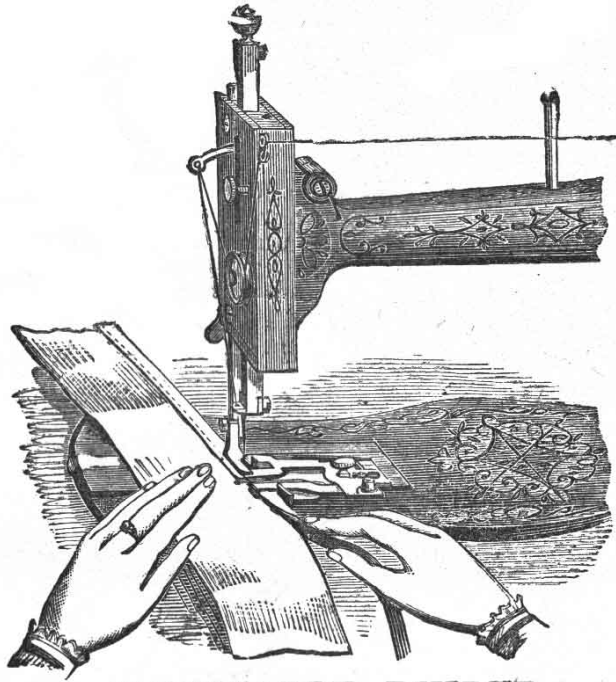
FOR HEMMING TOWELS, NAPKINS, TABLE-CLOTHS, AND OTHER COARSE FABRICS.

Adjust the hemmer to fold the desired width of hem, fix it firmly to the machine with the thumb-screw, then turn down the edge of the fabric one fold only, and pass it into the hemmer with a double fold to complete the hem. If the sewing is not on the edge of the hem, loosen the screw and move the hemmer a little to the right or left, until it is in the right position.



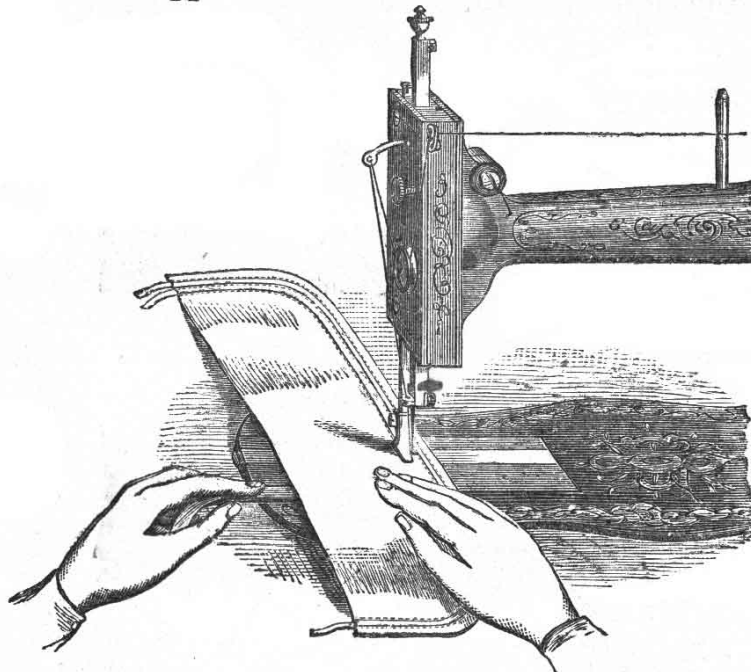
QUILTING GUIDE.

Adjust the guide on the right-hand side of the presser-bar; make a straight line upon the fabric with chalk or by creasing, and stitch upon it; then adjust the gauge-arms the required distance for the next line of stitching, and guide the fabric with the line already sewn directly under the gauge-arm on either side of the needle.



ADJUSTABLE BINDER.

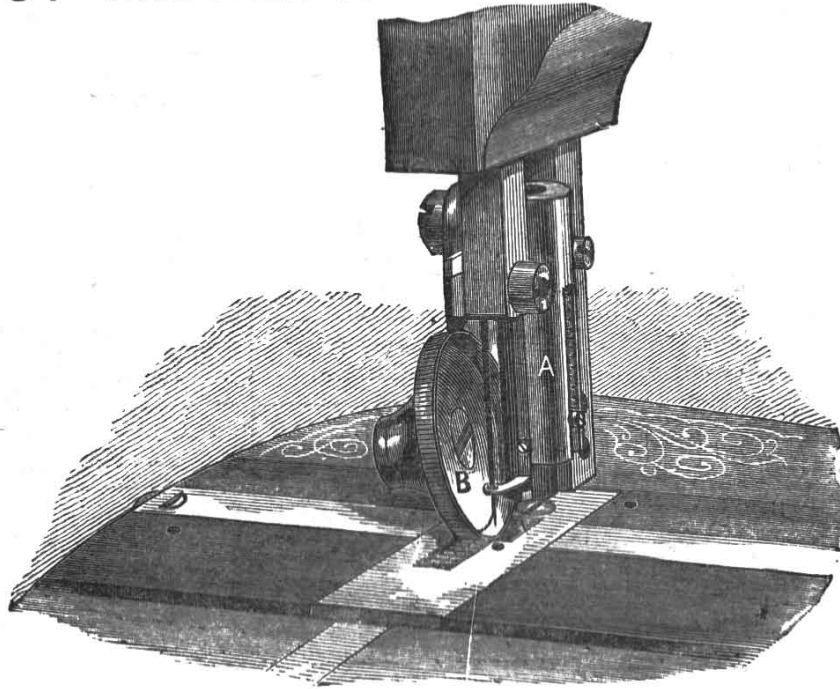
Adjust the binder to the desired width of binding, fix it firmly to the machine with the thumb-screw; place the end of the binding over the feed-points, and its edges under the clips; then place the fabric between the clips, and guide it against the binder. If the sewing is not on the edge of the binding, loosen the screw, and move the binder a little to the right or left until it is in the right position; the under-clip may be adjusted to fold the binding wider on the under than on the upper side of the fabric.



CORDER.

Adjust the corder-foot to the presser-bar, pass the cord into the eye of the guide which is held in the left hand between the folds of the fabric, with its end opposite the first groove in the foot; in placing each succeeding cord, guide the fabric with the last cord sewed in the second groove of the foot. *In Cording, always turn a square corner while the needle rests in the fabric.*

SPECIAL INSTRUCTIONS
 FOR USING
THE NEW PATENT NEEDLE-GUIDE,
 A NOVEL ACCESSORY TO
THE MEDIUM MACHINE
 FOR
BOOT FLOWERING & LEATHER WORK.



FOR BOOT FLOWERING

This Needle-Guide Accessory is used with
THE VIBRATING PRESSER,
 and a small Presser Foot, adapted to feeding round short curves.

For Vamping and Stitching Heavy Leather,
 it is used with

THE ROLL PRESSER, Marked B.

The Needle Guide is attached to the Foot-Bar by a screw. It travels with the Needle, always supporting it near its point, and the finest needles can therefore be used without breaking, which is impossible with other Machines.

The following are the sizes of the needles for this Machine.

The following are the sizes of the needles for this Machine.					
Twist points, for Vamping and all kinds of leather work	$\frac{1}{2}$	1	2	3	4
Special cross points, for Boot Flowering	$\frac{1}{2}$	1			

The following table indicates the sizes of the threads and needles which should be employed together in general sewing.

In transmitting orders for Needles, always specify the size required, and say for "MEDIUM MACHINE," and if Round or Twist Points.

Size of Needle. Rd. points	Class of Work to Sew.	Size of Cotton, Linen, or Silk.
B	Very fine Calicoes, Linen, Linen Shirtings, fine Silk Goods, &c., Tucking, Hemming, and Stitching.	80 to 150 Cotton. 24 to 36 Silk Twist.
$\frac{1}{2}$	Shirtings, Sheetings, bleached Calicoes, Muslins, Silks, and General Domestic Goods, and all classes of General Work.	60 to 80 Cotton. 30 to 36 Silk Twist.
1	All kinds of heavy Calicoes, light Woollen Goods, heavy Silks, Seaming, Stitching, &c.	40 to 60 Cotton. 24 to 30 Silk Twist.
2	Tickings, Woollen Goods, Trousers, Boys' Clothing, Corsets, Cloaks, Mantles, &c.	24 to 40 Cotton. 16 to 24 Silk Twist.
3	Heavy Woollens, Tickings, Bags, heavy Coats, Trousers, &c., heavy Clothing generally.	10 to 24 Cotton. 60 to 80 Linen.
4	Bags, coarse Clothes, Heavy Goods of any texture.	40 to 60 Linen, very coarse Cotton or Silk.
5	Very heavy Goods, where a strong Thread is wanted.	25 to 35 Linen.

Always use the best soft finished Cotton, because it makes better work, and is the cheapest in the end.

Purchase the Needles at The Singer Manufacturing Company's Offices or Agencies, to ensure their being of the best quality.

The Company keep in stock, at all their Branch Offices, superior drilled-eye needles; also the best quality of Silk Twist, Linen and Cotton Threads, Machine Oil, &c., manufactured expressly for their Sewing Machines. Needles and small articles can be sent by post to all parts of the country on receipt of Post Office Order in payment; stamps received for small sums under Five Shillings only.

Cheques to be made payable to "The Singer Manufacturing Company,"
Post Office Orders to "Singer & Co."