

FORM K 204.
ENGLISH V.S.
JAN. 1898.

INSTRUCTIONS

FOR USING

The Singer Manufacturing Company's

27 K and 28 K

(Vibrating Shuttle)

SEWING MACHINES.



THE SINGER MANUFACTURING COMPANY

(Formerly I. M. SINGER & CO.),

SOLE MANUFACTURERS OF THE CELEBRATED

SINGER'S SEWING MACHINES.

EXECUTIVE OFFICES:

149, BROADWAY, NEW YORK.

FIG. 1.

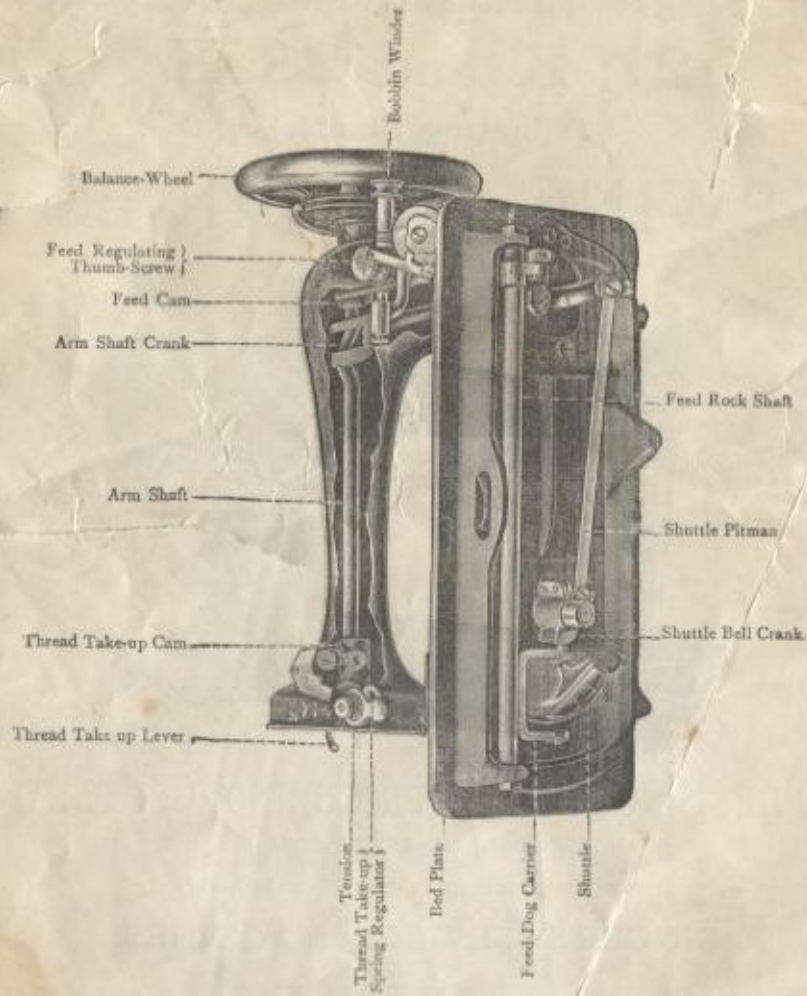


FIG. 2.

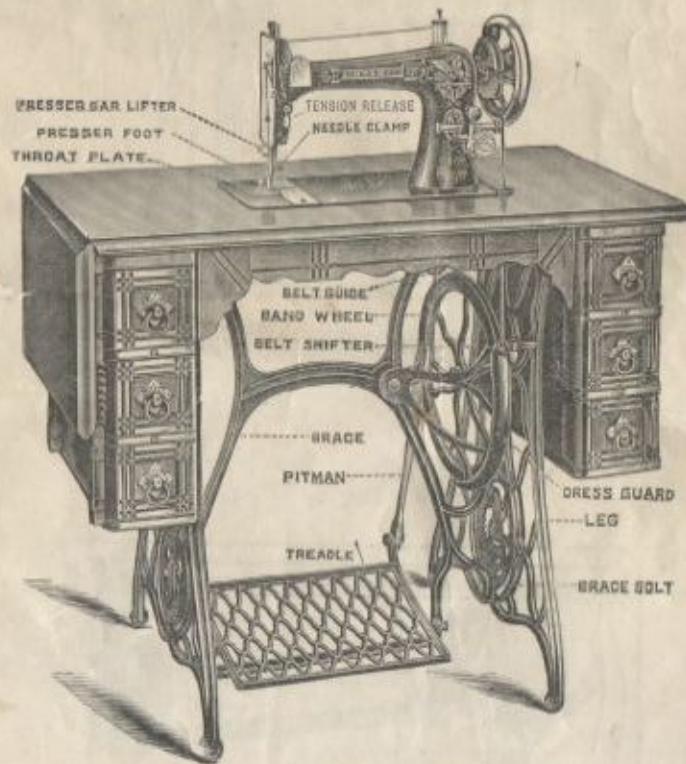
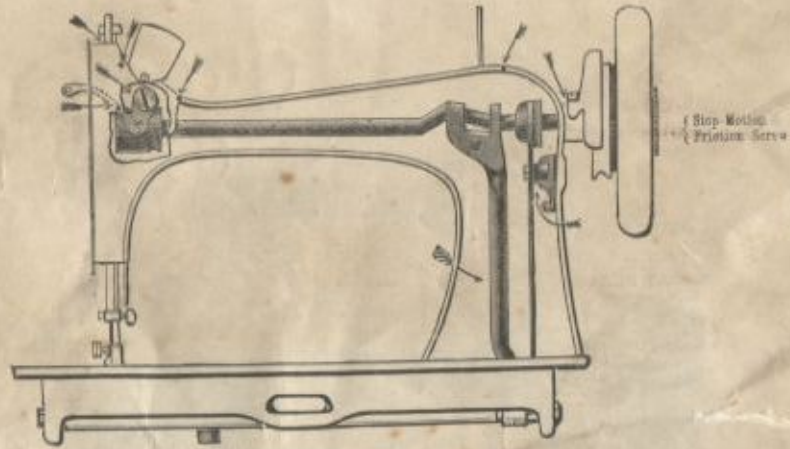
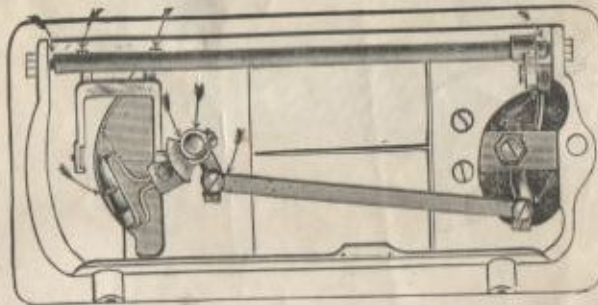


FIG. 3.



OILING PLACES SHOWN BY ARROWS.

FIG. 4.



OILING PLACES SHOWN BY ARROWS.

Instructions

FOR USING

THE SINGER MANUFACTURING COMPANY'S

27 K and 28 K

(VIBRATING SHUTTLE)

SEWING MACHINES.

To Oil the Machine.

THE places where the machine should be oiled are indicated by the arrows in Figs. 3 and 4.

To oil the bearing of the balance-wheel, first loosen the wheel by holding it with the left hand while with the right you turn the stop-motion friction screw (see Fig. 3) towards you. Then turn the balance-wheel to bring the small hole in the hub at the right of the wheel uppermost, and put a drop or two of oil in this hole. The wheel should then be worked *slightly* forward and backward to allow the oil to work into the bearing.

Oil the thread take-up lever hinge-screw and roller through the opening in the side of the head towards the operator. Raise the needle-bar to its highest point and oil the needle-bar cam and roller through the top hole in the side of the head away from the operator. The oiling places for the feed and shuttle mechanism inside of the arm can be reached by removing the plate on the back of the machine.

Moisten a small piece of muslin with oil, and rub it over the face of the shuttle-race, and also put a few drops of oil in the shuttle-race oil hole under the front slide, at least once a day when in constant use. The bobbin-winder spindle bearing and worm must be oiled occasionally; also the cam-wheel which operates the thread guide. The point of the bobbin placed in the left centre of the winder should be slightly moistened with oil.

When Ordering Parts please state whether for "27 K" or "28 K" Machine.

To reach the parts to be oiled under the bed of the machine, turn the machine back, as in Fig. 4. To effect this, the belt must first be thrown off the band-wheel, which is done (the machine being in motion) by turning the belt-shifter handle (shown in Fig. 2) to the left. After oiling (as indicated in Fig. 4) turn the machine up again, and operate the treadle as in sewing (with the wheel turning towards you), which will automatically replace the belt on the band-wheel.

The points requiring oil in the stand are the bearings at each end of the band-wheel crank, treadle and treadle pitman. After oiling, run the machine rapidly for a few moments (with the presser-foot up) to work the oil into the bearings. Then carefully wipe off the surplus oil. All places where one part of the machine rubs against another, producing friction, require oiling, and if, after oiling, the machine runs hard, it is certain that some place has been overlooked.

If the machine runs hard after standing for some time, use a little paraffin or benzine in the usual way, run rapidly, wipe clean, and then oil with our extra quality machine oil, which should always be used. The machine should be oiled once a day if in constant use, and after standing for some time should be always cleaned and oiled before using.

To make sure of good oil, always buy it at any of the Company's offices from their authorised agents. The genuine oil is put up in bottles, with "The Singer Manufacturing Company" moulded in relief upon the bottle, and each cork sealed with the Company's trade mark.

The Stop Motion.

The object of the stop motion is to enable the operator to wind a bobbin by running the balance-wheel without running the machine, which not only saves labour but permits the re-winding of a bobbin when a seam is partially sewn, without removing the goods from the machine or interfering with the upper or needle thread.

To operate the stop motion, turn the stop motion friction-screw outside of the balance-wheel over *towards* you to release the balance-wheel, and in the *opposite* direction to clamp it. (See Fig. 3)

To Operate the Treadle and Machine.

First loosen the balance-wheel by turning the stop motion friction-screw (see Fig. 3) *towards* you, then place your feet upon the treadle

with the instep directly over the centre; turn the balance-wheel towards you with the right hand, allowing the feet to move freely with the motion thus commenced, and continue this motion by an alternate pressure of the heel and toe, until a regular and easy motion is acquired.

Do not attempt to learn anything else until you are proficient in the use of the treadle, so that you can start and stop the machine without turning the balance-wheel in the wrong direction.

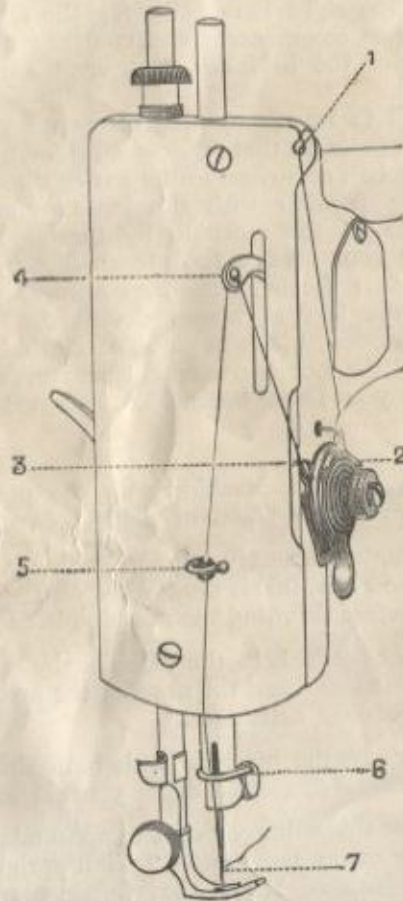
After becoming familiar with the treadle movement, connect the balance-wheel with the machine by turning the stop motion friction-screw *from* you. Raise the presser-foot by the presser-bar lifter (see Fig. 2), start the balance-wheel *towards* you and continue the motion with the feet as above described. After becoming proficient in this motion, place a piece of cloth between the feed and presser-foot, let the foot down upon it and operate the machine in this way until you have become accustomed to guiding the material.

- Caution 1. { Never run the machine with the presser-foot resting on the feed and no cloth between.
- Caution 2. { It is never necessary to open the back shuttle-slide. If, however, this is done, **ALWAYS** see that it is closed before throwing the machine back upon its hinges.
- Caution 3. { Do not try to help the machine by pulling the fabric, lest you bend the needle; the machine feeds without any assistance.
- Caution 4. { Never run the machine with both shuttle and needle threaded, except while you are sewing.
- Caution 5. { Do not allow lint or dust to accumulate in the shuttle or under the shuttle-tension spring, as any foreign substance inside the shuttle (particularly in the inner end) will prevent the proper action of the bobbin; and under the tension spring, will render the shuttle tension inoperative.

To Set the Needle.

Hold the needle in the left hand with the flat side of the shank towards the arm of the machine; raise the needle-bar to its highest point, put the needle up in the clamp as far as it will go, and tighten the thumb-screw.

FIG. 5.



To Thread the Needle.

(See Fig. 5.)

Pass the thread from the spool through the eyelet (1) at the top of the front of the face-plate, downward between the tension discs (2) from right to left, through the eyelet (3) of the thread take-up spring, up and through the eyelet hole (4) in the end of the take-up, from the front; into the thread guard (5) on the front of the face-plate, then under the thread guide (6) on the lower end of the needle-bar, and from left to right through the eye (7) of the needle.

To Wind the Bobbin.

28 K.—Loosen the balance-wheel and press back the bobbin-winder pulley until the balance-wheel bears upon it with sufficient pressure to drive the winder.

27 K.—Loosen the balance-wheel and draw forward the bobbin-winder pulley until the belt bears against it with sufficient pressure to drive the winder.

Then place the bobbin in the bobbin-winder, and the spool of thread on the spool-pin of the machine. Draw the thread into the eyelet in the face-plate as in sewing, thence into the eyelets 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.

To Remove the Shuttle.

Open the front slide of the machine and turn the balance-wheel towards you till the shuttle and the carrier come full under the opening. Depress the point of the shuttle with the thumb and raise the other end with the forefinger. *Avoid trying to lift the shuttle by the spring.*

To Thread the Shuttle.

(See Figs. 6, 7, and 8.)

Take the shuttle between the thumb and fingers of the left hand, with its point towards you, put the bobbin in the shuttle with the thread drawing from it at the top side towards the right as shown in Fig. 6.

FIG. 6.



FIG. 7.



When the bobbin is in its place, put a slight pressure on the end of it with the forefinger of the left hand, and draw the free end of the thread into the slot in the shuttle body in the direction of the point of the shuttle as far as it will go, as shown in Fig. 7.

FIG. 8.



Then draw towards the butt again as shown in Fig. 8, until the bobbin commences to revolve, leaving a free end about three inches long.

To Replace the Shuttle and Prepare for Sewing.

With the shuttle-carrier under the opening (see "To Remove the Shuttle") place the shuttle in the carrier with its point towards you. With the left hand take hold of the needle thread (leaving it slack from the end to the needle), turn the balance-wheel towards you until the needle moves down and up again to its highest point, thus catching the shuttle thread; draw up gently the free end of the needle thread and the shuttle thread will appear; then draw the shuttle thread up through the hole in the throat-plate, lay both threads back across the feed points, close the slide, place the material beneath the needle, lower the presser-foot upon it, and commence to sew, turning the wheel towards you.

Be sure that every part is clean before you commence to sew.

To Regulate the Tensions.

The tension of the needle thread is regulated by turning the screw at the side of the face-plate nearest the operator, to the right to increase, and to the left to diminish, the tension. The tension of the shuttle thread is regulated by the small screw near the point of the shuttle on its top side. Using the small screw-driver, turn to the right to increase, or to the left to diminish, the tension. (See caution 5, on page 7.) The tension of the needle thread should be a *very little* stiffer than that of the shuttle thread; to ascertain this, pull the shuttle thread through the hole in the throat-plate, and the needle thread through the hole at the end of the thread-take-up lever. The tensions should be regulated so as to lock the stitch in the centre of the goods.

If there are loops or a straight thread on the *under* side of the material, thus—



it shows that the upper or needle-tension is too loose, and should be increased, as explained above.

If loops or a straight thread appear on the *upper* side of the goods, thus—



shows that the upper tension is too tight, and it should be

diminished so that the lock will be in the centre of the material, and the stitch alike on both sides, thus—



Care should also be taken to select thread suitable to the material to be sewn (see Table on page 32), for with too coarse a thread the lock of the stitch may not be hidden in the centre of the fabric.

To Remove the Work.

Raise the needle-bar to its highest point. Raise the presser-bar lifter with the forefinger of the right hand, and at the same time press slightly with the thumb upon the tension release (see Fig. 2). Continue the pressure while with the left hand the work is drawn backwards and to the left about two inches; then cut the threads close to the goods, leaving the two inches of thread with which to re-commence sewing.

To Alter the Length of Stitch.

On the side of the arm, near the trade mark, is the feed regulating thumb-screw (see Fig. 1). To lengthen the stitch turn the screw over to the right and in the opposite direction to shorten it.

To Change the Pressure on Material.

Turn the thumb-screw through which the presser-bar passes at the top of the head of the machine, to the right to increase, and to the left to decrease the pressure. For ordinary family sewing, this pressure rarely needs to be changed.

General Remarks.

The leather belt, which gives motion to the machine, should always be tight enough not to slip, but not so tight as to prevent the easy motion of the machine. If the belt is too long, uncouple it and cut off squarely from one end, say half an inch.

Be sure that the slide over the shuttle-race is kept closed. THIS IS IMPORTANT.

If the machine does not work well, it will be because some of

foregoing directions have not been followed ; but users who cannot discover the cause should not alter the adjustments of the machine, but obtain the necessary assistance from the nearest office of the Company.

TOOLS AND ACCESSORIES.

We send with each Machine a set of Attachments, also all necessary Tools and Accessories, and a Machine Instruction Book.

NEEDLES, SILKS, THREADS, AND OIL.

The Company keep in stock, at all their Branch Offices, superior Needles of their own manufacture, the best quality of Silk Twist and Linen Thread, SUPERIOR GLACÉ and soft finished Cottons manufactured expressly for the Company, and highly refined extra quality machine oil.

Detailed Price List of Needles, Silk, Linen and Cotton Threads, sent Post Free

WHEN ORDERING PARTS, PLEASE STATE WHETHER FOR
27 K or 28 K MACHINE.

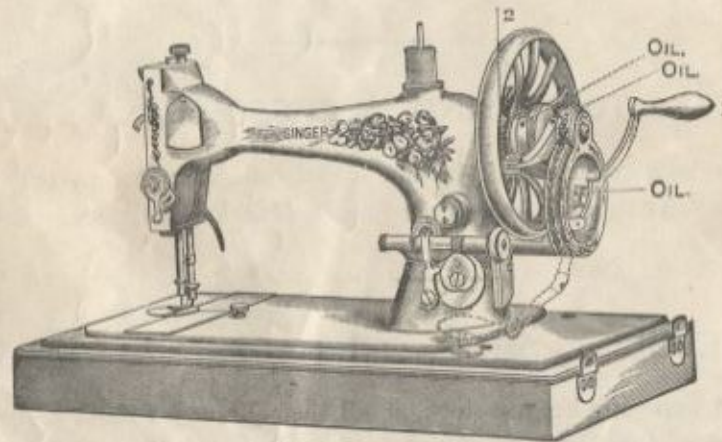
INSTRUCTION FREE TO ALL.

PRICE LISTS GRATIS BY POST.

PRINTED DIRECTIONS IN FOREIGN LANGUAGES.

Every Description of Sewing Machine Repaired or Exchanged.

FIG. 9.



THE 28 K MACHINE.

FITTED TO WORK BY HAND.

Figure 9 shews the 28 K Machine on wood base, fitted with hand driving accessory. Thus fitted, the machine can be worked by hand upon an ordinary table, and when placed on a Treadle Stand, it can be worked by either hand or foot at will.

It is also supplied with a wood cover, which, with the base, forms a most convenient portable case.

The hand motion is communicated by the handle (1) acting upon the balance-wheel by the radial arm and spring catch (2). When working by foot, turn the spring catch out of contact with the wheel.

Before putting on the wood cover, reverse the handle (1) as shown by dotted lines in Fig. 9.

Oil the bearings of the hand accessory at the points shown in the illustration.

FIG. 10.

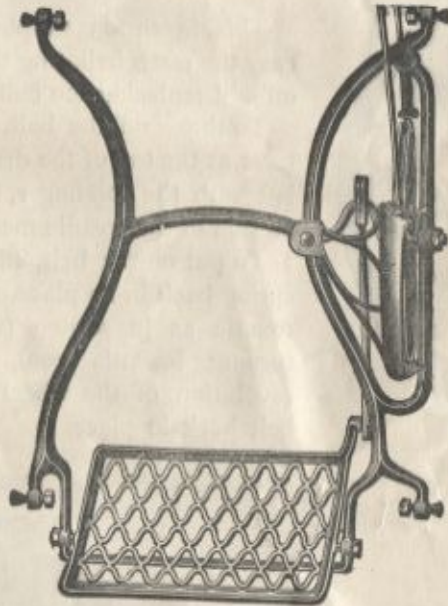
**Singer's Stand Brace (with Belt thrown off).***PATENTED.*

Fig. 10 shows our Stand Brace, with dress-guard and belt-shifter.

The band-wheel and treadle have their bearings entirely independent of the stand (or legs), thereby assuring a correct adjustment and easy action. This distinctive feature of Singer's Stand is of great importance to the health and comfort of the operator. The band-wheel and treadle also work upon adjustable centres, by means of which the friction is reduced to a minimum, while lost motion can be readily taken up. These devices render Singer's Stand the lightest running of any sewing machine stand ever constructed.

FIG. 11.



Singer's Belt Shifter.

PATENTED.

This invention simplifies and makes easy the often irritating task of throwing off and replacing the belt.

To throw off the belt, press the small lever at the top of the dress-guard to the left with the forefinger, keeping up the motion of the treadle meanwhile.

To put on the belt, allow the lever to spring back in its place, and operate the treadle as in sewing (with the wheel turning towards you), when a single revolution of the wheel will bring the belt back in place.

FIG. 12.



Singer's Pitman.

Fig. 12 shows our adjustable Pitman. The block which forms one half of the journal is adjusted to the crank or pin by means of the screw, shown at the top of the cut.

When taking up lost motion, be careful not to make the journal so close as to prevent the free motion of the band-wheel.

INSTRUCTIONS

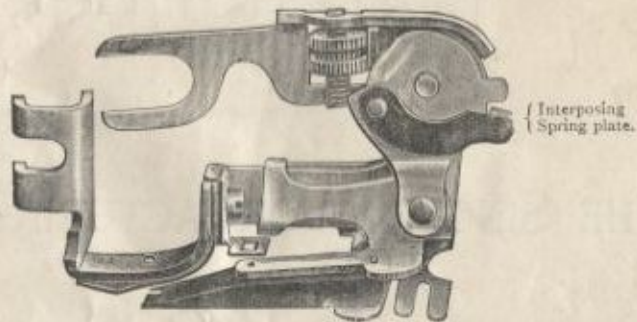
FOR USING

THE SINGER MANUFACTURING CO.'S

ATTACHMENTS

FOR

27 K AND 28 K MACHINES.



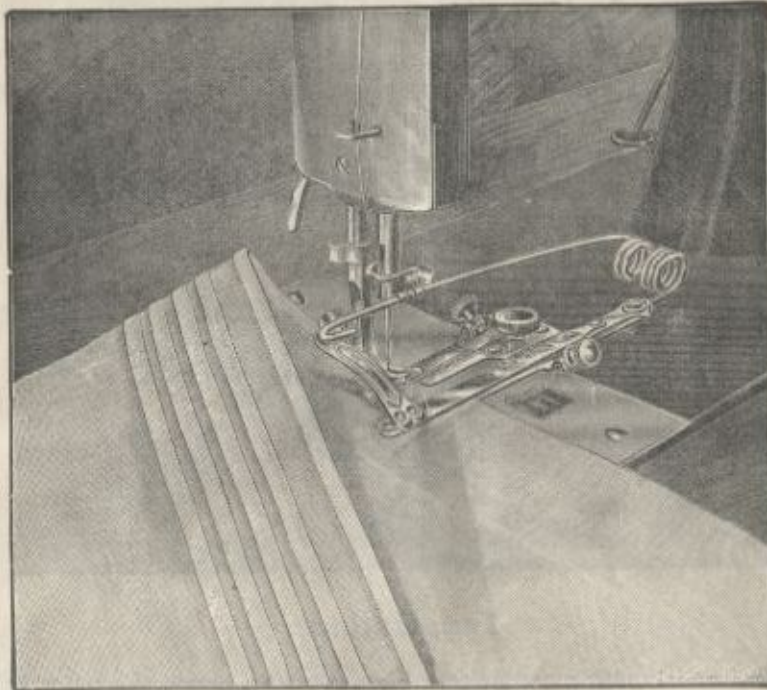
List No. 26156.

For 27 K and 28 K Machines.

This is an illustration of the Ruffler (26156) in the condition required for use on the 27 K and 28 K Machines. *Note particularly* that the spring plate is *below* the stop in the ruffling blade arm. In this position the spring plate is inoperative, it not being required with 27 K and 28 K Machines.

Instructions
FOR
USING THE ATTACHMENTS
For the 27 K and 28 K Machines.

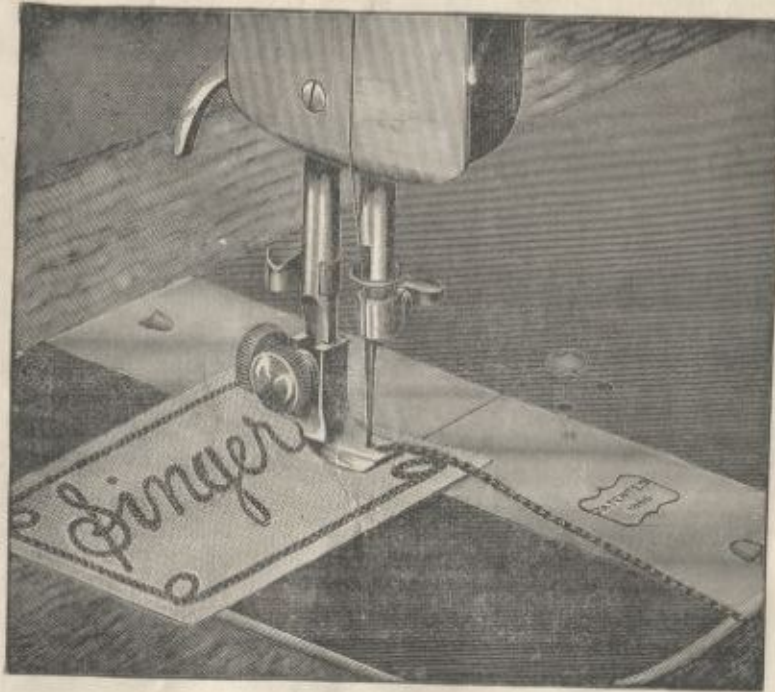
FIG. 13.



The Tuck-Marker.

Attach the tuck-marker to the machine by the guide thumb-screw, as here shown, passing the needle through the eyelet upon the marker-lever. Adjust the gauge 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. Fix the thumb-screws firmly, then stitch the tuck folded, and the action of the marker will gauge and mark the next one ready for folding. If more space is wanted between the tucks, move the marker from the needle; if less, move it towards the needle, being careful not to move the gauge.

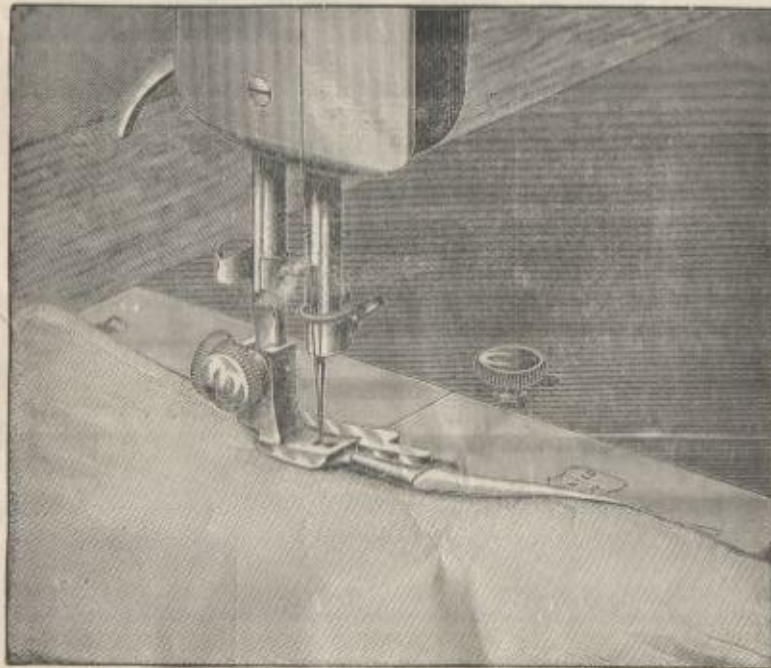
FIG. 14.



The Braider.

Raise the presser-foot to its highest point, loosen the screw that holds the presser-foot in place, and slip off the foot downward. Put on in its place the extra presser-foot (which is also the braider), and before tightening the screw push the foot as far up on the foot-bar as it will go. Pass the braid through the hole in the braider, in front of the needle, as shown above, and carefully follow the pattern to be braided.

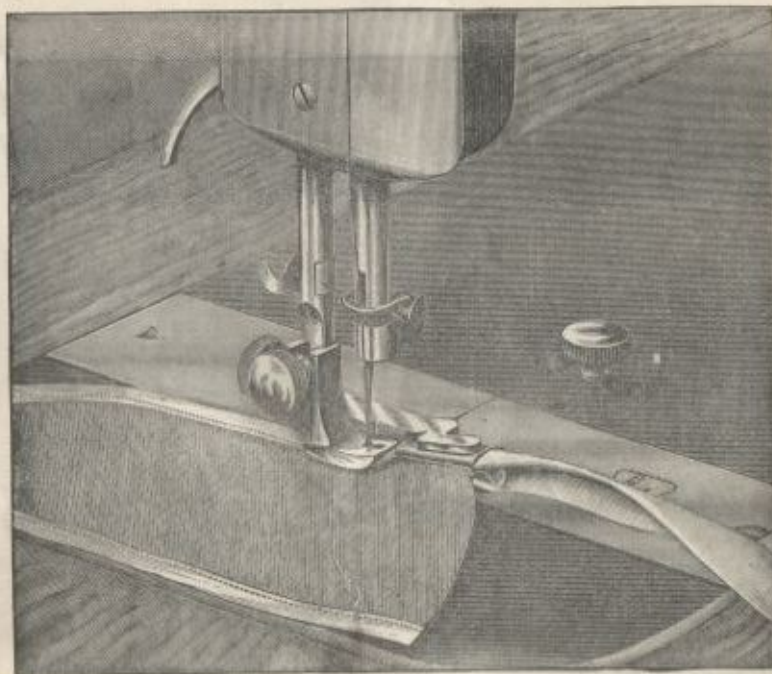
FIG. 15.



Set of Wide Hemmers.

These hemmers are of four different widths. Adjust the extra presser-foot (as explained on page 20), and attach the hemmer to the presser-foot by means of the thumb-screw at the back of the foot. The edge of the scroll will then be in a line with the needle, and the attachment ready for use. Pass the right hand edge of the fabric into the hemmer, turning it over and drawing it backward and forward until it fills the scroll; then lower the presser-foot and commence to sew, being careful to guide the edge of the fabric so as to keep the scroll full.

FIG. 16.



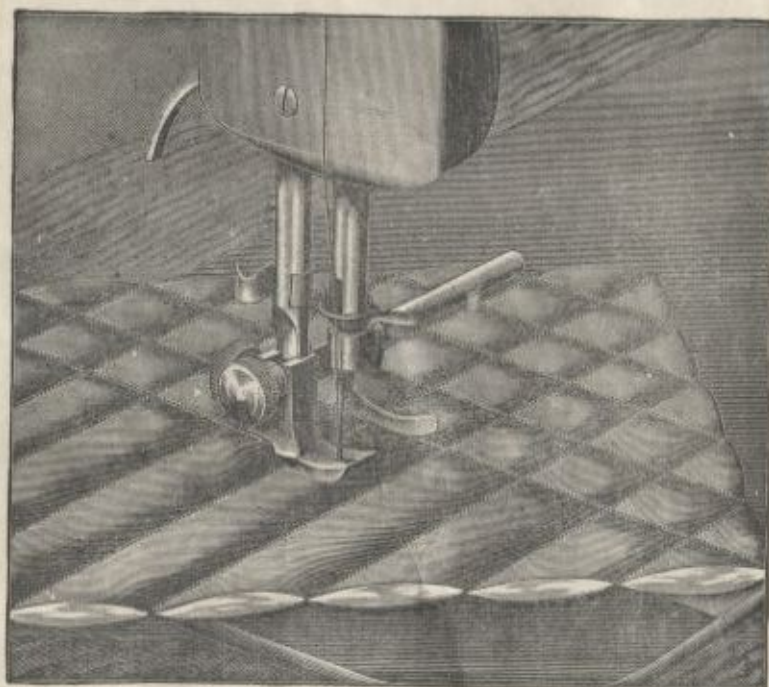
The Binder.

Attach the binder in the same way as the wide hemmer (see page 21). Then cut the end of the binding to a point and pass it into the scrolls as far as the needle. Then place the material to be bound in the recess of the binder, lower the presser-foot and proceed to sew, guiding the material so as to keep its edge within the recess and close to the binding. If the sewing is too close to, or too far from, the edge of the binding, loosen the screw and adjust the binder to the desired position. The binding should be of sufficient width to fill the scroll, and should be cut on the bias, if convenient.

To bind a scalloped edge, fold the material at the point where two scallops meet, so that an almost straight edge is presented; then bind past the point and partly round the outer curve, and repeat the operation for each successive scallop.

The binder sent out with machines is of the size most generally required, but other sizes can be obtained from the Company if desired.

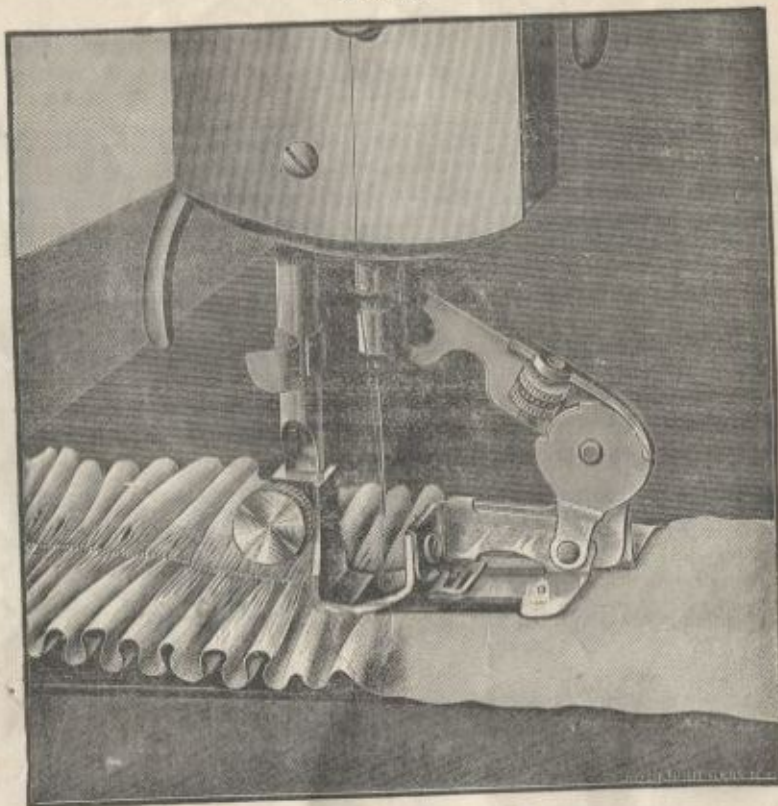
FIG. 17.



The Quilter.

Attach the quilter to the extra presser-foot referred to on page 20, and adjust the guide to space the required distance between the lines of stitching. In commencing to quilt, use the outer edge of the cloth, a crease formed by folding, or a chalk line for the first guiding line, and keep the quilter guide over it when making the first line of stitching. Each succeeding row may be made equi-distant (or otherwise as desired) by keeping the last row of stitching under the quilter-guide.

FIG. 18.



The Ruffler—Ruffling.

Remove the presser-foot and attach the Ruffler in its place, connecting the lever with the needle-clamp as shown in the illustration.

Place the goods to be ruffled between the lower or separator plate and the ruffling blade, push forward until under the needle, lower the presser-bar and proceed.

The stroke of the ruffling blade is governed by the regulating nut in the lever. To make a fine gather, shorten the stitch and the stroke of the ruffling blade. A full gather requires a longer stroke of the ruffler blade.

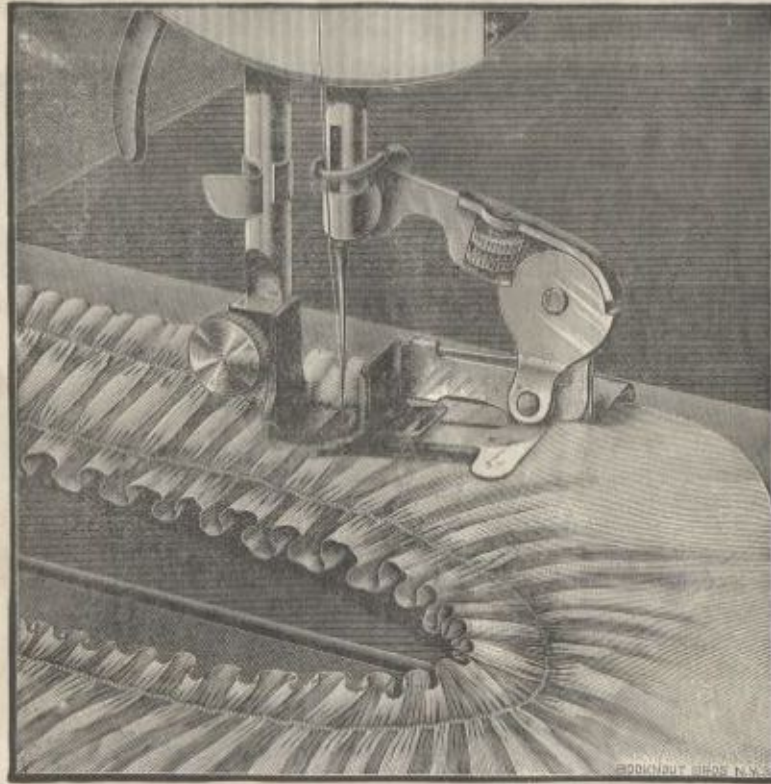
To Ruffle and Sew On.

Place the band below the separator plate, the piece to be ruffled between the separator plate and the ruffling blade, and proceed as in "Ruffling."

Oil the wearing points of ruffler before using.

CAUTION.—*The Ruffler should never, under any circumstances, be operated without cloth between the blades.*

FIG. 19.



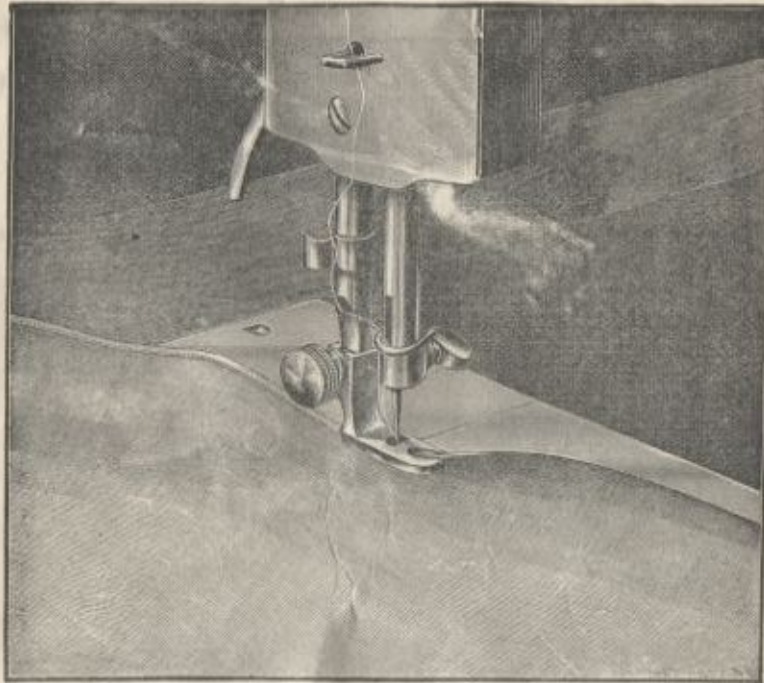
The Ruffler—Puffing.

Cut the goods as wide as the puff is wanted, allowing for seams, and ruffle each edge alternately as shown above.

The puff may be made and stitched to a band at one operation by following instructions on page 24, "To Ruffle and Sew On."

The Ruffler is supplied without charge with the Highly Ornamented Machine only.

FIG. 20.



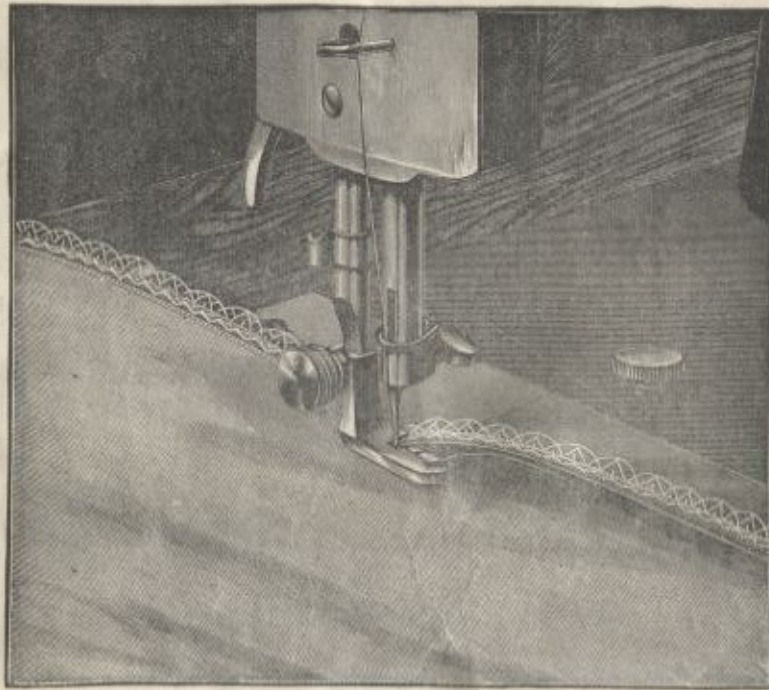
The Foot-Hemmer, for Narrow Hemming.

Adjust the foot-hemmer in the same manner as explained for the braider (page 20).

Trim a corner of the cloth and fold it over for about half-an-inch; insert it in the mouth of the hemmer and draw or push it along until it reaches the needle. Then let down the presser-bar, and when starting to sew, pull gently on the ends of the threads to help the work along a few stitches until the feed catches it. Hold the edge of the goods between the thumb and forefinger of the right hand, taking care that the mouth of the hemmer is just full. Should the edge of the cloth begin to run out of the hemmer, raise the hand slightly to the right; should too much cloth run in, lower the hand slightly to the left.

The Foot-hemmers, Figs. 20, 21, and 22, are not included in the price of the Machine.

FIG. 21.



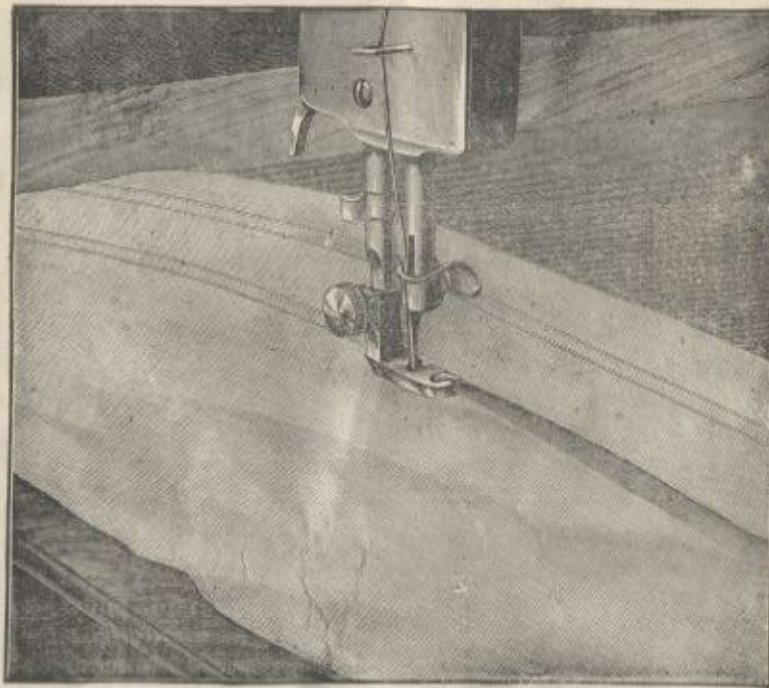
Hemming and Sewing on Lace in One Operation.

Start a narrow hem, as explained on page 26. When the hem is well started, raise the presser-bar and the needle. Pass the end of the lace through the slot in the right side of hemmer, carrying it backwards under the needle and the back of the hemmer, but on top of the hem.

Take care that the hem is not displaced in the hemmer, and that the needle will go down through the lace and hem together. Then let down the presser-bar and guide the lace over the front of the hemmer, taking care that the lace is well in the slot, and follow the instructions for hemming given on page 26.

The Foot-hemmers, Figs. 20, 21, and 22 are not included in the price of the Machines.

FIG. 22.



The Feller.

To make a fell seam first sew the two pieces of material together about one-fourth of an inch from the edges. The foot-hemmer (which is also the feller) can be used as an ordinary presser-foot in making this joining seam. Proceed, as in hand felling, to trim one of the edges as close to the line of sewing as security permits, the wider edge being left of just sufficient width to fill the scroll of the feller. Then open the work flat, wrong side up, the two edges standing up straight, and taking the work near the beginning of the first seam in the left hand and the ends of thread in the right hand, introduce the edges of the material into the feller. Let down the presser-bar and commence to sew the second seam—taking care that the first seam passes close to the left hand edge of the mouth of the feller, over which both edges of the material should be made to pass.

The Foot-hemmers, Figs. 20, 21, and 22 are not included in the price of the Machine.

FIG. 23.

**Singer's Drop Cabinet (Closed).**

To open the cabinet, turn over the leaf which covers the machine, release the platform upon which the machine is fastened by pressing the button at the right of the operator near the bottom of the centre doors, first taking hold of the arm of the machine with the left hand to steady it as it rises, and when entirely up push back the centre doors which then become a firm support for the platform. (See page 30.)

FIG. 24.



Singer's Drop Cabinet (Open).

To close the cabinet, bring the small doors to the front, as shown on page 29. A slight pressure upon the machine will then force it down beneath the top of the cabinet, and after the platform is securely latched the leaf may be folded over the aperture, completely enclosing the machine. (See Fig. 23.)

The cabinet, when closed, forms a handsome piece of furniture

FIG. 25.



Singer's Drop Cabinet (Ready for Oiling).

Fig. 25 represents the drop cabinet with the machine turned back, and the driving mechanism exposed, ready for oiling. In order to turn the machine back, pull open the door at the right of the operator, and (with the machine in motion) turn the belt-shifter handle to the left, to throw the belt off the band-wheel. To reach the oiling points in the driving mechanism, open the door at the end of the cabinet. After oiling, turn the machine up again, and operate the treadle as in sewing (with the wheel turning towards you), which will automatically replace the belt on the band-wheel.

RELATIVE SIZES OF NEEDLES AND THREADS.

Size of Needles. (Flat Shank)	Class of Work to Sew.	Size of Cotton, Linen, or Silk.
O	Very thin Muslin, Cambrics, Linen, etc.	100 to 150 Cotton. 30 Silk.
B	Very fine Calicoes, Linens, Shirtings, fine Silk Goods, etc.	80 to 100 Cotton. 24 to 30 Silk.
$\frac{1}{2}$	Shirtings, Sheetings, Bleached Calicoes, Muslins, Silk, and general domestic goods, and all classes of general work.	60 to 80 Cotton. 20 Silk.
1	All kinds of heavy Calicoes, light Woollen Goods, heavy Silk, Seaming, Stitching, etc.	40 to 60 Cotton. 16 to 18 Silk.
2	Tickings, Woollen Goods, Trousers, Boys' Clothing, Corsets, Cloaks, Mantles, etc.	24 to 40 Cotton. 10 to 12 Silk.
3	Heavy Woollens, Tickings, Bags, Heavy Coats, Trousers, etc. Heavy Clothing generally.	20 to 24 Cotton. 60 to 80 Linen.
4	Bags, Coarse Cloths, Heavy Goods, of any texture.	40 to 60 Linen, or very coarse Cotton.

In sending orders, always specify the "Size" required.

M.B.—For information regarding Silks, Cottons, Needles, etc., see page 13.