

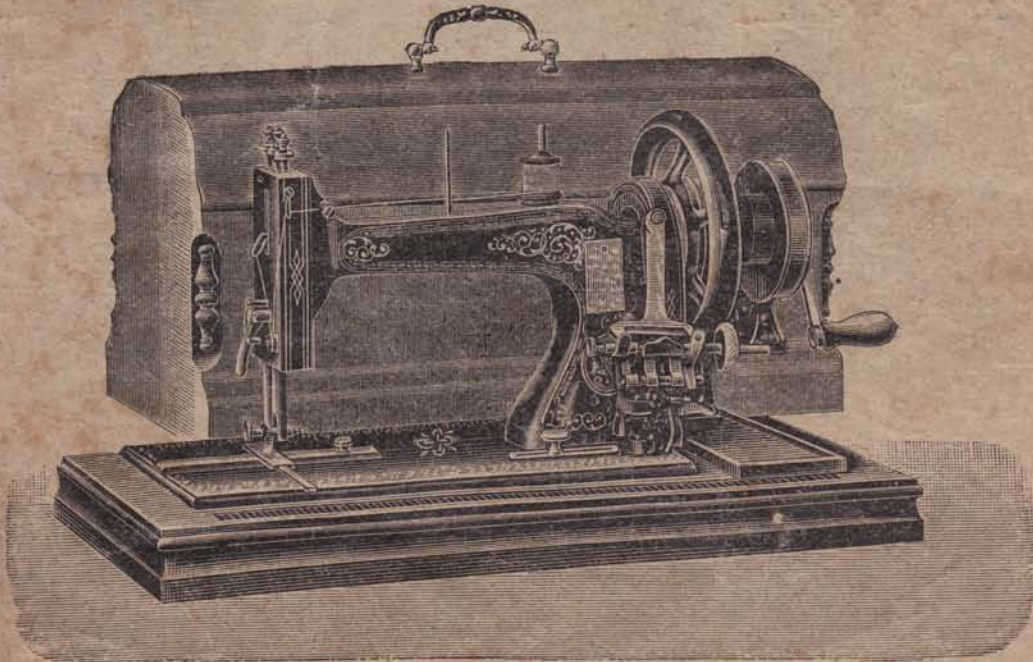
of
Hats Book Schmitt

*Preserve this Book for my
sake*

DIRECTIONS

FOR USING THE

NEW FAMILY SEWING
MACHINE.

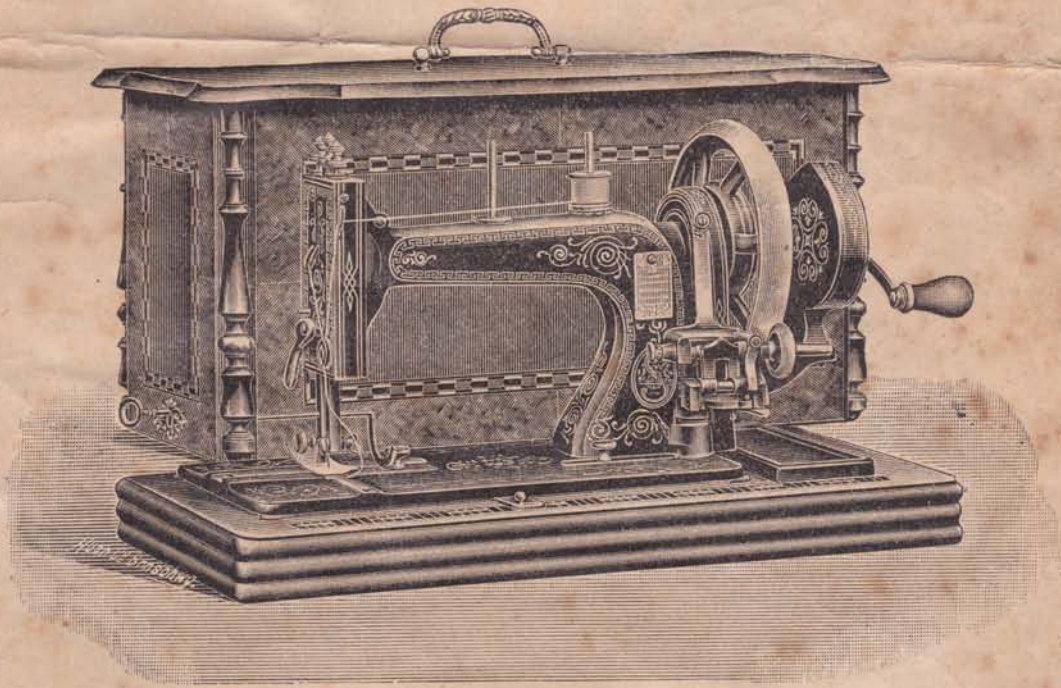


Made in Germany

DIRECTIONS

FOR USING THE

NEW FAMILY SEWING MACHINE.





The hints given on this page

Are introductory to those that follow and should be carefully read by the beginner before commencing to operate the machine.



If sent by rail, the machine and stand will be found packed in a case or a frame.

In removing the machine from the case, unpack it carefully. The various pieces used in packing can readily be removed without injuring the machine or the packing case. All machines are sent with sample of work, and it is well not to remove such sample until the machine is fixed upon the stand, for reasons afterwards mentioned.

If the stand for the machine is sent unmounted, let the operator put it together in the following manner.

Hold the two sides of the stand upright, one in each hand, placing to the right the one having a hole for the axle or the driving wheel, and with the projections at top pointing inwards; then put the treadle plate in its place, placing in front the arm which connects the pitman with the wheel. Insert the two ends of the stay rod into the treadle plate and sides, and screw on the nuts turning them only two or three times round; put the cross-brace upon the stay rod, insert the two bolts through the supports and the top extremities of the cross-brace; put on the nuts, tightening them and those of the treadle-bar firmly. Insert the bearing stud for driving wheel, and screw it firmly in its place, (which will be found near the centre of right-hand side of stand,) by means of the hexagon nut; then put on the driving wheel and connect it by means of the wood pitman with the treadle. Now screw the table on the upright support; place the machine on the table, and fix it thereto by means of the hinges with the screws provided for that purpose; and having placed

the leather driving-band over the pulley on the balance wheel of machine, through the holes in top of stand and round the driving wheel below, the machine is then ready of use.

NOTE. — In fixing the driving-band, the two ends of it should be hooked together before it is slipped round the driving wheel.

Having set up the machine as instructed, before removing the sample of work, or commencing to operate, let the beginner give particular attention to the way in which the machine is threaded up; indeed, it is best at this stage to become thoroughly acquainted with the method of properly preparing the machine for sewing by carefully studying and following the directions given in paragraph marked. "To thread the needle" (page 8).

The sample of work ought to be taken out of machine, the shuttle taken out of its place and the thread taken out of the needle, before the learner begins to work the treadle.

Fig. 1.

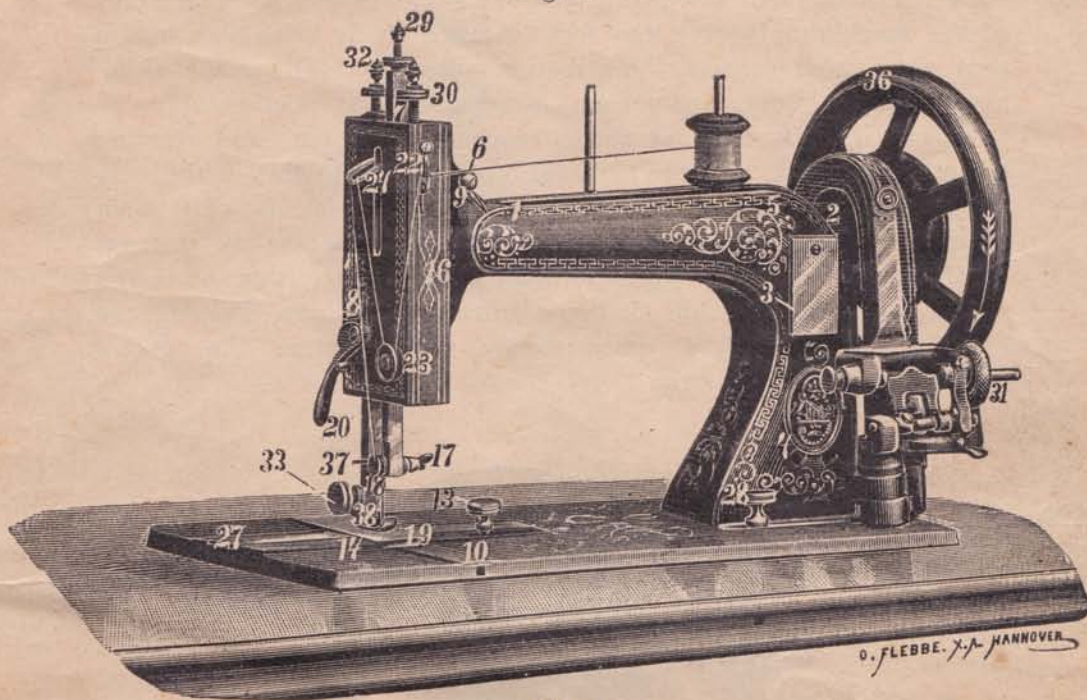
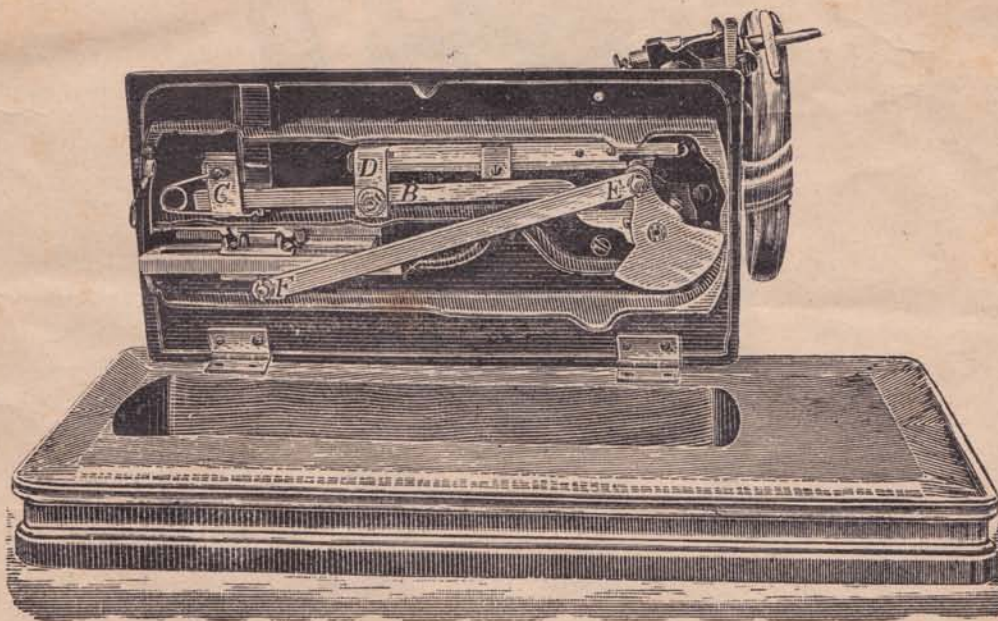


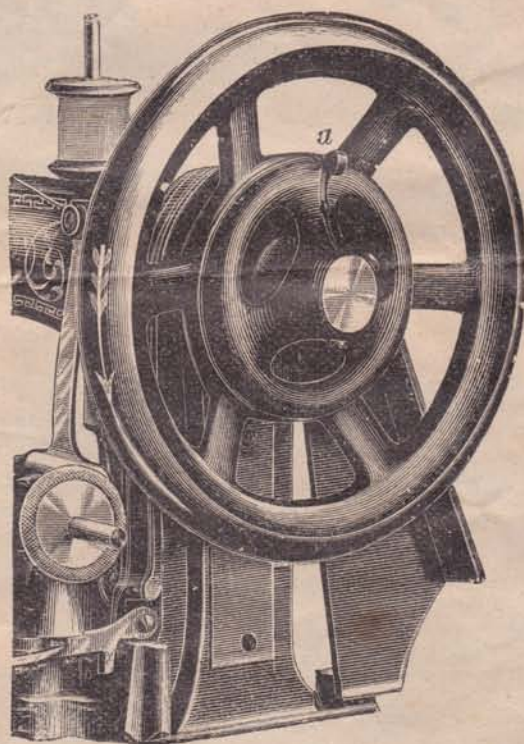
Fig. 2.



The treadle motion.

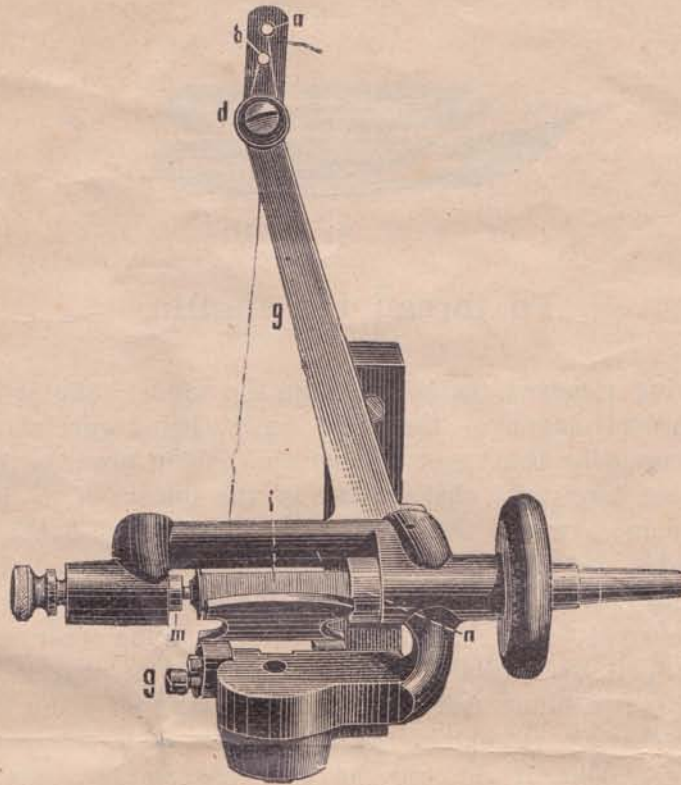
Place the feet lightly upon the treadle, keeping the hollow of the feet over the bar upon which the treadle swings, then

with the hand turn towards the operator the wheel (36) on right of the machine, allowing the feet to move freely with the motion thus given, and continue this motion with the heel and toe alternately until a regular movement is acquired. It is of great value to spend a little time at this, frequently stopping, and starting the machine again, so as to thoroughly accustom the feet instinctively to control the movement of the machine, which is very soon acquired. An easy regular motion of the machine is a great desideratum, and the operator will best acquire this by being seated at a comfortable distance from the machine, keeping the body rather erect and quite steady and effecting the treadle motion by the limbs only.



To wind the bobbin.

Before starting to wind, pull down the lever on the back of the flywheel, in doing so the machine is set out of motion. This manipulation is not absolutely necessary, as the bobbins can



be wound at the same time the stitching is done, but in most cases the former mode is used for winding. To wind the cotton on to the bobbin, place the two points of bobbin between the piston *m*. on the left, and the cup *n*. on the right **above** the plate *i*. The little brass plate on the bobbin with a hole in it to the right so that the little pin will go in, and by this means carry the bobbin round. Place the reel of cotton on the pin 21 nearest the flywheel, draw the cotton from back to front through the slot on the top of guide *g*. Then through the tension plates *d*. back again through the second slot *b*. and down at the back of guide *g*. on to the bobbin. Now pull the bobbin a little towards the left, and clamp the end of the cotton between the little brass plate and cup on the right.

This done, press the winding apparatus against the flywheel by which action the plate *i*. will press against the bobbin. Set the wheel in motion and the bobbin will begin to wind. Care is to be taken that in starting to wind, the cotton is drawn tight at the reel.

As soon as the bobbin is filled the apparatus is thrown out of motion automatically. Then press the plate *i* down and take the bobbin out.

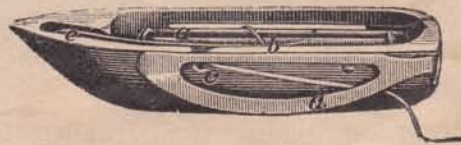
Fig. 5.



To thread the shuttle.

Having removed the bobbin from the winder take it between the thumb and finger of the right hand, being careful that the thread comes over the upper side of the bobbin towards the hand. At the same time take the shuttle in the fingers of the left hand with the point towards the hand, place the end of bobbin in the spring centre in the end of shuttle *next to the point*, and gently press it down into its place. Pass the thread *out* at the long slot "a" nearest to the bottom of shuttle, *in* at the other, and from thence carry it over to the thension holes b., passing it through one nearest the blunt end first, then through as many holes as may be necessary to obtain the tension required, *always finishing, however, by passing it through the hole nearest the point, either from the inside outward, or from the outside inward* (in the latter case pass it out through the slot c.,) and finally in every case under the spring d.

Instructions for threading the automatic shuttle.



To put the bobbin into the shuttle, place the point in the centre of the spring piston and press the other point slowly down the groove at the other end of the shuttle until it fits into the hole.

The bobbin must be put in so that the cotton draws from underneath on the side where the bar "a" is in the shuttle. Bring the cotton round the bar "a" right across the shuttle,

then down slot "b", in spring inside shuttle and pull downwards. Press with the thumb of left hand on the cotton, and bring it to the back part of shuttle under the end of spring. Now draw the cotton towards the point of shuttle so that it comes out at the hole "c" in the middle of spring.

With the aid of the small screwdriver you can regulate the tension by turning the screw "e" to the right to make it tighter and to the left to make it looser.

To thread the needle.

Pass the thread from the reel through the eye at the side of the face plate, downwards under and between the tension discs (23), upwards through the eye of the check-lever (24), then through the hole in the needle-clamp (18), and through the eye of the needle.

To oil the machine.

If the machine is only used occasionally, it requires but little oil, and in the following places: the sides of the needle-bar (7), in the four holes on the top of the arm, the two holes on the side of the arm, the shuttle carrier slide, both ends of the pitman (F, E) and feed-lever, the feed-raising cam (B, C), the centre joint of the feed-lever (D), and the feed-bar by drawing out the slide. Occasionally oil the places indicated in the following Note. After oiling, put the machine in rapid motion for a few minutes then wipe off the superfluous oil from the lower end of the needle bar, the presser-bar, and from the shuttle-race, and shuttle.

NOTE. - If the machine is in constant use, it requires to be well oiled twice a day in all the places enumerated above, and also on the following places: each side of the treadle where it rests upon the cones on the treadle bar, both ends of the wooden pitman, the axle of the balance-wheel, the hinge of the check-lever (9), the points of the bobbin, the face of the shuttle, the stitch regulator-slide, the winder-spindle (31), and the top of the lifter (20).

If the machine works hard while in constant use, it is certain that some place requiring oil has been overlooked: if it works hard after having been out of use for some time, or after using inferior oil use a little paraffin oil, then oil with the best machine oil.

To commence sewing.

Open the shuttle-race cover, place the shuttle in its carrier, leaving out about two inches of thread, and close the cover within

an eighth of an inch; draw about two inches of thread downwards from the check-lever and through the eye of the needle, holding the end with the left hand, *allowing it to be slack from the hand to the needle*, while, the wheel (36) is turned towards the operator, until the needle moves down and up again to its highest point; pull the needle thread gently, and the shuttle-thread will appear with it, *then close the cover*. Leave the threads to the left under the presser-foot, place the fabric under the needle, lower the lifter, and commence sewing. Having made a few stitches, stop

Fig. 6.



Fig. 7.

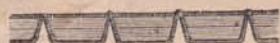


Fig. 8.



and examine them. *Should there be loops projecting or a straight thread upon the lower surface (like fig. 8), turn the tension screw (30) on the top of the machine to the right, so as to tighten the tension on the needle thread. If the thread lies straight upon the upper surface (like fig. 7), turn the tension-screw to the left to loosen the tension of the needle thread.* The secret of perfect sewing lies in the adjustment of the tension of the needle thread, so that it will be equal to that of the shuttle (like fig. 7), and the adjustment of either may be regulated as before described.

To adjust the needle.

Allow the needle-bar (7) to rest at its highest point, and loosen the needle clamp nut (17). Take the needle between the thumb and fore-finger of the left hand, having its long groove towards the operator; put the point down through the hole in the needle-plate; turn the wheel gently while the needle is guided under the needle clamp (18) on end of needle-bar, until the gauge mark (a line graven in the needle-bar, near the top) rests even or full above the top of the arm; then adjust the needle eye level with the needle-plate, and tighten screw. *Observe that the needle passes through the hole in the needle-plate without touching either side.* If it touches, take hold of it near its point and press it gently in the opposite direction.

To regulate the tensions.

Test the tension of the shuttle-thread by drawing it towards the round end of the shuttle; if it draws as tightly as it will bear without breaking, it is right for fabrics of firm texture; thin, soft fabrics require less tension. To obtain more or less tension, pass the thread through more or fewer holes. (See p. 7., "To thread the Shuttle".)

The tension of the needle-thread is regulated by turning the tension screw (30). To test the tension draw the thread downwards from the check-lever (24), turning to the right the tension screw (30), until the thread draws as tightly as it will bear without breaking, except for thin, soft fabrics, when the same rule applies to the *needle thread* as to that of the *shuttle*.

To alter the length of stitch.

The stitch regulator screw (28) is adjustable in a slot. To lengthen the stitch, loosen the screw, and move it to the right; to shorten the stitch, move it to the left. After adjusting the length of stitch, tighten the screw.

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

To remove the work.

Allow the needle-bar (7) to rest at its highest point, raise the lifter (20), and draw the fabric from the left side of the presserfoot (38) upwards about three inches; then cut the threads, leaving the ends long enough to recommence sewing. Seams requiring to be extra strong at the ends should be secured by taking a few stitches in the opposite direction before removing the work, *the same as in handsewing*.

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

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

THE SLACK-THREAD-PIN (29) presses down the check-lever (24). It is adjusted properly for all classes of general sewing, and should never be altered unless the thread breaks in sewing very thick cloth; then loosen the screw (29) and adjust the slack-thread-pin a very little lower. Should it become displaced, re-adjust it according to the following rule: It should begin to press down the check-lever when the needle-gauge-mark is fully one-eighth of an inch above the top of the arm.

THE CHECK-SPRING (9) draws up the check-lever (24). Should it break or wear out, insert another as follows: let the needle-bar (7) rest when the gauge-mark is level with the top of the arm, take out the screw that holds the spring, draw the check-lever out half its length, holding it while you put in the spring with its hook end downward, then move the check-lever back into its place. Replace the screw, turning it a few times only, press down the end of the spring into the first hole (or into the second if using coarse thread), and tighten the screw.

THE FOOT-BAR SCREW (33) regulates the pressure upon the fabric: turn it to the right to increase the pressure, and to the left to decrease it. Fabrics of thick or firm texture require more pressure than thin and soft fabrics.

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

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

IF THE SHUTTLE-THREAD BREAKS, loosen the tension by passing the thread through fewer holes. (See page 7, "To thread the shuttle".) Or by loosening the screw in the self threading shuttle.

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

IF THE NEEDLE-THREAD FORMS SMALL LOOPS on the top of the fabric it is caused by the check-spring (9) having become broken (see Note above "The Check-Spring"), and sometimes, when sewing with coarse silk or linen thread, by the needle being too fine or its point being bent.

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

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

THE EXTRA NEEDLE-PLATE, which has a large hole, is only required when using a No. 4 or 5 needle with 30 to 60 linen thread: never use it for any other numbers.

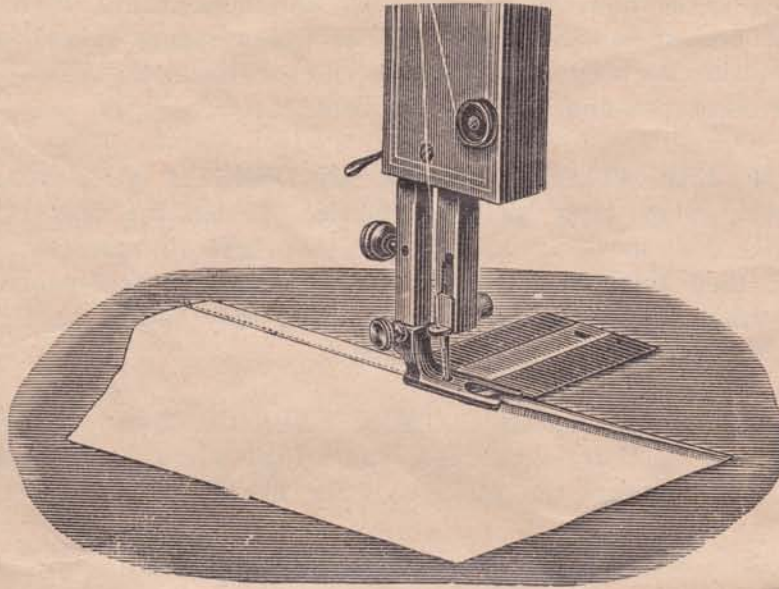
Accessories supplied with the machines.

- | | |
|-------------------------|----------------------------|
| 1) 12 Needles | 11) 1 Braider |
| 2) 6 Shuttle Bobbins | 12) 1 Oiler |
| 3) 1 Screwdriver | 13) 1 Book of Instructions |
| 4) 1 Extra Check-spring | 14) 1 Ruffler |
| 5) 1 Extra Needle plate | 15) 1 Trimmer |
| 6) 1 Straight Guide | 16) 1 Cord fastener |
| 7) 1 Hemmer | 17) 1 Adjustable Binder |
| 8) 1 Adjustable Hemmer | 18) 1 Quilter |
| 9) 1 Feller | 19) 1 Corder |
| 10) 1 Ordinary foot | |

(These Accessories are given complete with the Family-Machine only. The Nos. 9, 11, 14, 16 and 19 are not given to Medium-, Titania- and Cylinder-Machines.)

The following pages explain the use of the Accessories.

Fig. 9.



Hemmer.

TO MAKE A NARROW HEM.

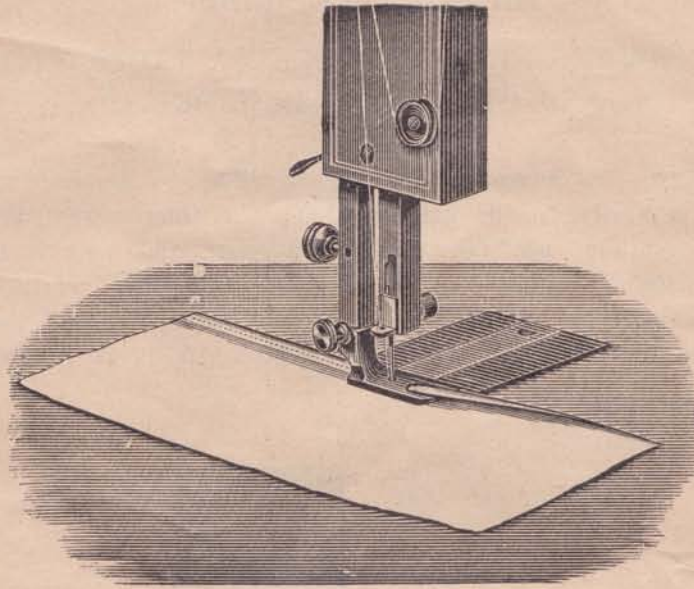
Adjust the hemmer to the presser bar. Commence the hem by folding it at the end, then pass a thread through by means of a needle, drawing the thread and the fabric into the hemmer (or pass the edge of the fabric into the hemmer without a thread), lower the lifter, and commence sewing, guiding the edge of the fabric with the right hand. If the edge unfolds out of the hemmer, move the fabric to the right, if it folds too much into the hemmer, move it to the left.

Feller.

TO MAKE A FELL SEAM.

Join the two edges of the fabric by a seam about three eighths of an inch from the edge, then open out the seam, trim one edge, and pass the other one into the feller to turn the fell in the following manner. Pass the edge of the fabric into the feller, lower the lifter, and commence sewing, guiding the edge of the fabric with the right hand, when the feller will neatly turn and stitch down the raw edge and form a second line of stitching regular and at an equal distance from the other.

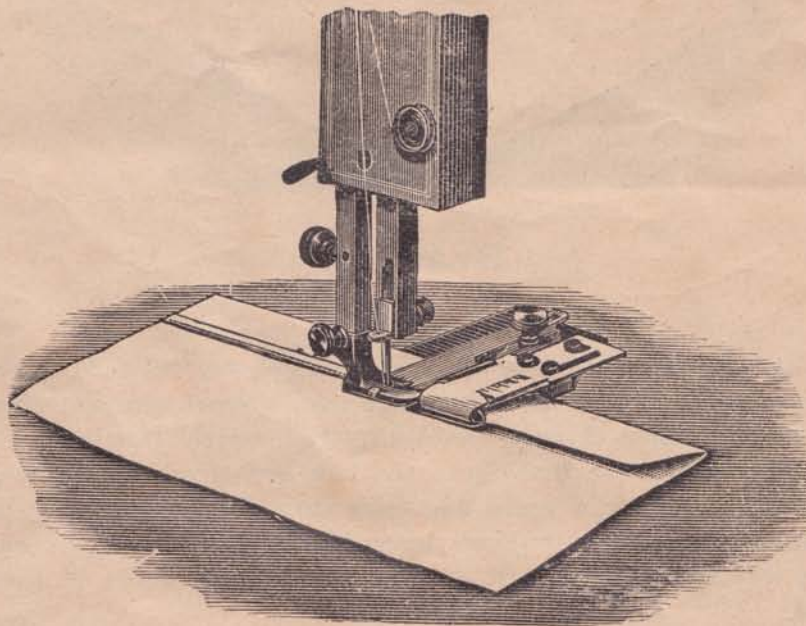
Fig. 10.



TO MAKE A WIDE HEM.

Use the Feller (see above), turn one fold only of the fabric being hemmed the width required, adding about one-eighth of an inch. Proceed as with the narrow hem, and fix the fabric with the straight guide as usual.

Fig. 11.

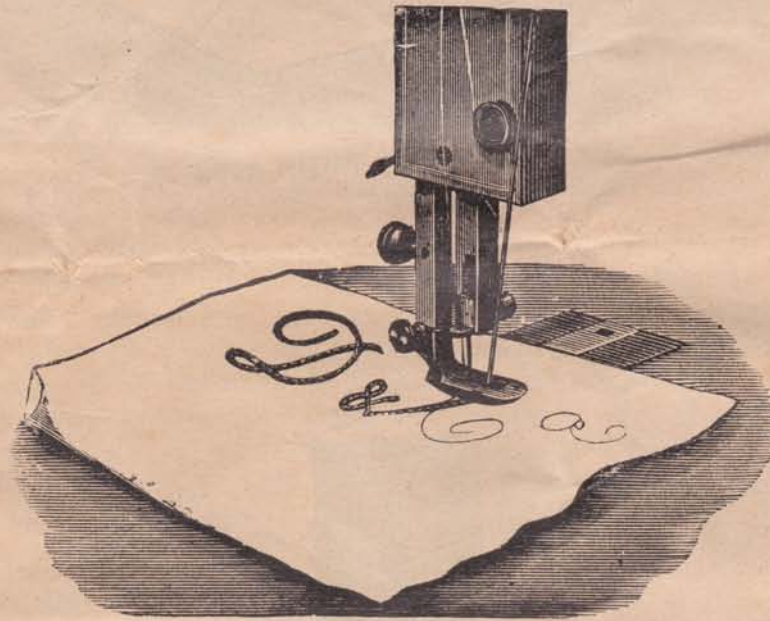


Adjustable hemmer.

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

Adjust the hemmer (fig. 11) to fold to desired width of hem, fix it firmly to the machine with the thumbscrew, then turn down the edge of the fabric one fold only, and pass it into the hemmer with a double fold to complete the hem. If the sewing is not on the edge of the hem, loosen, the screw, and move the hemmer a little to the right or left, until it is in the right position.

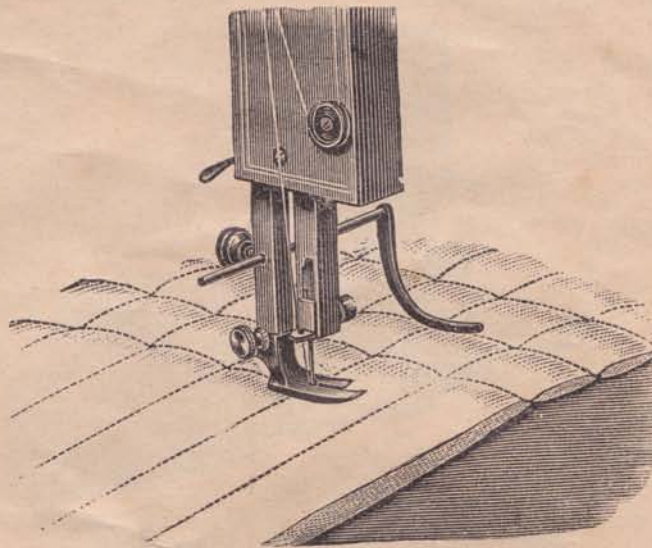
Fig. 12.



Braider.

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

Fig. 13.



Quilter.

Adjust the guide on the presser-bar by passing the horse-shoe shaped clamp over the presser-bar from behind, bringing the holes in it in line with that in the presser-bar immediately above the presser-foot: through these holes pass the rod of the quilting guide from either side, and when the guide is at double distance from the pattern required, tighten the quilter in its position by means of the thumb-screw inserted in the hole in the bend of the clamp above mentioned. Make two straight lines upon it; then adjust the gauge-arm the required distance for the next line of stitching, and guide the fabric with the line already sewn directly under the gauge-arm on either side of the needle.

Adjustable binder.

Adjust the binder [fig. 14] to the desired width of binding, fix it firmly to the machine with the thumb-screw; place the end of the binding over the feed-points and its edges under the clips; then place the fabric between the clips, and guide it against the binder. If the sewing is not on the edge of the binding, loosen the screw and move the binder a little to the right or left until it is in the right position; the under clip may be adjusted to fold the binding wider on the under than on the upper side of the fabric.

Fig. 14.

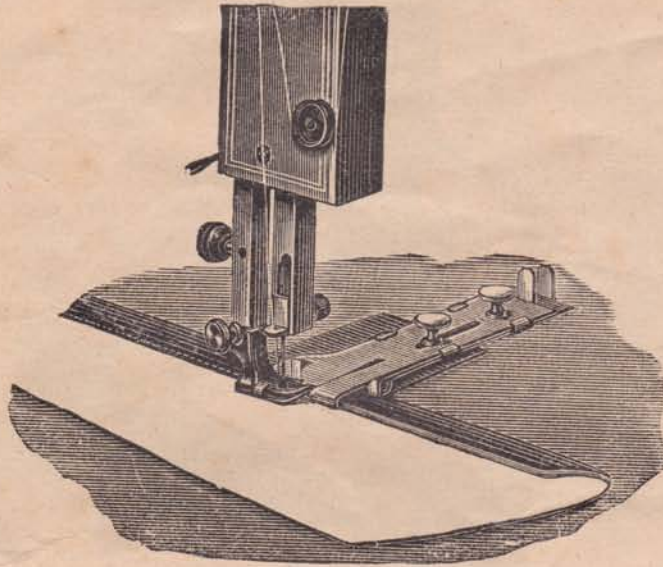
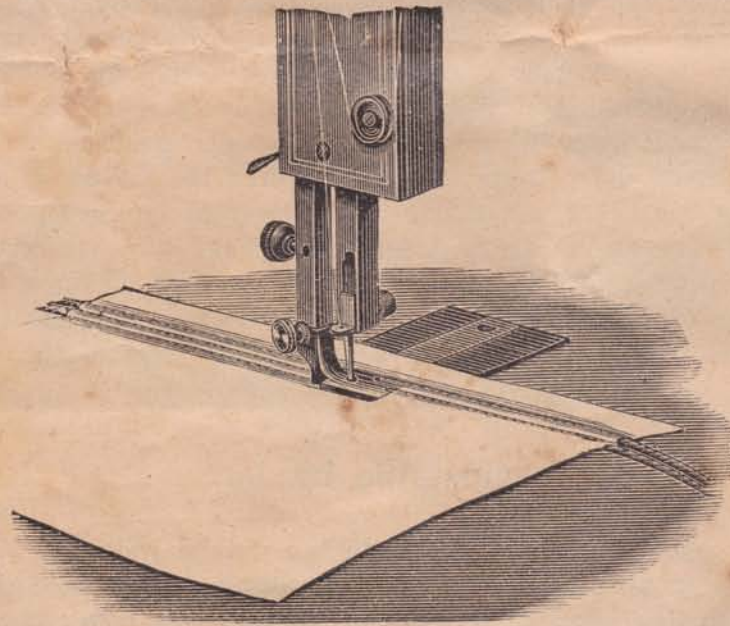


Fig. 15.



Corder.

Adjust the corder-foot to the presser-bar, pass the cord into the eye of the guide which is held in the left hand between

the folds of the fabric, with its end opposite the first groove in the foot; in placing each succeeding cord, guide the fabric with the last cord sewed in the second groove of the foot. **In Cording a square corner always allow the needle to remain in the fabric.**

Trimmer.

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

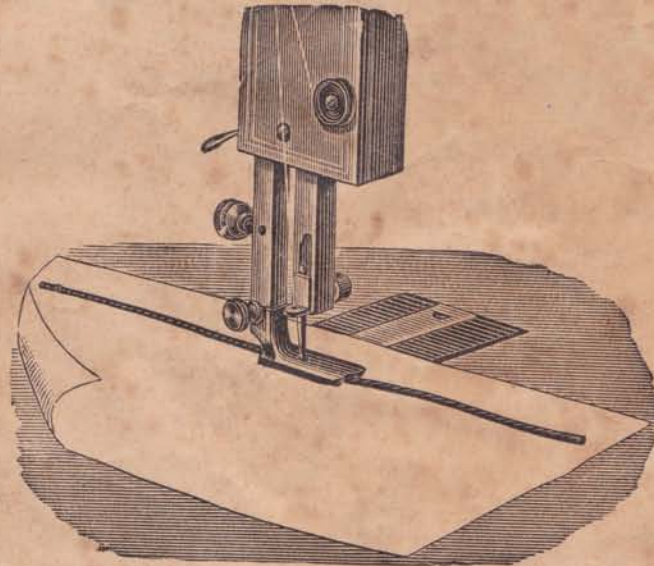
Fig. 16.



Straight guide.

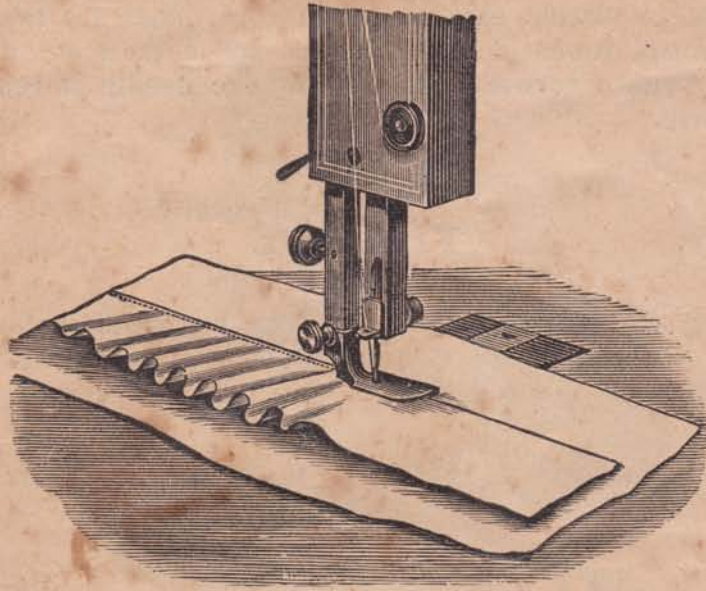
When you wish to sew parallel to an edge fasten this apparatus by its screw. According to the desired distance of the width from the edge, the guide is to be moved more or less.

Fig. 17.



Cord-Fastener.

Fig. 18.



Ruffler.

(The under side of the fabric is shewn in the place of the upper^rside.)

Assisted by this apparatus you may fold and gather the lower one of two fabrics while the upper one remains smooth. The apparatus is fastened to the machine by the gauge screw 33. Place the fabric, that is wanted to be gathered, below the gatherer, and the other one upon it, and then lower the presser to fix the upper fabric; only the lower one will be pushed by the feeder and gathered. The longer the stitches the wider will be the folds.

