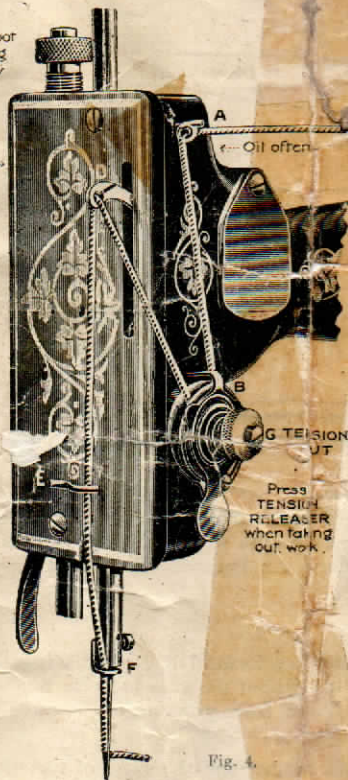


TO THREAD THE MACHINE.

Presser Foot
Adjusting
Screw

Oil
often



Place the spool of thread on the Spool Pin, pass the thread through the Eye marked **A**, then between the Tension Discs **B**, and into the slot in the Take-up Lever **D**, behind the Guides **E** and **F**, and through the Needle Eye, the thread running through the Needle Eye from left to right.

The Needle or Top Thread Tension is adjusted by means of the Milled-head Tension Nut **G** (see illustration).

By turning the Nut **G** to the right hand, the tension is tightened or increased.

By turning the Nut **G** to the left hand, the tension is slackened or decreased.

Always be sure that there is some tension on the top thread, or it may tangle round the Shuttle.

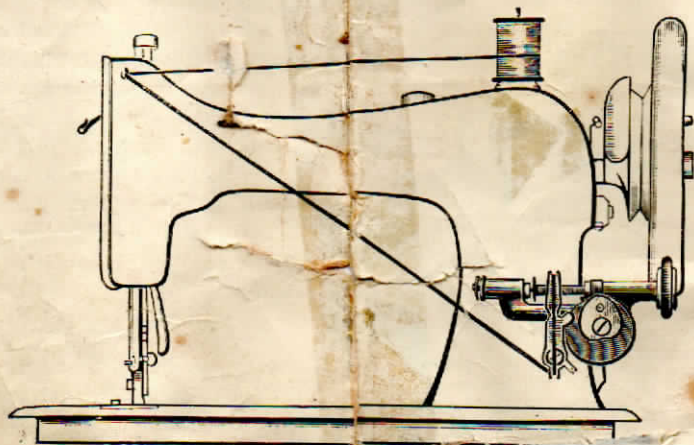
Fig. 4.

SETTING OR ADJUSTING THE NEEDLE.

The Needle in these Machines is self-setting, the operator simply pushes the Needle up the hole in the Needle Bar as far as it will go, with the long groove to the left hand; secure the Needle firmly with the Needle Screw, and the Needle is perfectly set.

Be sure the Needle point is sharp, not blunt. This is very important, particularly so when sewing fine goods.

TO WIND THE BOBBIN OR REEL.



HAND C.S. or FAMILY C.S.—

Disconnect the Balance Wheel (as explained on page 2) and press back the Bobbin Winder until the Pulley bears on the Balance Wheel with sufficient pressure to drive the Winder. Drive the Balance Wheel towards you as you do when sewing.

MEDIUM C.S.—

Disconnect the Balance Wheel and draw forward the Bobbin Winder Pulley until the Belt bears against it with sufficient pressure to drive the Winder. When winding, drive the Balance Wheel **from you** and not towards you as you do when sewing.

Place the Bobbin in the Bobbin Winder, and the spool of thread on the Spool Pin. Draw the thread into the Thread Guide (see illustration), thence into the Eyelet in the Thread Guide of the Winder, first at the lower end, and then at the top; secure the free end of the thread by placing it between the head of the Bobbin and the cup at the end of the Bobbin Winder Spindle, and operate the Treadle the same as in sewing.

The Reel has one end pointed, and this should be placed in the left hand Spindle of the Winder.

TO THREAD THE SHUTTLE.

Take the Shuttle in the left hand, between the thumb and the two first fingers, with the Shuttle point towards you. Fig. 6 shows you how to put the Bobbin into the Shuttle. Be sure that the thread runs off the **top side** of the Bobbin (as illustrated). This is very important. Place the reel in the Shuttle pointed end downwards, pull the thread down the slot in the Shuttle as far as it will go (see Fig. 6). Now pull the thread up the slot underneath the spring (as shown in Fig. 7), leaving about 3 inches of loose thread, and the Shuttle is threaded **without** having to pass the thread through a **single** hole—in fact this Shuttle is really, and absolutely, **SELF-THREADING**.

When the Front Shuttle Cover is withdrawn, be sure you Oil the Cotton Waste in the Cup that lubricates the Shuttle, and the Shuttle-race. This is important.

TO REGULATE THE SHUTTLE TENSION.

Always use this special small Screw Driver so as not to damage the Shuttle Tension Screw.

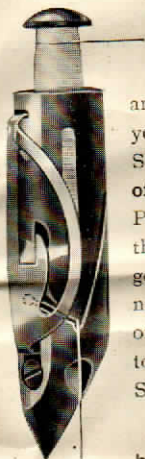
By turning this Screw to the right, you increase or tighten the Shuttle Tension.



By turning the Screw to the left, you decrease or slacken the Shuttle Tension.

The Shuttle Tension should never be as tight as the Needle or Top Tension.

Fig 6



Shuttle
Tension
Screw

Fig 7



Be sure you
OIL
Cotton Waste
in the Cup
that
lubricates
THE
SHUTTLE

Shuttle
Tension
Screw

BEFORE COMMENCING TO SEW

Withdraw the Front Slide that covers the Shuttle. Turn the Balance Wheel until the Shuttle Carrier is in the position for you to place the Shuttle into the Carrier. The Balance Wheel should always turn towards you.

TO PULL THE SHUTTLE THREAD UP THROUGH THE NEEDLE-PLATE HOLE.

Hold the end of the Needle or Top Thread between the thumb and finger of your left hand, then turn the Balance Wheel **towards you**, until the Needle moves **down** and up again to its **highest point**, and you will find the Needle or Top Thread will catch and pull the Shuttle Thread up through the Needle-plate hole. Now close the Front slide, place the ends of both threads, also the material to be sewn, under the Presser-Foot; then lower the Presser-Foot, turn the Balance Wheel **towards you**, and commence to sew.

In sewing soft, thin fabrics, the Tension should be light and easy; on thick materials it should be heavy; the Tension should be equal on both Threads, in order that the lock may be in the centre of the goods, thus—



If the lower thread lies straight on the underside of the goods, thus—



the Shuttle Tension is too tight, or the Needle or Top Tension too loose.

If the upper thread lies straight, the Needle or Top Tension is too tight, or the Shuttle Tension too loose.



In stitching goods which are too thin to conceal the lock of the threads in the centre, the lock may be **thrown** in the direction of the "wrong" side of the finished work so as to present the better appearance on the "right" side.

WHEN REMOVING THE WORK

Always have the Needle at its highest point. Raise the Presser-Foot. Press the Tension Releaser (page 4, fig. 4), which will liberate the thread in the Tension, and you can easily draw the work from under the Presser-Foot without any fear of bending the Needle or breaking the threads. Then cut the threads on the "Cutter" which you will find just above the Presser-Foot, leaving the ends long enough to recommence sewing.

TO ALTER THE LENGTH OF STITCH.

The Stitch Regulator Handle will be found close to the Balance Wheel.

By raising this Handle you make the stitch longer, and by lowering the Handle you make the stitch shorter.

CAUTION.—If you pull this Handle down as far as it will go, the Machine will not feed or carry the work forward at all.

TO ALTER THE PRESSURE ON PRESSER-FOOT

(So as to put more pressure on the Material).

Turn the Milled-Head Presser-Foot Adjusting Screw (page 4, fig. 4), at the top of Presser-Bar to the **right**, to increase the pressure; or to the **left**, to decrease the pressure. For ordinary domestic sewing it is very seldom necessary to alter the pressure on Presser-Foot, but on thin soft fabrics the pressure should be light, on thick materials it should be heavier.

SPECIAL NOTES.

Note specially that the long groove of the Needle is to the left hand.

Be sure and take particular notice that the Balance Wheel must turn **towards** you.

Sharp Pointed Needles.—It is of the utmost importance that the Needle has a good sharp point.

If the Needle Thread breaks when the Needle is adjusted properly it is caused by the Top Tension being **too tight**, or the eye of the Needle being **too small** for the thread, or the eye of the Needle being rough or sharp; or the hole in the Needle Plate, or the Shuttle or Shuttle Carrier being rough or damaged.

If the Shuttle Thread breaks, slacken the Shuttle Tension by unscrewing the small Shuttle Tension Screw at the point of the Shuttle.

The Needle must be pushed up the hole in the Needle Bar as far as ever it will go, and then it is sure to be in the right place.

Missed Stitches are caused by a Crooked Needle, or if the Needle Eye is too large for the thread.

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

OILING THE MACHINE.

IF THE MACHINE RUNS HEAVY after standing use Paraffin Oil, run the Machine at a quick speed for a few minutes, then clean the Paraffin Oil off and oil the Machine with good Sperrn Oil.

THE OIL HOLE marked in a Dotted Circle is behind the Head of the Machine, and must be oiled OFTEN whilst the Needle Bar is at its highest point. TAKE COVER OFF BACK OF TOP ARM to oil Feed Regulator.

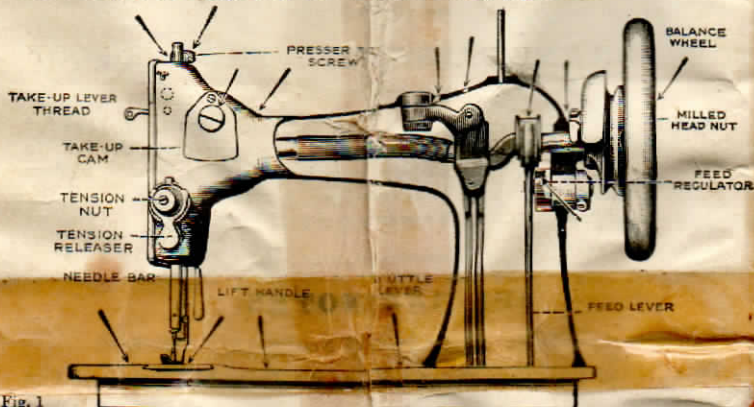


Fig. 1

Be sure and Oil the Cotton in the hole under Front Shuttle-race Slide.
The Arrows show where the Machine is to be oiled.

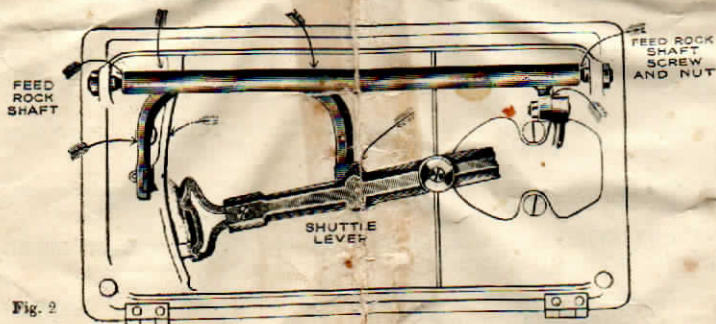


Fig. 2

The Arrows show where the Machine is to be oiled.

OILING THE STAND.

IF THE TREADLE MOTION RUNS HEAVY after standing use Paraffin Oil, run at a quick speed for a few minutes, then clean the Paraffin Oil off, and oil well with good Sperm Oil.

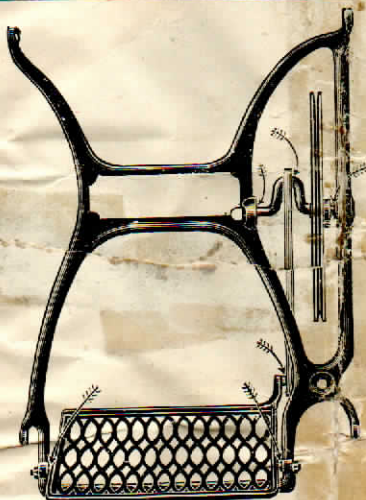
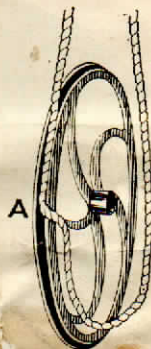


Fig 2.



To put Belt on Fly Wheel place the Belt in Slot A in side of Fly Wheel as shown.

Then pull the Fly Wheel round and one single revolution of the Wheel will put the Belt into its place.

The balls in the ball-bearing stand should be kept clean and free from dirt, so that they will work freely. This can be done by occasionally cleaning them with paraffin.

Oil the ball bearings at both ends of the Fly-wheel Crank Centres; oil Pitman (top and bottom); oil the centres of each side of Treadle Plate.

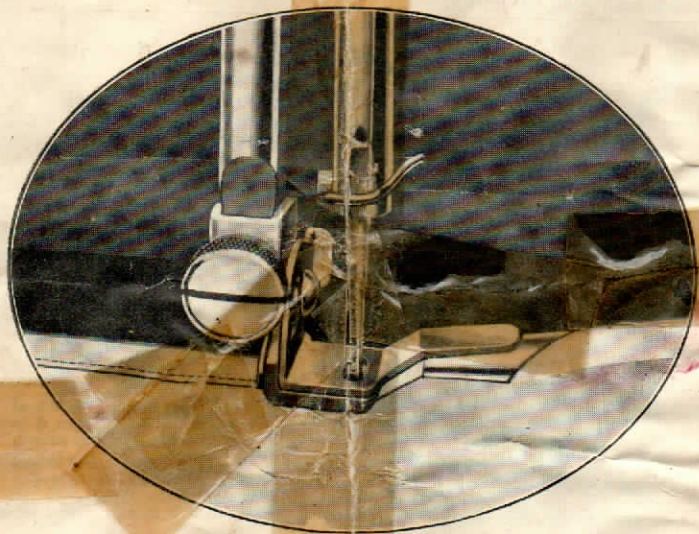
Do not have the Belt too tight, it makes the Machine run heavy. If the belt becomes too slack, cut a little off the end.

THE TREADLE MOTION.

Disconnect the Balance Wheel on the Machine by turning the small Catch Plate out of the Notch or Slot that is in the Balance Wheel; this will throw the Sewing Machine out of action.

Place the feet lightly upon the Treadle, then turn towards you the Balance Wheel of the Machine, allowing the feet to move freely with the motion thus given. Continue this motion, by pressing with the heel and toe alternately, until a regular movement is acquired.

Make yourself thoroughly familiar with the treadle motion before attempting to use the Machine, and take particular notice that the Balance Wheel must turn towards you.



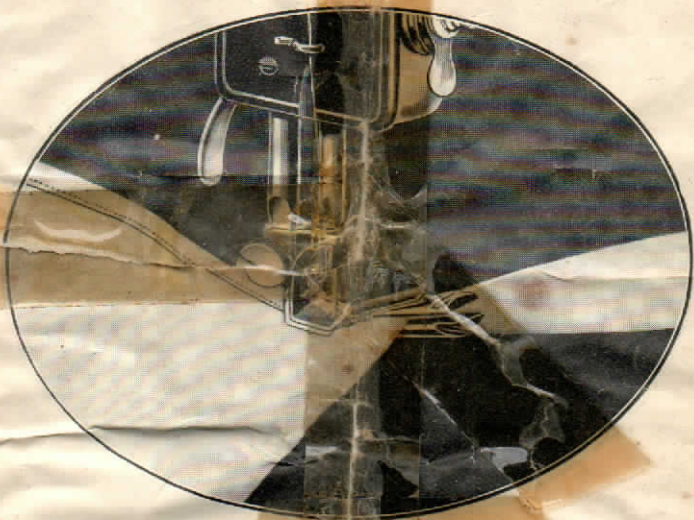
FOUR WIDE-HEMMERS (Different Widths).

Take off the ordinary Sewing Foot and substitute the Attachment Foot, then secure the Hemmer by fixing it underneath the stud or button on the Attachment Foot. This is easily done by pressing the blue spring towards you. Raise the Needle and also the Foot, turn the edge of the material into the mouth of the Hemmer, and draw the material along until it curls itself perfectly to the shape of the Hemmer-Scroll or curl, then draw the material back to the Needle, lower the Foot, and commence to sew.

Hold the edge of the material between the thumb and finger of the right hand, and allow the material to curl easily into the mouth of the Hemmer.

If it is desired to alter the position of the line of sewing, bringing it nearer to or further away from the edge of the hem, this can be done by moving the Hemmer to the right or left of the Attachment Foot.

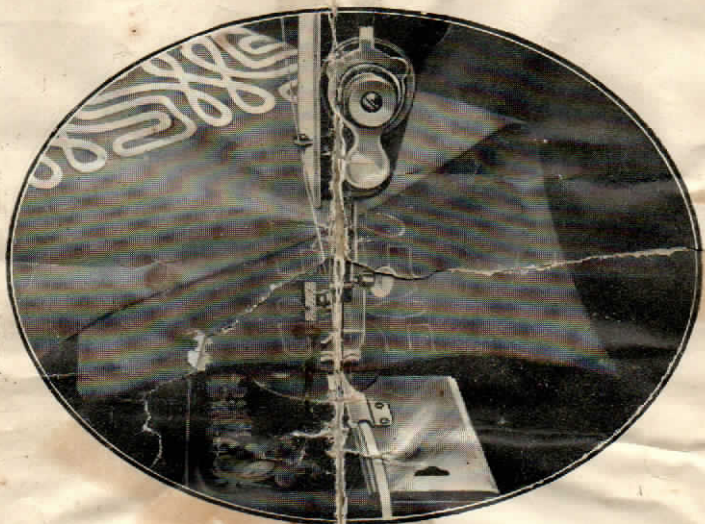
These Hemmers are very useful attachments, and well suited to the requirements of a Family Dressmaker, &c.



BINDER.

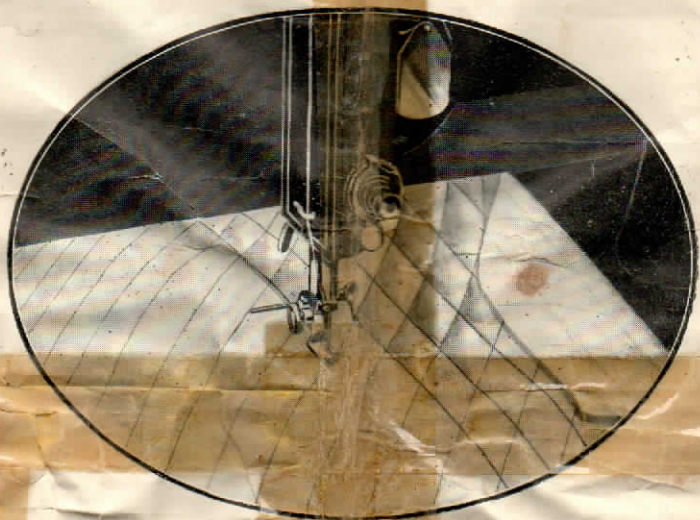
Take off the ordinary Sewing Foot and substitute the Attachment Foot, then secure the Binder by fixing it underneath the stud or button on the Attachment Foot. This is easily done by pressing the blue spring towards you. First of all it is necessary that the binding is cut the exact width required, namely $\frac{3}{4}$ in., then cut one end of binding to a point, and pass it into the scroll of the Binder beyond the Needle.

Note.—The Binding must fill the Scroll, then place the article to be bound into the Binder-Mouth, lower the Presser Foot, and proceed as in ordinary sewing. Be sure and keep the material well into the Binder-Mouth and close up to the binding. You may now sew nearer to or further from the edge nearer to or further away from



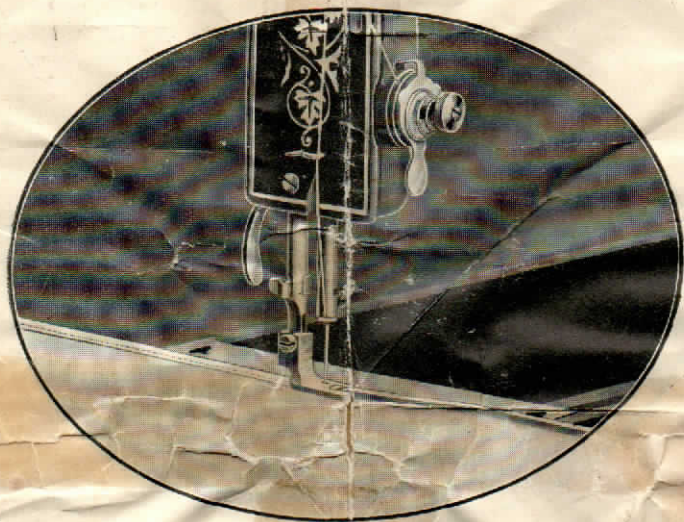
UNDER BRAIDER.

Take off the ordinary Sewing Foot and substitute the Braider Foot. Slip the small hook portion of the Under Braider down the Oil Hole in the Needle Plate, and further secure it by the slide which can be passed over the projection on the left hand side of the Under Braider. For straight braiding it is best to use a long stitch, but for braiding with sharp corners ask to better advantage. The design of the material to be braided.



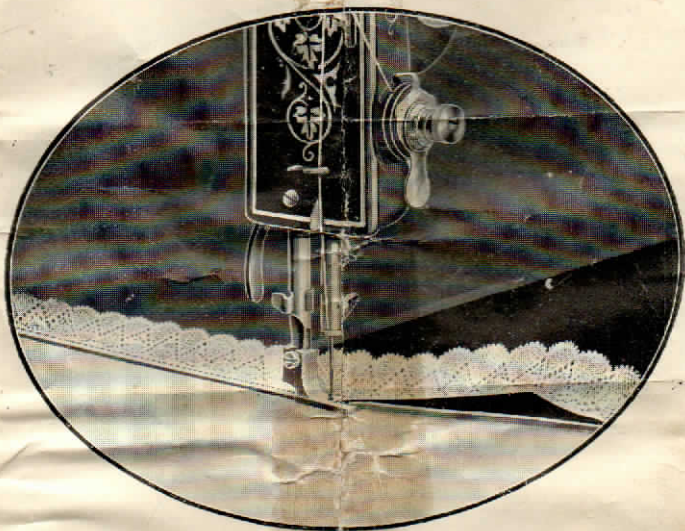
QUILTER.

Secure the Quilter with the Presser-Foot Screw, leaving the Ordinary Sewing Foot on the Machine. Make a straight line on the fabric with chalk or by creasing, and then stitch upon it; then adjust the Guide-Arm the required distance for the next row of stitching, and guide the fabric, having the line already sewn directly under the Guide-Arm.



FOOT-HEMMER, for Narrow Hemming (Extra).

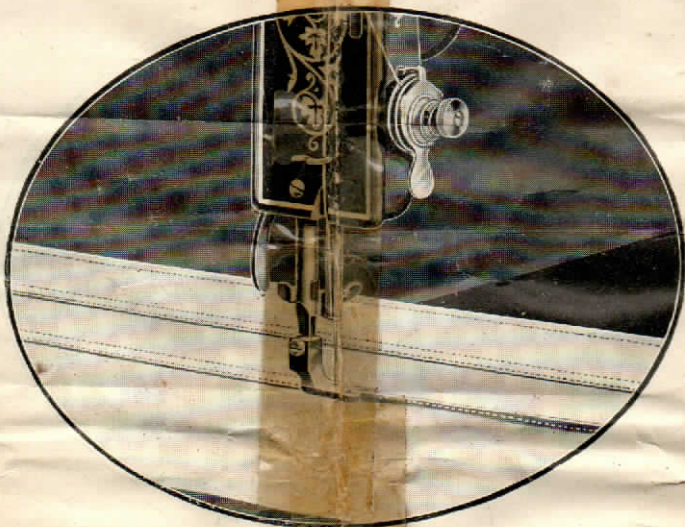
Take off the ordinary Sewing-Foot and substitute the Hemmer-Foot (as illustrated). Raise the Needle and also raise the Hemmer-Foot, turn the edge of the material into the mouth of the Hemmer-Foot and draw the material along for an inch or two till it sets itself to the Hemmer-Foot Curl, or Spiral, then draw the material back to the Needle. Hold the edge of the material between the thumb and finger of the right hand, and allow the material to curl itself easily into the mouth of the Hemmer.



HEMMING AND INSERTING LACE WITH THE FOOT-HEMMER

(Extra).

Commence the Hem as in page 10, then pass the end of the Lace into the slot in the Hemmer-Foot and right up to the Needle and proceed as in narrow hemming. Keep the Lace well into the slot.



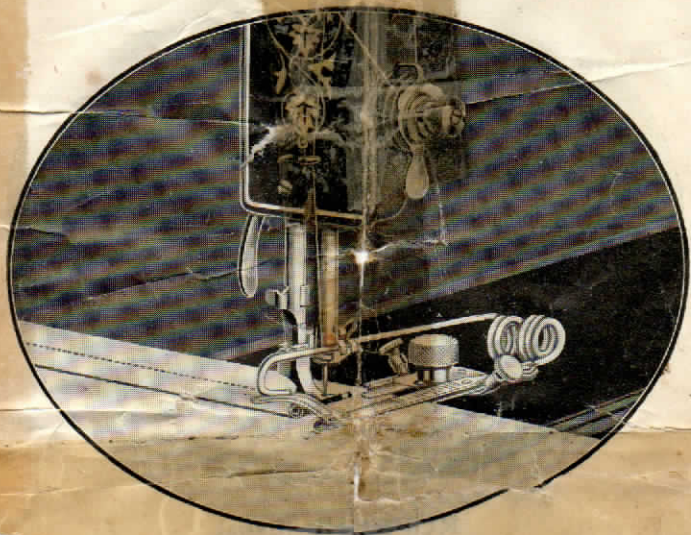
FELLER (Extra).

The Foot-Hemmer acts also as the Feller, and is secured to the Machine (as illustrated).

Trim the edges of the material just as you would if you were felling by hand, the narrow edge as close as convenient, and the wide edge must just fill the Feller.

GATHERER (Extra).

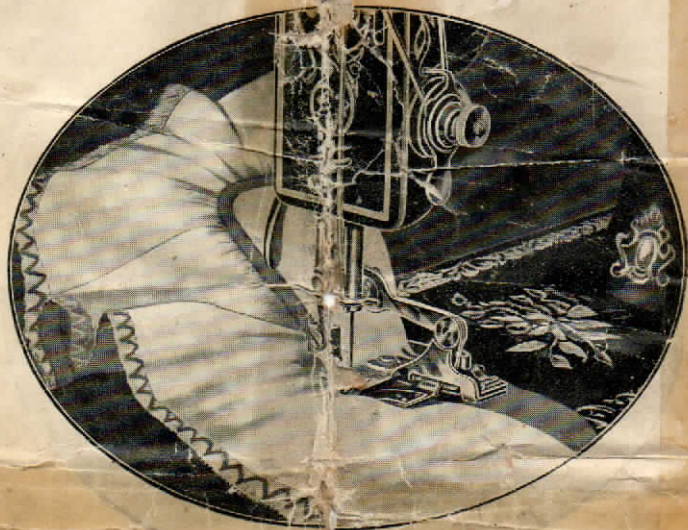
Take off the ordinary Presser-Foot and substitute the Gathering-Foot, then raise the **Stitch Handle** that is close to the Balance Wheel so as to make the stitch as long as it is possible; now tighten the Top Tension as much as the cotton or thread will stand, place the material to be gathered under the Gathering-Foot, and proceed as in ordinary sewing.



TUCK-CREASER (Extra).

Secure the Tuck-Creaser to the bed of Machine with Willed Screw (as illustrated), and then hook the small plate that slides on the long wire round the Needle. Adjust the Guide to the desired width for the tuck, and the Marker-Slide to the distance required from the Needle to the fold of the next tuck.

Secure Thumb-Screws, mark the first crease in the usual manner by hand, and proceed as in sewing. One tuck will then be sewn, and the distance for the next creased by the hook part of the spring striking on raised edge. Remove the work and fold it in the crease, place the folded edge against Marker-Slide and proceed to sew. Thus each tuck will be exact without any time or trouble being spent in measuring and adjusting material.



RUFFLER (Extra).

Be sure you oil all the joints of the Ruffler occasionally with the least drop of oil.

Take off the ordinary Presser-Foot, then secure the Ruffler to the Presser-Bar as illustrated. At the same time be sure that the fork end of the Lever is on the Needle Screw. Place the edge of the material between the blue blades. For a single band you simply place the band between the blue blades, but for a double band you proceed as before and place the second band in one of the slots above the blue blades. Lace or Embroidery can be inserted by placing it in the slot nearest the operator and the upper band in the slot nearest the Foot Bar. Lower the Presser-Bar and commence to sew.

If you make a short stitch and push the Lever towards the Needle it will make a small gather, or if you lengthen the stitch and push the Lever from the Needle it will make a large gather.

To make a scant ruffle shorten the stitch and turn the Adjusting Screw to the left, one turn at a time until the ruffle is satisfactory. To make a full gather, turn the Adjusting Screw to the right. By regulating the Adjusting Screw and the length of the stitch you can make all variations from the very scant to the full ruffle.