

DIRECTIONS

FOR USING THE

Minnesota

Model C

Sewing

Machine

Sears, Roebuck & Co.

CHICAGO

Certificate No. _____

Certificate of Guaranty

This Is to Certify that this Sewing Machine is guaranteed to be perfect in material and manufacture, and to be perfect in operation if properly managed. This machine has been carefully inspected and adjusted, and there are no defects in material or workmanship. It has been delivered to the transportation company in perfect condition, carefully packed, and we guarantee it to reach your station in good order. This means that if it is damaged in transit it may be returned to us and we will pay all expenses connected with the transaction and send a new machine without extra charge.

With fair usage we hereby agree to make good any defect in material or workmanship for a period of twenty years. Natural wear and tear on any of the parts is not considered a defect in material or workmanship.

This guarantee does not apply to attachments, or the breaking of needles, shuttles, bobbins or belts.

When referring to this guaranty please do not fail to state Certificate Number.

SEARS, ROEBUCK AND CO., Chicago, Ill.

Three Months' Trial Contract

This Is to Certify that this machine is sold by us with the understanding and agreement that if it does not prove entirely satisfactory in every respect to the purchaser, it may be returned at any time within three months from date it is received and the full amount paid for the machine, including freight charges, will be returned to the purchaser at once.

SEARS, ROEBUCK AND CO., Chicago, Ill.

GENERAL DIRECTIONS

Every machine before leaving the factory has been carefully adjusted and minutely inspected, and its sewing qualities have been tested on every class of work and found perfect in every respect.

Before the machine is used, care should be taken to clean and oil it thoroughly, according to instructions; but do not tamper with the adjustments of the machine until you fully understand how to handle it. Avoid unnecessary meddling with the working parts or adjustments at all times, as serious trouble may result from tampering with the machine. Do not allow incompetent parties to attempt to repair the machine.

Careful attention to the instructions in the book and a little practice will soon enable the learner to operate the machine and all the attachments.

Practice on strips of cloth and do not attempt to do practical sewing until you have learned to guide the work properly and produce an even motion in running.

Do not try to use the attachments until you are thoroughly familiar with plain sewing and can handle the machine easily. If a machine gives trouble it will almost invariably result from one of the following causes: Improper setting of the needle, a crooked or blunt needle, poor thread, or the needle not being the right size for the thread used.

Be sure to read all the instructions carefully and do not consider it a waste of time, even if you have used other machines.

When ordering needles, shuttles, or parts of any kind, always give the plate number of machine, which will be found stamped on top of the front slide, directly in front of the needle.

Never run the machine when it is threaded up unless there is cloth under the presser foot. If you do the thread will snarl and tangle and may break the needle.

Do not run the machine with the presser foot resting on the feed and no cloth between, or the sharp teeth of the feed will injure the foot and the feed teeth will be dulled.

Never run the machine with either of the race covers open, except to turn the wheel very slowly by hand or the shuttle will catch and cause serious damage.

Do not try to help the feed by pulling the work, lest you bend or break the needle. The machine will feed without assistance.

Do not allow lint or dust to accumulate inside the shuttle, nor under the shuttle tension spring. Any substance inside the shuttle will prevent the bobbin revolving freely, and anything under the spring will interfere with a perfect tension.

To turn a corner, stop the machine, with the needle at least half way down in the goods, raise the presser foot by means of the lifter at the back and turn the work as desired, using the needle as a pivot.

After using the machine always clean it well before putting it away.

FOR BEGINNERS

If you are not accustomed to the use of a sewing machine or find it difficult to get a regular and even motion to the treadle, it should be learned by running the machine without threading it up, with the shuttle out and the presser foot raised off the feed. First loosen the hand wheel by turning the friction nut (see cut on page 9) toward you same as is done to use the bobbin winder, so the hand wheel will revolve freely on the shaft and without running the sewing mechanism. Place your feet on the treadle with the instep directly over the center and turn the hand wheel toward you with the right hand, allowing the feet to move back and forth on the rocking treadle with the motion produced and continue this motion by pressing on the treadle alternately with the heels and toes until an easy and steady motion is obtained. After becoming entirely familiar with the treadle movement in this way, then connect the hand wheel with the machine by turning the friction nut away from you. Then raise the presser foot with the presser lifter at the back of the face plate, start the hand wheel toward you and continue the motion with the feet as already learned. When you are proficient in this motion put a piece of cloth between the feed and the presser foot, drop the lifter so as to let the presser foot down on the cloth and operate the machine in this way without threading it up until you have learned to guide the material and make a straight seam.

Do not attempt to do any sewing until you have become proficient in running the machine by the treadle and can start the machine readily without turning the wheel in the wrong direction. Always remember that the top of the hand wheel should turn toward the operator.

BREAKING THE UPPER THREAD

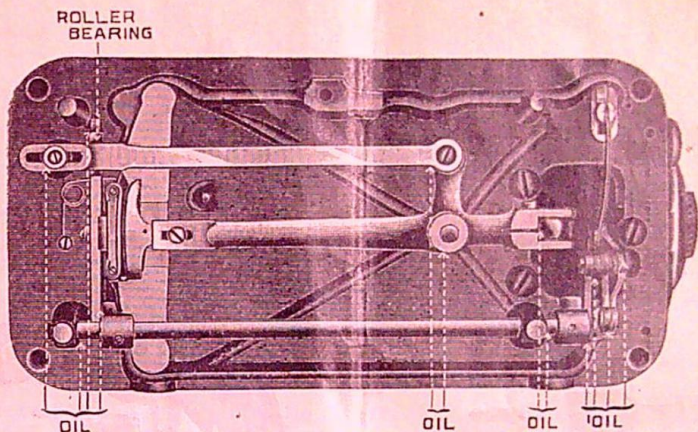
This may be caused by the improper threading of the machine; the upper tension being too tight; the needle being too small for the thread; the needle being set the wrong side out, or set crooked; or by a sharp edge on the shuttle; or the needle being too large for the hole in the throat plate.

BREAKING THE LOWER THREAD

This may be caused by the shuttle being wrongly threaded; the tension being too tight; the bobbin being wound too full, so it will not revolve freely; a rough or sharp place on the edge on the shuttle at the heel, or by failing to keep the shuttle race clean.

CAUSE OF A MACHINE MISSING STITCHES

Should there at any time be skipped or long stitches at intervals, it is owing to the needle being set too low (or too high in very heavy sewing), or its having become bent away from the shuttle, or its being too small for the thread in use, and sometimes, to the point of the shuttle becoming accidentally blunted. When using very fine needles, and also when stitching heavy work, be sure that the points of the needles are perfect and on a line with the center of the direction of the needle, and not blunted or turned over.



To Oil the Machine

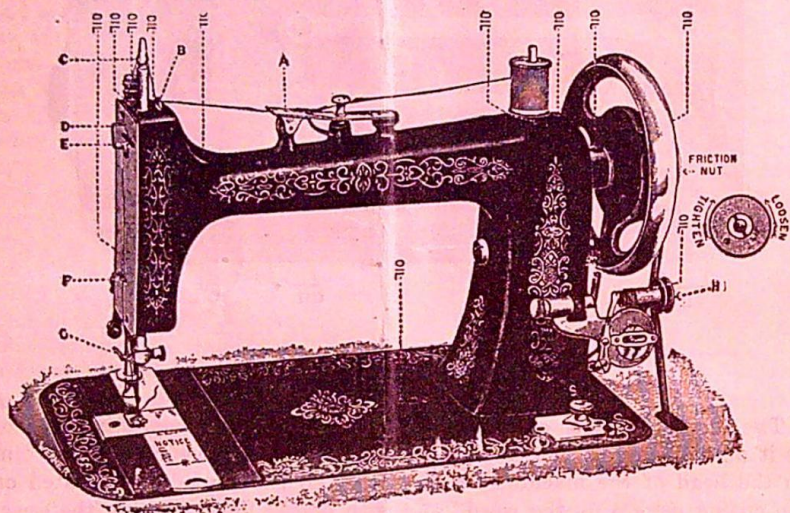
The thorough oiling of a sewing machine is of the utmost importance as it insures ease of motion and prevents premature wear. Every point on the head of the machine where oil should be applied is indicated on the cut on page 6 by the word "oil" with dotted lines showing the exact spot for oiling. Oil holes will be found for each bearing which cannot be reached for direct application of oil.

To oil the parts inside the head: Raise the needle bar to its highest point, then put one drop of oil on each side of the needle bar on top of the machine, and one drop in each of the oil holes in the head as shown on the cut.

To oil the works underneath the bed plate: Throw off the belt and turn back the head on its hinges, then apply a drop of oil on each bearing marked on cut above.

To oil the stand: The journal of the balance wheel below the table, the bearing at each end of the pitman and the bearings of the treadle on each side, are the five points on the stand which require regular oiling. After oiling run the machine a few moments to distribute the oil and then wipe carefully. Be sure every part is clean before commencing to sew.

If the machine runs hard it must be due to lack of proper oiling of some bearings. Should the machine become gummed from long standing or poor oil, apply kerosene or benzine to all the bearings to remove the gum, then run the machine rapidly, wipe clean and oil thoroughly with good sewing machine oil before beginning to sew.

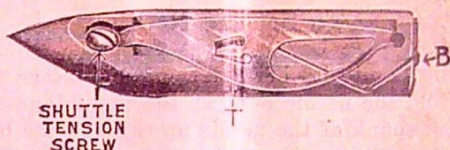


To Thread the Machine

(See Cut Above)

First raise the needle bar to its highest point. Place the spool of thread on the spool pin so the thread pulls from the back side of the spool. Draw the thread back of the tension adjusting screw into the slot of the top tension spring and between the two tension surfaces (A) as shown in cut. Pass the thread under the thread guide (B) then up and through the slot in top of needle bar (C) then down back of the staple (D) in the face plate, drawing a loop of the thread forward through the staple (D) and over the point of the thread controller (E), then down and under thread guide (F), thence through the eye of the needle, leaving the end of the thread about three inches long.

To Thread the Shuttle



Hold the shuttle in the left hand, with the point toward you; drop the bobbin into the shuttle so that the thread draws from the left side of the bobbin as it is put in; then draw the thread into the open slot B toward you, at the same time putting a little pressure with your finger on the bobbin, so that it can not turn; the thread will then be forced under the point T of the shuttle spring. The shuttle is then ready for use.

The shuttle tension is tightened by means of the screw. With the small screw driver,—turn this screw to the right to increase and to the left to diminish the tension on the thread. When the machine leaves the factory, the tension in the shuttle has been set right for all ordinary kinds of work and thread, and therefore needs no alteration. The bore of the shuttle should be kept clear of lint so the end of the bobbin does not project outside the shuttle.

To Place Shuttle in the Machine

Withdraw the front race cover and place the shuttle in the carrier with the point toward the operator; then close the slide. It is sometimes more convenient to withdraw the back race cover and put the shuttle in its place when the carrier is at the back part of the race. This is especially the case when some of the attachments are in use.

The Shuttle Race

The face of the shuttle race must be kept clean and free from dirt or gum. To do this, rub occasionally with a piece of cloth having a drop of oil on. Afterwards wipe it with a dry, clean cloth. If through neglect the race has become very gummy, first clean it with a cloth saturated with kerosene; then use an oiled cloth, and a dry, clean cloth as above. The cotton waste in the oil well in shuttle race should be kept well saturated with oil. Breaking of thread and skipping of stitches are frequently caused by failing to keep the shuttle race clean.

To Set the Needle

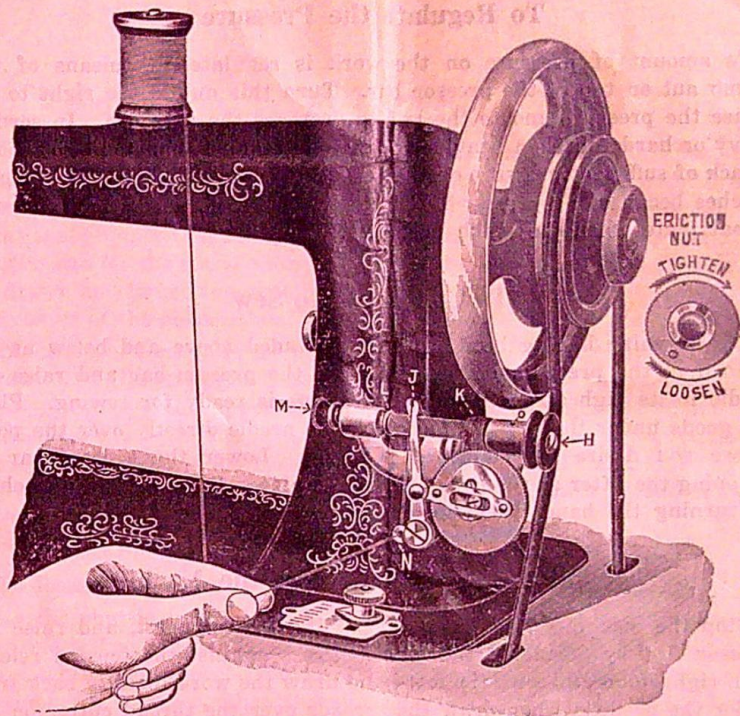
Raise the needle bar to its highest point and loosen the screw in the needle clamp. Hold the needle between the thumb and finger of the left hand and pass the shank of the needle up through the hole in the needle clamp as far as it will go, or until it sets against the little stop pin in the groove in the needle bar and with the flat side of the shank toward the needle bar. Then secure the needle firmly by the screw on the needle clamp. *If linen or silk thread, or very coarse cotton, is to be used in sewing, the needle may be set a little lower than directed, so that the end of the shank of the needle does not quite come up to the stop in the needle bar.*

To Avoid Breaking Needles

When a needle is broken it is, in nearly every case, the fault of the operator, and caused by pulling the work, so that the needle strikes the throat plate, when it is bound to break. A needle may also be broken by sewing heavy seams or very thick goods without having the pressure on the presser foot as heavy as it should be for such work. To increase the pressure on the goods turn the presser nut on top of the presser bar to the right. To decrease the pressure, for light work, turn the presser nut to the left. A blunt needle or one with a hooked point will cause trouble and prevent good work.

To Regulate the Length of Stitch

The stitch regulator is in front of the base of the arm, directly under the bobbin winder. On the stitch regulator plate is a scale of numbers which indicate the length of stitch. These numbers—No. 7, No. 10, No. 16 and No. 24—show the number of stitches to the inch. To obtain the length of stitch desired, loosen the thumb nut by turning it to the left and set the indicator with the pointer at the proper number. No. 24 gives the shortest stitch and No. 7 the longest. You can vary the stitches from the scale by setting the pointer between the numbers. Be sure to fasten the nut tightly after setting the indicator. To turn the stitch off entirely, set the pointer at 0.



To Wind Bobbins

(See Illustration above)

The Hand Wheel Friction Nut has a right hand thread.

For Winding Bobbins hold the hand wheel with the left hand and with the right hand turn the hand wheel Friction Nut (as marked in cut) to the left or toward you—that is in the direction shown in cut by arrow under the word "Loosen." This will loosen the belt pulley so the belt will run without moving the sewing parts of the machine. Place the belt back of the grooved wheel on the bobbin winder (H) as illustrated. Run the winder until the end of the feed lever (J) is as far to the right as it will go. Place one end of the bobbin in the socket of the spindle (K) on the right side and the other end of the bobbin in the socket of the step (L) on the left side, pulling the step nut (M) toward the left to admit the bobbin and letting it spring back into place.

Catch the end of the thread between the brass end of the bobbin and the socket of the spindle (K) on the right side. Carry the thread through the slot in the end of the feed lever (J), then through the eye (N) at the lower end of the lever. When winding hold the thread between the fingers but not too tight. An evenly and smoothly wound bobbin is necessary to produce perfect work. Do not fill the bobbin too full or it will not revolve freely in the shuttle. A very little oil should be placed on the left hand end of the bobbin where it runs in the socket of the step (L) and the spindle should be kept oiled through the oil hole (O).

When through winding bobbins remove the belt from the back of the grooved wheel (H) and turn the hand wheel friction nut to the right or in the direction indicated by the arrow under the word "Tighten" until it is tight and the machine is ready for sewing.

The thread should wind evenly on the bobbin and fill it alike at both ends. This is regulated by the finger or feed lever (J). If one end fills faster than the other the feed lever should be bent slightly toward the end on which the least thread is wound. If it winds too fast on the middle of the bobbin bend the feed lever slightly away from the bobbin. The bobbin should fill a little faster on the ends than in the middle. Be sure to stop winding before thread is wound higher than the brass ends of the bobbin.

To Regulate the Pressure

The amount of pressure on the work is regulated by means of the thumb nut on top of the presser bar. Turn this nut to the right to increase the pressure and to the left to decrease the pressure. In sewing heavy or hard fabrics a heavier pressure is required than for light goods. A lack of sufficient pressure on the work will sometimes cause skipping of stitches because the presser foot does not hold the goods firmly on the throat plate when the stitch is drawn.

To Commence to Sew

The machine having been properly threaded above and below as explained in the preceding directions raise the presser bar and raise the needle to its highest point and the machine is ready for sewing. Place the goods under the presser foot with the needle directly over the point where you desire to commence stitching. Lower the presser bar by dropping the lifter at the back of the face plate. Then start the machine by turning the hand wheel toward you.

To Remove the Work from the Machine

Stop the machine with the needle at its highest point, and raise the presser foot by means of the lifter. Press against the tension release with right hand and with the left hand draw the work directly back from under the needle. Then draw the threads over the thread cutter on the back side of the presser bar and the work is free.


To Tighten the Belt



The leather belt which transmits power from the balance wheel on the stand to the hand wheel on the head should always be tight enough not to slip on the pulley. It should not be too tight or it will cause the machine to run hard. If the belt is too loose it should be made shorter. Unfasten the belt hook and cut off squarely about one-half inch from one end of the belt. Punch a hole for the hook in the end that has been cut and couple the belt.

To Take Off Presser Foot

Raise the needle bar to its highest point, loosen the nut just above the presser foot by turning it to the right until the foot is free. It can then be drawn off toward the operator.

The Tensions

The object to be attained is to have the stitch alike on both sides of the fabric. This is accomplished by the tensions, or strain upon both threads. The tension upon both threads should be as nearly alike as possible, and tight enough only to make a smooth, firm seam. If the threads are of the proper size for the material used, and both tensions right, the threads will be drawn and locked together in the center of the goods, thus: 

If the upper tension is too loose (or the lower one too tight), the lower thread will lie straight along the under side of the goods, thus:  the upper thread showing in loops on the under side. On the contrary, if the upper tension is too tight (or the shuttle tension is too loose), the upper thread will lie straight on the upper side of the goods, thus:  the lower thread showing in loops on the upper side.

To tighten the upper tension, turn the tension nut to the right.

To loosen the upper tension, turn the tension nut to the left.

As the shuttle tension has been set right for general work when the machine leaves our hands, as before explained, any needed regulation of the stitch in this respect should ordinarily be made by changing the upper tension. If, however, when the upper tension is regulated so the lock is in the center of the goods, both threads appear to be loose and the stitches and seam not smooth and firm, the shuttle tension is too loose, and should be tightened by turning the tension screw to the right (see cut, page 7), then tighten the upper tension correspondingly.

If the under thread cannot be properly drawn up without having the upper tension so tight that the threads break, or if when the tensions are evenly balanced, the goods are "drawn" or "puckered" (this will occur only in sewing very light and "slazy" fabrics), the shuttle tension is too tight, and should be loosened by turning the shuttle tension screw to the left; then loosen the upper tension to correspond.

The above particular explanation is given that every operator may fully understand the principles of the tensions.

Sizes of Needles and Thread

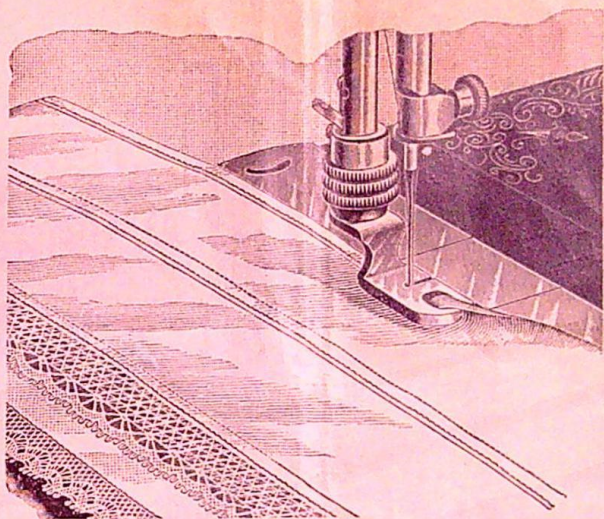
Size of Needle	CLASS OF WORK TO SEW	Size of Cotton, Linen or Silk
00	Very thin Muslin, Cambrics, Linen, etc.	100 to 200 Cotton, 000 to 00 Silk Twist.
0	Very fine Calicoes, Linens, Shirtings, fine Silk Goods, etc.	70 to 100 Cotton, 0 Silk Twist.
1	Shirtings, Sheetings, Bleached Muslins, Calicoes, Silk and general domestic goods, and all classes of general work.	70 to 50 Cotton, A and B Silk Twist.
2	All kinds of heavy Calicoes, light Woolen Goods, heavy Silk, Seaming, Stitching, etc.	50 to 36 Cotton, C Silk Twist.
3	Tickings, Woolen Goods, Trousers, Boys' Clothing, Corsets, Cloaks, Manties, etc.	36 to 20 Cotton, D Silk Twist.

Use Good Needles and Thread

Do not use poor thread or imperfect needles. Any good thread will do good work on this machine, but you must not expect to make smooth, even stitches with rough, uneven thread. Neither will the machine work well with a cheap, inferior grade of needles. It is our interest to maintain the reputation of our machines and we can always supply the best needles at as low prices as possible. Orders can be sent direct to us by mail with money enclosed and will be filled promptly. When ordering needles or parts, be sure to tell us they are for A MINNESOTA MODEL "C" machine and give serial number of the machine.

Always use exactly the right size of needle for the thread used, as per table above. Do not use too large a size of thread for the work. If the thread is too coarse to be properly bedded into the fabric a smooth even seam cannot be obtained. When sewing two thicknesses of calico or shirting, No. 70 is stronger than the thread woven in the fabric and will make a handsome stitch. The seam will also wear longer than if coarser thread is used, because with coarse thread the stitches lie on top of the fabric and are first worn away.

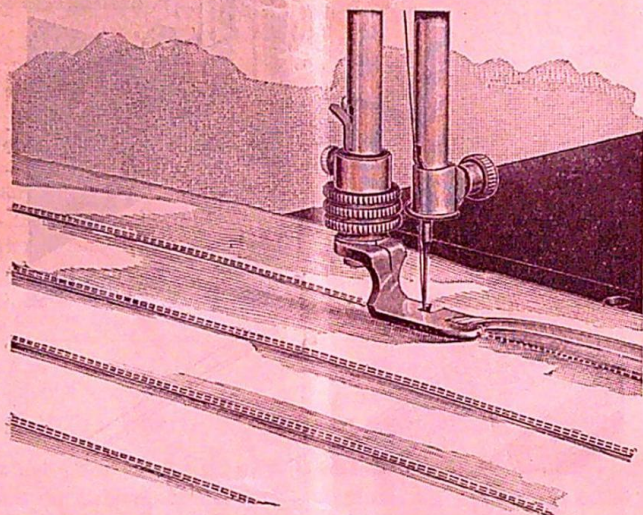
To Use Silk Thread—A finer needle is required for silk thread, and for using fine silk thread the tensions should be tightened, because silk thread, being loosely woven, will not be caught by a loose tension.



Narrow Hemming

Attach the hemmer foot in place of the presser foot, taking care that it stands true and straight with the feed. Raise the hemmer to the lowest lift, clip off the right hand corner of the cloth and turn up the edge about one-fourth of an inch. Insert it in the scroll (or mouth) of the hemmer and push it forward to the needle. Then let the hemmer down and start the machine, gently holding back on the work to keep it smooth, allowing the edge of the goods to pass between the thumb and forefinger of the right hand while it is being hemmed, keeping the scroll of the hemmer just full, as it will leave a raw edge and make a rough and clumsy hem if there is too much turned in, and too little will not turn under. In hemming on a curve or on flannel or slazy goods, draw gently on the edge being hemmed, resisting the feed, and guide the work carefully.

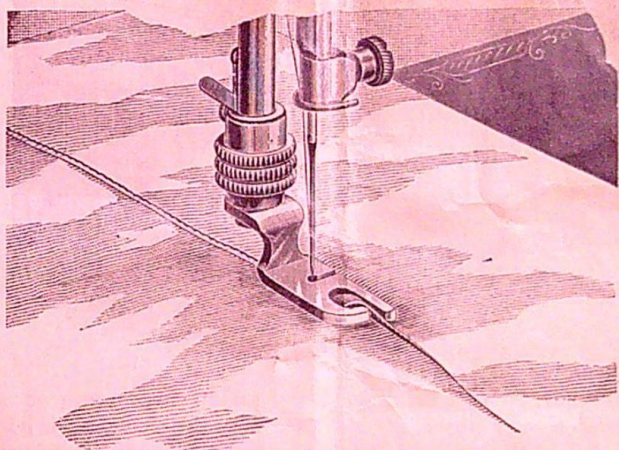
The stitch may be laid close to the edge of the hem, or away from it, by setting the hemmer to or from the needle, by swinging the hemmer to the right or left. Practice is necessary with both hemming and felling before a neat seam can be produced.



Felling

The foot hemmer and the feller are the same. If the hemmer is attached it can be used in place of the presser foot in running up the seam, the under edge of which should project about one-fourth of an inch beyond the upper, then trim off the edges, if necessary, so as to leave just seam enough to fill the feller. Open the work flat, wrong side up, and trim the corner of the seam slightly, and then push it into the feller until it reaches the needle, lower the feller on the feed and start the machine. The feed will carry the seam without helping it, and makes a complete fell from the beginning.

The feller may be adjusted to the right or left, so as to sew close on the edge of the fell, or away from it as desired.

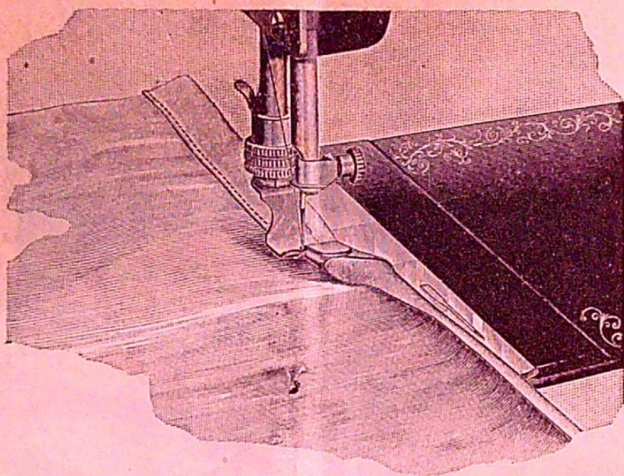


Making Wide Hem with Hemmer and Feller

If a wider hem is desired than can be made with any of the hemmers, proceed as follows:

Adjust the hemmer and feller as described on page 13.

Fold the cloth the width of the hem and place the fold to the right of the needle so that the edge of the folded part will easily enter the scroll of the hemmer and feller. Proceed as in ordinary narrow hemming, taking care to keep the fold smooth, as shown in cut above.



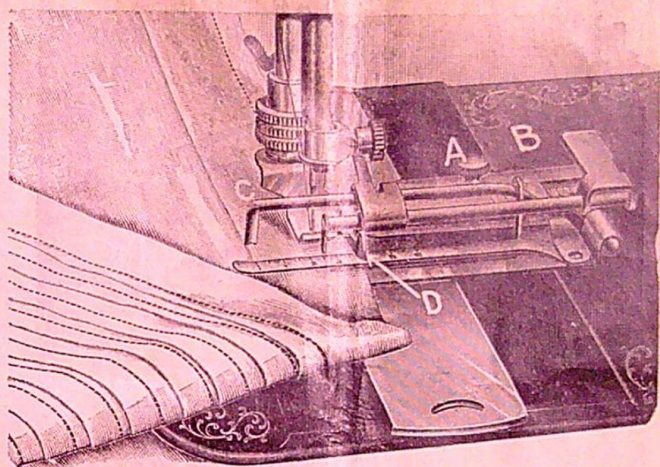
Wide Hemmers

Four widths of hemmers are included in the regular set of attachments.

Remove the presser foot and attach the width of hemmer desired in place of the foot on the presser bar, fastening it securely with the thumb nut.

Fold the goods by hand the width of hem required, turning one fold only, adding about one-eighth of an inch, which will be turned under by the hemmer. Then insert the goods in the hemmer, forcing it back until the needle will catch the edge of the goods. Lower the presser foot and sew as usual. Slightly press on the goods with the two fore-fingers of the left hand. If more cloth is required to fill the hemmer and turn the edge properly, slightly carry the goods to the right. If too much goods is taken, carry to the left.

The line of stitching can be adjusted to the edge of the hem by moving the hemmer to the right or left.



To Use the Tuck Marker

Raise the presser bar to its highest point. Remove the presser foot and attach the tucker in its place so that the needle passes down through the center of the round hole in the foot of the tucker, then fasten it securely in this position.

To regulate the size of tuck, loosen screw A and place the gauge D for any desired width, moving to the right for wide and to the left for narrow tuck.

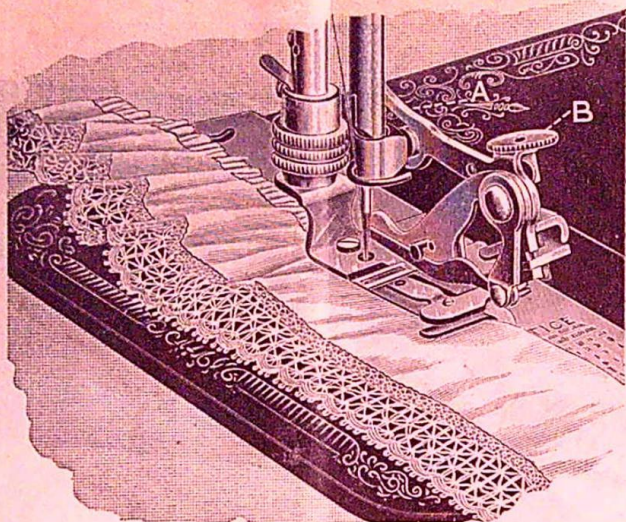
To regulate the space between tucks, move the marker C to the left for wide space and to the right for narrow.

The figures on the scale B show the width of tuck, and those on the scale D the width of space.

By adjusting gauge B and gauge D so that the scale indicators will point to the same figures it will make the tucks just meet. When the above adjustments have been made, be sure and turn screw A down tight.

To commence tucking fold the cloth for the first tuck and place it beneath and under the spring lip in front of the creaser with folded edge against the gauge D. Drop the presser foot and sew as usual.

The marker makes a crease in the cloth as it passes over the blade. After the first tuck is completed fold the cloth on the crease and place in the tucker again as before. Continue this operation for the required number of tucks.



Directions for Using the Ruffler

Remove the presser foot and attach the ruffler in its place on the presser bar with the fork of the lever over the needle nut A. Place the goods to be gathered between the steel blades or springs. If the ruffle is to be attached to a band, place the band below the lower blade.

To make a fine gather, shorten the stitch and turn the adjusting nut B to its highest point.

To make plaits, turn the adjusting nut B downward to the desired point and lengthen the stitch.

For full gathers, adjust the ruffler the same as in making plaits, using a short stitch.

The length of the stitch should match the size of the gather or plait, so the folds will lie even and not pile up on each other or be too far apart.

Directions for Shirring—Remove the lower blade of the ruffler by loosening the separator post screw on right side of ruffler as attached to the machine. The lower blade of the ruffle may then be drawn forward. Remove the shuttle slide and insert the shirring plate in its place, pushing it as far as it will go. Attach the upper part of the ruffler and insert the goods.

Never use the ruffler without either the ruffling plate or shirring plate in place. Never run the machine with the ruffler on without goods between the steel blades, as the movement of the teeth on the upper blade against the lower blade will dull the teeth and soon make the ruffler useless.

The ruffler properly attached to the machine is clearly shown in the above illustration.



To Do Quilting

The quilting is attached by passing the rounded part through the hole in the presser bar made for that purpose, as shown above.

Adjust it to the right or left, according to the distance required between the lines of stitching. Fasten it by the small screw at the back of the presser bar, having the guide or flat part of the quilting raised just far enough above the bed of the machine to allow the free passage of the work under it.

Guide the work so that the last line of stitching will be directly under the flat part of the quilting. This will make the lines of stitching perfectly straight and equal distances apart.

To Attach the Binder

Raise the needle to its highest point; remove the presser foot and attach the binder in its place on the presser bar, fastening it securely with the thumb nut. The small end of the scroll of the binder should rest on the needle plate with the upper scroll of the binder on a line with the needle.

To Do Bias Binding

Pass the binding through the scroll of the binder and draw it back under the needle. Place the edge of the material to be bound between the upper and lower scrolls, then lower the presser bar and sew as usual. Guide the cloth with the left hand, and let the binding glide easily through the fingers of the right hand to keep it straight. If the stitching should be too near or too far from the edge of the binding, the binder can be moved to the right or left, until exactly right. For bias binding, goods of any description can be used and the binding should be cut seven-eighths of an inch wide, and uniform in width.

If very light "slazy" material is used the binding should be cut a little wider than seven-eighths of an inch in order to have the edges properly turned under.

Ordinary dress binding can be used in the binder by the same method as described above. When such binding is used the edge of the binding will not be turned under.

