INSTRUCTIONS

FOR USE AND CARE OF

White

Rotary Electric

Sewing Machines

MODEL NUMBER 43

and

MODEL NUMBER 41

WHITE SEWING MACHINE CORP.
CLEVELAND 1, OHIO

In Canada
White Sewing Machine Products Limited
Toronto 2B, Ontario, Canada

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GB-105015

Wherever a reference is made to turning disc wheel, or raising or lowering take-up, it is important that the wheel always be turned in the same direction as it does when sewing; that is, with the top of the disc wheel turning away from you as you face the machine.

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, the needle screw 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.

Use Only This Needle

An illustration showing the exact length of the Flat Shank Rotary Needle, to use in this machine. To use a longer or shorter needle will cause trouble and injure the machine.

When ordering needles, attachments or machine parts, do not fail to give the number of the machine which you will find stamped on the bed plate near base of the arm.

Sizes of Needles and Thread

Size of Needles	Class of Work to Sew	Cotton Thread	Silk Thread
00	Very Thin Muslins, Cambrics, Linens, etc.	150–300	000
0	Very Fine Calicoes, Linens, Shirtings, Fine Silk Goods, etc.	90–150	00
1	Shirtings, Sheetings, Bleached Calicoes, Muslins, Silk, General Domestic Goods and All Classes of General Work.	60–90	0-A
2	All Kinds of Heavy Calicoes, Light Woolen Goods, Heavy Silk, Seaming, Stitching, etc.	40–60	B
3	Tickings, Woolen Goods, Trousers, Boy's Clothing, Corsets, Cloaks, Mantles, etc.	30–40	C
4	Heavy Woolens, Tickings, Bags, Heavy Coats, Trousers, etc. Heavy Clothing Generally.	20–30	D

Removing Bobbin Case

Remove handhole cover by lifting it up at finger hole, reach down with left hand and take hold of bobbin case by lips C and D (Fig. 1) with the first finger and thumb. A slight pressure with the thumb will depress lip D and the case may be readily removed.

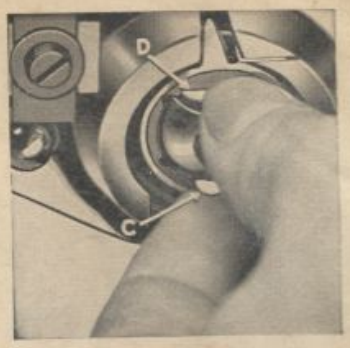


Fig. 1

Threading Bobbin Case

Fig. 2

Fig. 3

Holding the bobbin case in the left hand, with projecting tongue upward, place the bobbin over center spindle in the case (Fig. 2) starting the thread into slot "A" as shown. Then after bobbin is all the way into case (Fig. 3) pull end of thread along in slot toward projecting tongue until it emerges at point "B."

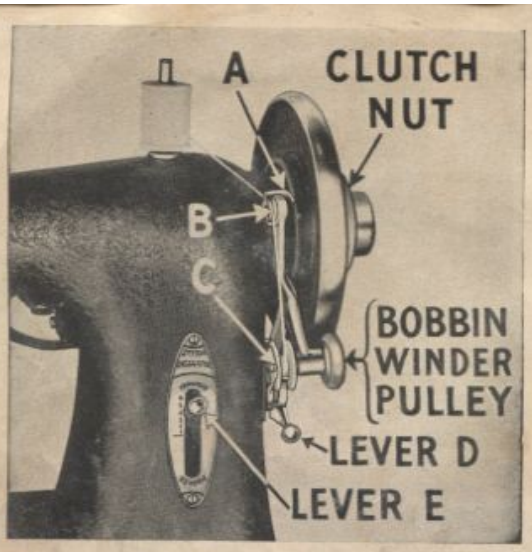


Fig. 4 **To Wind the Bobbin**

Place bobbin on bobbin winder spindle and push to the right as far as it will go. Hold the disc wheel with the left hand and turn the top of clutch nut toward you (Fig. 4), releasing the sewing mechanism. Next, place a spool of thread on spool pin nearest the disc wheel. Hook end of thread under guide "A" from right to left. Next, lead thread downward between tension discs "B" and put end of thread through hole "C" in bobbin, letting about two inches of thread project through hole. Next, pull lever "D" upward, engaging bobbin winder pulley with disc wheel. Next, hold the end of thread extending through hole "C," run machine and complete the winding of bobbin. When bobbin is filled, lever "D" will automatically release, disengaging bobbin winder pulley. Cut off end of thread at hole "C." Then tighten the clutch nut, turning the top from you while holding the disc wheel firmly.

For Treadle operated machines see bobbin winder instructions on page 27.

Directions for Threading

With take-up lever "4" at its highest point, place spool on spool pin. Throughout entire threading operation maintain a slight tension on thread with the right hand. Next, with left hand pass thread under both hooks of guide "1." Next, pull thread downward and pass under tension plate hook "2" from front to back. Next, pull thread upward into auxiliary spring "3." Be sure thread falls into notch "A." Next, continue upward, hook thread (upward motion) into take-up clip spring "4." Next, pull thread downward and hook into needle clamp thread guide "5" from back to front. Next, run thread through the eye of needle "6" from left to right, pulling about two inches of thread through the needle eye.

Presser Bar Cap

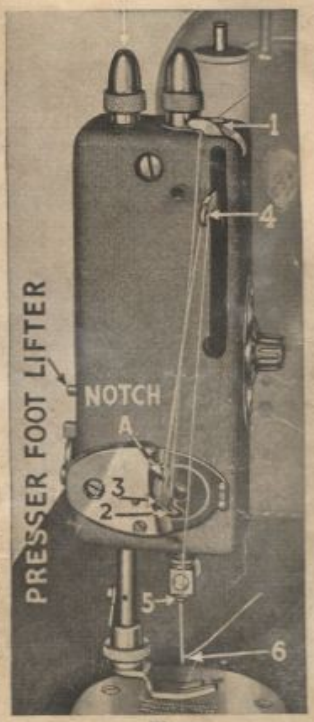


Fig. 5

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 revolve the disc wheel until

the needle passes to its lowest point and returns, and, as the needle ascends it will draw up the lower or shuttle thread with it. Take the ends of both threads and guide them underneath the presser-foot (upper thread in presser-foot slot), leading the ends away from you toward the back of machine, and it is ready for sewing.

To Remove the Work

Turn the disc wheel until the take-up (4, Fig. 5) is at its highest point, raise the presser-foot with presser-foot lever and DRAW THE FABRIC BACK about three inches in a straight line, pass both threads over the thread cutter on the presser bar. After the material has been removed and the threads cut, do not run the machine accidentally or otherwise without material under the presser-foot. (See following paragraph.)

IMPORTANT—When the machine is threaded, do not operate it without having material under the presser-foot.

Failure to observe this instruction will cause thread to lodge in the shuttle mechanism and prevent machine from running properly. To correct, take out bobbin case and run the machine in the wrong direction, turning wheel by hand, and it will cut thread out; or better still remove shuttle and clean the race and driving pins.

The Tension Releaser is operated automatically by the presser bar lifter. When it is raised all tension is removed from the upper thread, and the sewing may be removed without tugging the thread.

To Change the Stitch Length

Lever "E" is the stitch length regulator—both forward and reverse. The position of the acorn nut on lever "E" regulates the length of the stitch—forward or reverse.

For **FORWARD** stitching loosen the acorn stop nut on lever "E" (Fig. 4) and move the lever up to the desired stitch length position as shown on the numbered sector on the stitch regulator plate, and turn the acorn stop nut until it touches the plate.

Number 1 is the shortest stitch, number 6 the longest.

For **REVERSE** stitching, pull lever "E" (Fig. 4) down below the numbered sector until it comes to a stop.

To return to forward stitching move the lever upward.

Proper Adjustment of Tensions

If the upper tension on thread is tight and the lower tension loose, the upper thread will be drawn to the top thus:

If the lower tension is tight and the upper tension loose, the lower thread will be drawn to the bottom thus:

When tensions (both upper and lower) are properly adjusted the stitches in material will look alike on both sides thus:

Adjusting Upper Tension

See Fig. 25. Be sure the presser foot is down whenever adjusting the upper tension, as the tension is automatically released when the presser foot is raised.

To **increase** the tension on the upper thread turn the dial clockwise (toward No. 8 under pointer etched in plate). To **decrease** the tension, turn dial counter-clockwise (toward No. 1 under pointer.)

With this foolproof regulator you may duplicate any particular tension you choose at any time without guess-work or time-wasting experiments. Just turn the dial until the number you desire appears at the top directly underneath the pointer.

Adjusting Lower Tension

See Fig. 6. Tension on the lower thread is regulated by adjusting screw (T) in bobbin case. To **increase** the tension **tighten** the screw; to **decrease** tension **loosen** the screw.

Fig. 6

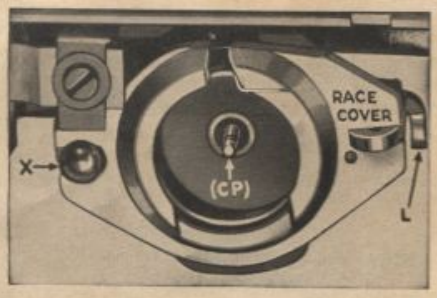


Fig. 7

Removing Shuttle

See Figs. 7-8. Remove hand hole cover; then remove bobbin case, and tip the sewing head back on its hinges. Next, turn the disc wheel by hand until the **point of the needle just enters the needle plate hole.** Then push rear end of latch (L), releasing the shuttle race cover on one end, allowing the other end to be easily removed from under pin (X). The shuttle can then be removed by taking hold of its center pin (CP) with thumb and first finger.

When shuttle has been removed, clean it thoroughly, being sure that no thread is wound around center pin (CP). Also clean the shuttle race cover and the shuttle race (SR), carefully removing any threads or lint that may be in it, and be especially sure that driving pins (DP) are clean. Before replacing, place a drop of oil on tip of finger and apply on outer edge of shuttle and shuttle race and center pin (CP).

Replacing Shuttle

See Figs. 7-8. With the head tipped back on its hinges, turn the disc wheel by hand until the **point of the needle just enters the needle plate hole** and so the arrow and the word "top" is exactly in the position shown (Fig. 8). With the thumb and first finger of the left hand take hold of the center pin (CP) and hold the shuttle exactly in the position as shown in Fig. 8, so the word "top," stamped on shuttle, lines up with the word "top" in driver, then the driving pin holes (DPH) will slide

over driving pins (DP) easily, and **without forcing,** allowing the rim of the shuttle to enter the shuttle race readily. The shuttle race cover will then go into place easily, the fork at one end fitting back of pin (X) and the slot in the other end passing over latch (L) which will snap back to its holding position when the shuttle race cover is pushed back into place.

Be certain of the position of the needle and arrow before attempting to replace the shuttle, and **do not force any of these operations,** as the entire assembly goes together very smoothly if the parts are properly placed.

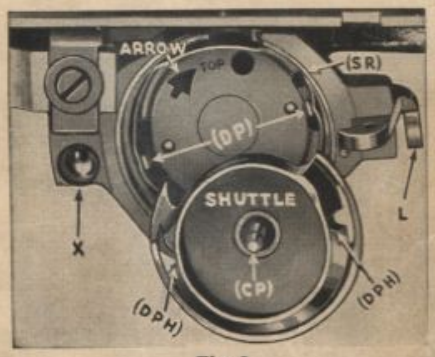


Fig. 8

The Attachments

In the following pages there are many suggestions covering a variety of beautiful and worthwhile sewing that the user can now enjoy doing with this machine and its complete complement of attachments.

The machine itself is remarkable. Neither its operation nor that of the various attachments is either difficult or complicated. Yet in their use, one quickly gains the facility for doing every conceivable kind of beautiful sewing, with all the daintiness of expert hand work, yet having the perfection of mechanical precision—and without valuable time begrudged from other enjoyable occupation.

Important

Most of the attachments used with this machine must be attached to the presser-bar in place of the regular presser-foot. To remove presser-foot from machine, raise the take-up to its highest point, loosen knurled thumb-screw on presser-bar. When replacing presser-foot or putting on any attachment be certain it is pushed back onto presser-bar as far as it will go. Always be sure that knurled thumb-screw is tightened securely.

The Narrow Hemmer

Fig. 9

Remove presser-foot and attach the narrow hemmer. Fold over one-eighth inch of material for a few inches along the edge, then insert between scrolls in hemmer (narrow fold of material on top) and draw back until starting end is under needle. Lower presser-foot and begin to sew, guiding material with left hand, so a uniform amount of material keeps feeding into scroll. Too much material feeding in will result in a wide and uneven hem — too little will prevent edge from turning under, leaving a raw edge.

Hemming and Sewing on Lace, One Operation

The narrow hemmer is slotted at the needle hole, for making a fine hem and sewing on lace at the same time. With the right side of material down proceed to make the narrow hem as previously explained. Simply insert the edge of the lace (right side down) in the slot leading to the needle hole, and

guide the lace with the right hand, while feeding material into the scroll with the left hand.

Fig. 10

The French application of lace with invisible stitching also requires the use of the narrow hemmer. Place lace under hemmer with edge of lace against the material being turned into the hem, and proceed as previously explained. Thus the edge of the lace will be enclosed in the turned hem, all in one stitching. Then press the hem back on wrong side of material and no stitching will be visible on right side.

The Hemmed Fell

A felled seam of double strength is possible if the narrow hemmer is used as guide for both stitchings. Place fabric to be seamed together with right sides facing and lower edge of seam extending 1/8-inch beyond upper as it is placed on machine. Feed both seam edges into the hemmer so that in stitching, the edge of upper section will be enclosed in the hem being turned in under section. The seam thus finished is termed a French seam. To fell this seam open fabric and crease seam so that turned edge of hem will be enclosed. Enter hem again in scroll of

Fig. 11

hemmer so that edge of hem feeds through hemmer scroll from the right as shown in illustration. The second stitching will then appear at extreme edge of turn with no guiding necessary.

Wide Hemming

The assortment of wide hemmers is furnished for heavier work and for making wider hems. They carry the fabric in a slightly different manner than described for the Narrow Hemmer.

Turn over for about 2 inches toward the wrong side about ⅛ inch along the edge of material to be hemmed.

Enter material in hemmer from the left and gradually feed it around and up toward the right until "spoon" portion is completely enclosed. Now draw material back toward you allowing the crease on turned edge of fabric to fit around edge of spoon.

Quilting

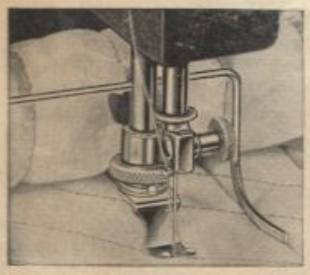


Fig. 12

Remove regular foot and replace with quilter foot. Loosen screw in thread cutter and pass the quilter guide through hole in presser-bar, adjust the quilter guide to the right of the needle according to the desired space between stitching, and high enough to allow the goods to pass freely under it, and then fasten the quilter securely with thread cutter screw.

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 quilter guide follow the crease, quilt the remainder by keeping the guide in a line and over the last row of stitching.

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.

The Five-Stitch Ruffler

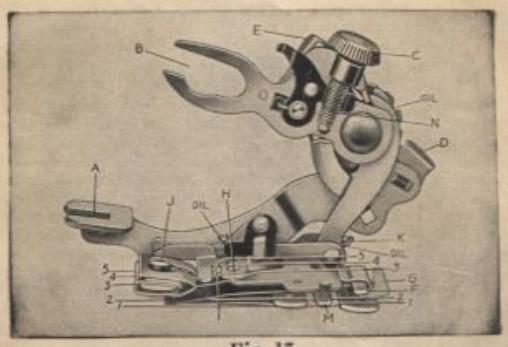


Fig. 13

Letters designate the parts of Ruffler
Figures indicate the placement of materials

A—Foot which is attached to Presser-Bar.
B—Fork Arm. The section placed astride the needle clamp screw.
C—Adjusting Screw. Used to regulate the fullness of pleats and gathers.
D—Five-Stitch Lever. Used for setting a five-stitch pleat.
E—Lever. Adjusts for pleats or gathers in groups by throwing Ruffler into neutral.
F—Seam Guide.
G—Sliding Guide. Used to vary size of headings.
H—Piping Guide.
I—Edge Guide. Used to determine a close-edge stitch on material when ruffle is entered from the right.
J—Screw. Used to set edge guide.
K—Adjustable heading guide.
M—Lip which separates seam guides.
N—Blue spring over adjusting screw.
Line 1—Is under the ruffler and indicates the position for the garment or band to which ruffle is sewed giving a ¼" seam.
Line 2—Between the blue blades where the feed blade will gather for pleat material with a ¼" seam.

Line 3—The upper piece of material used when ruffle is sewed between two pieces of material.
Line 4—Guide for piping strip.
Line 5—For edge-stitching material to ruffle that is entered from right.

Ruffling

Remove the presser-foot from machine by loosening knurled thumb-nut on presser-bar. Place ruffler foot "A" (Fig. 13) in position on the attachment holder and at the same time set the fork arm "B" astride the needle clamp, pushing ruffler from you as far as it will go and tighten thumb screw securely. See that needle does not strike attachment. The goods to be ruffled must be placed between the two blue blades and then in gauge "G." Gauge "G" 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, have arrow on stitch regulating lever on sewing machine between "1" and "2" and turn adjusting thumb-screw "C" up until the end of screw is $\frac{1}{8}$ of an inch below the blue spring "N." To make a heavy ruffle, lengthen the stitch to between "2" and "3" (see stitch regulator), and turn adjusting thumb-screw "C" downward until the desired fullness is obtained. Adjusting lever "D" should be down.

To Ruffle on Band

To ruffle on band, place under both springs next to feed and over lip "M." Place goods to be ruffled between the springs and in gauge "F." If a facing is required, place facing above both springs and under foot.

To Ruffle With a Heading

To ruffle with a heading, place the goods to be ruffled between the spring with heading to the right and adjust gauge "K" for desired heading.

To Pipe or Edge-Stitch

To pipe or edge-stitch a ruffle, the piping is placed in the ruffler through hole "H." and edge to be piped is creased and inserted in gauge "L." If stitching comes too far from the edge, loosen screw "J" and adjust gauge "H" to the left. Tighten screw "J" thoroughly after adjusting is done. The ruffle to be piped is placed at the right of the blades and in guide "G" to keep ruffle heading even.

Pleating

To adjust for pleating, turn adjusting screw "C" down as far as it will go; pull adjusting lever "D" toward you. Insert the cloth between the blue springs, the ruffler will then make one pleat at every fifth stitch. The space between pleats can be

regulated by adjusting the stitch on the machine, a longer stitch makes a wider space between the pleats and a shorter stitch brings the pleats closer together.

Making Gathers or Pleats in Groups

If you find it desirable, when making garments to have gathers or pleats in groups, especially where the gathers are used at the side with a plain space or surface between, the work can be done by pushing adjustment "E" forward or from you. The ruffler will then sew plain until the adjustment "E" is again pulled toward the operator for making pleats in groups. You will, no doubt, find it necessary to mark your material in order to measure for even spaces between the groups of gathers or pleats. Your ruffler should be oiled at place indicated.

To Adjust Ruffler Back for Regular Ruffling

Turn screw "C" to left until end of screw is $\frac{1}{8}$ of an inch below the blue spring "N." Push lever "D" down. Pull adjustment "E" toward you and move stitch regulating lever on arm of sewing machine to between "1" and "2."

Shirring with Ruffler

Fig. 14

First remove hand hole cover, insert ear "YY" of shirring plate (Fig. 14) into gauge screw hole in needle plate, and, holding down shirring plate, replace hand hole cover over ear "XX" on shirring plate.

Before putting on ruffler, loosen screw that holds the plate supporting the lower blue blade and remove this plate and lower blue blade, then place ruffler on machine as directed, being certain that blue ruffling plate is on top of surface No. 1 of shirring plate. Important that ruffler be attached firmly by knurled thumb screw.

Place the material to be shirred under the blue blade of ruffler, but over the entire shirring plate and into guides 2, 3 or 4 as may be desired. (NOTE) When shirring is completed put the lower blue blade back onto ruffler before attempting regular ruffling or pleating.

Directions for Using the Shirring Foot

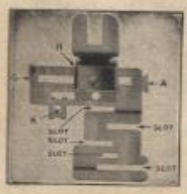
Remove the presser-foot and replace with the Shirring Foot.

Fig 15

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 top tension.

Combination Edge-Stitcher, Tucking Guide and Top-Braider



The Edge-Stitching Attachment is fastened to the machine in the same manner as the Presser-Foot. There are five different slots, which are shown in Fig. 16, serving as guides for sewing together laces, insertions, embroideries, sewing in position folded or hemmed edges, bias-folded material or piping, etc.

Fig. 16

How to Adjust the Edge-Stitcher

To adjust, move the lug "A" 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 guide.

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

Tucking

The numbers 2 to 6 inclusive stamped on the back edge of the sliding guide represent the width of tuck in eighths of an inch. After folding the material for the first tuck, put the folded edge into the guide slot which is nearest the needle. When the left edge of the friction spring "H" coincides with the number 2 on the scale a ¼" tuck results.

In like manner, set the guide at 3 for a ⅜" tuck.
set the guide at 4 for a ½" tuck.
set the guide at 5 for a ⅝" tuck.
set the guide at 6 for a ¾" tuck.

For tucks narrower than ¼" move the guide "G" as far as desired to the left.

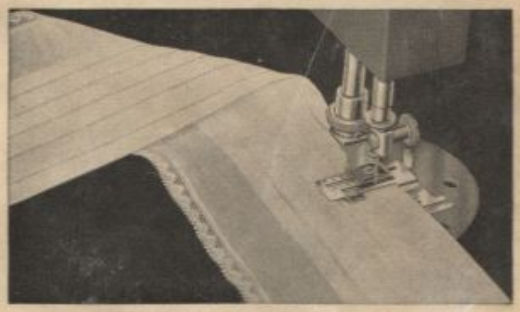


Fig. 17

Braiding

Move the guide "G" to the right until the braiding guide hole "K" is exactly in line with the needle hole of the attach-

ment. The design to be braided should be plainly marked or stamped on the top or right side of the fabric. Start the soutache braid into hole "K" and stitch along design, being sure that the soutache braid is feeding freely into hole "K" without twisting. To turn a corner, stop the machine **with the needle down through the braid** in the exact corner of the design, raise the presser-bar **just enough** to permit the turning of the fabric in the desired direction, lower the presser-bar and proceed as before.

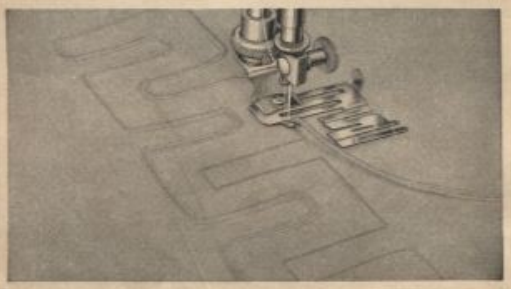


Fig. 18

The Scissors Gauge

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

Fig. 19

1¼ inch indicates the proper width for a bias fold, which is to be ½ inch wide when finished.

One inch indicates the width for cutting bias bands which are used with the binder.

One-half inch is for corded or plain piping. The piping is cut bias and folded double to use with the ruffler.

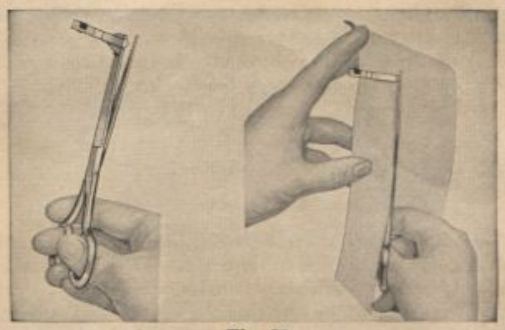


Fig. 20

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

Binding

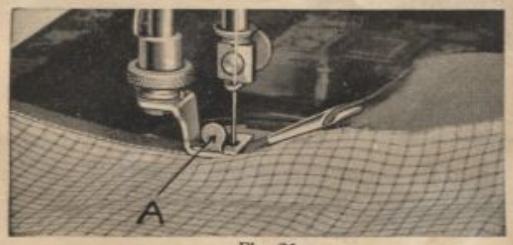


Fig. 21

Remove the presser-foot and substitute the binder. Cut the binding ⅞ inch wide (on the bias if convenient). Pass the binding through the scrolls of binder and under the needle hole in the attachment. Place the edge of the goods to be bound

between the scrolls of the binder, drop presser-foot lifter, guide the cloth with the left hand, and let the binding guide easily through the fingers of the right hand. To change the stitching, near or far from the edge, move binding lug "A" (Fig. 21) to right or left as desired.

Attaching Two Bindings

Contrasting Colors—One Operation

There are five slots of various widths in the right side of the scroll of the binder. These correspond in width to the five sizes of folded bias tape which are obtainable in most any dry goods or department store. Be sure that the binding used is inserted in the slot of corresponding width. Adjust the binder to left or right with lug "A" to bring the line of stitching the correct distance from the edge of the binding. It is well to make sure of this adjustment (by making a preliminary sample) before proceeding with the article which you have to sew.

Two tapes may be used at the same time, the wider inside of the narrower. The two are thus sewn to the edge of the fabric by the line of stitching, with the result that the edge of the wider tape appears as a piping in relation to the narrow or outside tape.

For smooth operation and good results it is necessary to use high grade oil. White Sewing Machine Oil is recommended for use on your machine.

The Combination Adjustable Zipper Attaching and Cording Foot

The attachment is designed so it can be adjusted for stitching either left or right side of cording in a seam or for stitching right or left side when attaching a slide fastener. Adjust by loosening thumb screw and sliding foot to desired position on bar.

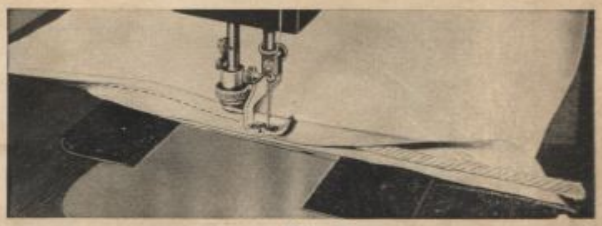


Fig. 22

Inserting Cording

Remove the regular presser foot and attach the Adjustable Combination Attachment in its place. Loosen the thumb screw on the attachment and move the foot to the right if the cording is to be to the left of the needle. See that the needle goes down in center of the needle hole before tightening the thumb screw.

Fold a strip of bias over the cord, right side out, and place under the attachment. Stitch along close to the cord.

Figure 22 shows the Adjustable Attachment being used to cover cord and join it to a fabric edge in one stitching.

When the fabric is extremely bulky, loosen the Presser Bar Adjusting Cap Screw slightly to allow the fabric to feed more freely under the adjustable combination attachment.

Attaching a Slide Fastener

Remove the regular presser foot and attach the Combination Attachment in its place. Loosen the thumb screw on the attachment and move the foot to the right or left as desired. See that the needle goes down in center of the needle hole before tightening the thumb screw.

The needle holes on either side are cut deep enough to allow sufficient space between the metal of the slide fastener and the line of stitching so the fabric will not catch in the slide pull as it is being opened and closed.

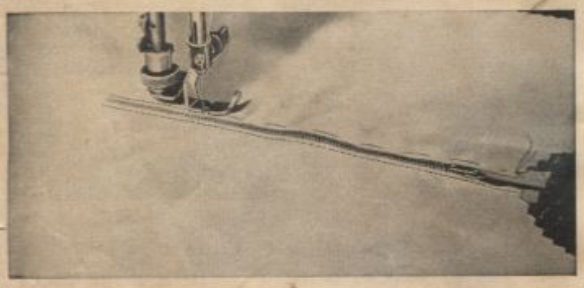


Fig. 23

Figure 23 shows a slide fastener being stitched in a garment with the Combination Adjustable Zipper Attaching and Cording Foot positioned to the right of the needle.

ELECTRICAL EQUIPMENT

Connections

Be sure that the motor pulley is so adjusted that it centers on the hand wheel for proper drive; next, see that the insulating bushing found on three-wire cord leading from the rheostat on the inside of the cabinet is properly placed in the hole found in the corner of the bed of the machine (see illustration); next, connect the three-contact connector plug to motor terminal as shown in illustration; next, unwind the long wall plug cord from the storage reel and connect it to any electrical outlet.

Fig. 24

Lubrication

Two cups (one at each end of the motor shaft) provide for motor lubrication. Unscrew the caps and fill with special motor lubricant or petroleum jelly occasionally, depending upon the use of the machine, approximately every six months.

Control

The desired control is obtained by the amount of pressure on the knee lever. Increased pressure on the knee lever increases the speed of the machine. The same method of controlling the speed applies in the case of Portable Electrics where the foot pedal is the means of speed control.

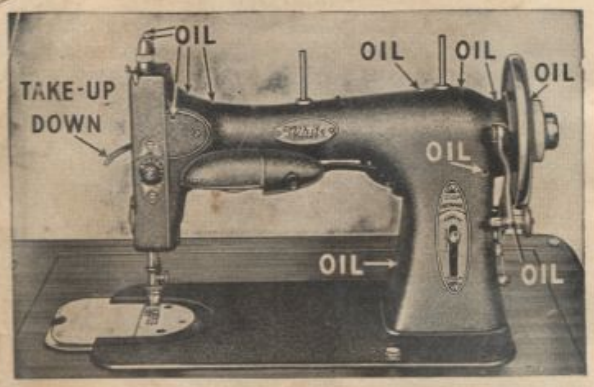


Fig. 25

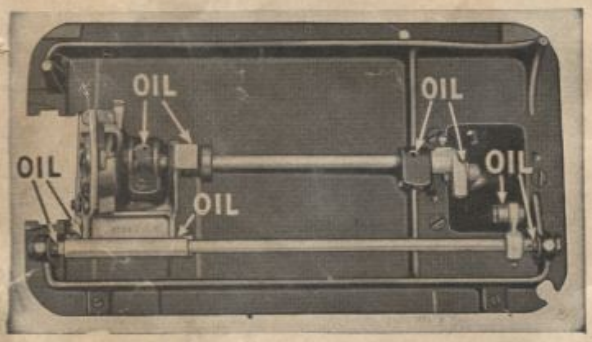


Fig. 26

Oiling Machine

Oil at the points shown by arrows in Figs. 25 and 26. Before starting to oil the machine it is very important that the disc wheel be turned by hand until the take-up (Fig. 25) is at its **lowest point.** To reach points indicated in Fig. 26, tip the sewing head back on its hinges.

Depending on how frequently the machine is used determines the oiling requirements. Moderate use requires only an occasional drop of oil at the points indicated on the illustrations as shown. Avoid over oiling to prevent soiling materials.

For smooth operation and best results it is necessary to use high grade oil. White Sewing Machine Oil, obtainable from any authorized distributor is especially prepared and recommended.

Cleaning Machine

If machine gets dirty or sticky as a result of using poor oil, or from long idleness, oil thoroughly with Kerosene (coal oil) at all points indicated. Then run machine for a short time, wipe dry and oil carefully with White Sewing Machine Oil.

The Disc Wheel

Whenever the disc wheel is turned by hand it should always be revolved in the same direction (clockwise) as the motor turns it.

Do not allow agents or unauthorized repairmen to tamper with your machine. When any repairs are needed or instructions wanted in connection with this sewing machine, consult or write the concern from whom you purchased this machine for directions.

General Information

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 caused by pulling the goods to or from you in such a manner that the needle strikes the throat plate. The needle may, however, break in trying to sew extraordinary heavy seams in hard surfaced fabrics such as canvas when the pressure on the presser-foot is not heavy enough.

To create more pressure upon the goods turn the presser-bar up 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 stitch being too short, or by pulling the cloth or by using too fine a needle with too coarse or uneven thread.

SUPPLEMENTARY INSTRUCTIONS for TREADLE OPERATED MACHINE

In general, this machine is the same as the one illustrated and described throughout this book (except for electrical equipment), so all instructions will apply, except for "Winding the Bobbin" (Fig. 4 page 4), which directions are given in this supplement.

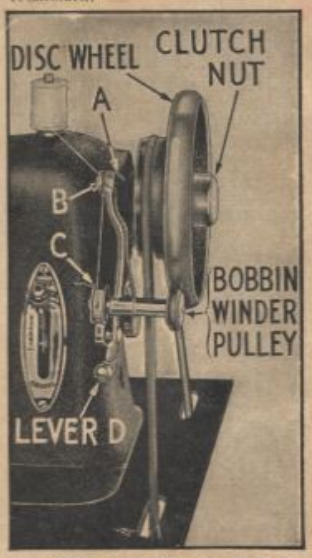
When referring to this instruction book you will notice that a few illustrations (Figs. 4, 24, and 25) do not look exactly like your machine due to the absence of the built in sewing light and motor (on electric machines only), but in all other respects they are the same.

WINDING THE BOBBIN
(TREADLE OPERATED MACHINE)

Slip a bobbin onto bobbin winder spindle and push to right as far as it will go. Hold the disc wheel with the left hand and loosen the clutch nut, releasing the drive pulley so it will run without operating the sewing mechanism.

Next, place spool of thread on bobbin winder spool pin. Next, slip thread under guide (A) and continue downward between tension

discs (B), then put end of thread through hole (C) in bobbin, from inside, leaving about two inches of thread extending outside of bobbin.



Next, pull lever (D) upward engaging bobbin winder pulley with disc wheel. Hold the end of the thread extending through hole (C) and operate foot treadle until bobbin is wound. Lever (D) will automatically release disengaging bobbin winder pulley when bobbin is filled.

Remove bobbin from spindle, cut thread at spool; then cut off the other end of thread at hole (C). Tighten clutch nut, turning the top from you while holding the disc wheel firmly.