The Treadle.

When learning to operate the treadle, the upper fly-wheel should be disconnected from the machine, by means of the catch No. 1 on Fig. 4, then place your feet upon the treadle, with the instep directly over the centre, turn the balance wheel toward you with the right hand, allowing the treadle to move freely with motion continue by an alternate pressure of the heel and toe until a regular and easy movement is obtained.

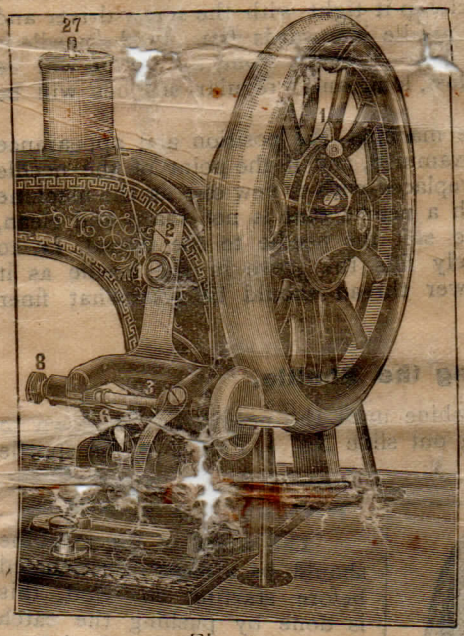


Fig. 4.

If the machine is worked without any fabric being used, the pressure foot (15, Fig. 8) should always be lifted by the lever (15, Fig. 8) to prevent the teeth of the feeder from scratching the pressure foot.

After learning to work the treadle properly, place a piece of cloth under the pressure foot (15 Fig. 8), connect the upper wheel and work the machine, without having threaded the needle, in order to learn to guide the material, first along a straight line and then in curves.

The Needle.

The greatest care should be exercised in fixing the needle, as the proper working of the machine almost entirely depends on the needle being properly set. On examining the needle it will be seen that it has two grooves, one much shorter than the other, two very important features to bear in mind.

To fix the needle, first loosen the needle clamp screw (11, Figure 1), then turn the wheel of the machine so as to bring the needle bar to its highest point. Now hold the needle in the centre between your fore finger and thumb with the long groove towards you, pass the point of the needle down the hole in the plate near the feed, so that you can bring it up in a line with the needle bar, between that and the clamp, fastening the screw of the same with your finger and thumb so as to hold the needle. Now glance at the top of the needle bar and you will notice a

..... in the front about an inch down, now turn the wheel of the machine until the mark is brought on a level with the top of the face plate or almost disappearing, at which position the bar must remain for a moment until you adjust the needle so that its eye is just entering the hole in the plate, in other words the eye of the needle and the mark in the needle bar must both disappear at the same time. After the needle is correctly set do not forget to clamp it tight with the screw-driver and note that the long groove in the needle is towards you. If the needle is ... high, or the short groove turned to the front, the cotton will be ... If the needle is set too low, long and irregular stitches will be the result.

When constantly using the machine, the position and appearance of the needle should be daily examined, and if the point of the needle is blunt or rough, it should be replaced with a new one as the machine will never sew satisfactorily with a needle that is not sharp and clean, It is very important always to suit the needle to the thread, *i.e.* to choose a thread that completely fills the grove in the needle as it traverses the fabric. The lower thread should be somewhat finer than the upper one.

Removing the Shuttle.

Turn the wheel of the machine until the needle bar is down to its lowest point; then by pulling out slide No. 1, Figure 8, the shuttle will spring out.

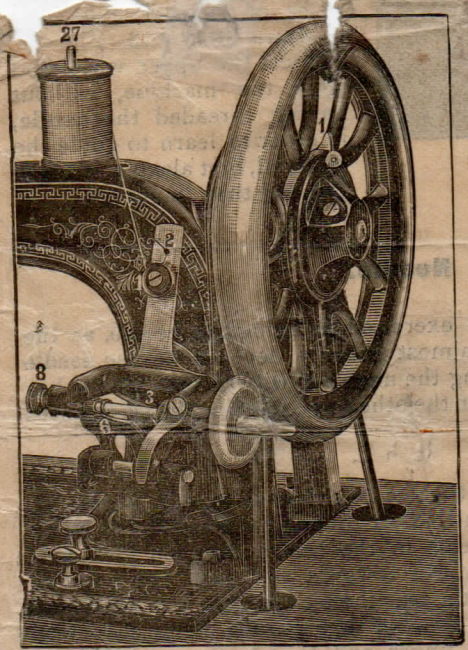


Fig. 5.

Winding the Bobbin.

The wheel of the machine should be always disconnected before starting to wind, this is done by pushing the catch on the boss of the wheel from you, which not only makes it much easier to fill the bobbin but saves a lot in the wear of the machine. To wind the cotton on to the bobbin first place the reel on pin 27 (Figure 5) drawing the cotton between the discs (1), then through slot (2) bringing it down behind the winder and out through opening under No. 3. Now hold the bobbin between the thumb and finger of the left hand and pass the end of the cotton through the hole at the end, taking care to let the cotton enter from the inside, then place the bobbin in its position by pulling out spring 8, the end that is threaded must be placed in

the recess at the right, with which the cotton is threaded. Before starting to wind press No. 6 the small pin in the hole, through toward the bobbin, and the rubber ring against the large wheel, taking care that the cotton is tight from the reel before starting. As soon as the bobbin is filled the machine should stop automatically.

Fig. 8.

To remove the bobbin draw back No. 6 and 8.

Threading the Machine.

Place the [illegible] pin 26 (Fig. 8) bring the end of the cotton through the eyelet (19) at the side of the face plate, then under and between the discs (16), drawing it upwards and [illegible] in check [illegible] down inside wire hook to needle clamp (11) then through the eye of needle from front to back, leaving an end of cotton about four inches.

Threading the Shuttle.

To thread the shuttle hold it in the left hand with the point from you pressing the bobbin in the pointed end of the shuttle first, then bring it down to a level and it will be found to click into its place, take care that the cotton comes from under the bobbin towards the long bar inside A. The latter is threaded by passing the cotton round the end of the bar and drawing it forward, when this is done turn the point of the shuttle towards you bringing the cotton straight across to slot B which is threaded by pressing the cotton down with the thumb of the left hand and drawing it forward, holding it in this

position while you pass it around the end of spring, then it is ready for use. To remove the bobbin, hold the shuttle in the left hand pressing it toward the point with the forefinger, this will cause the bobbin to spring out.

The length of stitch. On the right hand side of the base of [illegible] machine will be found a thumbscrew working in a slot, to lengthen [illegible] stitch this thumbscrew is to be loosened and pushed to the right, or [illegible] screw the thumbscrew fairly down.

Fig. 11. **Regulating the thread lever** is but seldom necessary and is done by a screw-spindle placed in the needle bar.

Fig. 12. **To regulate the underneath tension.** After threading the shuttle, try the tension by drawing the thread towards the blunt end. If it draws as tightly as it will bear without breaking, it is right for goods of firm texture; thin soft goods require a looser tension. To regulate the tension turn the small screw (F) to the left for a slacker, and to the right for a tighter tension. When an even tension is once obtained, it will seldom require an alteration. A special small screw-driver is provided for this purpose.

To regulate the top tension. [illegible] is obtained by turning the thumbscrew (20) on the top of the [illegible] plate. Take hold of the thread just above the needle and draw it downwards from the spool and continue to turn the thumbscrew until the thread draws tightly without breaking. For thin soft goods the same rule applies for the needle as for the shuttle tension. The presser foot must be down when the tension of the upper thread is regulated, as there is no tension on when the foot is raised. This new contrivance enables the operator to withdraw the work easily from the machine without drawing down any slack thread.

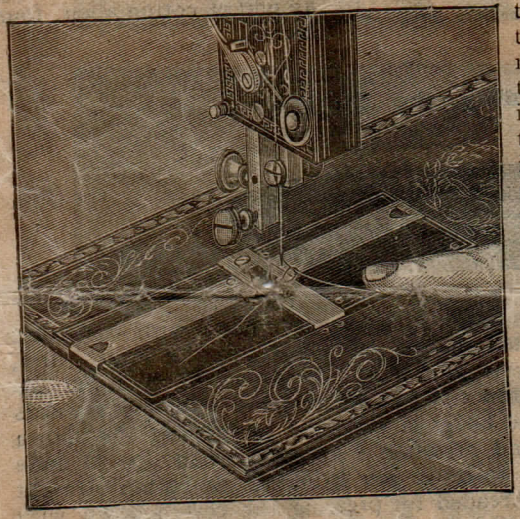


Fig. 9.

Fig. 14. **Sewing.** After having threaded the needle and the shuttle as above described proceed as follows:

Place the shuttle in the shuttle carrier, with the point towards the needle, leaving about three inches of thread projecting and nearly close the slide; then draw about three inches of the upper thread through the eye of the needle, and with the left hand hold the end, leaving it slack from the hand to the needle, while you turn the wheel gently towards you, until the needle moves down and up again to its highest point, this is in order to bring the shuttle thread up through the hole in the throat plate, then gently draw the needle thread, and the shuttle thread will appear; with a pin draw the remaining end of the shuttle thread through the hole in the throat plate, when the two threads should be laid to the left across the feed points: then place the fabric beneath the needle, lowering the presser foot upon it, and operate the treadle or hand appliance as the case may be. After a few stitches are formed, stop and examine them. Should there be loops projecting or a straight thread upon the lower surface,

Fig. 10.

turn thumbscrew, so as to tighten the tension on the needle thread. If the thread lies straight upon the upper surface,

Fig. 11.

turn the thumbscrew from you, to loosen the tension of the needle thread, both threads should be equally drawn in and cross themselves

Fig. 12.

in the middle of the fabric. A perfect stitch shows the same appearance on the upper and the lower side. 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, and the adjustment of either may be regulated as before described.

To obtain a very fine stitch on the upper side, the tension of the upper thread should not be as tight as that of the lower thread.

In proceeding with the work care should be taken neither to draw nor push it, or the needle may be broken.

When sewing over hard places or across seams, the fly-wheel should be cautiously turned by hand to prevent the needle breaking or bending.

To remove the work, allow the needle to rest at its highest point, raise the presser foot, draw the fabric with left hand from he

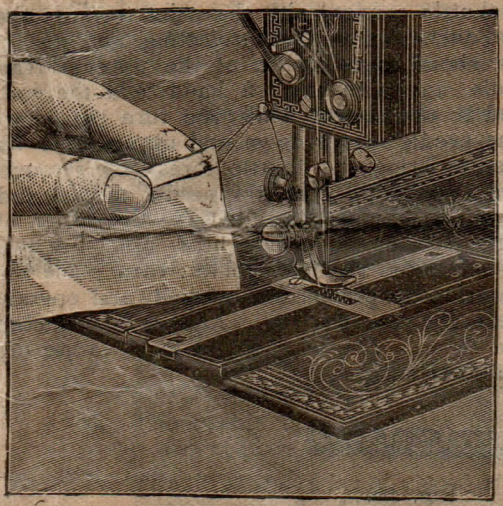


Fig. 13.

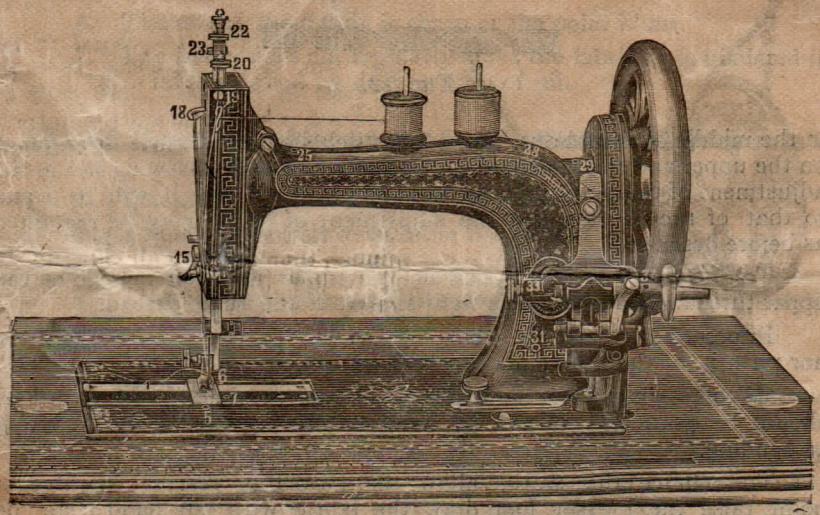
left side upwards about three inches, then cut both threads. There is a thread cutter for this purpose attached to the corner of the face-plate at the back.

If in removing the work the lower thread breaks, take out the shuttle, draw out some thread and proceed again as above described.

It may not be uninteresting to describe the manner in which the stitches are produced in this machine.

The needle passes through the fabric and carries part of the upper thread below the needle-plate. On the needle returning, the upper thread forms a small loop which is caught and expanded by the point of the shuttle. Then the loop, through which the lower thread has been dra[illegible] the shuttle, is taken up by the thread-taker and tightened by form[illegible] next stitch.

Fig. 15. **To clean and oil the machine.** If you constantly use the machine, it should twice a day be cleaned and then oiled. Lift the presser foot, bring the needle to its highest point, and wipe away carefully with a soft rag all the old oil, dust and dirt, then oil by drops only in the oil holes not forgetting the needle bar.



There are nine small holes made for oiling, one on the top of the needle bar, three on the top of the arm, one at each end of the sh and one near the throat-plate (6).

To oil the crank turn the machine slowly until the small end of the crank appears in sight through the long slot at the base of the arm, in which the thumbscrew (32) for altering the stitches is acting. A little oil must be put upon the needle-bar, also a drop at the back of the shuttle-carrier, and a very little on the hinge of the check-lever (18). The feeder and the ends of pitman, Figure 36, must be oiled, also the point of the bobbin when being filled, and a very little on each point of the bobbin, when put in the shuttle. The face of the shuttle should be oiled at least once a day when in constant use.

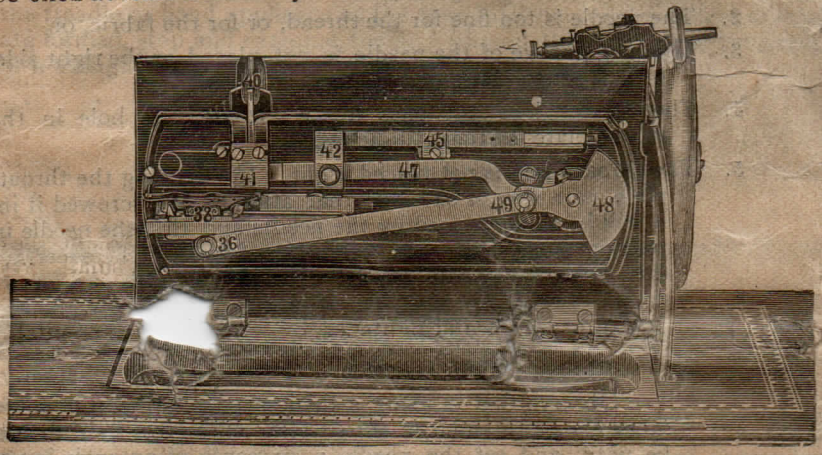


Fig. 15.

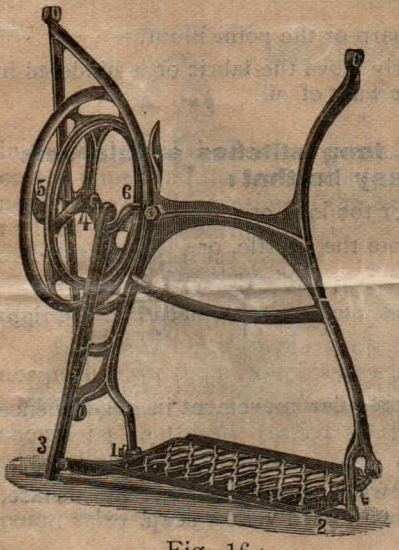


Fig. 16.

The parts of the stand to be oiled are, the band-wheel through the hole in its hub; both ends of the wood pitman and a little on each end of the treadle, where it rests on the cross-bar.

After oiling, remove the shuttle and work the machine rapidly for a minute, then wipe off all superfluous oil with a piece of rag or cotton waste. Be sure that every part is clean before you commence to sew.

If the machine runs hard at any time while in use, it is certain that some place has not been oiled. If it runs hard after standing idle for some time, use a little paraffin oil in

the usual way and run rapidly, wipe clean, then oil with the best prepared sperm oil, which should always be used. To make sure of good oil, buy it where you bought the machine.

Should the lower thread break:

1. The tension in the shuttle may be too tight.
2. There may be a sharp edge in the throat plate, or
3. A rough edge on the shuttle.

Should the upper thread break, the reason may be that

1. The tension is too tight, or
2. The needle is too fine for the thread, or for the fabric, or
3. The long groove of the needle is not placed at the right side, or it is set too high or too low.
4. The needle does not pass freely through the hole in the throat-plate, so that it touches, or
5. The throat-plate is not placed right. In changing the throat-plate, care should be taken that after having screwed it in, it will be freely passed by the needle and that the needle in passing down does not touch the shuttle. To ascertain this, press the needle gently, when down, with the screw-driver towards the shuttle. If this is [illegible] slightly touched by the needle the position is right. If the shuttle passes behind the needle, the throat-plate must be pushed towards the operator.

   Observe that in using a thick needle for linen or some other coarse thread, the throat-plate with large hole should be used, and set the needle a sixteenth of an inch lower than usual.
6. The eye of the needle is sharp or the point blunt.
7. The feeder does not regularly move the fabric or is hindered in its free action by dust or want of oil.

Should there be skipped or long stitches at intervals the reasons may be that:

1. The needle is set too high or too low, or
2. The needle is bent away from the shuttle, or
3. The eye of the needle is not in a straight line from you.
4. That the long groove of the needle is not placed at the right side.
5. The needle is too fine.
6. That the machine has an irregular movement in consequence of dirt or want of oil.

   If in spite of the above with lime-dressed goods dropped stitches appear, wash the goods or rub the surface, where it is to be sewed, with hard yellow soap.

Advice for keeping the machine in good running order.

Every machine sent out has been well tried. If it should be found not to sew well, the cause will mostly be found in an improper use of it. It is therefore recommended not to attempt any alteration to the machine, before being assured that the needle is regularly set and the tensions properly regulated.

With proper running, regular cleaning and oiling, the machine will but slightly suffer and the principal parts of the machine should last a life-time.

But it is possible that some of the smaller parts will after years wear out by friction. The manufacturers furnish through their agents interchangeable parts which may mostly be set by the owner himself as the construction of the machine is very simple.

But if the owner cannot put the machine in order, he should crew it from the table and send it to the agents with all the fittings a proper statement of the difficulty experienced.

Accessories supplied.

With each Treadle Machine.

12 Needles.
6 Bobbins.
1 Corder.
1 Cord Trimmer.
1 Braider.
1 Ruffling Foot.
1 Narrow Hemmer.
1 Broad „
1 Fell Seamer.
1 Presserfoot, ordinary.
1 „ narrow.
1 Adjustable Binder
1 „ Hemmer.
1 Quilter.
1 Straight Guide.
1 Screw for Straight Guide (screwed on the machine.)
1 Screw Driver.
1 Extra Spring for Check Lever.
1 Throat Plate with large hole.
1 Oil Can.
1 Instruction Book.

With each Hand Machine.

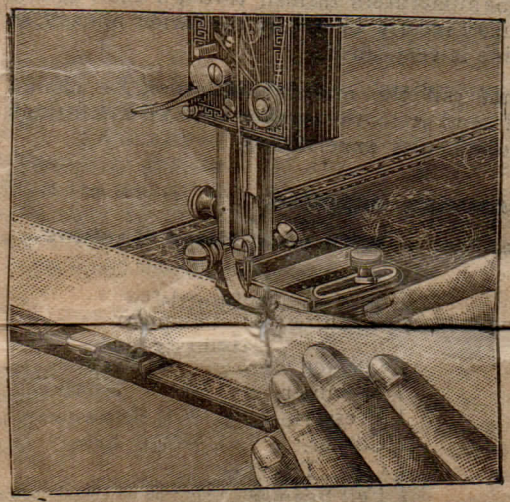
6 Needles.
4 Bobbins for Shuttle.
1 Adjustable Binder.
1 „ Hemmer.
1 Quilter.
1 Hemmer.
1 Presserfoot.
1 Corder.
1 Cord Trimmer.
1 Fell Seamer.
1 Straight Guide.
1 Screw for Straight Guide (screwed on the machine).
1 Screw Driver.
1 Extra Spring for Check Lever.
1 Throat Plate with large hole.
1 Oil Can.
1 Instruction Book.

The Machine possesses the following advantages.

The flywheel and all bright parts nickel-plated.
Automatic bobbin winder, reliable and regular in its working.
The most simple loose wheel apparatus.
Inch measure on the table.

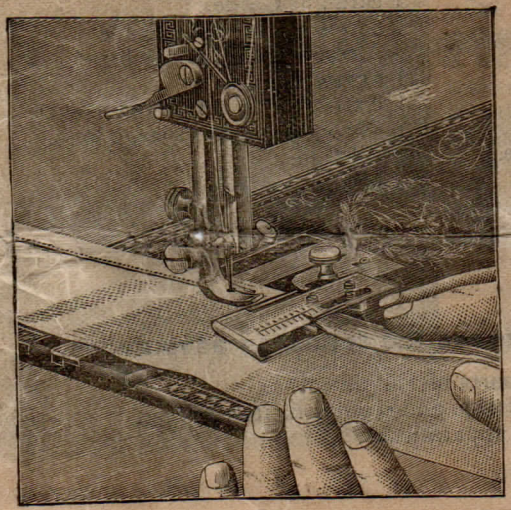
Castors on stand.
Opening tension discs.
Choice wood work.
Indestructible cog-wheels
Extra-size driving-wheel.
A box in the wood base of the hand machine to keep the extras in.
A most simple method for disconnecting the hand appliance.
No threading anywhere required except the needle.
An apparatus to lift out the shuttle.

INSTRUCTIONS FOR USING

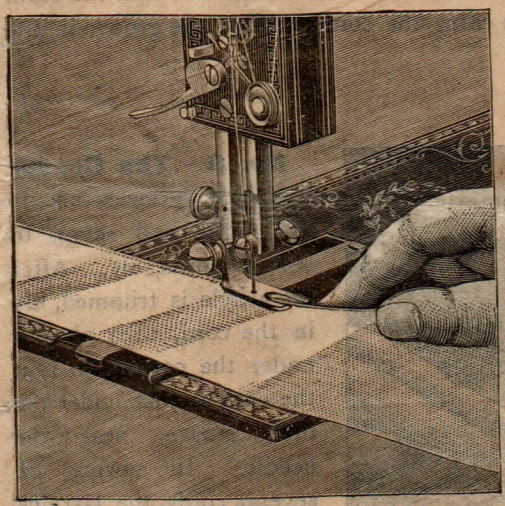


the attachments.

No. 1. The straight guide is fastened to the plate by the thumbscrew. If a seam is to be made parallel to an edge, the straight edge of the guide is fixed at a distance from the needle equal to that desired for the seam from [illegible] to sew hems and borders, as also to sew in a straight line and at equal distance from other seams. It saves the troublesome drawing of lines.



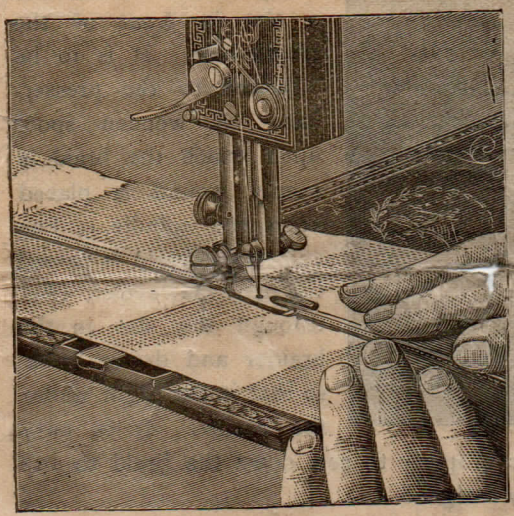
No. 2. The adjustable hemmer for hemming towels, napkins, tablecloths and other coarse fabric enables the operator to make hems of various widths. Adjust the hemmer to fold the desired width of hem, fix it firmly to the machine with the thumbscrew, then turn down the edge of the fabric one fold only, and pass it through the hemmer. 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.



No. 3. The hemming foot. To make a narrow hem adjust the hemmer to the presser-bar, lift the presser-foot, commence the hem by folding it at the end, then pass a thread through it by means of a needle drawing the thread and the fabric in to the hemmer (or pass the edge of the fabric in to the hemmer without a thread), lower the presser-foot, and commence sewing, guiding the edge of the fabric with the right hand taking care that the fabric entirely fills the mouth of the hemmer. If the edge unfolds out of the hemmer, move the fabric to the right ; if it folds too much in to the hemmer, move the fabric to the left.

To make a broad hem : fold the fabric to width desired once over and pass the edge to be sewn as described through the hemmer.

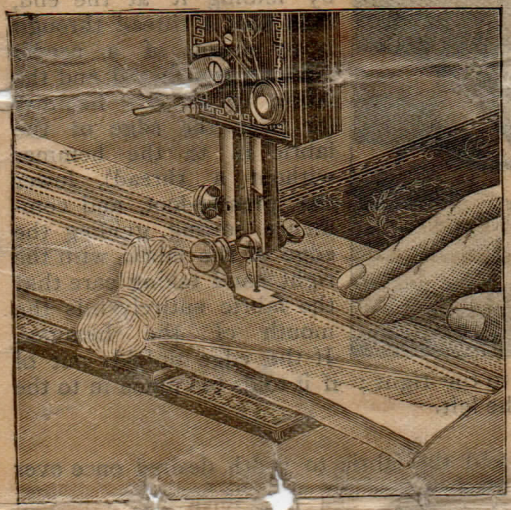
To make a broad hem with a thicker fabric, use the ordinary presser-foot, fold the fabric twice in the desired breadth and bring the inner side under the short right tongue of the presser-foot then the longer tongue serves as guide and the hem is evenly sewed along the edge.



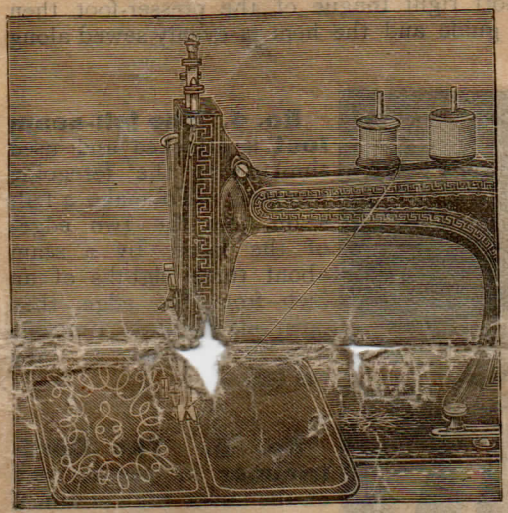
No. 4. The fell-seam foot is attached and used similarly to the foregoing hemmer. To make a fell-seam, join the two edges of the fabric by a seam about three eighths of an inch from the edge, then open out the seam, turn one into the hemmer to turn the fell.

No. 5. The Cord-trimmer for sewing cord on the under edge of ladies' dresses. First sew the lining with the stuff together, bend the edges of

both to the left and place the cloth under the trimmer so that the seam is just under its groove; then carry the cord through the groove in the attachment and sew it fast.



No. 6. The Corder has two grooves on its lower face and serves to sew in cords, etc. After the article is trimmed, lay in the cord, then place it under the corder, so that the cord is just under the first groove, near the needle. In sewing on several cords, the last one sewed is to be placed into the right side groove, that to be sewed into the left side groove.



No. 7. The braider is a presser-foot which has a slot in front of the needle-hole. It is to be adjusted to the presser-bar. A wooden spool upon which the braid is evenly wound is placed upon the spindle. The end of the braid is passed through the eyelet, thence through the slot in the braider and drawn back, so that it lies right under the needle. It is only necessary to guide the fabric properly to sew down the braid to any pattern desired and previously designed.