INSTRUCTIONS

FOR OPERATING

The Series "R" Sewing Machine

Series R

NO. 490-7-27-4M

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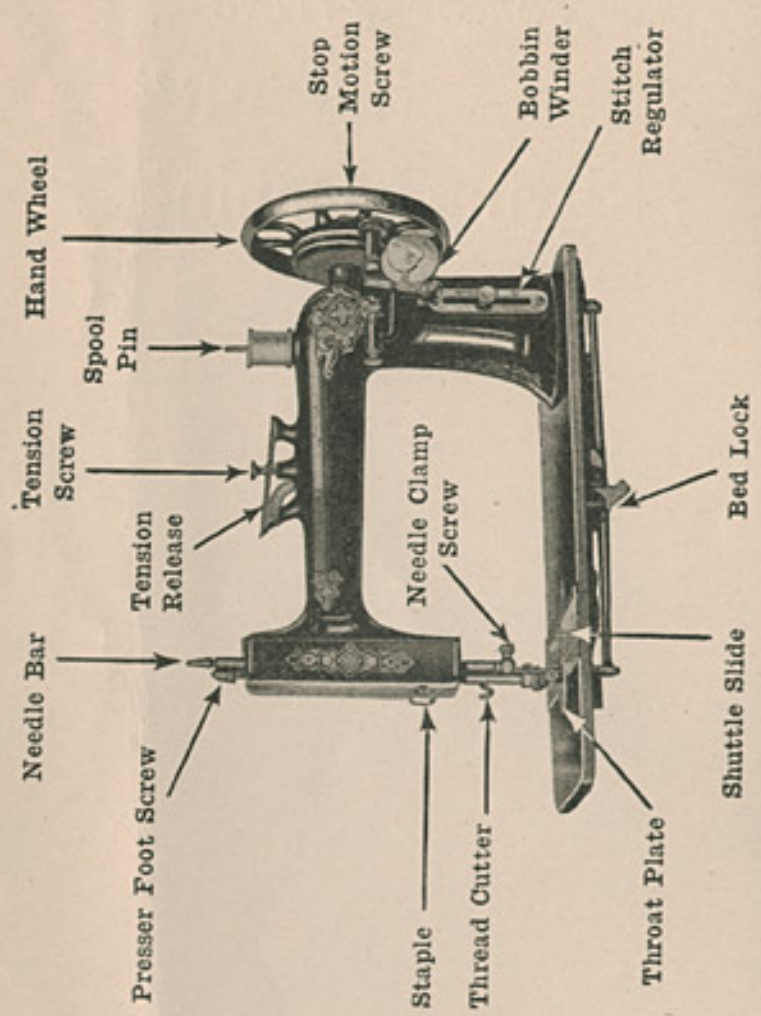


GENERAL INSTRUCTIONS

Every machine that leaves the Factory is thoroughly tested by experts and is shipped in perfect running order with every part accurately adjusted fo the sewing done in the average household. In view of this fact please do not try to make any adjustments on your sewing machine until you have become quite familiar with the operation of it.

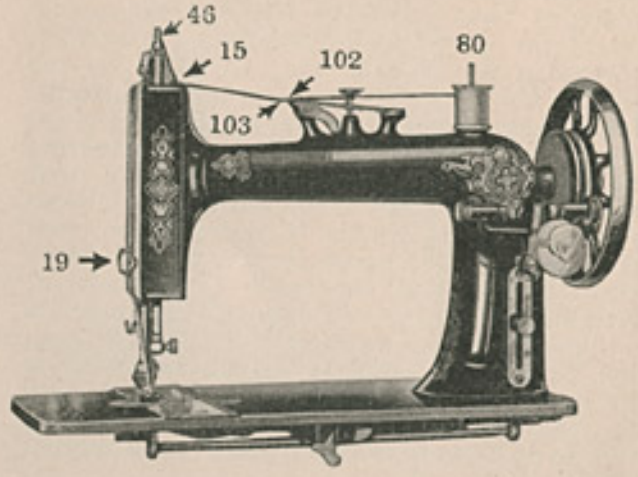
On the opposite page you will find a photograph of the head of your machine. Study the picture thoroughly and become acquainted with the various parts by name so that you will better understand the instructions as given in the rest of this book. We cannot urge you too strongly to read this booklet carefully. Do not attempt to run the machine until you have followed thoroughly all of the directions for winding the bobbin, threading the shuttle, etc., so that you are certain that the machine is properly threaded for sewing. Remember that a little time given to the study of instructions before commencing to use the machine will be found to be of great advantage. Anyone can learn to use this machine. It is simple in construction and requires so little change for any kind of work that its operation can easily be understood. Attention to the instructions and a little practice will enable anyone to successfully use the machine. Do not attempt to use the attachments until you can manage the machine with ease on plain sewing. If at any time the machine fails to do its work promptly refer to the instruction book.

The presser foot must never be let down on the feed except when you are sewing with cloth under it. When the shuttle is in place the machine must not be run with either of the shuttle slides open or partly open as the shuttle is liable to go out of position and damage the machine. We caution the purchaser to see that the manufacturer's plate number on the machine is plain and in good condition. If defaced it is good evidence of fraud and we will not warrant or in any way be responsible for

such machines. To avoid imposition buy only from us or authorized dealers.

TO SET THE NEEDLE

First loosen the screw that clamps the needle and push to the left sufficiently to allow the shank to enter, allowing the needle bar to rest at its highest position, then take the needle (with the flat side of the shank toward the needle bar) between the thumb and forefinger of the left hand and insert into the groove as far up as it will go under the clamp and screw fast. Make sure that the needle passes through hole in the throat plate without touching either side. If it touches take hold of it near its point and press it gently in the opposite direction until it is free.

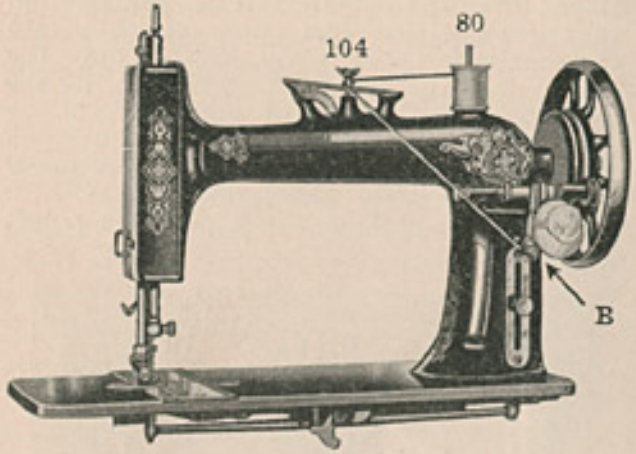


THREADING THE MACHINE AND NEEDLE

Put the spool of thread upon the spool pin, then with the left hand catch the thread in the slot and draw up between the spring and cap toward the needle bar. Then under the spring eyelet and up through the slot in the needle bar down back of the staple——then with the thumb and forefinger of the left hand, catch the thread in the center of the staple and draw toward you around the hook of the take-up, then down through the eye of the needle from left to right, leaving about four inches of thread free.

TO REMOVE THE SHUTTLE

Draw toward you the front slide in the bed of the machine and turn the balance wheel over toward you until the shuttle comes full under the opening. The shuttle may then be lifted out and the bobbin can be dropped out. The face of the shuttle basket must be kept free and clean from lint



TO WIND THE BOBBIN

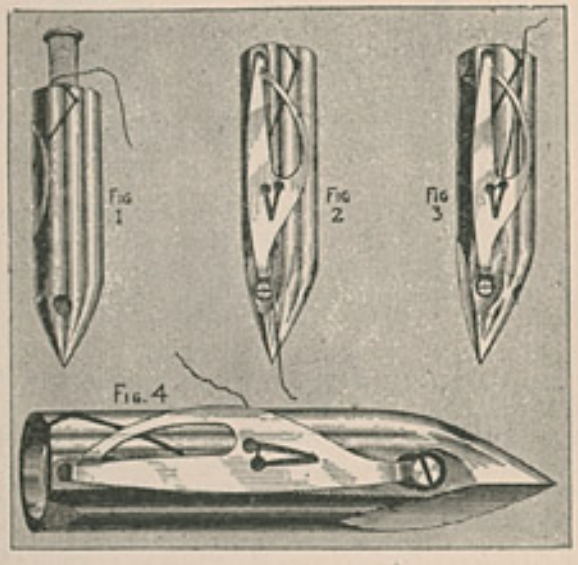
Pull out the hand wheel clutch on outside of hand wheel (this will save the trouble of unthreading the needle and removing the work while the bobbin is being filled). Then swing the bobbin winder until it is in position and presses firmly against the belt. Place the spool of thread on the spool pin **80** and put the bobbin in the bobbin winder. Pass the thread from the spool, (once around the tension screw **104** as shown in the cut, thence down through slot **B** at bottom of thread guide, then into V-shaped slot of thread guide at **C**. To secure the end of thread preparatory to winding place it between the head of the bobbin and its socket at the right hand. Proceed as in sewing. When the bobbin has been filled swing the winder from belt and turn back the stop motion clamping screw——and lock the balance wheel.

Winding the bobbin correctly has a very important part in forming a perfect stitch. Practice this and learn to do it well.

Caution—Never begin winding a bobbin over one that is partly filled with different kind of thread.

TO THREAD SHUTTLE

Take the shuttle in the left hand, with the point toward you; draw off about two inches of thread from the bobbin, thread running from the upper side, (see Fig. 1); drop the bobbin into the shuttle as far as it will go; then draw the thread into the open slot of shuttle, at the same time putting a little pressure with the finger on the end of the bobbin; by drawing the thread toward you it will be forced under the point of shuttle spring, (see Fig. 2); then draw it back until it passes over the point;



(see Fig. 3); shuttle is ready for sewing. Fig. 4 shows shuttle properly threaded, ready for sewing.

The tension is regulated by turning the screw in point of shuttle to the right or to the

left; to the right, to give more tension; to the left, to give less tension.

It will not generally be necessary to change the tension of shuttle for ordinary kinds of sewing.

TO REPLACE THE SHUTTLE

Withdraw the front shuttle slide and place the shuttle in the basket, point first, toward the operator; then close the slide.

TO PREPARE FOR SEWING

With the left hand pull the end of the needle thread leaving it slack, turn the balance wheel over toward you until the needle moves down and up again to its highest point, thus catching the bobbin thread and the bobbin thread will come up with it through the hole in the throat plate, then pull both threads back under the presser foot.

TO COMMENCE SEWING

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

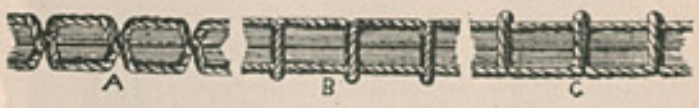
TO REMOVE THE WORK

Turn the hand wheel toward you until the needle bar has reached its highest point, then raise the presser foot, place the forefinger of the right hand on the tension release and draw the work away from the needle and cut the two threads on the thread cutter, leaving about four inches with which to commence sewing again.

TENSIONS

Tension means pressure on the thread, which prevents the machine from drawing off more thread than necessary to form a stitch. The tension upon both threads should be as nearly alike as possible, and tight enough only to make a smooth, firm seam. For ordinary stitching the needle and shuttle threads should be locked in the center of the thickness of the material, thus: See Fig A. If the upper tension is too tight (or the shuttle tension too loose, the upper thread will lie straight on the upper side of the goods, as shown in Fig. B. 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, as shown in Fig. C.

Note—Do not regulate both upper and lower tensions at the same time. Always regulate the tension by adjusting the upper tension if possible.



TO REGULATE TENSIONS

Upper tension is adjusted by the tension screw, turning to the right to tighten, and to the left to loosen. The under tension is regulated by turning the screw in the point of the shuttle Turn to the right to tighten, left to loosen.

REGULATE STITCH

On the left side of the stitch regulator scale will be found marks of different lengths. The numbers give the number of stitches to the inch. To shorten stitch loosen the thumb screw and move to the left. To lengthen stitch move the thumb screw to the right.

MISC. REGULATIONS

For ordinary family sewing it is seldom necessary to change the pressure on the material. If sewing fine silk or flimsy material, lighten the pressure by turning the thumb screw (see page 2) on the top of the machine to the left To increase the pressure turn the screw to the right. The pressure should be only heavy enough to prevent the material from rising with the needle and to enable the feed to move the work along evenly; a heavier pressure will make the machine run hard.

HINTS

THE BELT. See that the belt is not too tight; it should always be tight enough not to slip. If too loose remove the hook at one end, shorten the belt and rejoin. To put the belt on, place it in the groove of the balance wheel, then turn the balance wheel toward you.

BREAKING NEEDLES. Is generally due to the operator pulling on the work, in their effort to assist the feed or make the machine sew faster. This must not be done. It is bound to pull the needle out of line, causing it to strike the needle plate and break. This may also be due to the presser foot or attachments not being pushed clear back on the bar and securely clamped. When the attachments or foot are placed, a test should be made after the attachment is clamped, to see that the needle passes through the attachment without interfering. If the needle does not interfere on its downward course, or is not pulled out of line by the operator through carelessness in pulling on the work, the needle will seldom break. (Needles are frequently broken by forcing cheap, coarse thread through a needle that is too small).

HINTS

BREAKING THE UPPER THREAD may be caused by—

The machine not being properly threaded
An imperfect needle
A crooked needle
Upper tension being too tight
Needle eye too small for the thread
Needle rubbing against attachment or presser foot.

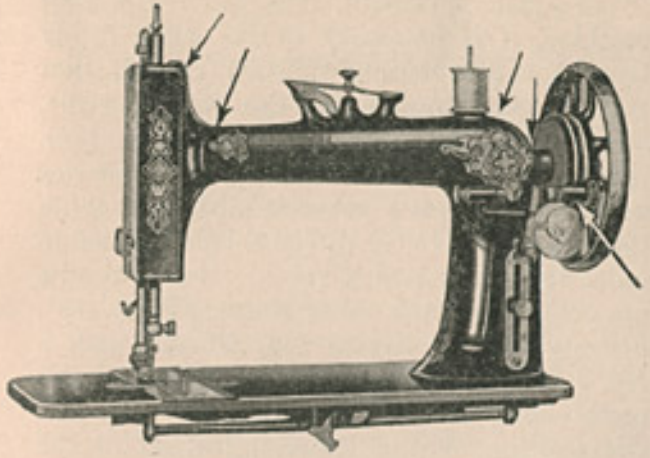
BREAKING THE LOWER THREAD May be caused by—

The shuttle being incorrectly threaded
The tension being too tight
The bobbin being wound too full, so that it will not revolve freely
The hole in the needle plate becoming rough, caused by the needle striking the plate
An accumulation of lint and dirt at the bottom of shuttle cavity would prevent the bobbin from turning freely.

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 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.

IF STITCHES ARE NOT EVEN It may be caused by the presser foot not resting evenly upon the fabric sewed, or by the feed not being high enough, or by the stitch being too short, or by pulling the cloth or by using too fine a needle with too coarse or uneven thread.

IF THE MACHINE DOES NOT FEED FAST AND STRONG Examine the feed. If too high it will not clear the goods when coming back and simply jerk the goods back and forward. Set the feed so that the bottom of notches are just even with top of throat plate. Do not run the machine backwards or with both threads in without sewing.

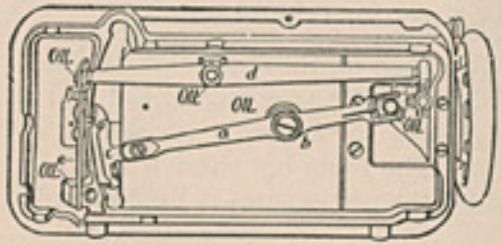


Oil as indicated by arrows

TO OIL MACHINE

One of the most essential features of the proper working and wearing qualities of this machine is Good Oil. Poor oil makes the machine run hard. Avoid using oil which resembles castor or sweet oil in appearance or that looks thick and rancid. The oils should be Clear and of Best Quality, about as thick as kerosene.

To oil the parts inside of the head, raise the needle bar to its highest point, put one drop of oil on each side of the needle bar, and one drop in each of the holes indicated in the above cuts. After the machine has been oiled, run it (with presser foot up and shuttle out) for a minute, and then wipe off the superfluous oil. Oil the bobbin winder in places where there is any friction.



THREAD TO USE

To make a smooth, even stitch with your machine, it is necessary to use good, firmly twisted and smoothly finished thread, that passes freely through the eye of the needle. The best results are obtained when both the upper and lower threads are the same size and quality. It is a common mistake to think that No. 40 or No. 50 thread should be used in order to form a strong stitch. Better results are obtained by the use of Number Sixty (60), Seventy (70) or Eighty (80) Thread with a No. 1-2 Needle, for the reason that it draws more closely into the material, the wear and strain being on the material instead of the thread.

For ordinary work use the same size of thread in the bobbin as in the needle. In using slack twist or even silk, should it be frayed or roughened, the needle is too fine or bent, or has a hooked point, made by striking the throat plate.

NEEDLES TO USE

We cannot guarantee results if substitutes or needles of a poor grade are used. We make our own needles, therefore, if you cannot get the genuine with the New Home and our trade mark of a Greyhound stamped on the shank, write direct to us. Poor needles are responsible many times for skipped stitches.

Stamped on the front shuttle slide will be found a scale for selecting thread and needles. The number of a needle is marked upon its shank. The following chart will tell you how to select the proper sizes of needles and thread.

TO SELECT NEEDLES AND THREAD

Size of Needle.	CLASS OF WORK TO SEW.	Size of Cotton, Linen or Silk.
O	Very Fine Thin Muslins, Cambrics, Linens, etc.	120 to 300 Cotton.
B	Very Fine Calicoes, Linens, Linen Shirtings, Fine Silk Goods, etc.	90 to 120 Cotton. 000, & 00 Silk Twist.
½	Shirtings, Sheetings, Bleached Calicoes, Muslins, Silks and General Domestic Goods, and all classes of General Work.	60 to 90 Cotton, 0 and 00 Silk Twist.
1	All kinds of Heavy Calicoes, Light Woolen Goods, Heavy Silks, Seaming, Stitching, etc.	40 to 60 Cotton, A and 0 Silk Twist.
2	Tickings, Woolen Goods, Trousers, Boys' Clothing, Corsets, Cloaks, Mantles, etc.	24 to 40 Cotton, A and 0 Silk Twist.
3	Heavy Woolens and Tickings, Bags, Heavy Coats, Trousers, and Heavy Clothing generally.	10 to 24 Cotton, A and B Twist, and 60 to 80 Linen.
4	Bags, Coarse Cloths, Heavy Goods of any texture.	40 to 60 Linen, B, C, & D Silk Twist, or very Coarse Cotton.

REPAIRS

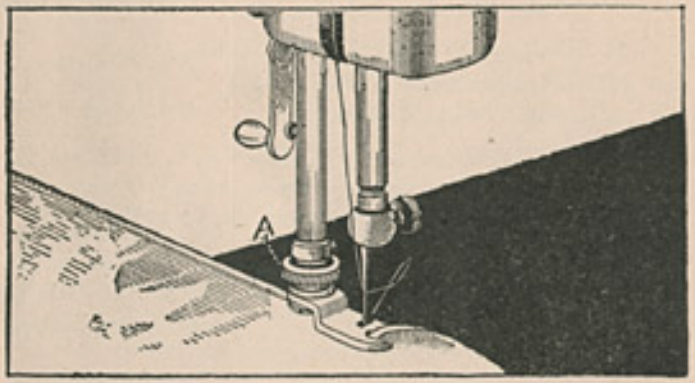
Should you find it necessary to have any repairs made on this machine do not allow any amateur mechanics to tinker with it. They would probably do more harm than good. If you cannot discover your trouble from the instructions in this book address a letter to us at the Sewing Machine Factory, Orange, Massachusetts, telling us exactly what your difficultie are and we will immediately see that they are remedied.

TO USE THE ATTACHMENTS

Loosen the circular thumb nut directly over the presser foot by turning it from you to the left. Then remove the presser foot from its holder by drawing it toward you and insert in its place the attachment desired. Push the attachment back far enough to allow the needle to pass clearly into the needle hole in the throat plate underneath. Then tighten the thumb nut firmly by turning it over from you to the left.

HEMMING

Raise the needle to its highest point and raise the presser foot to its first lift by turning the lifter to the right. Loosen the nut A, take off the presser foot and replace with the Hemmer. Set same to its right place and fasten nut A by turning to the left. Raise the presser bar by turning the presser foot lifter to the

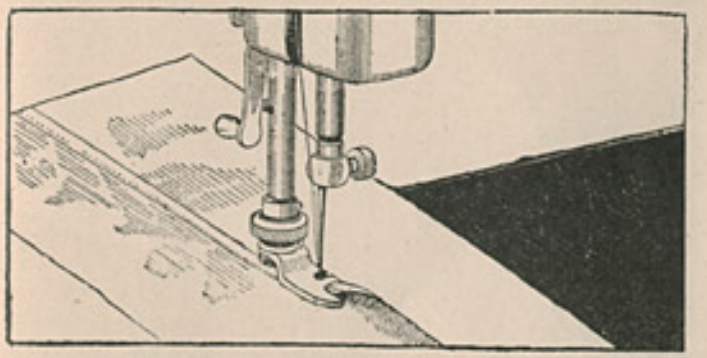


left, and pass the edge of the cloth into the hemmer in the manner shown in the illustration, drawing it through the hemmer as far as the needle hole, in order that the feed may at once catch the cloth. Then let the hemmer down upon the feed surface, and operate the machine as usual. Should the goods begin to run out of the hemmer, carry them to the Right; should too much run into the hemmer, carry the goods to the Left. About one-fourth of an inch in width is as much of the goods as is usually required to form a perfect hem. If the stitch takes the hem too far from the edge, turn the

hemmer a little to the Right. If, on the contrary, the stitch does not catch the edge of the hem, turn the hemmer a little to the Left.

FELLING

Sew the two edges of the cloth together, the under one projecting one-fourth of an inch beyond the upper; then open out the work and crease the seam down, the wide edge over the narrow edge. Draw the wide folded edge into the hemmer, the same as if it were a hem, and drop the foot. Then guide the fold edge, and work the machine the same as in ordinary hemming. A wider fell requires a wider seam, which is turned the same as a wider hem.



TO HEM AND SEW ON LACE

Put the edge of the fabric into the hemmer. When the hem is well started, raise hemmer foot by means of the presser lifter and also raise the needle. Then pass the lace through slot in the side of the hemmer, carrying it back under the hemmer on top of the hem. Proceed as in ordinary hemming, keeping lace well in the side.

QUILTING

Insert the quilter through the small hole in the presser bar, and fasten with the screw in the back of presser bar, moving it to the right or left to the required width of the rows of stitching. Raise or lower the quilter according to the thickness of the goods. Having made the first row the desired distance from the edge place the work so that this row will be under and in line with the lower edge of the quilter,

MOTOR

Before connecting your sewing machine with the electric outlet be sure that the voltage in your household wiring system is within 10 volts of that listed on the motor.

TO CONNECT THE MACHINE

Connect the T-shaped plug on the cord to the short cord attached to the motor on the back side of the head. Screw the plug on the end of the cord into a lamp socket of any electrical outlet. Make certain that the rubber pulley on the motor comes in contact with the balance wheel but not too tightly. If the pulley fits too loosely against the hand wheel it will spin rapidly and should be tightened slightly by taking up the screw at the base of the clamp. Be sure that the pulley does not fit too tightly against the hand wheel, because if it does it may cause the motor to burn out. The little rubber pulley can be made to fit against the hand wheel by loosening the set screw and moving the pulley a ong the arbor into a position where it does fit and tightening the screw. If there should be any unusual vibration of the motor make certain that the two screws which hold the motor to the bracket are tight and that the large screw at the bottom of the bracket is tight. When ready to sew press lightly on the Rheostat until the machine starts. If the machine does not start readily and smoothly when sewing on heavy goods turn the hand wheel forward and the motor will then keep the machine running smoothly. The machine will gain or lose speed as more or less pressure is applied to the Rheostat.

OILING THE MOTOR

This motor is a sturdy piece of mechanism, and if kept properly oiled, should occasion no trouble whatsoever. At each end of the arbor of the motor will be found two little holes for oiling. Oil should be dropped into these holes very sparingly at fairly long intervals, one drop in each hole is plenty. If the machine is used only occasionally an occasional application of oil will suffice. Only the best quality of oil should be used on this motor.