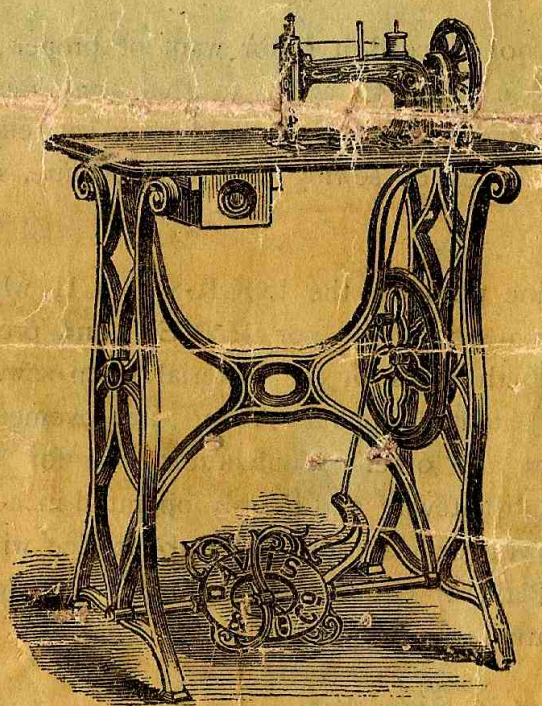


INSTRUCTIONS
FOR USING
S. DAVIS & CO.'S, Ltd.,
FAMILY & MEDIUM
SEWING MACHINES



S. DAVIS & CO., LTD.
LONDON.

IMPORTANT TO EVERY PURCHASER
OF
S. DAVIS & CO.'S, LTD.
FAMILY & MEDIUM
SEWING MACHINES

Every person purchasing one of these Machines should carefully read this book, in which they will find valuable suggestions as to the correct working of the Machine.

If they do not succeed, it is for want of proper instruction, and we strongly advise them to apply to the firm who furnished the Machine, and not to rest satisfied until they can efficiently manage to execute all classes of sewing they may require, either **PLAIN** or **ORNAMENTAL**.

The Machine produces the **LOCK-STITCH**, which is the only stitch that will neither **RIP** nor **RAVEL**, and presents the same appearance on both sides of the material when sewn. It possesses many valuable patented appliances and improvements that cannot be furnished by any other manufacturer, and for which no extra charge is made whatever; and if only operated in a proper manner, by any person with ordinary abilities and practice, will execute every description of Plain or Ornamental Sewing in a style that cannot be excelled for neatness and durability.

Always bear in mind that

PRACTICE MAKES PERFECT

and no matter what class of sewing you may have in hand, persevere until you can execute the same with your Machine to your entire satisfaction.



FOR USING

S. DAVIS & CO., LTD.,

FAMILY AND MEDIUM

Sewing Machines



THE TREASURE MOTION.

TO OIL THE MACHINE.

To make the machine work easily, oil it well before commencing to sew, with the best machine oil only (supplied by S. DAVIS & Co., LTD.), and keep it clean. An oil can is given with every machine.

The following working parts of the machine are to be oiled :—

1. The slot in which the foot-bar works.
2. The top of the needle-bar.
3. The hole upon the face-plate near the needle-bar.
4. The hole upon the front part of the arm.
5. The hole at the back of the arm behind the cotton spindle.
6. The hole on the shaft of the balance-wheel.
7. The hole on the back of the arm.
8. The hole at the bottom of the arm.
9. Also frequently the feed.
10. The hole at the winder spindle.
11. The shuttle carrier requires oiling now and then.
12. The points of the bobbin in the shuttle.
13. The feed and shuttle carrier, which can be oiled by displacing the driving band and turning the machine back.
14. The two ends of the treadle, where it rests upon the cones on the treadle-rod.

After having oiled all these parts, remove the shuttle and work the machine rapidly for a few minutes, then wipe off all superfluous oil. If the machine runs hard, after standing idle for some time, use a little paraffin oil, and work rapidly, wipe clean, then oil with best sewing machine oil.

If the driving band should be too loose it will not turn the wheel. In this case unfasten it and cut off a small piece.

In learning to use the machine, disconnect the fly-wheel as per instructions (see page 7 for winding bobbin).

THE TREADLE MOTION.

PLACE the feet lightly upon the treadle; then turn towards you the wheel on the top of the machine, allowing the feet to move freely with the motion thus given; continue the motion by pressing with the heel and toe alternately until a regular movement is acquired.

TO THREAD THE NEEDLE.

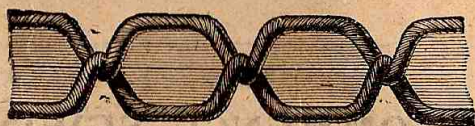
Pass the thread from the reel through the eye at the side of the face-plate, then under and between the discs on the front of the face-plate, then up through the eye at the end of the check-lever, then through the hole in the needle clamp, and lastly from you through the eye of the needle, leaving an end of the thread about three or four inches long.

TO REGULATE THE TENSION.

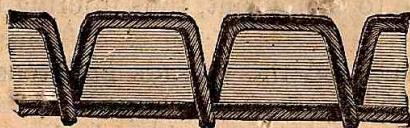
THE tension on the needle thread is obtained by turning the thumb-screw on the top of the face-plate. Turning the screw to the right increases the tension, turning to the left decreases it.

The regulation of the tension requires special care, as upon this the perfection of the stitch depends. Always regulate the tension so that both threads pass equally through the material. The work is most perfect and durable when the stitches on both sides of the material look alike; when regulating the tension turn the thumb-screw slightly. If on the top side of the material an arched stitch is desired, lessen the tension on the needle thread a little more than the shuttle thread. After a few stitches are made, stop and examine them.

The machine makes the lock-stitch, thus:—



The tension must be thoroughly understood; and should there be loops projecting, or a straight thread upon the lower surface, thus:—



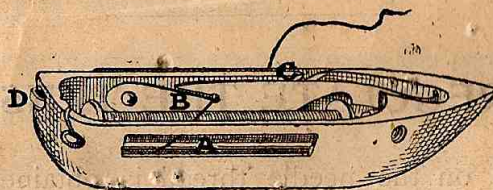
turn the thumb-screw on the face-plate, so as to tighten the tension of the needle thread. If the thread breaks or is lying straight upon the upper surface, thus:—



turn the thumb-screw towards you to loosen the tension of the needle thread, or tighten the shuttle thread.

TO THREAD THE SHUTTLE.

TAKE the cotton down to the slot and round the bar marked A, and right across the shuttle to slot marked B in the spring, and pull it downwards towards the *point*. Press with thumb of the left hand on the cotton marked C, and draw it to the heel of the shuttle and under the end of the spring marked D. Now draw the cotton gently towards the *point* again.



When the shuttle is threaded, before you put it into the Machine, **ALWAYS PUT ONE DROP OF OIL ON THE FACE OF THE SHUTTLE.** It causes the Machine to run easily and smooth, and the shuttle will last three times as long.

TO COMMENCE SEWING.

NEVER work in any way while the shuttle slides are open ; this will cause the shuttle to spring out, thus injuring the machine.

After having examined the threads and tension, place the shuttle within the carrier, leaving about three inches of thread projecting, and 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 needle (do not tighten it, as the needle might bend or break on the needle-bar going down), then turn the wheel gently towards you until the needle moves down and up again to its highest point, in order to bring the shuttle thread up through the hole in the needle-plate ; then gently draw the needle thread, and the shuttle thread will appear. Do not, however, omit to keep the presser-foot raised. Now place the material under the needle, lowering the presser-foot upon it, and work the treadle. Take hold of the needle thread when beginning to sew ; this will draw in the first stitches tightly.

TO ALTER THE LENGTH OF STITCH.

THE stitch regulator screw is adjustable in a slot (near winder). 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 the stitch, tighten the screw.

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

TO REMOVE THE WORK.

ALLOW the needle-bar to rest at its highest point, draw the thread downwards from the check lever about three inches; raise the lifter and draw the fabric from the left side of the presser-foot upwards about three inches; then cut the threads, leaving the ends long enough to re-commence 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 hand sewing*.

TO ADJUST THE NEEDLE.

ALLOW the needle-bar to rest at its highest point, and loosen the needle clamp-screw. Take the needle between the thumb and fore-finger of the left hand, having it long groove towards you, and put the point down through the hole in the needle-plate; turn the wheel gently towards you, while you guide the needle under the needle-clamp; then tighten the clamp-screw; with the left hand, insert the point of a fine needle into the eye, resting it on the needle-plate; loosen the clamp-screw, and pressing the fine needle into the eye in a direct line from you, turn the wheel gently either way as required until the gauge-mark (a line engraved in the needle-bar near the top) is level with the top of the arm; then tighten the clamp-screw.

No Machine will work

Satisfactorily unless kept

Thoroughly Clean

and Well Oiled.

SPECIAL NOTES.

BREAKING NEEDLES.

is generally caused by the needle-point striking the shuttle, or the edge of the hole in the needle-plate. If the needle strikes the shuttle, loosen the needle-plate screw and draw the needle plate a little towards the operator, but do not allow the needle to rub against the edge of the needle-plate hole. This will prevent the breaking of needles. The needle may be set nearer to or further from the shuttle by loosening the bottom screw in the face-plate, and pushing or pulling the face-plate, and afterwards secure the screw-plate very firmly.

THE SLACK THREAD PIN presses down the check-lever. 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, 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 one-eighth of an inch above the top of the arm.

THE CHECK SPRING draws up the check-lever. Should it break or wear out after long usage, insert another as follows:—Let the needle-bar 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 hooked end downwards*, then move the check-lever back into its place. Replace the screw, turning it round a few times only, press down the end of the spring into the first hole (or into the second or third hole if using coarse thread), and tighten the screw.

THE PRESSER SCREW 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 requires 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 re-fasten it as before.

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

IF THE SHUTTLE-THREAD BREAKS loosen the screw on the other side of shuttle near the nose by turning it towards the left, for which purpose a small screwdriver is supplied.

IF THERE ARE MISSED STITCHES they are caused by the needle being adjusted too high or too low, by it being bent away from the shuttle, it being too small for the thread, or by the point of the shuttle having become blunted, or needle-eye too large for cotton. If the thread is improperly twisted, it may throw the loop towards one side, instead of square into the shuttle-race. In that case, the needle should be slightly turned in an opposite direction, to counteract this tendency to throw the loop away from its proper position.

IF THE NEEDLE-THREAD FORMS SMALL LOOPS on the top of the fabric, it is caused by the check spring having been broken (see note above—*Check Spring*), and sometimes, when sewing with coarse silk or linen thread, by the needle being too fine, or its point being bent. In the latter case, smooth the point of the needle on an oilstone.

IF THE STITCHES VARY IN LENGTH while hemming or sewing very thick and soft fabrics, loosen the feed-raising-can, and move it a little to the left 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 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 25 to 60 linen thread. Never use it for any other number.

NEVER USE THE EXTRA NEEDLE-PLATE WITH LARGE HOLE, unless for extraordinary heavy work, and when using very coarse linen thread.

See page 16 for sizes of needles and thread.

ACCESSORIES GIVEN WITH EACH MACHINE.

1 BRAIDER... Illustrated on page 9	1 SPRING for CHECK LEVER.
1 ADJUSTABLE HEMMER „ 10	6 SHUTTLE BOBBINS.
1 ADJUSTABLE QUILTER „ 11	12 NEEDLES.
1 TRIMMER „ 12	1 WRENCH.
1 ADJUSTABLE BINDER „ 13	1 SCREWDRIVER.
1 CORDER „ 14	1 OIL CAN.
1 STRAIGHT GUIDE ... „ 15	1 BOOK OF INSTRUCTIONS.
1 SCREW for STRAIGHT GUIDE.	1 BOTTLE OF OIL.
1 COARSE NEEDLE PLATE.	1 SHUTTLE SCREWDRIVER.

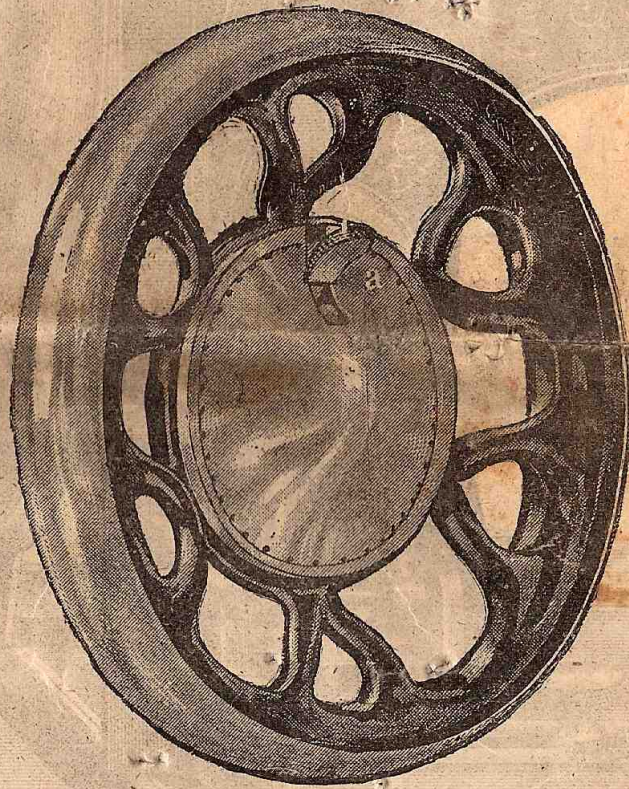


Fig. 1.

TO WIND THE BOBBIN OR SPOOL.

Disconnect the fly-wheel by pulling out catch A. (Fig. 1) place cotton on spindle nearest fly-wheel, as shown on Fig. 2, pass the cotton round disc of winder, then through slot at top, bringing cotton down at back of winder-slide. Thread cotton in hole at end of bobbin, place bobbin in winder nearest pulley first, draw plug out to catch other end of reel, place thread controller against bobbin, and turn fly-wheel towards you and wind until full.

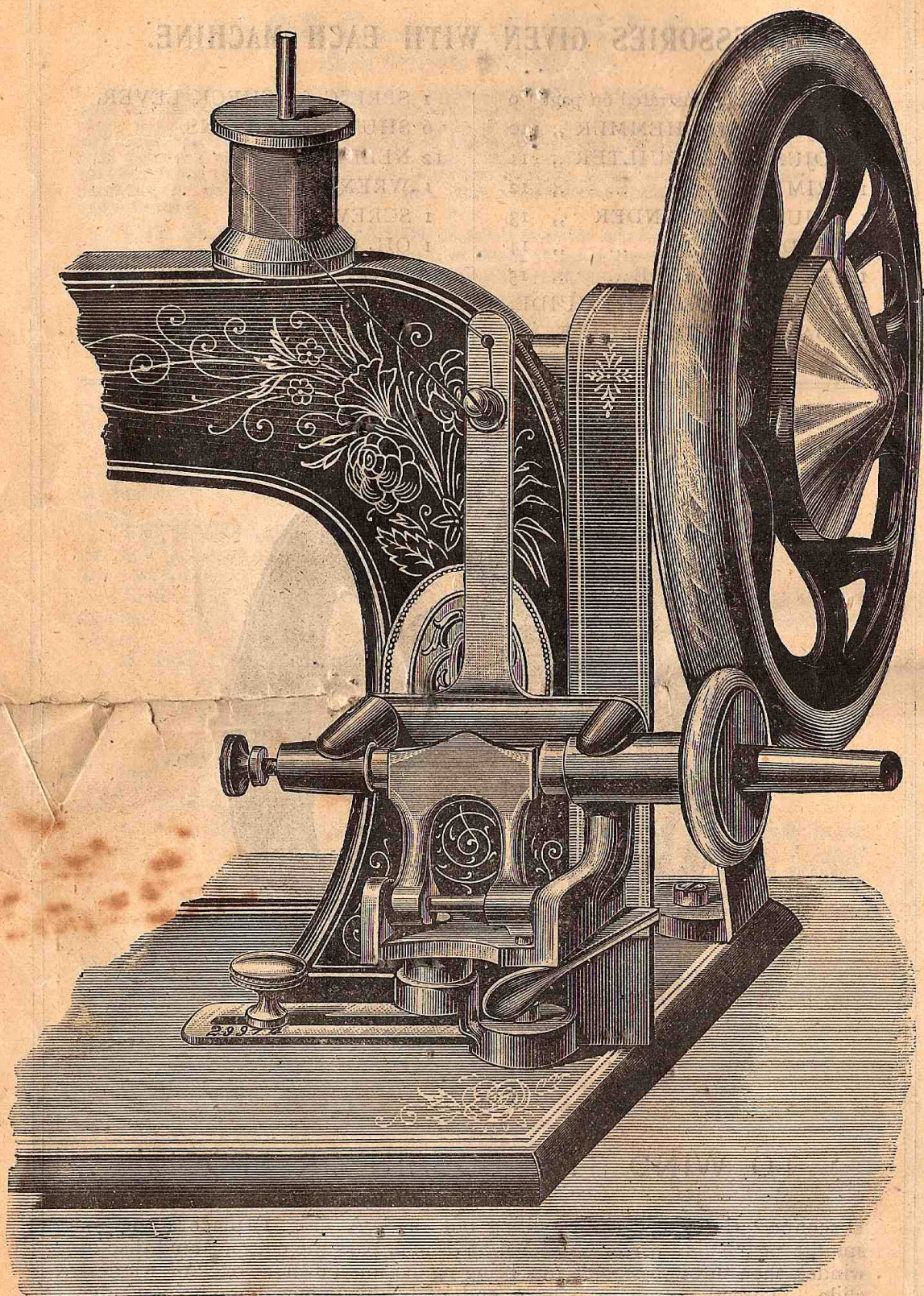


Fig. 2.

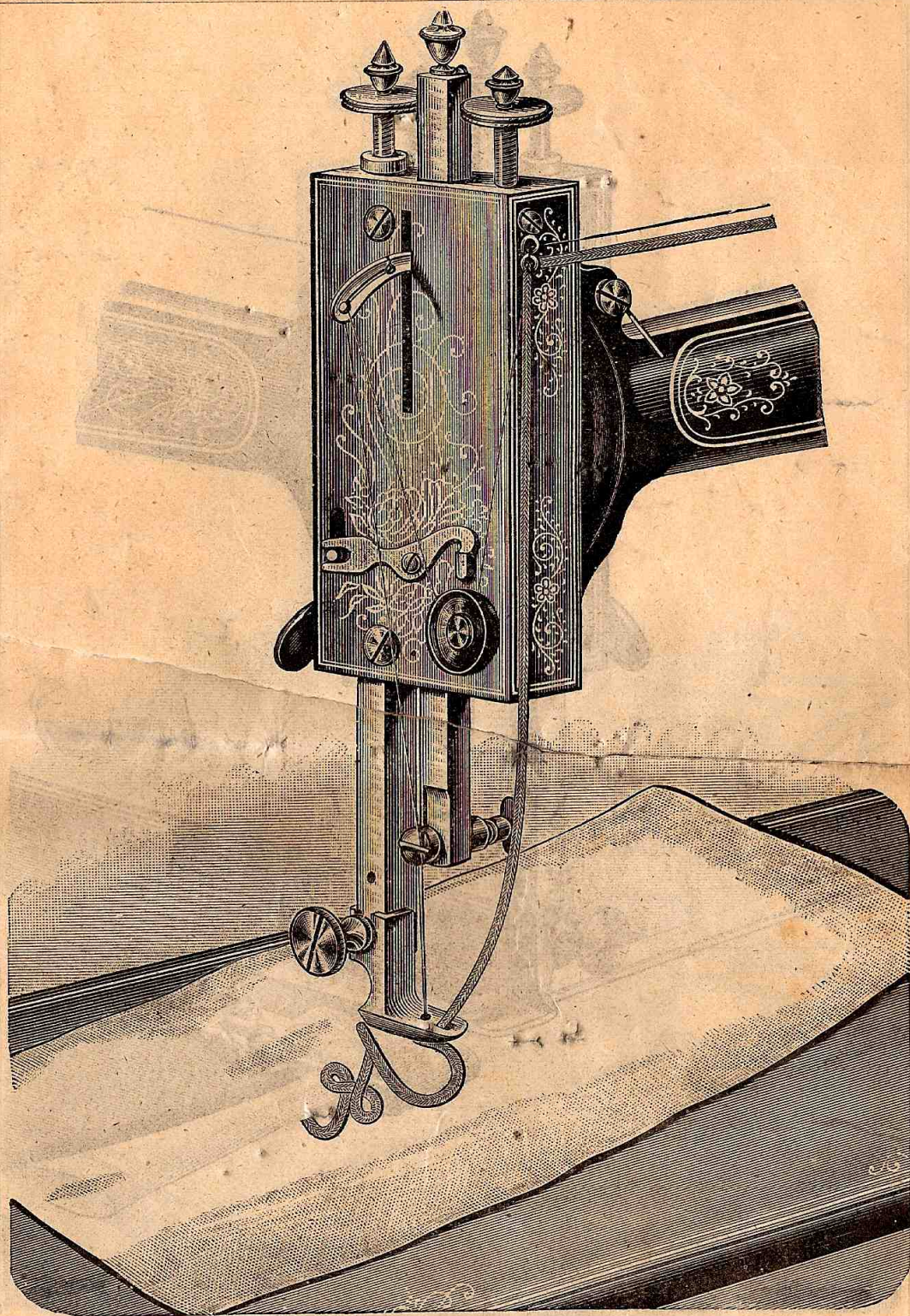


Fig. 3.—BRAIDER.

Adjust the braider to the presser-bar, pass the braid 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 needle. Stamp or trace the design on the fabric, and guide it as required.

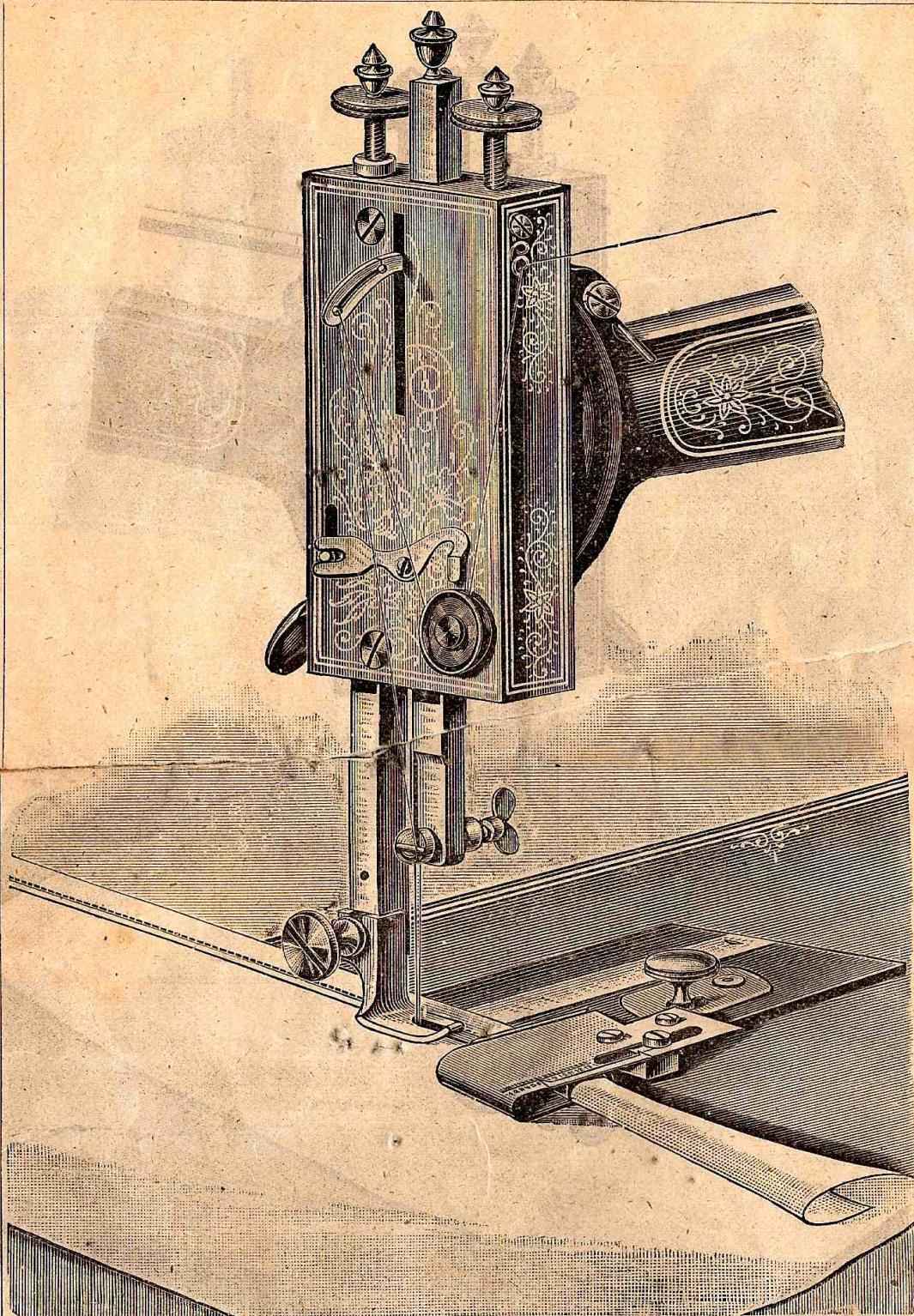


Fig. 4.—THE ADJUSTABLE HEMMER, FOR NARROW AND WIDE HEM.

Secure the hemmer to bed of machine, as illustrated. Raise the needle and presser-foot, and turn the edge of the cloth as shown. Put it into the hemmer, and draw it along to the needle. Lower the presser foot and commence to sew. Hold the edge of the material between the thumb and finger, and allow it to curl into the hemmer as shown. This hemmer will be found to answer extremely well, and to meet the requirements of a family dressmaker, &c.

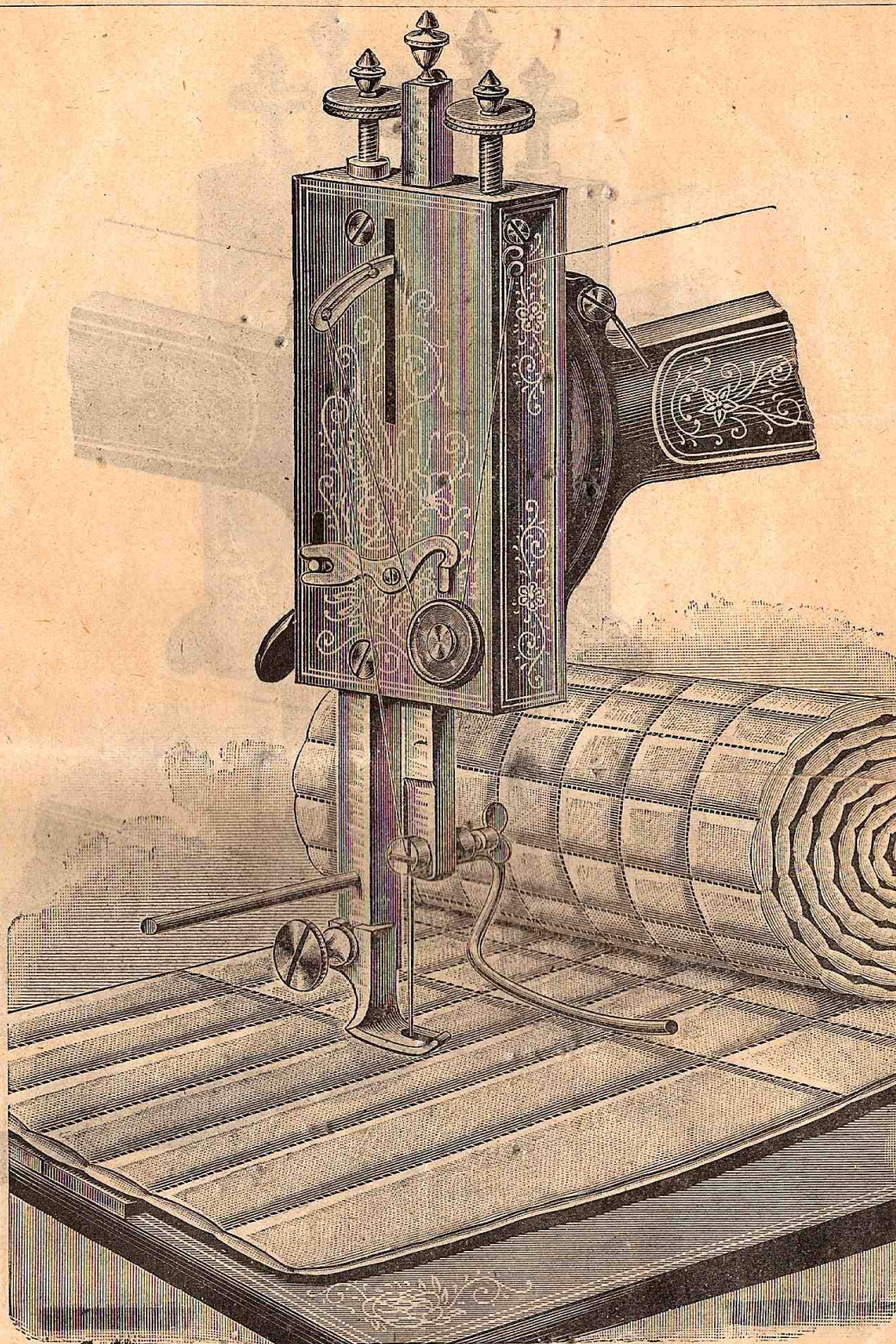


Fig. 5.—QUILTING GUIDE.

The Quilter is specially suitable for sewing through anything wadded, and enables you to sew in lines equal distances apart, and symmetrical squares, without tracing them first. The Quilter is put from the right into the hole of the presser-bar, so that the curved arm is turned to the right, and then fixed by the screw (Fig. 5). *To use the Quilter.*—First make a straight line, and fix the Quilter as far from the needle as the single lines are to be distant from each other, so that its lower part is pressed into the line worked first, then sew the second line, when the material will scarcely need any guidance, because the Quilter runs along the first line as in a groove. The Quilter should not be placed low enough to prevent the work passing along.

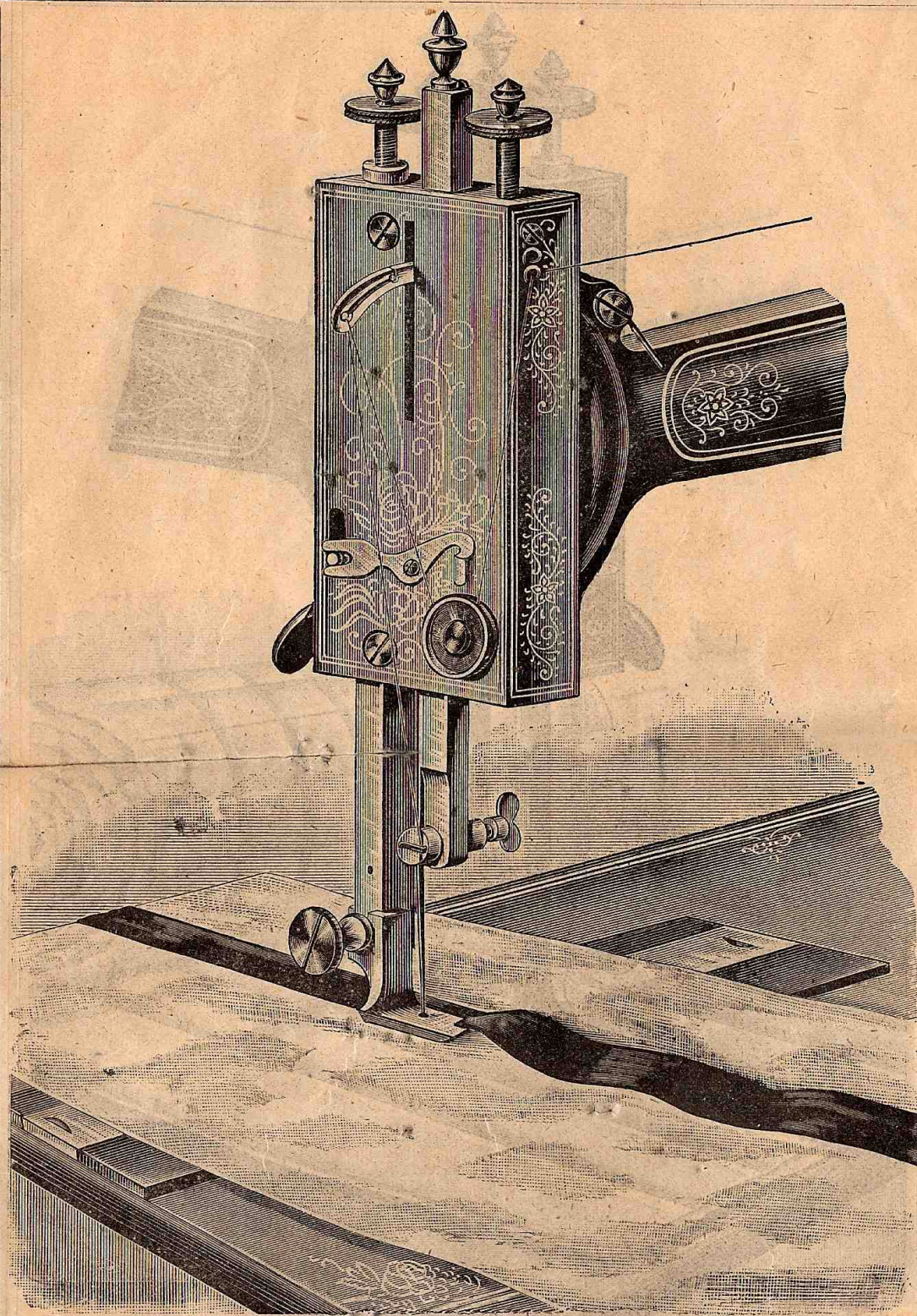


Fig. 6.

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.

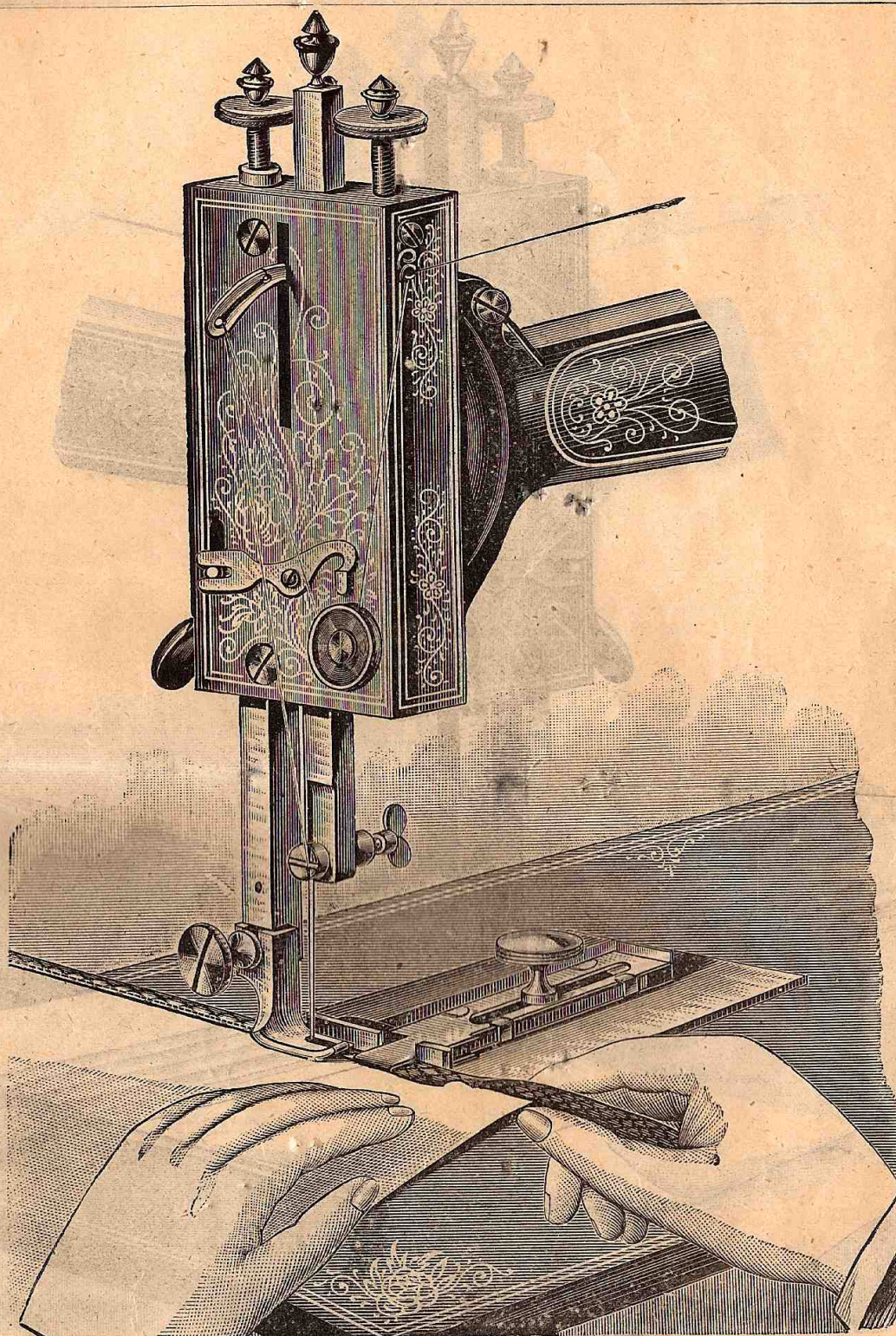


Fig. 7.—ADJUSTABLE BINDER.

Screw the binder on to bed of machine with thumb-screw. Before fastening securely, fold the braid in half and slide between the hooks, regulating it to width required, then see the edge of braid comes exactly under the needle, then pass your material between the braid, lower the presser-foot and commence sewing, holding material well up into the braid. Care should be taken that the thumb-screw is screwed down tight before commencing to sew.

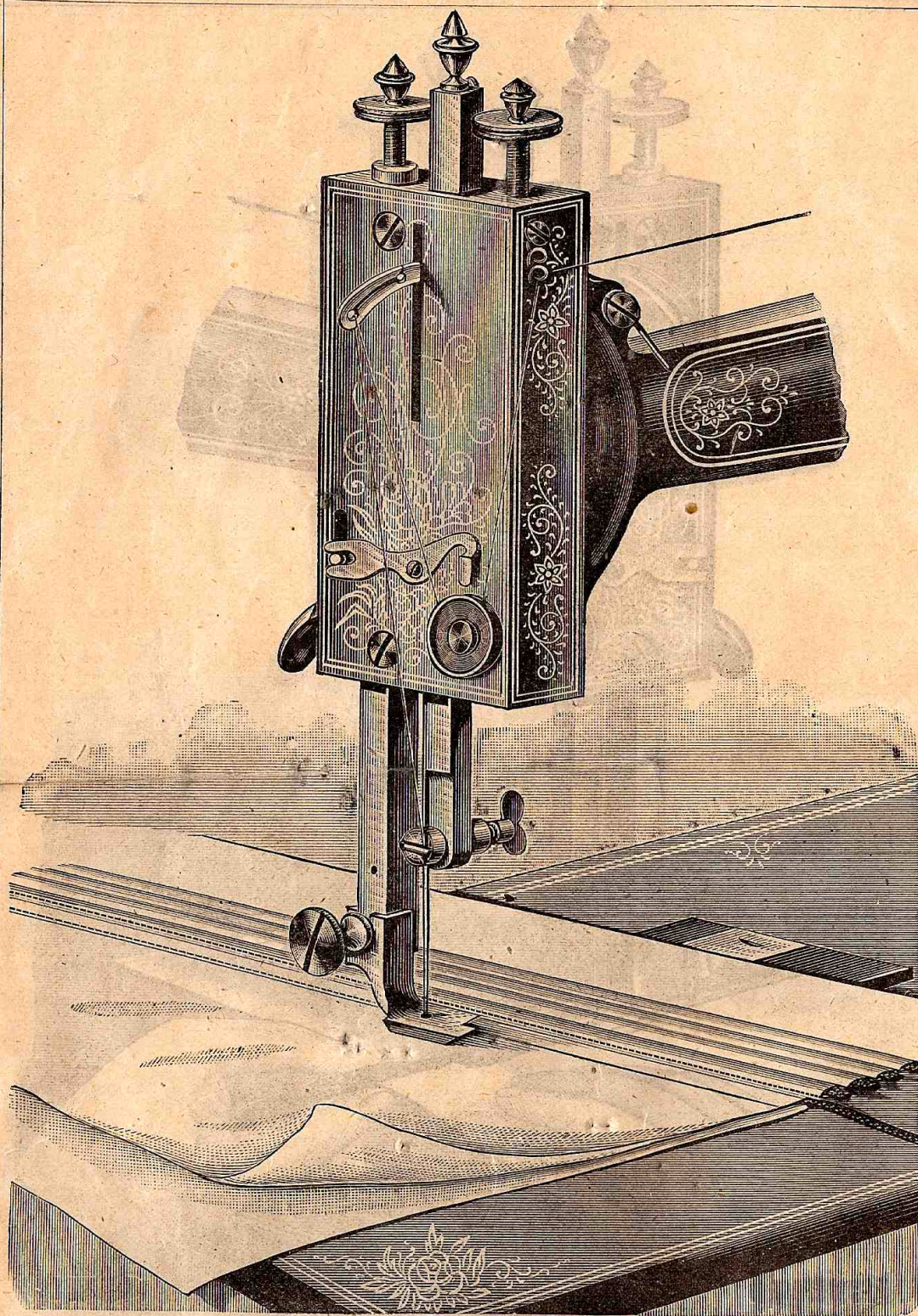


Fig. 8.—CORDER.

Adjust the corder-foot to the presser-bar, pass the cord in the groove under foot. The seam along which the first cord is to be placed is stitched as usual, then put the cord between the two materials and move with a knitting-needle from the outside so firmly against the seam first sewn, that it appears quite round on the upper material. (Especially if corners are to be sewn, the cord must be placed very firmly into same). Then place the fabric below the foot so that the cord gets into the first slot at the foot near the stitch-hole, and commence sewing.

It is of great importance to stitch as close to the cord as possible to get the latter properly fixed.

With a second, third, &c., that you want to add, proceed in the same manner as with the first, and every time place the cord that is still to be inserted into the slot that is near the needle.

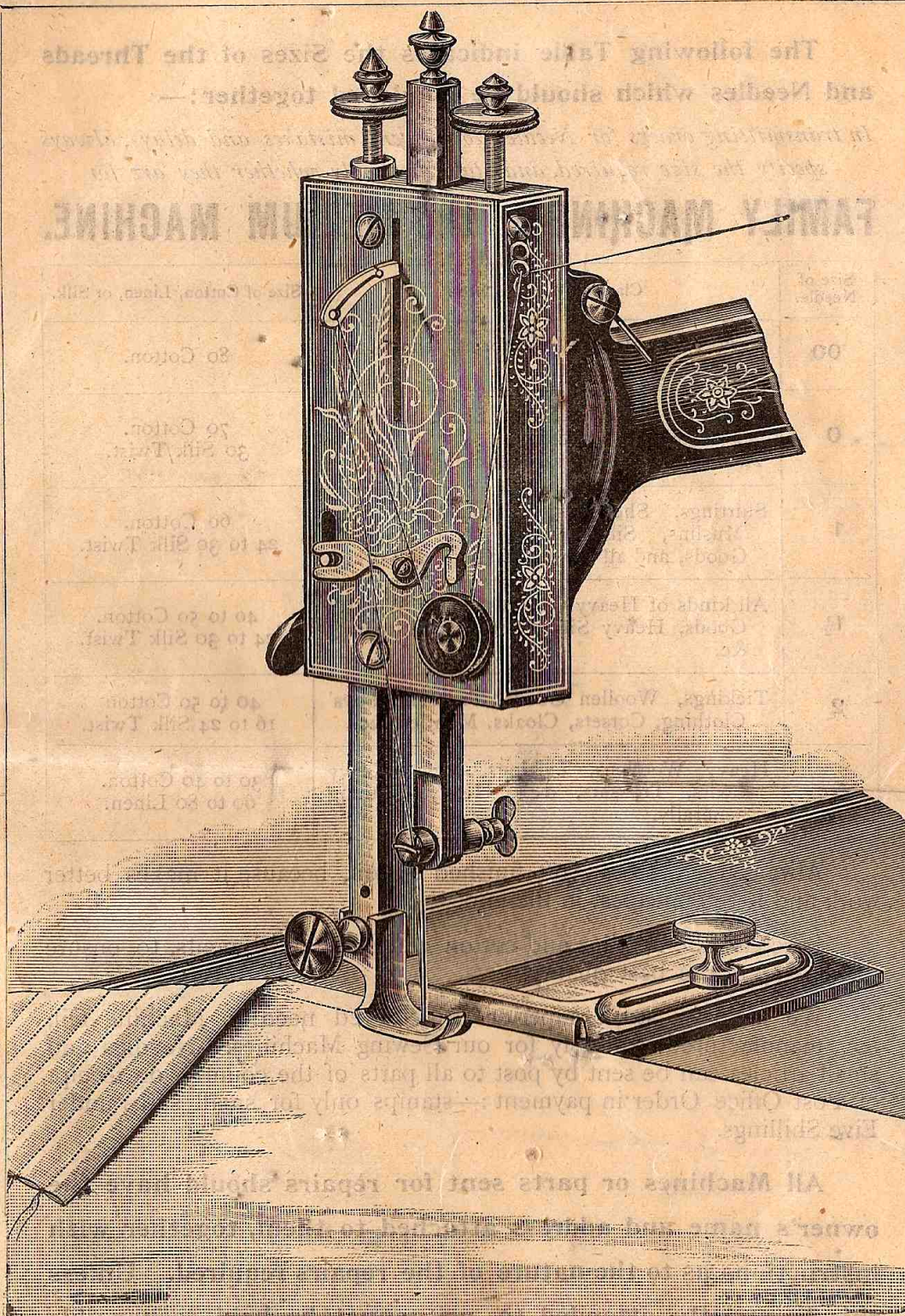


Fig. 9.

THE TUCKING GUIDE.

The Tucking Guide, as shown above, is used for straight sewing and tucking, the width of which can be regulated by means of the slot in the guide.

The following Table indicates the Sizes of the Threads and Needles which should be employed together:—

In transmitting orders for Needles, to prevent mistakes and delays, always specify the size required, and state distinctly whether they are for

FAMILY MACHINE or the MEDIUM MACHINE.

Size of Needle.	Class of Work to Sew.	Size of Cotton, Linen, or Silk.
00	Very Fine Muslins, Cambrics, Linen, &c. Tucking and Stitching.	80 Cotton.
0	Very Fine Calicoes, Linen, Linen Shirtings, Fine Silk Goods, &c. Tucking, Hemming and Stitching.	70 Cotton. 30 Silk Twist.
1	Shirtings, Sheetings, Bleached Calicoes, Muslins, Silks and General Domestic Goods, and all classes of General Work.	60 Cotton. 24 to 30 Silk Twist.
1½	All kinds of Heavy Calicoes, Light Woollen Goods, Heavy Silks, Seaming, Stitching, &c.	40 to 50 Cotton. 24 to 30 Silk Twist.
2	Tickings, Woollen Goods, Trousers, Boys' Clothing, Corsets, Cloaks, Mantles, &c.	40 to 50 Cotton 16 to 24 Silk Twist.
3	Heavy Woollens, Tickings, Bags, Heavy Coats, Trousers, &c. Heavy Clothing generally.	30 to 40 Cotton. 60 to 80 Linen.

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

Purchase the needles and cotton at our establishments, to ensure their being of the best quality.

We keep in stock superior drilled-eyed needles, Machine Oil, &c., manufactured expressly for our Sewing Machines. Needles and small articles can be sent by post to all parts of the country, on receipt of Post Office Order in payment:—stamps only for small sums under Five Shillings.

All Machines or parts sent for repairs should have the owner's name and address attached to them, together with instructions as to the nature of the repairs required. Unless this be strictly attended to, we cannot be held responsible for the safe return of any Machine.

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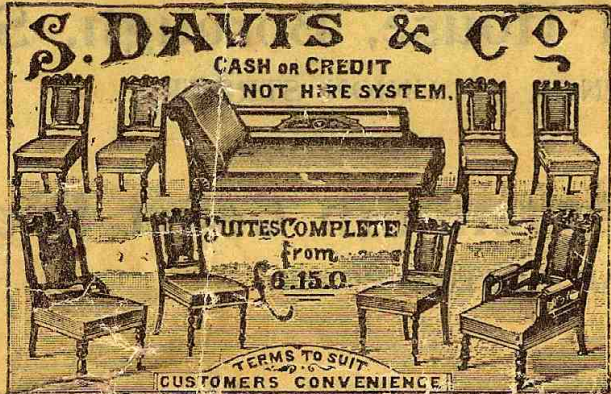
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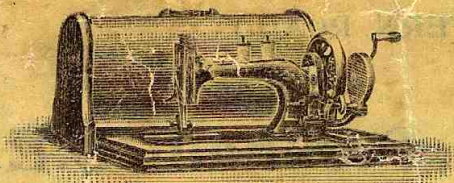
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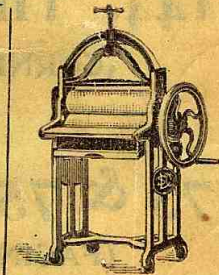
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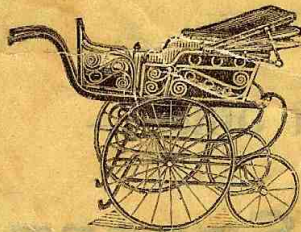


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