Any needle offered for sale or use in White sewing machines, without the name white F. R. stamped on the shank is "bogus." Many of them will cause the machine to skip stitches, break thread, injure your machine, and invalidates the guarantee for free repairs. "Genuine White" needles have the name "White F. R." stamped on the shank. They are put up and sold only in packages with notice of the United States trade mark registration on the outside label. Accept no other.

Machines Returned to Us for Repairs

Should have the name and address of the shipper inside of the box, and the express or freight charges Prepaid.

In addition to putting the address in the box, we want the shipper to write and mail us a letter upon the same day he sends the machine, and inform us how, and by what line he ships; also write full particulars as to the trouble with the machine, and give us the PLATE NUMBER, Found On Bed Under Bobbin Winder, Close To Arm.

Be sure and give explicit directions how and where to return the machine.
INSTRUCTIONS

for using the

**White Rotary Sewing Machine**

Never run Machine with needle threaded without goods under presser-foot. Run Machine so that upper side of hand wheel moves from you.

**TO SET NEEDLE**

Raise the needle-bar to its highest point; loosen the thumb-screw and press it to the left to permit the shank of the needle to pass up between the clamp and needle-bar as far as it will go, flat side to the right—the needle being flattened on one side so it will set itself perfectly, then fasten securely by tightening thumb-screw.

To avoid loosening of the needle, always use a screw driver to fasten the same, the needle nut being slotted for that purpose.

The needle, when descending, should pass central in the needle hole from front to rear, but close to the right side of the hole, as it prevents the needle from glancing into the race and being caught by the shuttle.

**NEEDLES AND THREAD TO BE USED**

The most important consideration is to buy and use perfect needles—not bent, nor blunt points.

When ordering needles for this machine, be sure to ask for the genuine White Rotary flat shank needles which are stamped on the shank “White F. R.” Imitation or “just as good” needles will cause trouble. Get the genuine White.

Cut of White Rotary flat shank needle showing exact length.

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

The following index will show the size of needle, thread and silk to be used.

<table>
<thead>
<tr>
<th>COTTON THREAD</th>
<th>SILK THREAD</th>
<th>NO. OF NEEDLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 to 300</td>
<td>000</td>
<td>00</td>
</tr>
<tr>
<td>90 to 150</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>70 to 90</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>50 to 70</td>
<td>A &amp; B</td>
<td>2</td>
</tr>
<tr>
<td>30 to 50</td>
<td>C</td>
<td>3</td>
</tr>
<tr>
<td>20 to 30</td>
<td>D</td>
<td>4</td>
</tr>
</tbody>
</table>

For colored thread use needles one size larger than given in index above.
TO REMOVE BOBBIN CASE FROM SHUTTLE

Raise the take-up to its highest point. With the thumb and second finger of left hand clasp bobbin case as shown in cut, then lift latch S with the third finger, when bobbin case may be readily withdrawn from shuttle F. See page 5.

TO REMOVE SHUTTLE FROM SHUTTLE RACE

First remove the bobbin case. Turn the machine back on its hinges, then turn the machine in the same direction as in sewing until the point of the needle just enters the needle plate hole; push on rear end of latch G and at the same time pull shuttle race cover away from shuttle and toward latch G from under pin H; the shuttle can now be removed.

When shuttle has been removed from race be sure to clean both and oil the race slightly before replacing. Occasionally oil slightly in hole on race cap marked V above and pin W in shuttle, see page 5, fig. 9.
TO REPLACE THE SHUTTLE

Turn the machine in direction for sewing until the point of the needle just enters the needle plate hole; take the shuttle by the center pin \( W \) with the left hand and place it in the race, so that point of shuttle will be from you and over arrow on thread cast off, so that the holes in the shuttle will drop on to the driving pins in race, then replace the shuttle race cover.

*DO NOT FORCE* the shuttle into race. It will enter readily when in proper position.

Should the machine at any time act badly in sewing or running it would be well to remove shuttle and clean it and the race, which is but a moment's work.

To replace the bobbin case, it need not be held as when removing, but simply slip it on the pin in shuttle, with the tension projecting upward, and push it into shuttle as far as it will go, when the spring latch will pass over and retain it in that position.

The thread should be allowed to project about one inch from bobbin case tension.

TO WIND THE BOBBIN

Place spool on spool pin, pass the thread down through the rear hole in arm of cover plate, then to the left under and over the arm down through front hole. Put the end of thread through hole \( U \) in bobbin from inside out, place bobbin on bobbin winder spindle, raise winder so belt will drive it, loosen thumb screw in hand wheel, run the machine as in sewing, holding on to the end of thread until winding is started, then break off thread and finish winding.

LOWER TENSION

Fig. 8 represents the bobbin case. To regulate the lower tension, turn the screw \( T \) to the right to tighten, and to the left to loosen the same.

TO THREAD BOBBIN CASE TENSION

Place bobbin in case so that thread will come from bobbin on same side as hole \( B \) in bobbin case; pass thread through slot \( A \) to hole \( B \) thence across opening, drawing it down under lip \( C \) then pull it up until thread passes out under tension spring \( D \).

The tension on bobbin case should be the same as the upper tension.
DIRECTIONS FOR THREADING

Place the spool on spool pin, take the thread in your left hand holding it taut with the right during the whole threading operation. Pass thread from spool over check spring K at top of face and down under point L; now pull thread upward until it passes through the eye of spring N and into notch O, then into end of take-up P, then down through slot R in end of needle bar and through eye of needle from left to right, allowing about 3" of thread when take-up is at its highest point.

To draw up the lower thread, raise the presser-foot, take hold of end of upper thread and turn the hand-wheel once around, (moving upper side of wheel from you) which will draw the lower thread up through needle hole.

Pass the ends of both threads under the presser-foot and you will be ready to sew.

Note.—Do not run the machine with the presser-foot down on the feed without cloth under it. Do not pull cloth to or from you in such a manner as to bend needle.

THE TENSION

The illustration above represents the Tension Regulator and Indicator for the upper thread, an entirely new and useful device. The half circle is marked with a scale running from 1 to 8, with the word "loose" at fig. 1 and "tight" at 8, 1 being the slack and 8 the tightest tension.
OIL PLACES AS INDICATED BELOW

TO CHANGE THE LENGTH OF STITCH

The regulator is located at the right end of machine on the front side of arm. TO SHORTEN stitch move the lever down. TO LENGTHEN stitch move lever up No. 1 indicates the shortest, and No. 7 the longest stitch.

TO REGULATE THE TENSION

To loosen the tension, turn the thumbscrew on the dial to the left which will move the pointer toward figure 1. To tighten it, turn to the right, moving the pointer toward No. 8. By this means the same tension can always be duplicated, thus obviating the necessity of experimental trials, as is the case with other machines. If a tight tension is desired, both upper and under threads must necessarily be tight. If the upper thread is tight and the lower thread loose, the upper thread will be drawn to the top thus If the lower thread is too tight, it will be drawn straight on the bottom of goods, thus: When you desire the goods to look alike on both sides, and be elastic, balance the tension thus:

THE TENSION releaser

The tension releaser is operated by the presser-bar lifter. By means of it, all tension is taken off the upper thread when the presser-foot is raised, and the work can be taken out without pulling the thread down by hand.

PARTICULAR NOTICE—The tension cannot be regulated when the lifter is up because the Releaser is operated by the presser-bar lifter.
TO COMMENCE WORK

In threading the needle and bobbin case respectively, you should leave an end of thread about two inches in length to each. Hold the end of the upper thread loosely in the left hand, and with the right hand gently revolve the hand-wheel until the needle passes to its lowest point and returns, a loop will be formed through which the shuttle will pass, and, as the needle ascends it will draw up the lower or shuttle thread, and the machine is ready for practical operation.

TO REMOVE WORK

Stop the machine with the take-up at its highest point; raise the presser-foot with the lifter which slackens the upper thread; then take hold of your work with your left hand and pull it directly from you, 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.

EXPLANATION OF DIFFICULTIES THAT SOMETIMES OCCUR WITH BEGINNERS

If the upper thread breaks, it may be caused by the needle not being properly set, or the machine not threaded correctly, or the upper tension too tight, or the thread uneven and the needle too small for it, or the needle eye too sharp, or the presser-foot attached to the machine so that the needle rubs it in passing.

If the under thread breaks, it may be caused by the bobbin case being improperly threaded, or too much tension upon it, or by the bobbin being wound too full so that the thread slips over the ends of the bobbin in the bobbin case.

If the needle breaks, it is more than likely your own fault caused by pulling the goods to or from you in such a manner that the needle strikes the throat plate and is bound to break. The needle may, however, break in trying to sew extraordinary heavy seams when the pressure on the presser-foot is not heavy enough.

To create more pressure upon the goods turn the presser-bar nut on top of the presser-bar to the right; to decrease the pressure turn it to the left.

If it makes loop stitches, it is most sure to be caused by too loose tension both top and bottom.

If the machine skips stitches, the needle is either bent or not in right position.

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 the machine should be run without sewing and thread get in the shuttle race making the machine run heavy, take out bobbin case and run the machine in the wrong direction; it will cut the thread out.

Notice.—The leather band should always be tight enough not to slip. If it slips, or does not force the needle through thick goods, cut off a very short piece and re-adjust the ends. The belt should not be so tight as to prevent an easy motion of the machine.
Hemming

Raise the take-up to its highest point, remove the presser-foot and in its place attach the hemmer. Trim the edge of cloth on a curve and insert in hemmer far enough to permit the needle to enter the cloth at its extreme edge, (See Fig. 2 above), then proceed to sew keeping the edge turned as it feeds through.

Felling

The hemmer is also the feller. Sew together two pieces of cloth with the under edge projecting between \( \frac{1}{8} \) and \( \frac{1}{4} \) inch beyond the upper edge; then trim the edges if necessary and open the work flat wrong side up, and fold down the wider edge, toward the left, over the narrow edge, and then pass the folded edge into the feller the same as in ordinary hemming.

Illustration above represents an operator in the act of completing a fell
No. 140 Take up roller stud
141 Take up roller stud
200 Take up screw for feed bar stock 279
203 Screw to fasten stitch indicator plate 722 to take bar 723 for check spring bracket 794
204 Screw to fasten attachment holder 342 to presser bar 773
206 Screw to fasten feed arm 723 to rock shaft 724 and thread pull off arm 755 to rock shaft 756 and guide 756 to hold feed bar 775 and to connect 714 with 722
207 Screw for head of main connection 747
208 Screw to hold shuttle race 760
209 Screw to fasten 856 to bed 813
210 Screw to fasten face 215 Screw to fasten presser bar lifter block 779
233 Quilting
234 Screw to fasten cutter 245 Gauge screw
247 Presser bar lifter washer 276 Screw to fasten 833 to face 279 Needle bar bushing 280 Screw connection and clamp 281 Needle screw nut
341 Washer for 728
342 Attachment holder complete 343 Screw for presser bar lifter and release cam 345 Hemmer
347 Screw presser bar lifter and releaser cam 349 Screw for presser bar lifter and releaser cam 355 Tension indicator complete 357 Tension disc 358 Tension spring on inside of face 359 Screw and nut to connect 563 and 785
360 Guide pin in slot of tension plate 785 363 Screw to adjust lower end of face 364 Screw to clamp feed bar centers 726 in feed rock shaft 724 366 Thread cutter 369 Needle bar 519 Nut for 797 530 Lock nut for 785 540 Foot gatherer 548 Stud for revolving spool standard 552 Felted for revolving spool standard 555 Screw arm screw 617 Bobbin winder pulley 701 Screw to bind needle bar link screw in bar lifter block 762 702 Screw to fasten feed cam 763 and to locate take up cam 762 703 Screw to tighten take up cam 762 on shaft 761 and to fasten 842 in arm 704 Screw to fasten main connection stud 751 in arm 705 Center for feed rock shaft 724 and thread pull off rock shaft 736 706 Nuts for 795 707 Screw to connect 754 with 756 and to fasten bobbin winder to arm 708 Nut for 707 and 721 710 Pin in feed fork for shifting block 711 711 Shifting block in feed connection 714 714 Feed connection 716 Pin for feed connection link 715 717 Stitch adjusting lever 718 Stitch adjusting stud 719 Stitching washer for 717 720 Sleeve for 718 721 Screw to connect 715 to 711 to take up rear bearing of shuttle shaft 808
No. 722 Stitch indicator plate 723 Rock arm on rear end of feed rock shaft 724 724 Feed rock shaft 725 Feed bar 726 Centers for feed rock shaft 727 Feed 728 Screw to fasten feed 727 to feed bar 725 729 Spring wiper on feed bar frame 730 Shuttle race 731 Latch to hold shuttle race 834 on race 730 732 Spring for 731 733 Pin for 731 734 Spring pin to hold shuttle race cover 834 on race 730 735 Spring for 734 736 Washer on 734 738 Thread guide plate on 834 739 Screw to fasten 738 to 834 744 Bobbins 746 Crank on rear end of shuttle shaft 808 747 Main connection complete 748 Main connection roller arm 749 Screw to adjust main connection to slide block 750 750 Main connection slide block 751 Main connection stud 752 Feed raising and thread pull off cam 753 Screw to fasten 752 to 808 754 Eccentric connection for thread pull off 755 Thread pull off rock arm 756 Thread pull off rock shaft 757 Thread pull off 758 Screw to connect 757 to 755 759 Thread pull off slide block 760 Screw to connect 760 to shuttle race 730 761 Upper shaft 762 Take up cam 763 Feed cam 764 Screw to go in rear end of 761 765 Forward bushing for upper shaft 766 Screw to fasten 765 in arm 814 and 782 to 369 767 Rear bushing for upper shaft 761 770 Needle Plate to fasten needle bar block 771 Screw to fasten 770 772 Bobbin winder complete 775 Presser bar 776 Presser arm 777 Needle bar cap 778 Presser bar spring 779 Presser bar guide 780 Presser bar guide 781 Needle bar link 782 Needle bar block 784 Screw to connect 781 to take up cam 785 Tension plate 786 Auxiliary spring 787 Adjusting washer for 786 789 Screw to connect 839 to 834 and to inside of face 815 790 Take up complete 791 Take up screw 792 Spring for latch 839 793 Take up cover plate 794 Check spring bracket 795 Rear spool standard 796 Rear cover plate 797 Table hinge complete 799 Washer for 797 802 Screw to locate needle bar block 792 804 Screw to clamp shuttle race 730 and 807 Gauge 808 Shuttle shaft driver and thread cast off complete 809 Screw to adjust auxiliary spring 786
(Continued on next page.)
**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.
HEMMING AND SEWING ON LACE
ONE OPERATION

Our hemmer and feller which accompanies each machine, is now made with a slot—6. (See illustration above.) In this slot place the edge of the lace and sew it on at the same time as in ordinary hemming.

WIDE HEMMING

Any width hem can be made with the hemmer and feller upon thin fabrics by simply folding the goods the desired width of hem and then passing the edge through as in narrow hemming.
TUCKING

Loosen the thumb-nut A and remove presser-foot, adjusting the tucker on holder, after which tighten A.

To regulate the size of tuck, loosen screw D and place gauge for any desired width, moving to the right for wide and to the left for narrow tuck.

To regulate the space between tucks, loosen screw D and move the marker to the left for a wide space and to the right for narrow space.

The figures on the back of cap show the width of tuck, and those on the front the width of space.

By adjusting gauge and marker so that the indicators will point to the same figures, the tucks will meet.

To Commence tucking, fold the cloth for the first tuck and place it beneath the creaser and lip E, 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 B up.
QUILTING

Pass the quilter through hole 2 in presser-bar, adjust the quilting 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 quilting securely by screw 3.

In starting to quilt use the outer edge of the cloth for the first guide, or else crease the cloth on the right and let the quilting guide follow the crease, quilt the remainder by keeping the guide in a line and over the last seam 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 equal bias.
The New Improved Five Stitch Ruffler is a ruffler which makes a
gather or pleat either at every stitch or once in every five stitches
as the operator may choose.

RUFFLING

Loosen thumb screw 1, remove presser foot and place the ruffler in
holder, at the same time setting the ruffler arm fork 2 on needle
clamp screw 3, then tighten nut 1.

The goods to be ruffled must be placed between the two blue
blades and then in gauge 12. Gauge 12 should be adjusted to the
right or left to get the desired distance from the edge. The goods will
guide itself.

To make a fine ruffle, shorten stitch of machine and move ad-
justing nut 5 upwards.
To make a heavy ruffle lengthen the stitch of machine and move
adjusting nut 5 downward. Ruffling can always be duplicated by re-
membering the numbers on scale of ruffler arm, tension and stitch
regulator.

TO RUFFLE ON BAND. Place band under both springs next to
feed and over lip 9. If facing is required, place facing above both
springs and under foot. Place the goods to be ruffled same as in
plain ruffling.

TO RUFFLE WITH A HEADING. Place the goods to be ruffled
between the springs with heading to the right and adjust gauge 10
for desired heading.

TO MAKE SCALLOP RUFFLING. Remove gauge 12; cut Lonsdale
cambric in strips one inch wide lengthwise of the goods. Fold in the
center and press the folded edge down smooth, adjust the goods with
folded edge to the left and between the springs. When sewing move
the goods to the right and left alternately. Adjust fullness, bands,
facing, etc. same as regular ruffling.
SHIRRING

Remove hand hole cover, insert ear of shirring plate into gauge screw hole in needle plate, and holding down the shirring plate replace hand hole cover over ear X on shirring plate.

Loosen screw 4, shown in illustration on page 16 and remove separator, placing the goods to be shirred between the blades, and shirr at any desired distance.

Be careful not to use ruffler without the separator or shirring blade and cloth above, for in so doing the ruffler teeth will be broken or injured.

To put ruffling on a band edge, stitched, with or without piping, take striped calico or plain colored goods, cut on the bias in strips full one half inch wide, folding in center. Place the piping in guide 7 with folded edge to the right, then take the band and turn down on edge a quarter of an inch and place in guide 6 having both ends down under foot. The guide can be adjusted to right or left by loosening screw 11. Place the ruffling to the right between the blades and in guide 13; if wider ruffling is desired remove separator and use shirring slide. To use facing with shirring slide place facing under shirring blade 1 and in guides 2 and 4.

TO ADJUST RUFFLER FOR THE 5 TO 1 STITCH

The ruffler as shown in cut is set for the regular one gather to each stitch. To change so as to make a pleat every fifth stitch, turn screw “C” to the right as far as it will go. This will bring the lever marked 5 St, in action and will produce a wide pleat without lengthening the stitch.

In placing the goods in ruffler to be pleated or if you wish to use bands, piping, etc. follow same directions as in regular ruffling. In heavy pleating the adjusting nut 5 should be turned entirely down, the longer the stitch the farther apart the pleats will be.

TO ADJUST RUFFLER BACK FOR REGULAR RUFFLING

Turn the screw “C” to the left as far as it will go.
The following cuts show a few of the many varieties of work done on the five stitch ruffler. It does not require an expert; with a little care and patience in following directions, you can produce a great variety of work with ease and satisfaction.

Pleating between two bands without showing stitching

Edge-Stitch pleating between two bands

Band Edge stitched with piping

Pleating Edge-Stitched both sides

Flounce Pleating of any width
HEMMING

We furnish with each machine our assorted widths of hemmers. Select the width desired and substitute it for the presser-foot. Take the cloth in both hands, the right hand in front of the hemmer and the left behind. Place the edge of the cloth in the hemmer drawing it back and forth until the hem is formed, stopping with the end under the needle. Drop presser-foot and commence to sew. Guide the cloth so as to keep the hemmer full. To change stitching near or far from edge, loosen thumb screw and move hemmer to right or left as desired and tighten screw.

BINDING

Remove the presser-foot and substitute the binder. Cut the binding 7/8 inch wide (on the bias if convenient). Pass the binding through the scrolls of the binder and under the presser-foot. Place the edge of the goods to be bound between the scrolls of the binder, drop presser-foot, guide the cloth with the left hand, and let the binding glide easily through the fingers of the right. To change the stitching near or far from the edge, move binder lug A to right or left as desired.

Using No. 6 Folded Tape with Binder

Cut the end of the tape bias and thread it through the outside slot in the scroll of the binder. The seam or edge to be bound is then inserted in the binder in the regular way. Folded tape can be purchased in any department store in a variety of colors.

UNDER BRAIDER

Substitute the under braider foot (which is found in the box of attachments) for the regular presser-foot. Place under braider on machine same as the Shirring plate; draw the braid under and through the tube and a little past the needle. The pattern to be braided should be stamped on the wrong side of the cloth. Place the goods under the presser-foot same as in regular sewing, following pattern carefully. This stitches the braid on the cloth from the underside.
Stand for Nos. 74, 75, 76, and 85
Parts for White Sewing Machines may be Secured Anywhere

List of Stand Parts for Ball Bearing Stands, White Box Top, White Automatic Swing Drops Nos. 70, 74, 75, 76, 77, 80 and 85 and Cabinets Nos. 72, 73 and 78

206 Screw to fasten link No. 621 to plate No. 630
207 Adjusting screw in lower end of pitman
209 Screw to fasten stud in treadle, treadle centers in treadle support and crank pin in balance wheel
211 Screw to fasten dress guard and brace to leg
223 Stand caster
224 Pin in stand caster
225 Wood screw to fasten swing drawer to table
231 Stud in treadle, for pitman
240 Felt head tack
254 Set screw to tighten balance wheel cone and crank pin cone set
279 Balls for balance wheel and pitman, per 100

*284 Brace for box top
*285 Dress guard for box top
*289 Rest pin in table for box top
437 Brace for Nos. 74, 75, 76 and 85 drops
513 Pin in head carrier for slotted stop
516 Screw to connect cable to lid
517 Screw to connect cable to lever
519 Nut for adjusting stud

*530 Drip pan for Nos. 70, 74, 75, 76, 77, 80 and 85
531 Spring for swing bottom
532 Eyelet for 531

*533 Drip pan for Nos. 72, 73 and 78
542 Latch plate for vibrator head carrier

*550 Treddle for No. 80 drop
552 Treddle support for No. 80 drop
556 Caster for No. 80 drop
563 Treddle support for Nos. 74, 75, 76 and 85

564 Screw to fasten treadle support to leg

*565 Treddle for Nos. 72, 73, 74, 75, 76, 77, 78, and 85

566 Treddle center
567 Pitman for Nos. 70, 74, 75, 76, 80 and 85 drops
568 Balance wheel for Nos. 70, 72, 73, 74, 75, 76, 77, 78, 80 and 85
569 Dress guard for Nos. 70, 74, 75, 76, 77, 78, 80 and 85

570 Stud in dress guard for balance wheel
571 Nut to fasten stud in 570
572 Rear cone for balance wheel stud 570
573 Front cone for balance wheel stud 570
574 Ball race in balance wheel hub
575 Ball retainer for ball race 574
576 Crank pin in balance wheel, for pitman (including rear cone)
577 Front cone for crank pin 576
578 Ball cage for crank pin balls, with balls
579 Pitman for No. 74
*580 Treddle support for No. 74
*581 Right leg for No. 74
*582 Left leg for No. 74
583 Pitman for box top
*584 Treddle support for box top
585 Right leg for box top
586 Left leg for box top
587 Balance wheel for box top
588 Stud in leg for balance wheel 584
589 Treddle support for Nos. 72, 73 and cabinets

*590 Pitman for Nos. 72, 73, 74 cabinets
592 Treddle for box top
599 Wire bail for belt grip
600 Clip for 599
601 Springs for 599

*603 Treddle for No. 70
*604 Treddle support for No. 70
605 Brace for No. 70

612 Cable adjusting lever
620 Adjusting stud and plate for cable lever
621 Link to connect swing front to head carrier

622 Cable (20 in. long) for Nos. 70, 72, 73, 74, 75, 76, 77, 80 and 85
623 Cable guide
625 Right leg for Nos. 70, 74, 75, 76 and 85
626 Left leg for Nos. 70, 74, 75, 76 and 85
627 Brace for No. 77

*630 Support for cable adjusting lever No. 619
631 Head carrier hinge
632 Pin for head carrier hinge No. 631
634 Swing cover for corner of head carrier

*636 Treddle support for No. 73 cabinet
869 Latch plate on head carrier for 865

Numbers preceded by an asterisk (*) are not illustrated.

Where the parts such as pitman, treadle rod, etc. are ordered to be sent by mail, postage will be charged thereon.
JUST one more time saver which the busy user will eagerly welcome—a Scissors Gauge with which one can easily and accurately cut bands of various widths, either straight or on the bias.

It's an attachment, the value of which will be grasped on sight by every sewer and highly appreciated for its thorough utility.

This attachment is included free with the attachments supplied with this machine.

**THE SCISSORS GAUGE**

The Scissors Gauge is for cutting bands of various widths, either straight or bias. The sliding scale is adjustable for the widths of band desired.

Place the gauge upon the scissors, as shown in the illustration, slip the edge of the cloth in the gauge and proceed to cut the band. The tape of the binder should always be cut on the bias, also the piping which is used with the ruffler.

The letter F indicates the proper width for a bias fold, which is to be one-half of an inch wide when finished.

The letter B indicates the width for cutting bias bands which are used with the binder.

C is for corded or plain piping. The piping is cut bias and folded double to use with the ruffler.

With the aid of this gauge any number of folds may be cut of exactly the same width. Those who have tried know the difficulty of doing this with the scissors alone. Everyone who uses a bias gauge is delighted with it.

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Buy a yard of 44 inch lawn. Cut it into bias strips ⅛ to 15-16 of an inch wide. Roll it on cardboard and keep it in the machine drawer. It will furnish the binding for the inside seams of the white sewing for months to come.
THE EDGE-STITCHER
A Combined Edge-Stitching, Lace-Joining and Piping Attachment

THE EDGE-STITCHING ATTACHMENT is fastened to the machine in the same manner as the Presser-Foot. The different slots which are numbered from 1 to 5 in the illustration serve as guides for sewing together laces, insertions, embroideries, sewing in position folded or hemmed edges, bias folded material or piping, etc.

This Attachment is very useful in trimming such articles of clothing as aprons, women's and children's dresses and underwear, shirt-waists, silk blouses, boys' rompers and suits, or for articles for household decoration such as fine bureau scarfs and thin curtains, baby carriage covers and doilies.

Very beautiful effects may be obtained in yokes, guimpes, sleeves, collar and cuff sets, vestees, fichus, lace waists, camisoles, etc. by joining rows of lace insertion, alternate rows of lace and embroidery insertions, or alternate rows of tucking and lace insertions.

The folded tape, which may be purchased in any department store in all colors, qualities and widths, is indispensable to use with this attachment. The folded piping, which may also be purchased ready turned, will exactly fit the piping slot in this attachment.

How to Adjust the Edge-Stitcher

To adjust, move the lug A (see illustration) at the left of the attachment to the right or left until the desired adjustment is obtained. When sewing two pieces of lace together, it is very necessary that the attachment is adjusted to stitch exactly on the edge, so that the edges will not fold over when laundered.

When sewing laces or soft materials together, it is better to hold the edges slightly overlapped. This will prevent the lace from feeding away from the guide.

When the attachment is properly adjusted, the most inexperienced operator may sew yards of lace or material together with no difficulty.

Practical Uses of the Edge-Stitcher

1. Sewing lace and insertion together.
2. Sewing lace and embroidery insertions together.
4. Sewing tape to top of stocking to prevent "runners" (patented).
5. Sewing insertion on material—afterward cutting material away and turning edges back.
7. Setting in insertion with edges edge-stitched.
8. Sewing lace and ribbon together.
9. Covering seams with bias bands or finishing braids.
10. Sewing braid on heavy suits and dresses.
11. Sewing on bias bands for trimming—straight or curved.
12. French seaming.
III. 1 shows rows of insertion sewn together. Slots Nos. 1 and 4 are used for this kind of work. In joining insertions of different patterns the piece with the neatest edge should be placed in slot No. 1 and this will be the upper edge when the work is finished.

III. 2 shows alternate rows of insertion and embroidery sewn together. Slots No. 1 and 4 are used for this purpose, the embroidery being placed in slot No. 1 and the lace in slot No. 4. If the embroidery used has a heavy edge it may be found more convenient to use slot No. 2 for the embroidery as this gives a wider over-lap.

III. 3 shows pieces of tucking put together with rows of insertion. The edge of the material is folded and placed in slot No. 1 and the lace is placed in slot No. 4.

III. 4 shows ribbon and lace sewn together. The ribbon is placed in slot No. 1 and the lace in slot No. 4. This sort of work is very popular for making camisoles and trimming underwear.

III. 5 shows a band of embroidery finished on edge with lace edging. The embroidery is placed in slot No. 1 and the lace in slot 4.

III. 6 shows lace insertion used as trimming. The insertion is placed in slot No. 1 and the material underneath the Attachment. The free edge of the insertion is then sewn in position with the presser-foot. The material is then cut away from the under side and the edges turned back and a second row of stitching added for finish and strength.

III. 7 shows braid sewn to the garment to be used in trimming. Braid, ribbon or velvet may be used in this manner and is inserted in slot No. 1 with the garment underneath the Attachment. It is best to make a crayon mark or fold to indicate where the stitching is to come.

III. 8 shows bias-folded material sewn to the edge of a garment to be used as a finish and trimming. This sort of trimming is used for aprons and children's clothes. The bias-folded material is inserted in slot No. 1 and the edge of the garment in slot No. 5 with the garment wrong side up; then fold the bias material back on the right side and stitch in position with the presser-foot.
III. 9 shows folded bias tape sewn on the top of a hem for a finish. The folded tape is inserted in slot No. 1 and the edge of the hem in slot No. 5. Then turn hem and sew other edge in position with the Presser-foot.

III. 10 shows a box plait piped. Insert the piping in slot No. 3, and the edge of the plate in slot No. 4 for the wide piping effect. If a narrow piping is desired insert the piping in slot No. 3 and edge of plait in No. 1.

III. 11 shows bias-folded material used to cover a seam. The folded strip is placed in slot No. 1 and the material underneath the Attachment. Care must be taken to keep the row of stitching as close to the seam stitching as possible. The free edge of the bias strip is then sewn in position with the Presser-foot.

III. 12 shows bias-folded material used to finish a curved edge. This finish is practical for underclothes. Insert the bias-folded material in slot No. 1 and the garment in slot No. 5. Turn the bias strip back and add a second row of stitching with the Presser-foot.

III. 13 shows a French seam stitched with the Edge-stitching Attachment. After the seam is stitched with the Presser-foot and the material turned on the wrong side ready for the finishing, it is inserted in slot No. 5 and adjusted to the proper distance. This is especially practical for fine work where the seam shows through the garment.

III. 14 shows bias-folded material sewn in position. To be used for boning or as a stay for children's underwaist or for brassieres. The folded tape is inserted in slot No. 1 and the garment underneath the Attachment.

III. 15 shows bias-folded material as a trimming. It is quite easy to turn corners using the Edge-Stitching Attachment. To turn the outside curve stop the machine where the corner is to be turned and fold the proper amount of material over, then insert it in the Attachment and stitch until another corner is reached. It is not necessary to remove the material from the Attachment to turn the inside curve. Slot No. 1 is used for this kind of work and the garment is placed underneath the Attachment.
Practical Buttonholes made with the Binder and Hemmer

It is the desire of every woman to understand the art of making fine buttonholes, but many women do not have the time to spend working them, even though they are skilled in the art.

Good practical buttonholes can be made on the sewing machine with the help of the Binder and Hemmer. These buttonholes are strong and durable and will wear as long as the garment. They are neat and good-looking and a dozen can be made in a fraction of the time it takes to make one by hand. These buttonholes are especially practical for children's underclothes, rompers, dresses and for the backs of Princess slips.

Directions for Making

If the buttonholes are to be two inches apart, take a strip of material two inches wide and bind it as shown in B. The marks show this strip divided into sections. Each section is one-half inch wider than the button. If your button is one-half inch across add one-half inch, thus cutting your strip into pieces one inch wide. If the button is three-quarters of an inch wide, add one-half inch and cut strip into sections one and one-quarter inches wide.

After your strip is cut into sections sew the pieces together as shown in C, using the presser-foot. Bind the edges with bias binding as shown in D. This makes a finished strip of buttonholes which are strong and practical for children's clothes.

E shows the same idea worked out with finer materials; the Foot Hemmer in stead of the Binder is used to finish the first strip, in order to get an effect dainty enough to use with dimity, batiste, etc.

E also shows the edges sewn to another piece of cloth, which in the case of practical sewing would be the garment. This is done when they are in the stage as shown in C, binding the edge of the garment in with the row of buttonholes, then stitching the free edge of the binding flat on the garment, using the presser-foot.
OIL PLACES INDICATED BELOW

KEEP MACHINE WELL OILED

Oil in all the places indicated on page 7. To oil the underside of machine, slip the belt off the balance wheel and turn the machine back on its hinges and oil in places indicated above.

THE IRON STAND

Oil occasionally the treadle centers, upper and lower end of pitman and the balance wheel hub bearings. Whenever you oil the machine work it a little to distribute the oil. After standing a few moments take a soft cloth and clean the superfluous oil from the Japaned parts of machine.

TO CLEAN MACHINE

If the machine is dirty or gummed up with poor oil, oil thoroughly in places indicated above and on page 7, using Kerosene (coal oil) run the machine for a short time, wipe dry and oil with good sewing machine oil.
White Sewing Machine Company of Canada, Ltd.

Factory, Guelph, Ontario, Canada