

BOOK D No. 3



ILLUSTRATED DIRECTIONS

FOR OPERATING

NEW IMPROVED

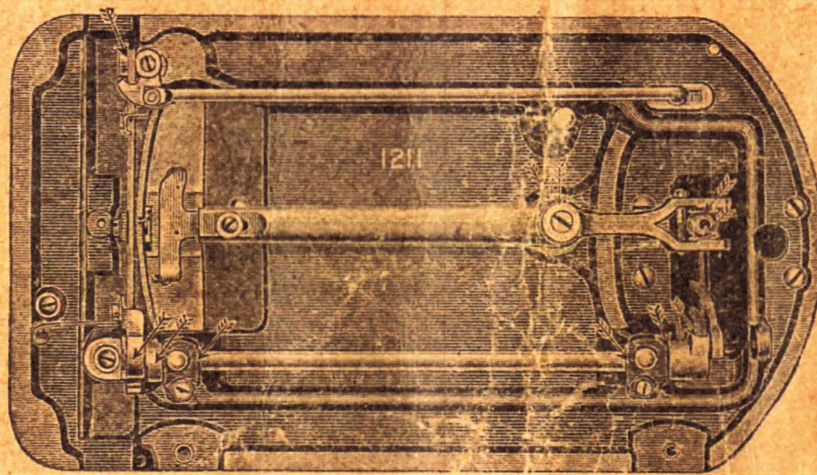
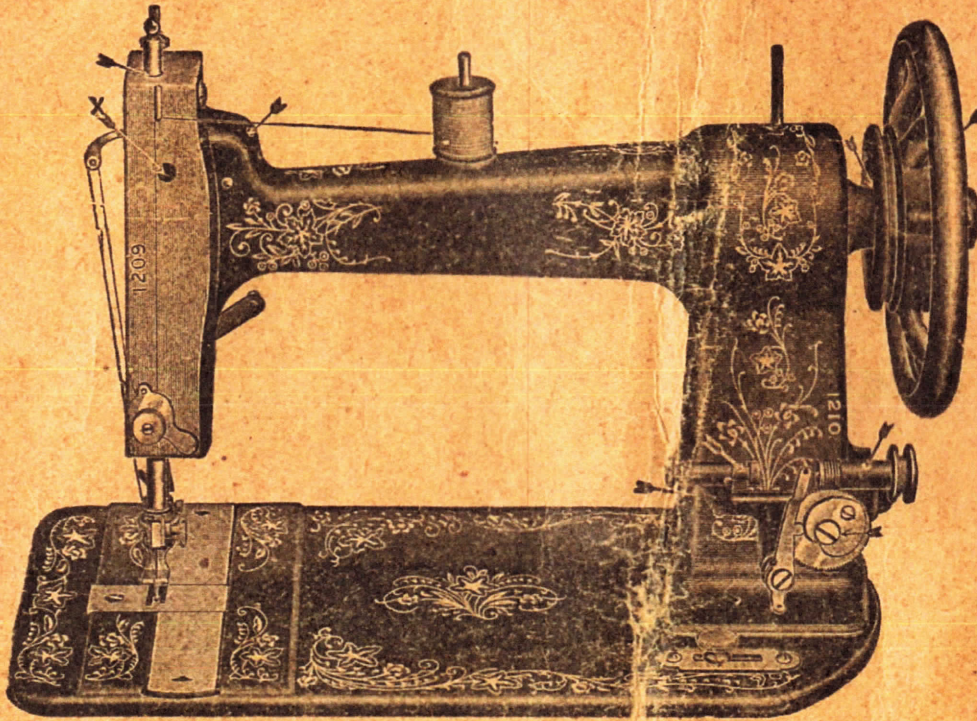
Family Sewing Machine



A. G. Mason Mfg. Co.
CLEVELAND, O.



INSTRUCTIONS FOR OILING THE MACHINE.



The Arrow Indicates Places where Machine Head is to be Oiled.

DIRECTIONS FOR OPERATING

... THE ...

New Improved Family Sewing Machine.

Before the Machine leaves our hands it has been minutely inspected, and every mechanical defect corrected; it has been tested with various sizes of thread and found to work satisfactorily in every respect.

When unpacked the Machine should be found in complete running order, as it came from the hands of the inspector.

Instructions for Oiling the Machine.

SEC. I. This is the most important rule to be observed, for care in oiling the bearings insures durability and ease of motion, and prevents premature wear.

Oil all points indicated by arrows; raise the needle bar to its highest point when oiling the place with mark X.

To oil the Stand: Oil the bearings at each end of the treadle and at each end of the pitman, and at each end of the Drive Wheel Stud. After oiling both the Stand and Head of Machine, run the same rapidly for a few moments with the Presser Foot up, and the Shuttle out. Then wipe off all superfluous oil before commencing to sew.

If these instructions are followed, the Machine will always run freely. Should it become gummed from disuse, oil thoroughly with kerosene oil to soften the gum. Then wipe clean and oil with best quality of sewing machine oil, as above instructed. Caution: Always use the best sewing machine oil. If this is done the Machine will always run lightly.

To Work the Machine.

SEC. 2. The first thing to be learned in running a sewing machine is the *uniform motion* of the Treadle. To do this, first unthread the Machine and remove the Shuttle by drawing out the front Plate, or Slide; and take it out. Raise the Presser Foot by drawing the Presser Foot Lifter, at the back of the Face Plate, to the right. Place the feet on the Treadle directly over the Cross-piece on which it rests, so that both heel and toe may be used in turning the Machine; then take hold of the Hand Wheel and turn it toward you, *allowing the foot to move freely with the motion thus imparted*, and continue the motion by the pressure of the heel and ball of foot alternately until a regular motion is acquired; and until this is done sewing should not be attempted.

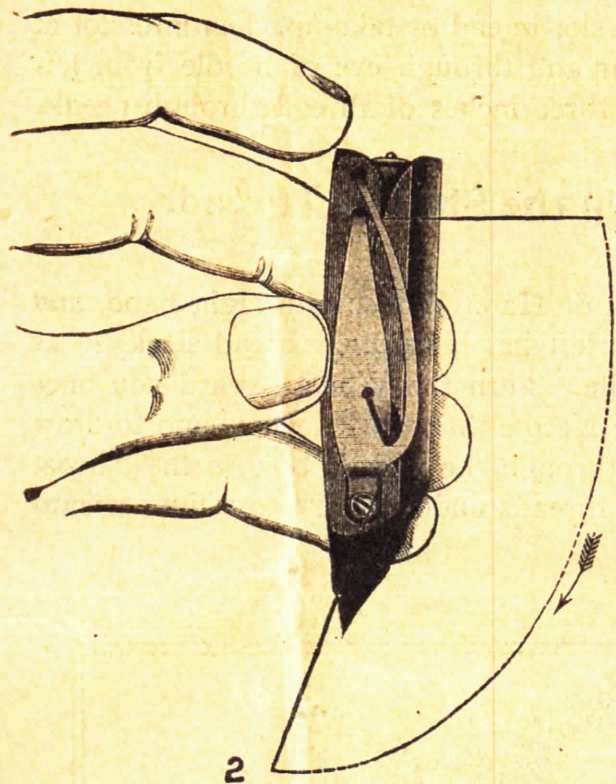
To Set the Needle.

SEC. 3. First loosen the Needle Screw by turning it toward you, and insert the Shank of the Needle in the hole in the lower end of the Needle Bar, pushing the Needle up as far as it will go, with the *flat* side of the Needle toward the Needle Set Screw. Then tighten it in position. Follow instructions, and it is *impossible* to set the Needle wrong. See that the Needle passes down to the right in the hole in the Throat Plate and centrally from front to back.

To Wind the Bobbin.

SEC. 4. Slip the latch out of the notch in Hand Wheel, put the belt behind the Bobbin Winder pulley into the groove of same. Run the Winder until the top end of Thread Guide is to the extreme right. Pinch the end of thread between the right hand end of Bobbin and Winder; now pass the thread into slot at top end of Thread Guide, then down into slot at bottom of same, then back of Winder to Spool Standard. Now turn the spool on Standard until the thread is taut, then start to wind, running the wheel in the same direction as in sewing; you can fill the Bobbin without holding the thread.

DIRECTIONS FOR THREADING.



Take the shuttle in the left hand, the point toward you, holding it as shown in illustration; drop the bobbin into the shuttle and pass the thread into slot, now draw the thread toward you from position 1 to 2 until the thread passes under the lip of tension spring, then pass the thread toward the open end of shuttle.

The shuttle is then ready for use.

To Put Shuttle in Machine.

SEC. 6. Withdraw the front or back Plate Slide, and introduce the point of the Shuttle into the front end of the Shuttle Carrier, drop heel of Shuttle to place, and close the slide. *Never run the machine with the slides open.*

To Remove the Shuttle.

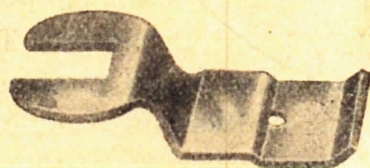
Open the front shuttle-slide to take shuttle from the machine. Do not undertake to turn the machine back on its hinges for oiling with the rear shuttle-slide partly pulled out.

To Thread the Machine.

SEC. 7. Raise the needle bar as high as it will go. Place the spool of thread on the spool standard. Draw the thread to the left, and pass it into thread guide at top of face, then down and from right to left back of tension releaser at lower end of face. Now up through slot in end of take-up, then into slot at lower end of needle bar and through eye of needle from left to right, leaving about three inches of thread through needle.

To Draw Up the Shuttle Thread.

SEC. 8. Take hold of Hand Wheel with right hand, and the Needle thread with left hand, keeping thread slack, so as not to spring the Needle. Turn the Wheel toward you once around, and pull up the Needle thread with your hand to draw the Shuttle thread up through the Needle hole in the Throat Plate. Then pass both threads under the Presser Foot toward back of the Machine.



DIRECTIONS

FOR USING THE FOOT GATHERER

Remove the presser foot and replace with the Gathering Foot.

TO GATHER, PUFF OR SHIRR

Place the goods under the foot the same as in ordinary sewing.

For fine gather use a short stitch.

To increase the fullness lengthen the stitch.

For greater fullness tighten tension.

To Commence Sewing.

SEC. 9. With both threads between the Presser Foot and Throat Plate, and laid back towards back Slide Plate, place the fabric under Presser Foot from the front; then lower Presser Foot by turning Presser Foot Lifter down. Start the Machine with right hand on the Fly Wheel, *always* revolving it *toward* you.

To Regulate the Tension.

SEC. 10. The tension of top thread is adjusted by the Tension Screw, turning it to the right to tighten, and to the left to slacken, the pressure. Care must be taken in regulating the tension of the lower and upper threads. If the tension on either thread is too tight, it will cause the thread to break, and the seam will be puckered. If there is not sufficient tension, the thread will not be drawn into the fabric, but will lie in loops on the under side. When both tensions are properly adjusted both threads are drawn to the center of the fabric, thus:



(Cut G.)

If the Shuttle thread is very tight, and the upper thread too loose, the under thread will lie straight, thus:



(Cut H.)

because there is not sufficient upper tension to draw the under thread in. On the other hand, if the Shuttle thread draws off too easily, and the upper thread is too tight, the under thread will draw up through the fabric, and the upper thread will lie straight, thus:



(Cut I.)

If the Shuttle tension is too tight, loosen by turning the Shuttle Tension Screw (located near the point of Shuttle) to the left. If too loose, turn to the right.

To Lengthen the Stitch.

SEC. 11. The Stitch Regulator Thumb Screw is at the right front corner of the Bed of the Machine under the Bobbin Winder. Attached to this Thumb Screw is an Indicating Point following a scale. To lengthen the stitch, move the Thumb Screw to the right; to shorten it, to the left. *Heavy* cloth or *Woolens* require a much longer stitch than light or cotton goods.

To Turn a Corner.

SEC. 12. Stop the Machine without raising the Needle more than half way out of the work. Raise the Presser Foot and turn the goods in the manner desired, using the Needle as a pivot.

To Remove the Work.

SEC. 13. Have the Needle Bar at its highest point. Then with the fore-finger of right hand press on releaser lever at tension.

Then raise the Presser Foot, take hold of your work with your left hand and pull it directly from you, straight back, keeping the top thread in the slot of the presser-foot, which will prevent bending the needle. Now raise the work and draw the threads into the thread cutter on the presser-bar and pull downward, which will cut the threads the proper length to commence work again.

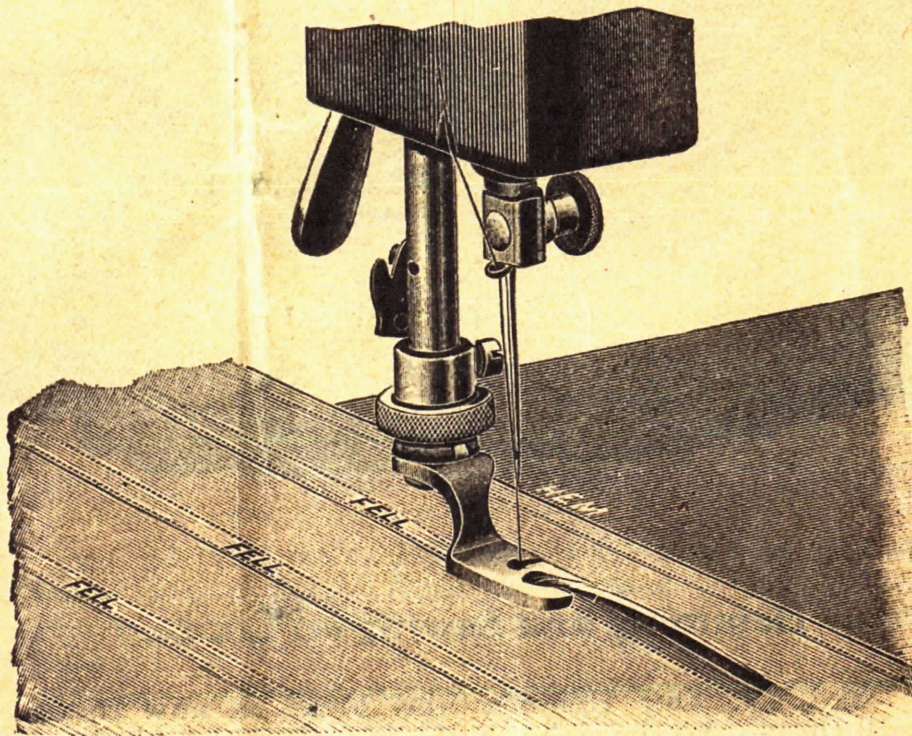
To Sew Heavy Goods.

SEC. 14. To adjust the Pressure of the Foot on the Work:—At the top of the Machine, back of the Needle Bar, will be found a thumb screw, which, by turning to the right, increases, and to the left, decreases, the pressure of the Presser Foot on the work. Heavy goods require more pressure than light. Too much pressure will pucker fine cloth, while too little pressure with heavy cloth will let the Presser Foot rise as the Needle ascends. Care should be taken to adjust the pressure correctly.

To Hem.

SEC. 15. Raise the needle bar to its highest point, unscrew the nut just above the presser foot by turning to the left, until the foot is loosened, when it can be drawn off towards you. Put the Hemmer on in place of the Presser Foot, being sure that the Needle will pass through the center of the hole, and then tighten it on the Bar with the

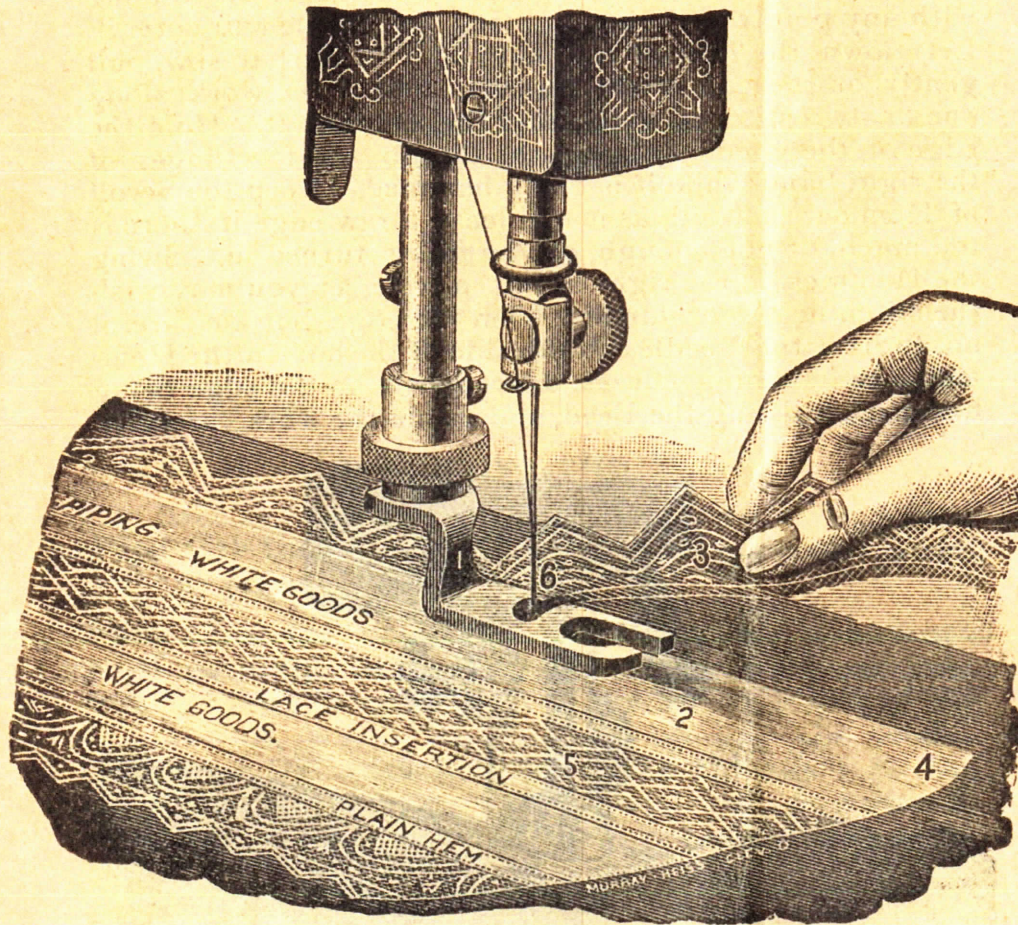
Screw. Clip off the right hand corner of the cloth so that it will get the roll more naturally. Turn up the edge of the cloth about one-quarter of an inch, insert it in the Scroll, or mouth of the Hemmer, and push or draw it along with any pointed instrument, until the Needle will enter it. Let down the Presser Bar, and, as you start to sew, pull gently on the end of the threads, to help the work along one or two stitches, until the Feed catches it. Hold the edge of the goods between the thumb and fore-finger of the right hand while it is being hemmed. Keep the Scroll of Hemmer just full, as it will leave a raw edge if there is too much, or not enough, of the fabric turned in. Swing the Hemmer to the right or left a trifle, as you may wish the stitch nearer or farther from the edge, but be careful not to have the Needle rub the side of the hole in the Hemmer. In hemming curves, draw gently on the edge being hemmed, resisting the Feed, and guide the work carefully.



(Cut J.)

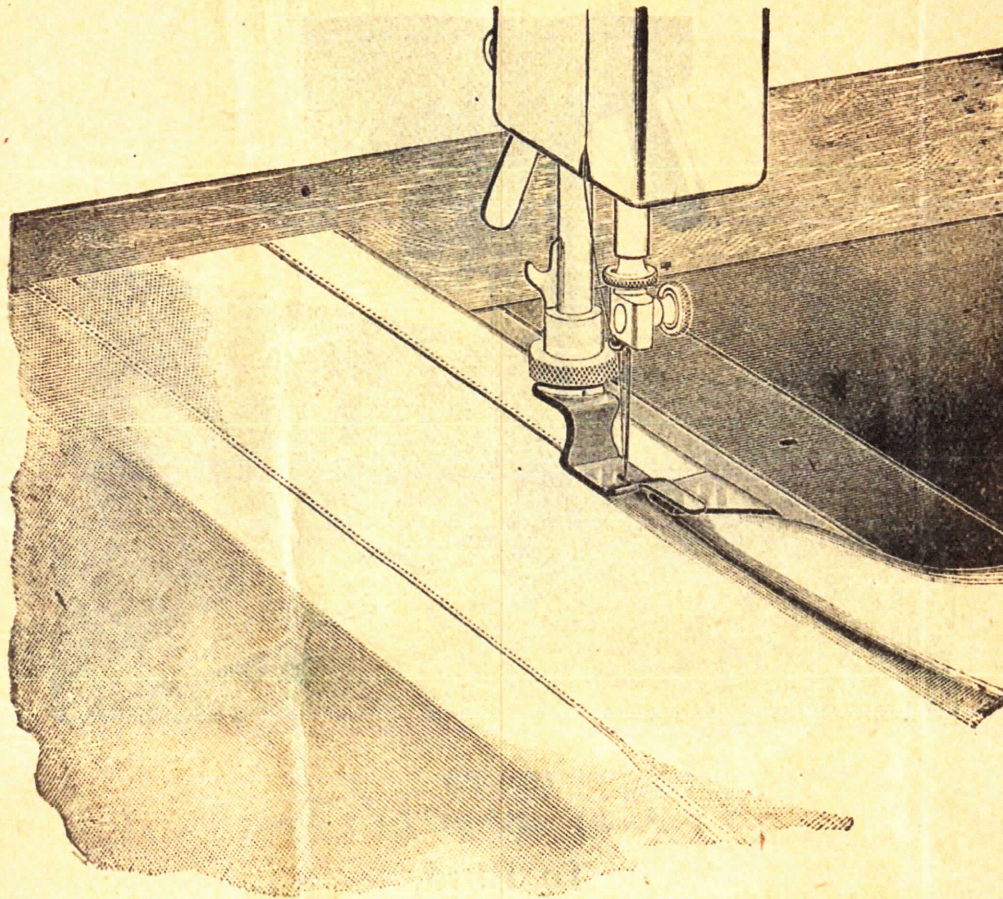
To Fell.

SEC. 16. The Hemmer is also a Feller. Let one edge of the cloth project about one quarter of an inch beyond the other. Then sew them together, after which open the work and turn the wide edge on the narrow one. Then slip this edge into the Hemmer, which turns the raw edge under, and will operate as in hemming.



Hemming and Sewing on Lace.

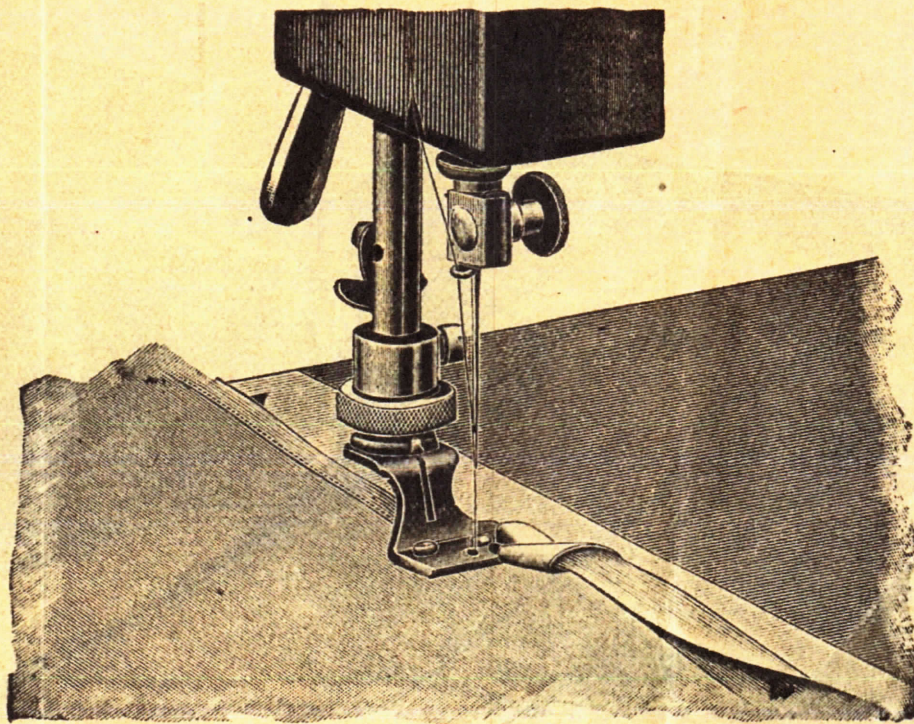
SEC. 17. Our Hemmer and Feller is now made with the slot to the right of the Needle hole. Having started the hem, raise the Needle, and place the edge of the lace in this slot far enough so that the Needle will catch it, and it will be sewed on at the same time that the hem is formed. Care should be taken to keep the edge of the lace to the left of the Needle, so that the Needle will catch it.



Wide Hemming.

SEC. 18. With each machine is furnished four foot hemmers of assorted widths. They are called foot hemmers because they are fastened to the presser bar of the machine the same as the regular sewing foot.

Select the width of the hemmer that you desire to use and attach it to the machine as shown above. You will readily see that it can be adjusted to the right or left a little so as to stitch as close to the edge of the hem as desired, by loosening the set screw of the attachment holder and swinging the hemmer to desired position. Take the cloth in both hands, the right hand in front of the hemmer and the left, behind. Insert the edge of the goods in this scroll of the hemmer and draw it back and forth a few times, while gradually feeding the cloth into the hemmer, so as to fill the scroll completely. When you have the hemmer full, draw the cloth back toward you to start the hem near the end. Let down the presser foot and proceed as in narrow hemming.



(Cut P.)

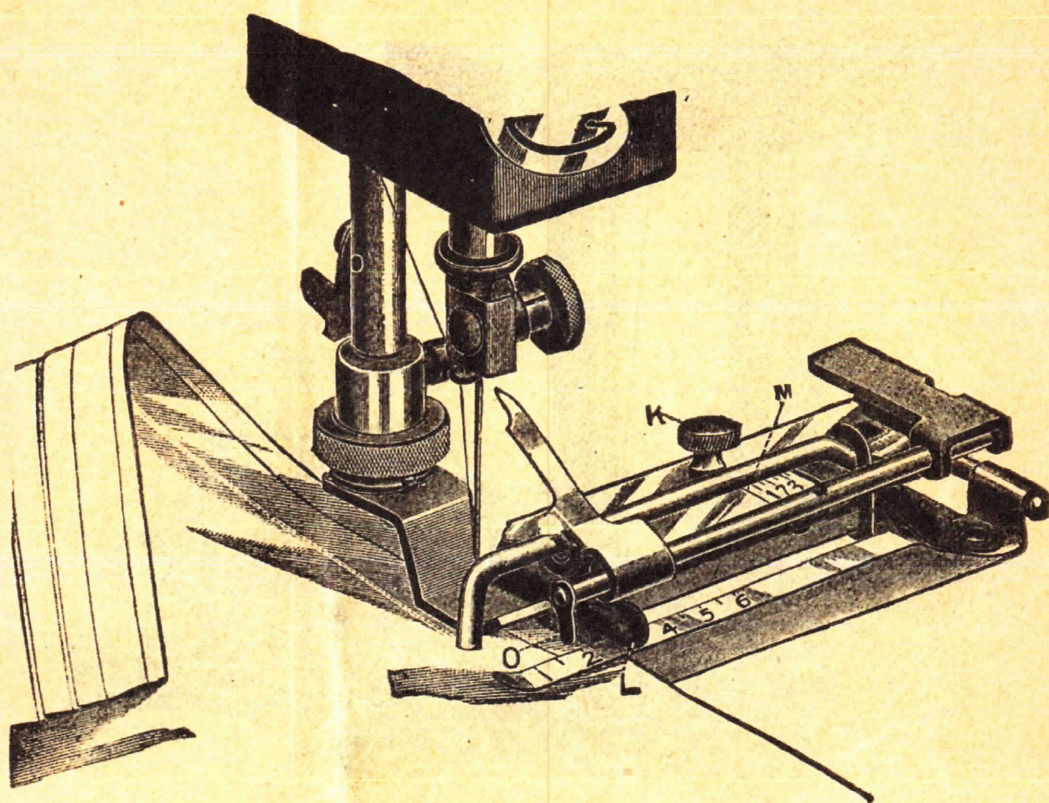
To Bind.

SEC. 29. Attach the Binder to the Machine. Cut the binding three-quarters of an inch wide (on the bias if convenient), pass it through the Binder, and place the fabric to be bound between the upper and lower Scrolls of the Binder. Guide the cloth with the left hand, let the binding glide easily through the fingers of the right. If the stitching is too near or too far from the edge, move Binder a trifle to the right or left, as occasion may require.

To Bind Scallops.

SEC 30. Proceed as per instructions for ordinary binding. Bind around the scallop until the center of the scallop reaches the front of the Binder. Then take hold of the scallop next to you and swing it around to the left until the right hand side of the scallop is on a line with the part which has been bound, or Scroll of the Binder.

(This makes almost straight work.) Care must be used in holding the scallop in the Binder.



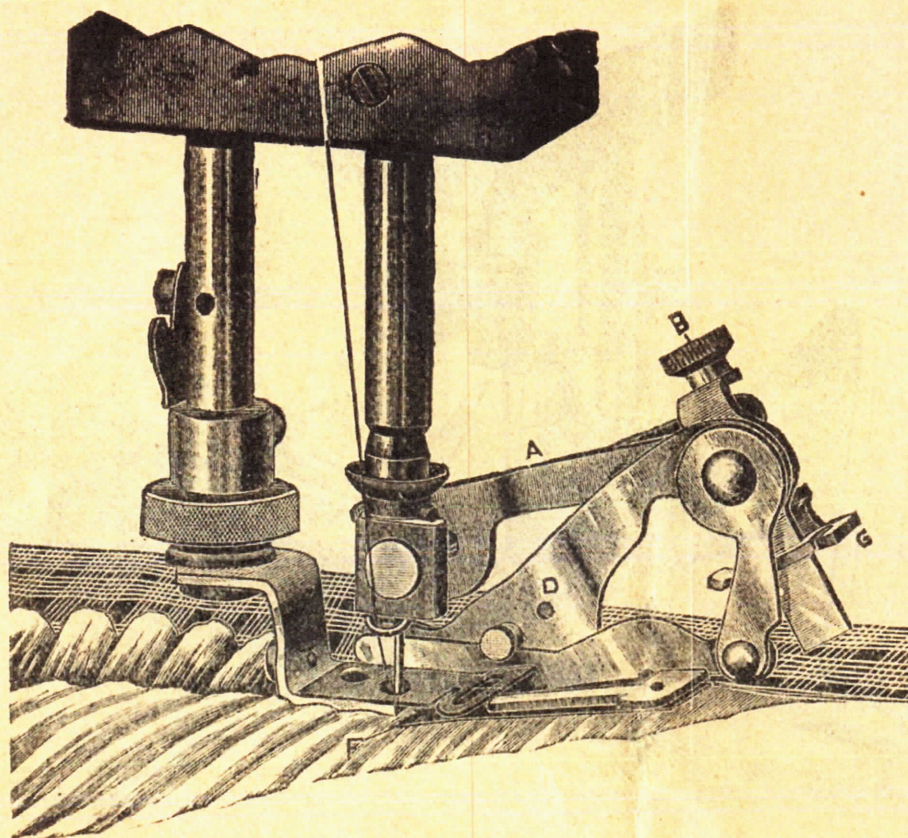
How to Use the Tucker.

SEC. 28. The Tucker attaches the same as the ruffler. Loosen the adjusting screw K and move the gauge L to the desired *width* of tuck, as shown by scale M. For example set it at figure 1; now move the marker until the pointer O is over figure 1 on its scale also. The tucks will then be one eighth of an inch wide and just meet. For space between the tucks, move the marker to the left as much as the space desired.

TO COMMENCE TUCKING, fold the cloth for the first tuck and place it beneath the creaser and lip L with folded edge against the guide; drop the presser-foot and sew as usual.

The edge of the last tuck made should always pass under the spur placed immediately in front of the marking blade. This will prevent the finished tuck from passing over the marker and will greatly assist in guiding the work.

To tuck without marking, throw the lever up.

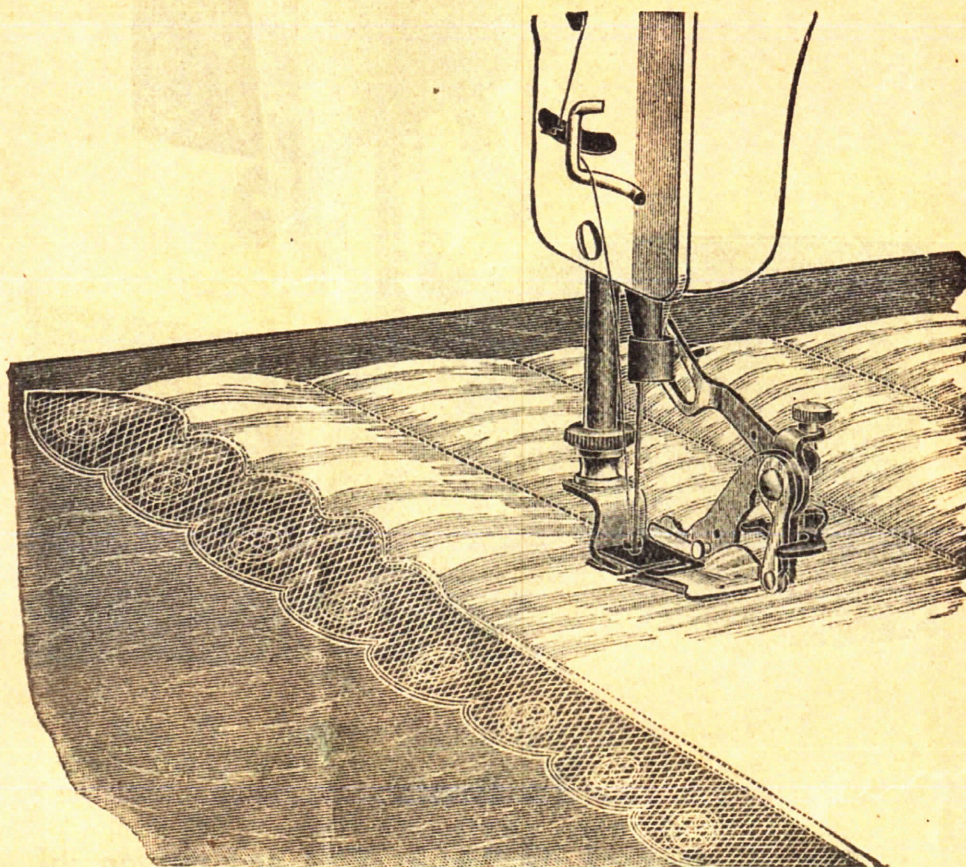


HOW TO USE THE RUFFLER.

SEC. 21. Remove the regular foot, and slip the ruffler in its place with the forks of the lever A over the shank of the needle set screw and fasten securely. Place the goods to be ruffled between the steel blades F. To make a scant ruffling, raise the adjusting block C by turning the thumb-screw B, and shorten the stitch to the desired length. The length of stitch should match the size of gather or plait, so that they will lie even and not pile up on each other or be too far apart. To make larger plaits, lower the block C and lengthen the stitch to match. If the ruffle is to be attached to a band, place the band below both blades.

To Make Plaiting.

SEC. 24. This is done with the Ruffler. Adjust that attachment to the machine as per instruction. Cut the cloth to be plaited one inch wide, fold in the center and press it. Then pass it between the ruffler blades, having the edges or opening side of the fold to the right, and the piece to which the trimming is to be sewed under it, next to the machine. Adjust the Ruffler to make the longest stroke of its blades, and proceed as in ordinary ruffling. If the pointed or scalloped plaiting is desired, move the piece to be plaited to the right and left alternately while sewing. After the work is finished it should be pressed on the wrong side. With a little practice beautiful edge trimming can be made.



SHIRRING.

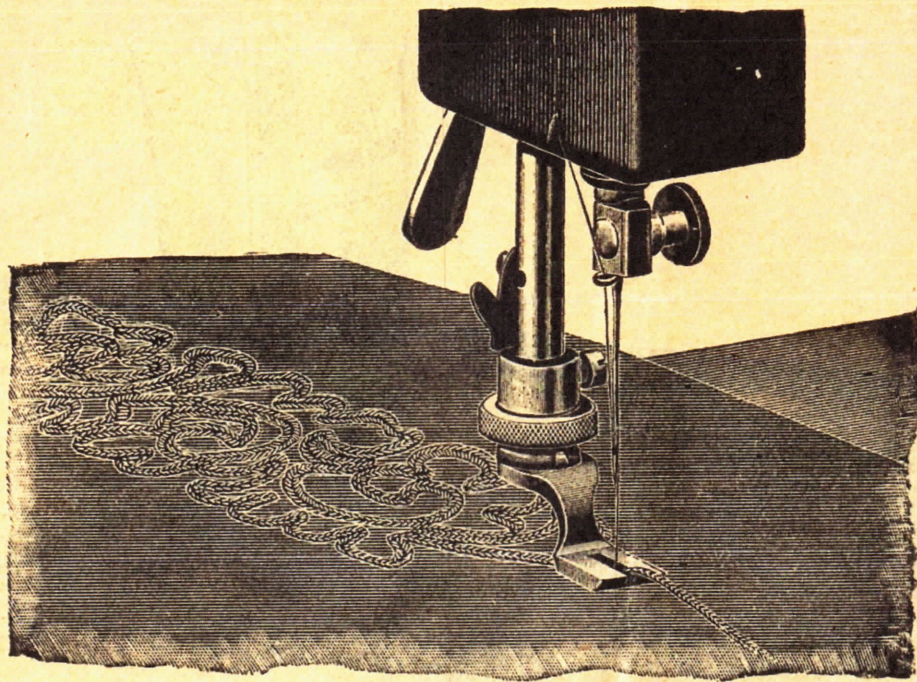
SEC. 23. To do this kind of work, first loosen the separator screw, removing the separator frame and blade from the ruffler, and supply in its place the shirring slide, which is that piece in the attachment set that fits into the machine in place of the front slide plate. The shirring plate has a guage on it which takes the place of the separator blade. The object of having the shirring slide is to do away with all side obstructions so that the operator can gather in the middle of a wide piece of goods instead of on one end only.

In shirring, it is always best to run a small tape underneath the goods to be shirred, the same as you would a band of ordinary ruffling. This forms a stay and greatly strengthens the work.

The tape is run through one of the guages in the slide and requires no attention.

To Make Scallop Ruffling.

Place the goods in ruffler just the same as for making large platts, except to remove gauge 4 from ruffler and shorten the stitch of machine. While sewing, move the goods to the right and left alternately and far enough to make the scallops of desired depth. Scallops can be made of uniform length by counting the same number of stitches between each alternate movement to the right or left.



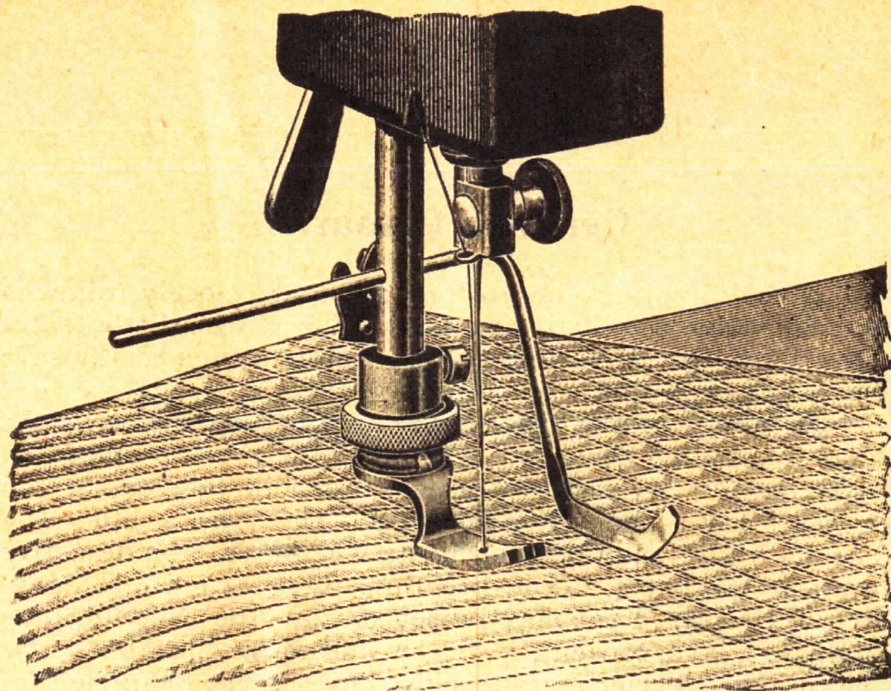
(Cut L.)

To Braid.

SEC. 19. Remove the Presser Foot, and put on the Braider Foot in place of it. Let the braid pass through the front opening on the Foot into the Needle hole, and proceed as in usual sewing. The pattern should first be stamped on the goods, or printed on writing paper, and then basted to the cloth. Guide the cloth with right hand, holding the braid in left hand to keep it from twisting.

To Embroider with Chenille.

SEC. 33. Wind the chenille on Bobbin, drop the Bobbin into the Shuttle as usual, loosen Tension Screw of the Shuttle so as to remove all tension, and place it in the Shuttle Carrier. For your upper thread use silk the same color as your chenille, sewing with a tight upper tension so that it will draw the under thread or chenille till it can just be seen through the cloth. Have the pattern you wish to embroider stamped upon the wrong side of the cloth, which will be uppermost in embroidering, and follow the lines of the pattern and fill in solidly with shades or colors as you may desire. It is always best to wind separate Bobbins with the various colors of chenille you intend to use. When the work is properly done the chenille embroidery will stand out beautifully, having all the appearance of stuffed work.



(Cut N.)

To Quilt.

SEC. 27. Pass the Quilter through hole in Presser Bar, adjust the Quilter Guide to the right of the Needle, according to the desired space between seams, and high enough to allow the goods to pass freely under it, and then fasten the Quilter securely by the screw. In starting to quilt, use outer edge of cloth for the first guide, or else crease the cloth on right, and let the Quilter Guide follow the crease; quilt the remainder by keeping the Guide in a line and over the seam last stitched.

NOTICE :—Large quilts should be made in squares or sections and then sewed together. In quilting squares or diamonds the seams should be on an equal bias.

To do Hemstitching.

SEC. 25. Fold blotting paper or other soft paper which can be readily torn, until you get a thickness corresponding to the opening desired in the hemstitching. Put one of the pieces of goods under the paper, and the other above. Then place all under the Presser Foot and sew through them. After being sewed both pieces will be doubled back and forth to crease them well exactly on the line of stitches. Then fold all four edges in the same direction, and hold firmly while you tear out the paper. Remove the other half of the paper and open the hemstitching one edge of each, or either piece may be cut and passed through the Hemmer, or a row of stitching can be passed alongside the hemstitch and the double edge finished off as you choose.

General Remarks.

If the directions heretofore given are closely followed no difficulties are likely to arise. Therefore a little extra time with the directions in the commencement may save hours of perplexity.

Breaking of the upper thread may be caused by the Machine being threaded wrong, or the tension being too tight, or by the thread being rough and uneven, or too coarse for the Needle—or the hole in the Throat Plate may be rough, the Needle may be defective or not properly set. (See directions for setting the Needle.) Or the Presser Foot may be set so that the Needle rubs against it, if so, loosen the Screw and move the Foot. Or the Shuttle Carrier may be set so close to the Shuttle that the thread cannot pass freely around it; if so, loosen the Screw and move the Carrier back a trifle.

If the under thread breaks, it may be caused by the Shuttle being threaded wrong, or by the thread getting over the end of the Bobbin in the Shuttle, or by the Bobbin being loosely or unevenly wound or wound too full so as not to turn freely in the Shuttle, *or by too much tension on the thread.* (See foregoing directions as to threading Shuttle, Winding Bobbin, Shuttle Tension, etc., etc., to obviate difficulties of this kind.)

Breaking Needles is likely caused by pulling the work, sideways, which should never be done. See to it that the Needle is properly set according to directions. The needle may, however, break in trying to sew extraordinary heavy seams when the pressure on the presser-foot is not heavy enough.

Never run the Machine with the Presser Foot *down* unless you have cloth between it and the Feed, as it would materially injure both the Presser Foot and the Feed Teeth.

Never run the Machine with the Shuttle in the Carrier unless the slides are closed.

If the Feed does not work properly, see if lint or dirt has not become matted around the Feed Point, or Feed Bar. Turn the Machine back and examine it. The Teeth of the Feed should be slightly above the Plate when it is at its highest point.

Missing stitches may be caused by the Needle being set too low, or being bent so as not to run close enough to the Shuttle, or the thread may be either too large or too small for the Needle. *Never* use a Needle with a blunt or bent point.

the upper thread loops, increase the upper tension. If the lower, increase the Shuttle tension. Looping with silk or linen is usually caused by the thread being too coarse for the Needle.

Puckering of the goods is caused by too much tension on either the upper or lower thread, or by too much pressure on the Presser Foot.

To sew flannel or bias seams, use a fine stitch and as slight a tension as possible, so as to leave the thread loose to stand the strain of stretching the goods.

In Sewing Harsh or Starchy Goods, it would be found an advantage to rub white soap along where the seam is to be, as the Needle penetrates more easily.

If the Belt becomes loose, unhook the Belt, cut off about half an inch, punch a new hole in it in the same direction as the old one, and replace the hook firmly. The Belt should always be as loose as it is possible to have it without slipping.

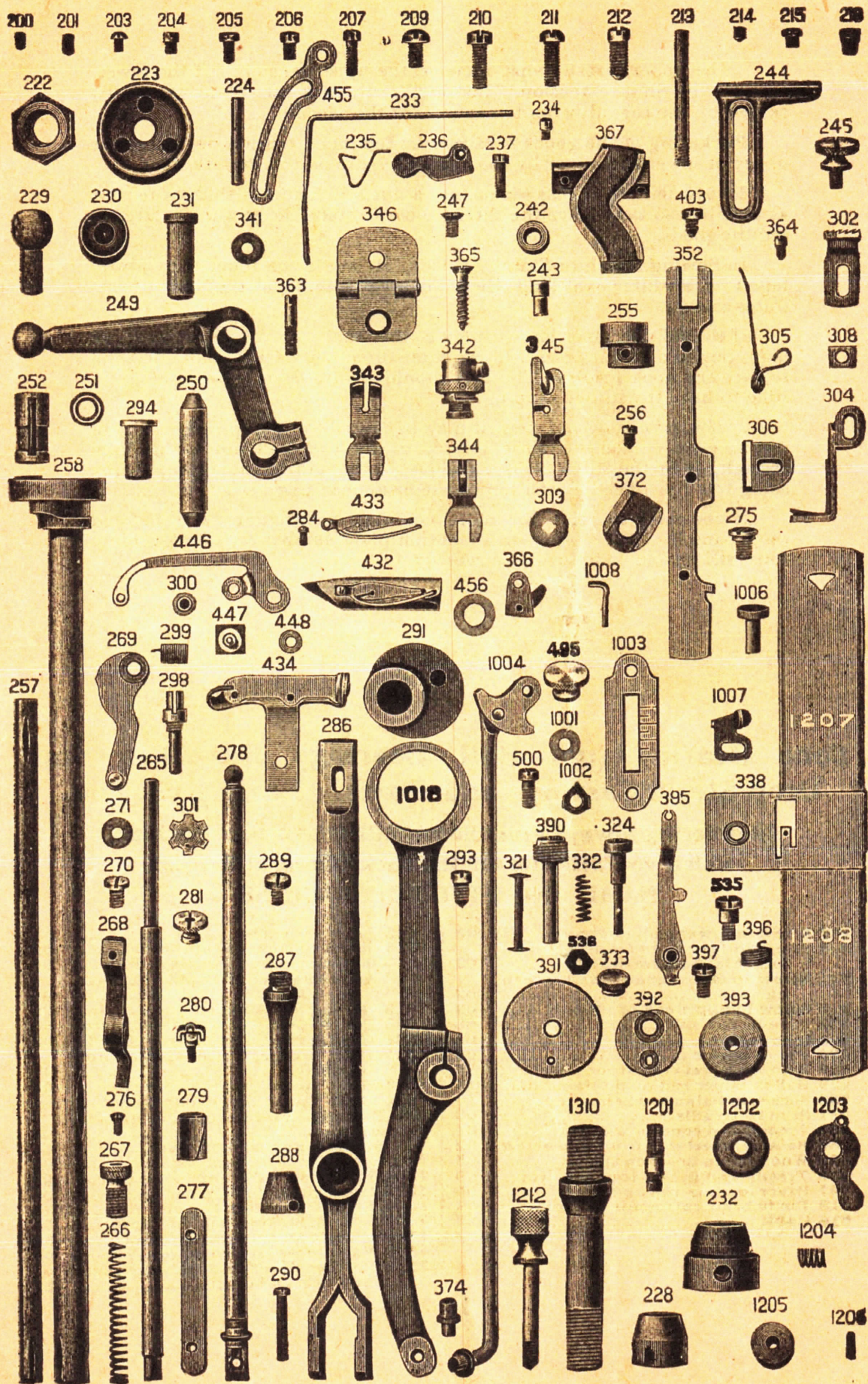
If the stitches are not even, it may be caused by the presser-foot not resting evenly upon the fabric sewed, or by the feed not being high enough, or by the stitch being too short, or by pulling the cloth, or by using too fine a needle with too coarse or uneven thread.

If necessary to write for more complete instructions always send small sample of the sewing, and mention plate number of your Machine. This will enable us to suggest a remedy.

Cone Bearing (not Ball Bearing) Box Top and Drop Stand Castings and Parts. From 5 000,000.

In ordering always give the NUMBER of your Machine, which you will find on the back sliding plate, also NAME AND STYLE OF MACHINE.

207 Screw in lower end of pitman.....	\$0 03	515 Lever for cable.....	28
209 Screw to fasten stud in treadle and socket in balance wheel.....	02	516 Screw to connect cable to lid.....	02
211 Screw to fasten guard and brace to leg.....	02	517 Screw to connect cable to lever....	02
216 Screw in upper end of pitman.....	02	518 Adjusting stud with plate for lever No. 515.....	08
222 Treadle rod nut.....	03	519 Nut for adjusting stud.....	02
223 Iron castor.....	05	520 Double pulley for cable complete..	30
224 Pin to castor.....	02	521 Head carrier stop plate, notched..	05
228 Balance wheel stud front conc.....	05	522 Head carrier stop plate, not notched.....	05
229 Ball in upper end of pitman.....	12	523 Head carrier hinge square piece....	04
230 Socket in balance wheel.....	10	524 Head carrier hinge long piece.....	06
231 Stud in treadle.....	06	530 Drip pan for box tops, drops and cabinets.....	25
232 Treadle rod conc, box top or drop...	05	531 Spring for swing bottoms.....	06
264 Balance wheel stud front cone screw	02	532 Eyelet for 531.....	01
289 Wood pin in box top table.....	05	1301 Pitman iron for box top and drop	28
410 Treadle rod in box top and drop...	50	1302 Dress guard for box top and drop	00
437 Brace for box top and drop.....	1 00	1304 Right leg for box top and drop.....	1 75
513 Pin in head carrier for slotted stop	02	1305 Left leg for box top and drop.....	1 75
514 Cable.....	20	1308 Treadle for box top and drop.....	50
		1309 Balance wheel for box top & drop	50
		1310 Balance wheel stud and back cone, box top and drop.....	20



PRICE LIST OF PARTS. JULY 1st, 1903.

FROM MACHINE No. 5,000,000.

No.	Price.	No.	Price.
200		293	
Take up screw for needle bar bushing.....	\$ 02	Eccentric screw.....	02
201		294	
Screw to adjust upper end of face plate.....	02	Bearing in middle of 101b.....	10
203		298	
Screw to fasten the following pieces: heart cam to needle bar, 301 to arm, 1003 to bed and 392 to 391.....	02	Take-up stud.....	\$ 10
204		299	
Screw to fasten attachment holder on presser bar.....	02	Take-up spring.....	05
205		300	
Screw to fasten gib on inside of face	02	Washer on 298.....	01
206		301	
Screw to fasten feed spring to bed and to fasten feed and feed hook to feed bar and feed bracket to bed and shuttle carrier to lever.....	02	Washer to adjust take-up spring....	02
207		302	
Take-up screw on bearing to feed arbor and to middle bearing of eccentric connection and to fasten 294 in elbow lever and to take-up bearing on lower end of pitman....	03	Feed.....	25
209		304	
Screw to fasten center to elbow lever and to fasten stud in treadle and to fasten 230 in treadle balance wheel and to fasten cone on treadle rod.....	02	Feed hook.....	15
210		305	
Screw to fasten face plate to arm...	03	Feed spring.....	03
211		306	
Screw to fasten arm to bed plate, and bobbin winder to arm, and to fasten dress guard and brace to leg.....	02	Feed bracket.....	10
212		308	
Screw to fasten socket in arm.....	03	Feed bar block.....	05
213		309	
Spool standard.....	05	Rubber headed tack.....	02
214		321	
Set screw to shuttle lever cone and to 268.....	02	Bobbin.....	04
215		324	
Screw to needle plate and to fasten 1007 to feed bar.....	02	Bobbin winder spring center.....	10
216		332	
Screw to fasten ball in upper end of pitman.....	02	Spring on 324.....	02
222		333	
Treadle rod nut.....	03	Head on 324.....	05
223		338	
Stand castor.....	05	Needle plate.....	20
224		341	
Pin in 223.....	02	Washer for 302, 304, 305, 306, 434 1007.....	01
228		342	
Balance Wheel stud front cone.....	05	Attachment holder complete.....	40
229		343	
Ball in treadle balance wheel.....	12	Presser foot.....	25
230		344	
Socket for 229.....	10	Braider.....	40
231		345	
Stud in treadle.....	06	Hemmer and feller.....	40
232		346	
Treadle rod cone.....	05	Hinge.....	06
233		352	
Quilter.....	10	Feed bar.....	25
234		363	
Screw to fasten quilter.....	02	Screw to adjust lower end of face plate.....	02
235		364	
Clutch spring.....	02	Set screw to 228.....	02
236		365	
Clutch latch.....	02	Screw to fasten hinge to table.....	02
237		366	
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242		367	
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In ordering always give the NUMBER of your Machine, which you will find on the back sliding plate, also NAME AND STYLE OF MACHINE.

PRICE LIST FOR ATTACHMENTS.

Ruffler.....	\$1.00
Tucker.....	1.00
Hemmer Sets, including Binder.....	.50
Braider Foot40
Thread Cutter.....	.02
Shirring Plate.....	.15
Hemmer and Feller40
Presser Foot.....	.25
Shuttle.....	1.00
Needles, all sizes, per dozen.....	.30
Guide Thumb Screw.....	.08
Oil Can.....	.10
Bobbins each.....	.04
Screw Driver.....	.10
Shuttle Screw Driver.....	.05
Quilter.....	.10
Bobbin Winder Complete (No. 529	1 50

NEEDLES AND THREAD.

The size of the needle should conform to the size of the thread, and both correspond to the material sewed. Use as fine a needle as will permit the thread to pass freely through the eye.

A No. 1 needle may be used for all kinds of ordinary family sewing, where the thread from numbers 50 to 70 are used; there is seldom a necessity for using a coarser cotton than No. 30, because every stitch made by a sewing machine is just doubly as strong as one made by hand. The following index will show the size of needle, thread or silk to be used.

COTTON	TWIST	NEEDLE
150 to 300	000 }	00
90 to 150	00 }	
70 to 90	0	0
50 to 70	A & B	1
30 to 50	C	2
20 to 30	D	3
8 to 20	E & F	

For Leather, use a twist pointed needle.

Price of needles, 30c per dozen, all sizes.

Use only genuine Florence Straight or White Flat Shank Needles, which can always be obtained from us or our authorized agents. Never use poor thread or silk on your machine. The sizes of silk vary so much that it may be necessary in some cases for you to use coarser needle than mentioned above.

The White Flat Shank Needle works perfectly in this machine.

WARRANTY

To Purchaser of this Machine:

Be it known that Sewing Machine No. is hereby warranted to be in good working order, and if used according to printed instructions for family sewing only, kept properly cleaned, oiled and used with reasonable care, and if any of its working parts prove to be imperfect in material or workmanship, it will be made good, free of charge, provided the defective part is returned to the factory for exchange with transportation charges prepaid. The period covered by this guarantee is unlimited as to time, but it does not apply to Needles, Bobbins, Belts, Shuttles or Attachments.

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WARRANTY FOR THIS MACHINE IS PRINTED ON
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