

DIRECTIONS FOR USING SINGER'S PATENT

Straight-Needle

SEWING

For Family and Light Manu-
facturing Purposes.



Transverse Shuttle

MACHINES

Secured by Seventeen Distinct
patents.

1. The Machine, when constantly used, **MUST BE OILED THREE TIMES A DAY.** The small holes are oil-holes, which lead to places where there is friction. There are twenty-one places about the Machine and Stand to be oiled. A little oil must be put on the needle-bar, and also on the check-spring, where it rubs the wire, and on every place where one part rubs against another. The Shuttle-race must be kept clean, and requires to be slightly oiled once a week. The slide of the shuttle-drive must be well oiled. At the foot of the stand (or arm), where it is secured to the table of the machine, will be found an oil-hole, which leads to the crank on the upright shaft. To oil it properly, it will be necessary to move the Machine forward till the center of the shuttle, in its backwards movement, is directly opposite of the needle, when the crank-pin will be directly under the oil-hole. **THE BEST SPERM OIL, AND NOTHING ELSE, SHOULD BE USED.**

2. The spooler must also be oiled, as well as the back-centre of the little shuttle spool, when it is being filled. A small cord will be found on the spooler; by placing it on the small brass pulley and then around the balance-wheel, it will work the spooler. Care should be taken in winding the bobbin, or small shuttle-spool, to have the thread lie even and tight on it.

3. When operating the treadle, the centre of the foot must be placed directly over the cross-piece upon which the treadle rests, so that both heel and toe may be used in turning the Machine. By this means, a uniform motion may be given, and a great saving of labor obtained. This arrangement of the treadle also enables the operator to stop the Machine after making a single stitch, when necessary. The balance-wheel on top of the Machine-stand in starting the Machine, must be turned towards the operator.

4. Setting the Needle.---In the edge of the needle-bar will be found a mark---a distinct line graved into the metal. In setting the needle, first move the needle-bar, so that the line, or mark, is even with the top of the arm. Put a small piece of white thread through the eye of the needle, then place the needle in the small groove fitted for it in the lower end of the needle-bar, and between that and the clamp, taking care to have that side of the needle having the long groove in it toward you, and the side having the short groove facing the shuttle. Then, holding the needle, by pressing gently against the clamp with the fingers, bring the point of the needle down through the small hole passing into the shuttle-race, so that the eye of the needle shall be exactly even with the surface of the steel throat over the shuttle race. The white thread in the needle-eye will show distinctly when the needle is in this position. When you thus have the needle in its proper position, screw it firmly in its place. The needle being secure, if it should not be exactly perpendicular, raise it to the highest point, and taking hold of it about the eye, gently spring it until the point will strike the middle of the hole in the steel throat, through which it passes into the shuttle-race. Then move the needle down to its lowest point, by slowly advancing the Machine until the shuttle is alongside of the needle; and if the needle is close to the shuttle, within the thickness of the thread intended to be used, then the needle is right; but the needle must not touch the shuttle, nor stand away from it further than about the thickness of the thread. If the needle does not stand so at first, raise it to its highest point, and cautiously spring it, until it will have the required position. The shuttle must be removed while the needle is being set and secured, and not put ill till the final adjustment, as described.

5, Threading the Shuttle.--The thread from the shuttle... bobbin must first be passed through the hole nearest the blunt end of the shuttle, and from thence through as many of the holes as shall be necessary to produce the degree of tension required; and, lastly, in all cases the thread must lead through the hole nearest the point of the shuttle, Should the thread come *out* of the hole nearest the point of the shuttle, it must be passed under the thread-guide on top of the shuttle; but should the thread go into the hole above spoken of, it must first be passed out through the slot or long hole, and then under the thread-guide. In all cases the thread must be passed at last under the thread-guide on top of the shuttle. One part of the thread should never be allowed to *override* the other. Before commencing to sew, the shuttle-thread must be drawn through the throat, and laid across the feed under the work to be sewn. To place the bobbin in the shuttle, put one point of the bobbin into the small hole on the spring in the point of the shuttle, and slide the other point into the groove in the blunt end of the shuttle until the point of the bobbin springs into the small hole at the end of the groove. The thread must always run *over* the bobbin toward the top of the shuttle. The new spring shuttle, and no other, is intended to be used in this Machine.

6. Threading the Needle.--The operator must observe particularly in what manner the needle is threaded when the Machine is first unpacked, and afterward do it in the same way. But should the thread get misplaced, the following is a description of the proper method: The spool being placed on its spindle, pass the thread through the eye at the end of the tension wire, and thence through the eye at the end of the *check-spring lever*; then hook the two parts of the thread--namely, that ascending to the check-spring lever from the tension-wire, and that descending from the check-spring lever to the needle, into the hook at the lower end of the wire-staple on the face-plate. Next, pass the thread through the hole or eye in the lower end of the needle-bar, and through the eye of the needle. Regulate the tension by turning the wing on the tension wire over toward the operator. Take care that the threads are not crossed or wound, round each other in the hook above spoken of.

7, The Check-Spring Lever. --Near the top of the bar which carries the needle, at the highest point of the Machine, is a wire, placed in a horizontal position, working in a joint or hinge at one end, and having an eye at the other end, through which the thread passes, This wire is moved by a spring working under it, and passes between two wire staples; one of these staples is fixed by a set-screw to the upper end of the needle-bar, and the other is attached by a set-screw to the upper part of the face-plate. To adjust in its proper place the staple upon the face-plate, the Machine should be moved till the needle-bar reaches the highest point, and resting there, the staple upon the face-plate should be moved downward, until it brings the horizontal wire, before described, within the thickness of a sheet of paper of the top of the needle-bar; then this staple should be screwed tight in its place, The wire-staple upon the needle-bar may be adjusted to its proper position by first putting a white thread in the eye of the needle, and a piece of fine broadcloth, doubled, in the place to be sewed. Then move the Machine until the needle descends, so that the needle-eye is directly at the upper surface of the cloth (the white thread will make that plainly visible); then, resting there, bring the staple of the needle-bar in contact with the upper surface of the horizontal wire first spoken of, and then screw this staple firmly in its place. After this is done, upon moving the Machine forward, it will be seen that the effect of this needle-bar staple is to hold the thread strained, and prevent all possibility of its tangling, until the eye of the needle reaches the upper surface of the cloth; and then, at that instant, to relieve the thread from all strain, so as to avoid chafing it by the action of the needle-eye in its rapid passage through the cloth. This staple on the needle-bar performs another important office; it will be perceived that this staple is bent to the right, or toward the hinge of the horizontal wire. The effect of this inclination of the needle-bar staple is to cause it to act on the horizontal wire nearer its hinge or fulcrum, which arrangement causes that end of the horizontal wire having the eye through which the thread passes, to descend faster in proportion as this staple is inclined more toward the right; and the consequence of this is, to form the proper degree of slack thread, so that, after the needle has gone down to its lowest point, and slightly reacted to form a loop, the shuttle may pass through the loop without difficulty, These wires are intended to be so arranged, that whilst the shuttle is passing through the loop, no slack thread may be drawn from the spool which supplies the needle.

Each of the Machines will be furnished with an extra spring for the check-spring lever. One of these can be removed, and the other substituted, by the operator, in half a minute. These two springs are made of different sized wire, and possess different degrees of power. The lighter spring is sufficient for all ordinary light work, for heavy work, the stiffer spring must be used. Underneath the check-bracket are three separate holes to receive one end of these springs. Placed in the hole nearer the front of the Machine, the spring exerts the most power.

The general result and effect of this beautiful invention of the check-spring is, to insure a more exact and uniform tension on the needle-thread, and to enable the Machine to be run at a much higher rate of speed without danger of breaking the thread, than with any other contrivance hitherto known. The ease with which it may be adjusted and kept in perfect working order is also a great advantage.

To insure a perfect seam, the tension on the needle thread should always balance the force of the spring on the check-lever, so that the needle-bar, in its upward motion, should take the thread from the spool for the next stitch, instead of the spring.

8. Directly in front of the Machine will be perceived a spring, with one end entering into a small hole in the face-plate which holds the needle-bar and the foot-bar, and the other passing through a hole in the foot-bar. The power of this spring is graduated by changing one end in the different holes in the foot-bar. Heavy goods require more pressure than light goods. To change this spring to the required pressure, it must be pressed down from the top first, and then removed from the hole in the foot-bar. To replace it, it must first be placed in the required hole in the foot-bar, and sprung into its place in the face-plate.

9. *Feed Motion.*--Directly in front of the operator, and under the border of the table, will be found a set screw for adjusting the length of the stitch, To lengthen the stitch, the screw must be turned to the left or unscrewed; to shorten, turn in an opposite direction. To prevent this screw from working loose, from the action of the Machine, there is an inclined plane underneath the screw, which may be tightened by forcing against the end of it. A whole for that purpose will be found directly under the border of the Machine, at right angles with the adjusting screw.

10. When you wish to take goods from the Machine, after being sewed, always raise the needle to its highest point, and let it rest there; then raise the steel foot that presses down the cloth; then take bold of the thread, just above the needle-clamp, and draw about two inches of thread from the spool, so the thread may pass freely through the needle-eye, without springing the needle; then take bold of the goods with the left hand, and draw them gently from the left side of the Machine about two inches, and with a scissors cut both threads at the same time, A strict observance of this rule will save the breaking of many needles.

11. *Tension of the Two Threads.*--To make an ordinary tight seam, the two threads should be drawn, as nearly as may be, to the centre of the cloth; and to make a fair stitch on the upper side, the needle-thread should not be quite so tight as the shuttle-thread, The tension of the needle-thread may be increased by turning the clamp on the steel wire over toward the operator, or diminished by turning the clamp backward, It may thus be adjusted with the most minute accuracy. First, fix the draw or tension of the shuttle-thread as you want it, and then adjust the tension of the needle-thread, so as to match or balance that of the shuttle.

12. *The Driving Belt.*--The belt which communicates motion to the Machine should always be tight enough to move the Machine without slipping, and no tighter than is requisite to perform that office. Should it become too loose, it may be tightened to a certain extent by unscrewing the nut which holds the stud on which the large wheel revolves, When the nut is thus loosened, pull the large wheel backward, so as to make the belt tighter; hold it fast until the nut is screwed back so as to hold the wheel firmly. Should the belt happen to stretch beyond the capacity of the adjustment last described to tighten it, then the belt must be shortened.

13. If at any time the Machine appears to run too hard, it may be presumed that some part which requires oiling has not been oiled. Wherever one part rubs against another, oiling is necessary.

14. *Hemming-Gauges.*--The adjustable hemming-gauge is attached to the foot-bar of the Machine with a screw, the presser-foot resting firmly on the top. It should be adjusted in such a manner, that the needle will pass through the centre of the hole in the hemming-gauge. When not required, the gauge may be removed by turning the screw back far enough to disengage it, without entirely removing the screw. The screw may be always left in its place in the foot-bar. To commence a hem, first raise the foot-bar to its highest point, letting it rest there until the goods to be hemmed are passed through the gauge. The edge to be hemmed must be passed under the gauge, and brought up through the opening between the steel spring and tongue, being careful that a sufficient quantities of the goods pass through to make a perfect hem, then let down the foot-bar as in ordinary sewing. To commence at the end of the goods, it will be found convenient to pass a thread, with a common needle, through the corner of the goods--passing first the thread through the gauge, drawing the goods gently into the gauge, in the manner above described, as far as the needle, or to the required point for commencing. To make a wide hem, first fold the goods the required depth; pass the goods under the hemmer, and bring the top part of the fold into the hemmer, as above described. The hemming gauge will in all cases be attached to the Machine.

THE SINGER SEWING MACHINES

Our LETTER A FAMILY SEWING MACHINE is fast gaining a world-wide reputation. It is beyond doubt the best and cheapest and most beautiful of all Family Sewing Machines yet offered to the public. No other Family Sewing Machine has so many useful appliances for Hemming, Binding, Felling, Tucking, Gathering, Gauging, Braiding, Embroidering, Cording, and so forth. No other Family Sewing Machine has so much capacity for a great variety of work. It will sew all kinds of cloth, and with all kinds of thread. Great and recent improvements make our Family Sewing Machine most reliable, and most durable, and most certain in action at all rates of speed. It makes the interlocked stitch, which is the best stitch known. Any one, even of the most ordinary capacity, can see at a glance, how to use the Letter A Family Sewing Machine. Our Family Sewing Machines are finished in chaste and exquisite style.

The Folding Case of the Family Machine is a piece of cunning workmanship of the most useful kind. It protects the Machine when not in use and when about to be operated may be opened as a spacious and substantial table to sustain the work. While some of the Cases, made out of the choicest woods, are finished in the simplest and chastest manner possible, others are adorned and embellished in the most costly and superb manner.

It is absolutely necessary to see the Family Machine in operation, so as to judge of its great capacity and beauty.

It is fast becoming as popular for family sewing as our Manufacturing Machines are for manufacturing purposes.

MACHINES FOR MANUFACTURING PURPOSES.-These Machines are now in general use for BOOT AND SHOE MAKING TAILORING, STAY MAKING, CAP MAKING, DRESS MAKING, ARMY CLOTHING, HARNESS MAKING, CARRIAGE TRIMMING, and so forth..

OUR NO. 2 MACHINES ARE THE ONLY MACHINES THAT HAVE EVER BEEN SUCCESSFULLY INTRODUCED FOR MANUFACTURING PURPOSES.

Our No.3 Machines (with Vibrating Presser, which is indispensable for heavy patent leather work,) are especially adapted to all kinds of light and heavy Leather Work, in Carriage Trimming, Boot and Shoe Making, Harness Making, etc, etc. They are of extra size, with an arm long enough to take under it and stitch the largest sized carriage dashes. There is scarcely any part of a Trimmer's stitching that cannot be better done by them than by hand; so, too, the saving of time and labor is very great. The table of these-Machines is 24 inches long, and the shuttle will hold six times as much thread as the shuttle of those used for tailoring purposes. The large machines work as fast as small ones.

The public have been swindled by spurious machines made in imitation of ours. The metal in them, from the Iron casting to the smallest piece is of poor quality. It is only by doing a great business, and having extensive manufacturing establishments, that good machines can be made at moderate prices. The best designed Machines, BADLY MADE, are always liable to get out of order, and are sure to cost considerable trouble and money to keep them in repair.

The qualities to be looked for in a Machine are: certainty of correct action at all rates of speed, simplicity of construction, great durability, and rapidity of operation, with the least labor. Machines, to combine these essential qualities, must be made of the best metal and finished to perfection. We have the ways and means, on a grand scale, to do this.

The purchasers of Machines, whose daily bread it may concern, will find that those having the above qualities not only work well at rapid as well as slow rates of speed, but last long in the finest possible working order. Our Machines, as made by us, will earn more money with less labor than any others, whether in imitation of ours or not. In fact they are cheaper than any other machine as a gift.

SILK TWIST, THREAD, OIL, &c. &c. &c.--Our Branch Offices are supplied with Binding and Hemming Gauges, Silk Twist, Linen and Cotton Thread on spools, Oil of the very best quality, as well as all other things necessary in the use of our Machines.

NEEDLES.-We manufacture our own Needles, and would warn all persons using our Machines not to buy any others. We know that there are needles sold of the most inferior quality, at higher prices than we charge for the best. The needles sold by us are manufactured specially for our Machines. A bad or unsuitable needle may render the working of the best machine almost useless.

Our customers may rest assured that all our Branch Offices are furnished with the "genuine article."

IN CASE OF SMALL PURCHASES, the money may be sent in postage stamps, currency or bank notes. Persons sending orders for silk, thread and needles, by mail or otherwise, must always send the money with the order. We keep no open accounts of these articles, on account of the great multiplicity of small orders we are constantly receiving. By the needles and postage stamps we can make the change correctly, whatever sum may be sent us.

NOTICE TO CORRESPONDENTS.--- Correspondents will please write their names distinctly. It is all important that we should; in each case, know their Post Office, County and State. All persons having business with our BRANCH OFFICES, will please address their letters to THE SINGER MANUFACTURING COMPANY.

Send for a Pamphlet and Price List.

THE SINGER MANUFACTURING COMPANY,
468 Broadway, New York.