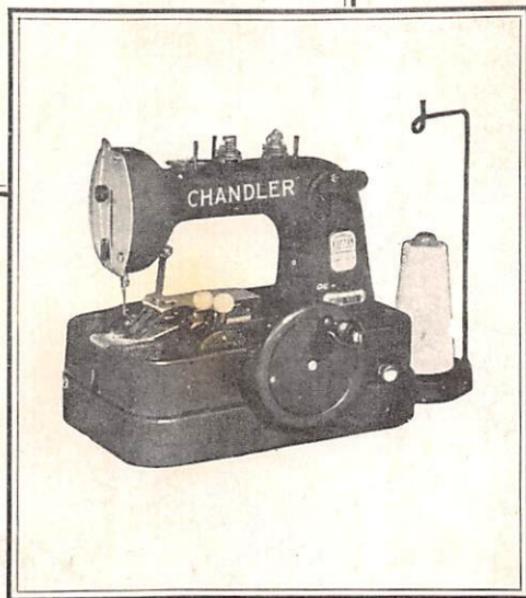


OPERATING  
INSTRUCTIONS

For the  
CHANDLER  
BUTTON  
SEWER

Models

401  
461  
471  
472P  
475P



CHANDLER MACHINE CO.  
Ayer, Mass.

## KNOW YOUR MACHINE

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Read these instructions carefully and thoroughly to fully understand your machine.

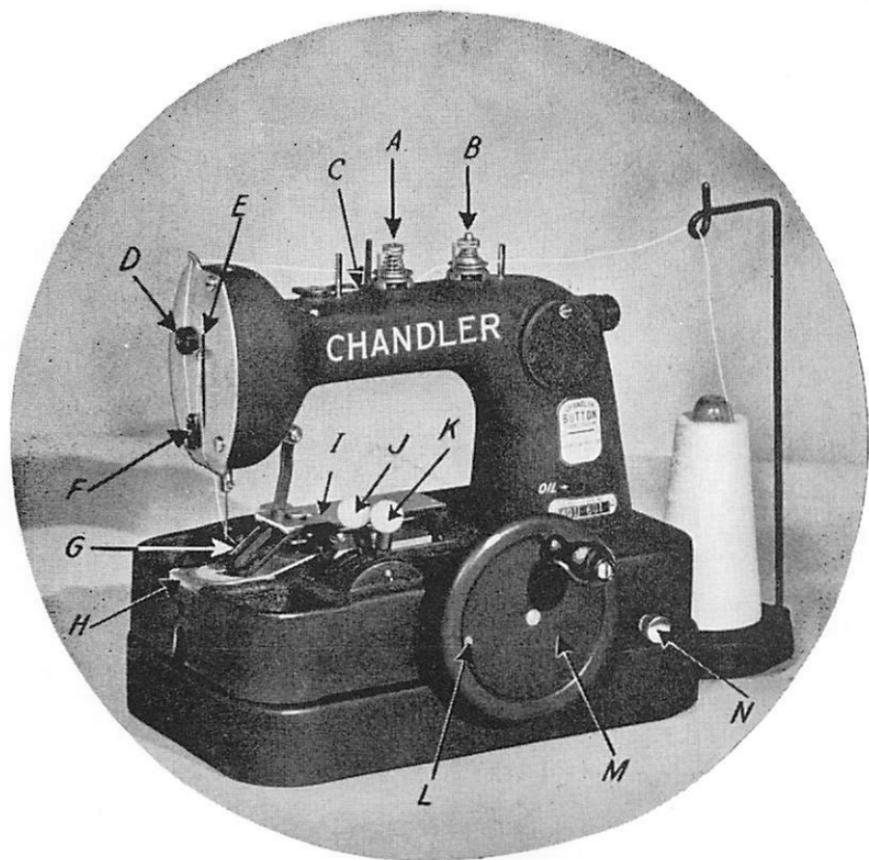
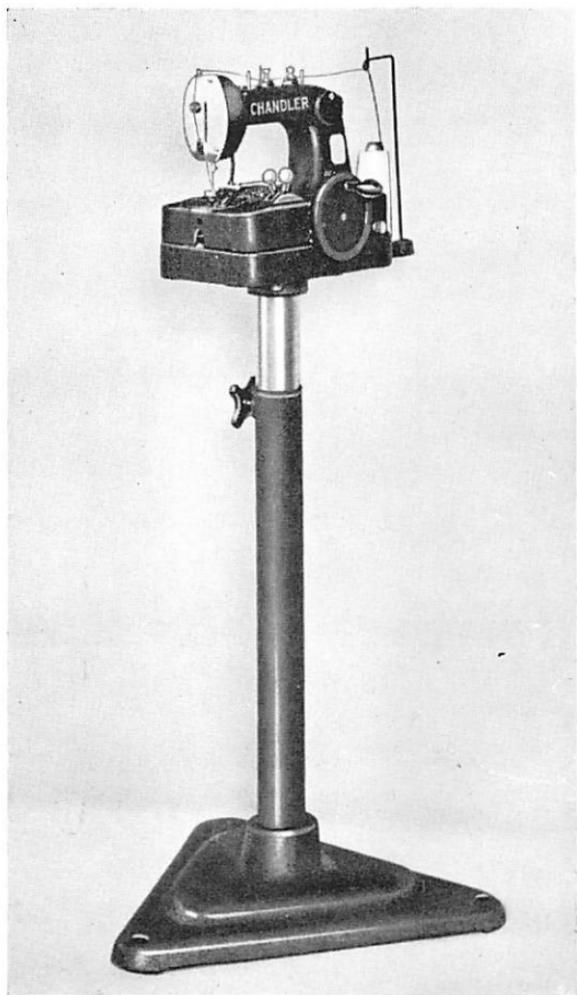


Fig. 1

A - Front Thread Tension  
 B - Rear Intermittent Tension  
 C - Thread Slack Lever  
 D - Thread Lock  
 E - Needle Bar Thread Take-Up  
 F - Face Plate Thread Guide  
 G - Button Clamp Jaws

H - Needle hole Plate  
 I - Button Clamp Top Plate  
 J - Hand Wheel Release Knob  
 K - Clamp Lifter Knob  
 L - Handwheel Stop Pin  
 M - Handwheel  
 N - Base Thumb Screw



**BUTTON SEWER** with Special Telescoping adjustable stand. Weight: 46 Lbs. without machine. Adjustable from 33" to 47".

The Chandler Button Sewer is a single thread, hand operated machine. It is purposely designed for use in such industries as laundries, coat and apron supplies, institutions, hospitals, hotels, dry cleaners, etc.

It will handle either 2 hole or 4 hole buttons in any size from the smallest shirt button to that used on underwear, pajamas, coats, aprons, etc.

The Sewing cycle is fully automatic, the flywheel being blocked at the completion of the sewing cycle. Raising the button clamp to release the material automatically breaks the thread on the underside of the button.

The sewing cycle consists of 12 stitches, which includes the cross over (on a 4 hole button) and the tying, or locking stitch, at the very end of the cycle.

Double release controls are located to the right of the button clamp. The right hand button controls the lifting and lowering of the button clamp whereas the left hand button releases the hand wheel for the continuation of the next sewing cycle.

Thread stand in rear of machine head provides for cones up to 12,000 yard size.

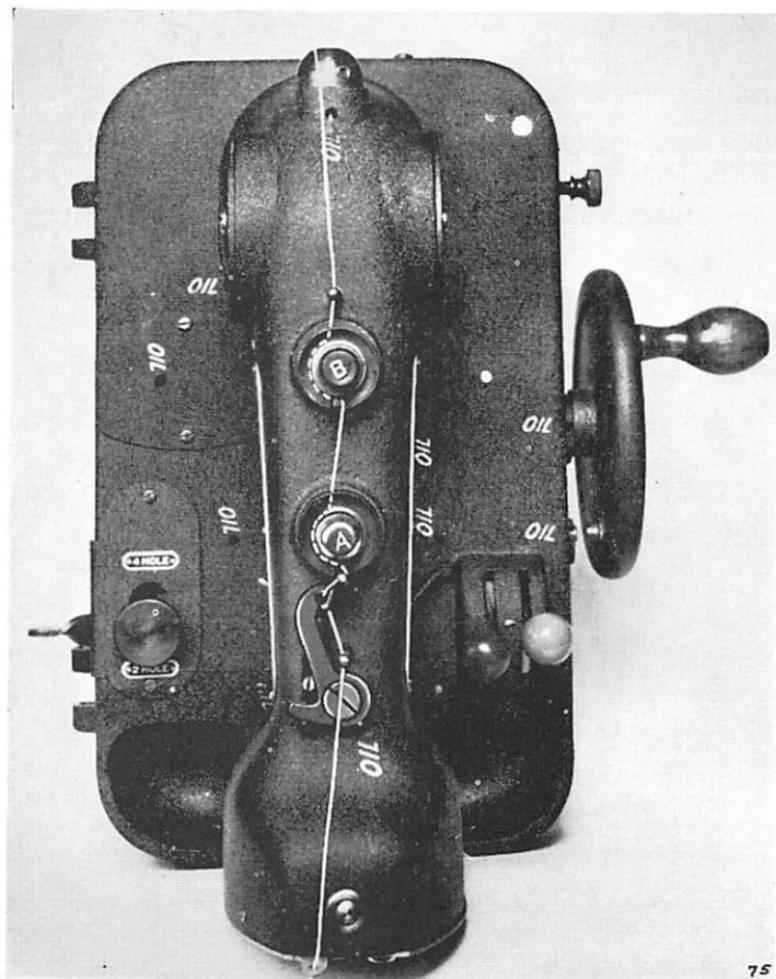


Fig. 2

## THREADING

Threading is the first phase in the successful operation of the Chandler Button Sewer, and usually the first step to consider after carefully unpacking the machine and setting it up for use.

Careful attention to the proper threading procedure is most important in order to be assured of perfect performance by the machine.

Two views are herewith shown outlining the proper threading and to help make it clear, we outline the following steps:

1. From the spool pin pass the thread through the first guide pin which is located on the very rear of the top arm.
2. Pass it between the rear tension discs to the LEFT of the tension post and then to the RIGHT of the small pin located in the slot of the discs.
3. Carry the thread along to the front disc keeping it to the LEFT of the tension post and then to the RIGHT of the little pin in the slot of the discs (same as 2).
4. Pass thread through the hole of the thread slack pull off lever.
5. Then through front guide pin and
6. over to the hole in the top of the face plate.

**1 - 6 see fig. 2**

7. Then push the thread through the center of the thread lock which is located on the left center of the face plate (making sure the clamp that holds the button is **down** as otherwise the thread lock is closed).
8. From the thread lock catch the thread in the lower guide plate by merely pulling the thread up from underneath.
9. Insert the thread through the thread take-up on the needle bar passing it through from **left to right**.
10. Then guide the thread through the hole in the lower end of the face plate and pass the thread through the eye of the needle from **FRONT to BACK**.

**6 - 10 see fig. 3**

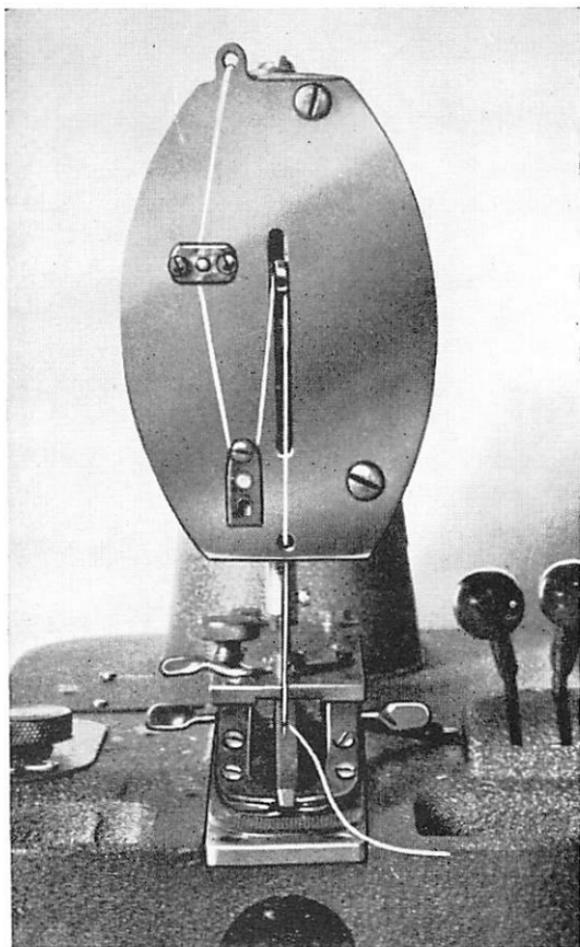


Fig. 3

## TENSIONS

There are only two thread tension adjustments, both are at the top of the machine. The rear thread tension "B" (Fig. 1) is an intermittent tension and must be **kept very tight**. (This rear tension is locked in position by means of a set screw on the side of the thumb nut. It is "factory set" so do not change it for adjusting tension on the thread. This

rear adjustment merely holds the thread before the end of a stitch to keep the looper from stealing more thread from the cone instead of pulling up the loop under the button).

**The front tension "A" (Fig. 1) regulates the tightness of the stitch and is the most important one.** This tension should be light and can be determined by turning the machine until it stops (hand wheel is up against stop pin). In this position you will note the rear tension is raised and thus released. At the same time lower the button clamp so the thread lock on the face plate is open (center plunger is loose). Then pull the thread at the needle to be sure it pulls free with only a slight tension. When tension is too tight, then loosen the FIRST tension, "A", a half turn at a time until thread pulls freely through the needle. If too loose tighten it slowly.

**If first tension "A" is too tight the looper will snap the thread.** If too loose the knots on the under side of the button will be loose, making a loosely sewed button.

**BE SURE YOU MAKE THESE THREAD TENSION ADJUSTMENTS ONLY WHEN THE HAND WHEEL IS BLOCKED BY THE PIN AND THE BUTTON CLAMP LOWERED.**

## **SEWING PROCEDURE**

Before the operator can sew on a button, the right hand control button (red color, see Fig. 1) should be pulled forward as far as possible so that the thread slack pull off (see Fig. 1) lever on top of the machine is kicked over to the left. Then when the clamp is lowered, the proper slack in the thread is provided.

At the same time, the operator must see that there is at least  $2\frac{1}{2}$ " of thread projecting from the eye of the needle.

**IF THERE IS NO SLACK IN THE THREAD AT THE TOP OF THE MACHINE AND NO EXTRA THREAD FROM THE EYE OF THE NEEDLE, THE LOOPER WILL NOT CATCH THE THREAD and the machine will go through the full cycle of sewing without even making a stitch. (See Fig. 3, Page 6).**

## BUTTON CLAMP ADJUSTMENT

The button clamp can be opened to any size button. The small lever E, (Fig. 10, Page 23), on the top of the button clamp plate is to set the opening of the jaws to the smallest button you may use. The jaws should be adjusted so that they close a trifle smaller than the size of the button so when the button is inserted, the jaws will clamp the button with a little tension and thus hold it in place.

## 2 HOLE AND 4 HOLE

On the left side of the machine is a lever A, (Fig. 10, Page 23), and its locking thumb screw. Moving this adjustment clear forward towards the operator sets the machine for a two hole button. Moving it clear to the back sets it for a four hole button. After moving this adjustment be sure to tighten the thumb screw so the setting will not move while sewing.

## NEEDLES

Needles must be inserted with the groove of the needle TOWARDS THE FRONT. Be sure to insert the needle all the way up into the needle bar. Make sure no broken part of the old needle remains when inserting a new one. If the needle should become bent, replace it with a new one.

THE NEEDLES RECOMMENDED ARE GENUINE CHANDLER AS SHOWN BELOW



A needles are used for all Chandler Hand Button Sewers.  
B needles are for 472P and 475P Machines.

B needles have spear point, are one size heavier and are, therefore, recommended for cuff tacking and sewing suit buttons.

B needles can be used on the hand machines for sewing buttons on heavy or highly starched material such as linen supply or overall work.

The needles illustrated are **exact length**.

Check your needle with illustration if in doubt.

## **THREAD**

A cone of the proper thread is sent with the machine. We suggest using a strong glazed, hard finished thread. If you use a soft thread you will get poor results and experience thread slippage and missed stitches. Best results can be obtained with **Chandler Button-Sewing Thread**.

## **BUTTONS**

We suggest the use of 4-hole buttons. They spread the stitches over a wider area on the material and gives the machine a much better chance to work as you are not trying to crowd all the stitches between two holes as in a two hole button. A four hole button is a good selling point, it duplicates the original button on the shirt and helps eliminate the danger of the button pulling off, as the button is held on over a wider area of the material.

Use buttons where the spacing of the holes is the same for all sizes. Watch out for very large or very small buttons where the spacing is greater and may cause the needle to bend or break.

We may caution against the use of cheap, low price bone or pearl buttons. These buttons have razor sharp edges at the holes and would cause the thread to cut and break, making one think there is something wrong with the machine. The holes are apt to be unevenly spaced, also causing burring or deflection of the needle.

## **TO START THE MACHINE**

The left hand control button (blue, J Fig. 1) releases the machine for the next sewing cycle. To release the machine, pull this button forwards. In the event that you wish to sew over the button a second time, do not pull back on the red button, but merely pull back on the blue and turn the machine to repeat the sewing cycle.

Do not repeat this cycle too often on a two hole button as this will put in too many stitches and plug the holes with so much thread that the needle will bend in trying to go through it.

## ADDITIONAL INSTRUCTIONS FOR THE CLASS 472-P & 475-P MACHINE

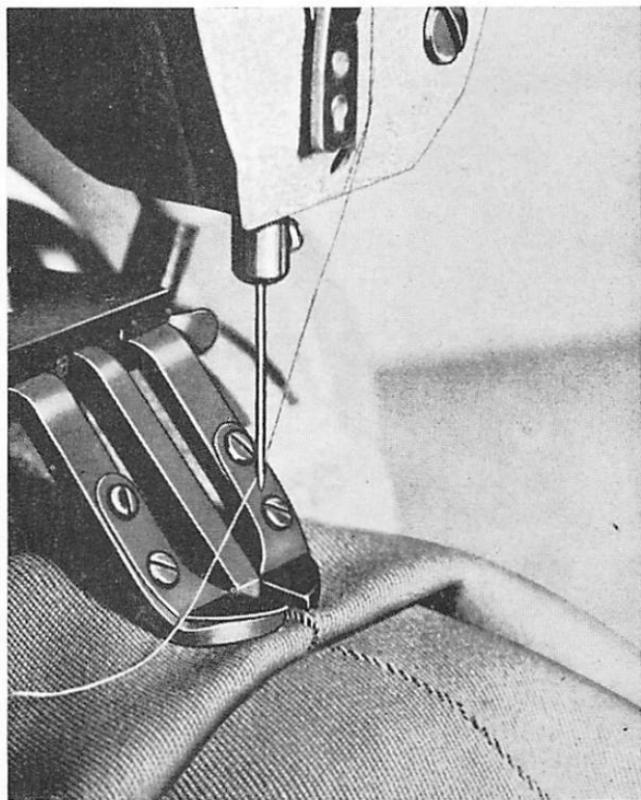


Fig. A  
**CUFF TACKING**

This is done by placing the cuff under the regular button jaws. Be sure to spread the jaws so that the needle will not strike the top jaw clips. (See Fig A.).

On light weight trousers the tack can be made at the top of the cuff right in the seam. The operator can spread the seam with the fingers so that the tack is drawn into the seam and made invisible.

For extremely heavy trousers or extra heavy cuffs it is best to tack off the seam where there are not so many thicknesses of material.

When tacking off the seam, fold back the top of the cuff and place it under the jaws so that the tack is made half in the cuff and half in the single cloth thickness of the trouser itself. This is called "blind" tacking. It takes practice to learn the exact location under the jaw so that the operator will catch the tack at the edge of the fold so that the tack will not show through to the front of the cuff.

This method is preferable on heavy trousers to prevent the needle from bending and causing thread breakage. Neutral grey thread can be used regardless of the color of the trousers. For this "blind" tacking operation (See Fig. B).

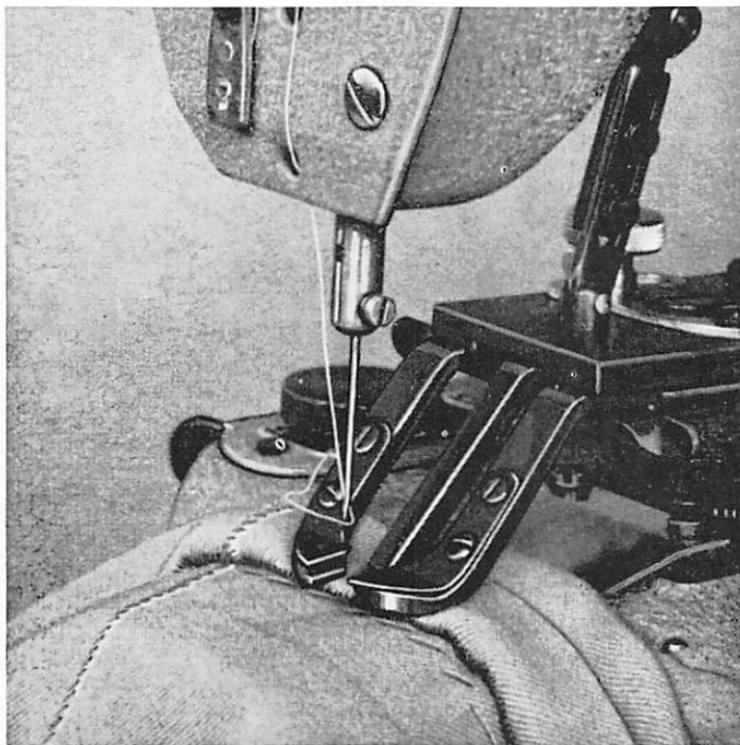


Fig. B

## BLIND SEWING OF A BUTTON

In many cases it is desirable to sew on a button without the stitches showing on the underside of the cloth. To some Cleaners this is very important on suit coats.

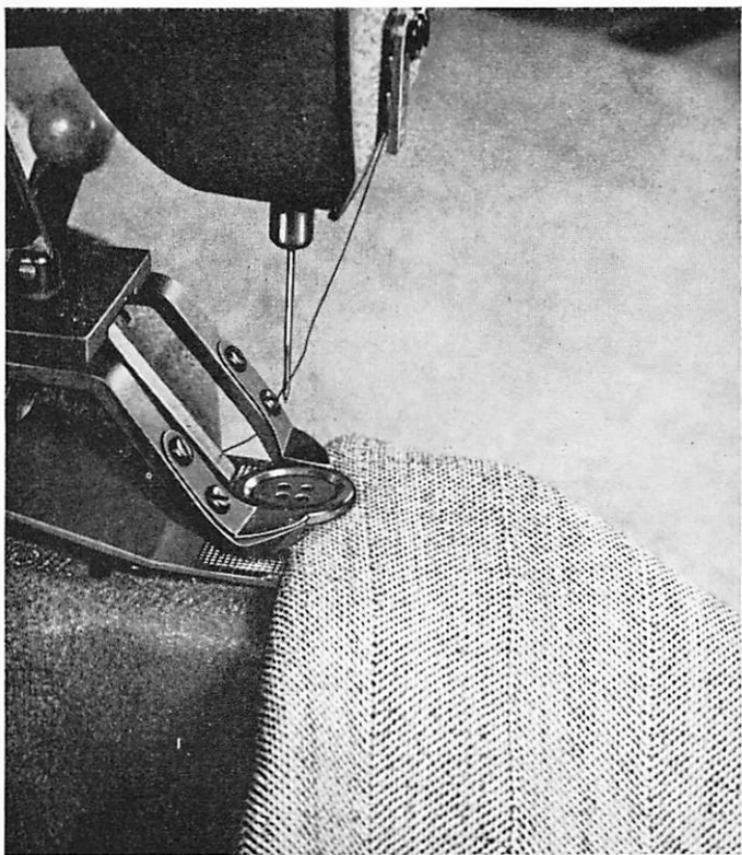


Fig. C

(See Fig. C.) This will illustrate a suit coat that has been turned under at the point where the button is to be attached. Place the folded material under the front half of the button only, or, in other words, under the first two holes only. The sewing will then be done in the fold of the cloth and will not show through the material. If the material is inserted more than halfway into the button there is a slight possibility that some part of the stitches may show through. This operation will take a little practice. Once it has been mastered, it can be successfully used for attaching buttons onto suit coats and suspender bands without any stitches showing on the under side of the material.

# **INSTRUCTIONS**

**for**

## **TIMING, ADJUSTING, AND CHECKING THE MECHANICAL SETTINGS.**

**All mechanical settings should be left strictly alone, and should not be tampered with.** The following pages are only for those that must replace essential parts or for those that have experienced trouble in operating their machine and wish to double check on the mechanical settings to see if the machine is properly adjusted.

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**Important replaceable Parts illustrated at  
the end of these instructions**

## THREAD BREAKAGE

- (1) Turn the machine over and remove any loose strands of thread that may be wound around the looper. Use your finger, never a screw driver. **BUT NEVER LOOSEN OR TAKE OUT THE LOOPER TO REMOVE THREAD.**
- (2) Check the threading of the machine to see that the thread has not jumped out or wound around some part. **COMPARE IT WITH ILLUSTRATIONS FIG. 2 & FIG. 3.** Make sure the thread-pulls through the needle smoothly.
- (3) Check your thread tensions as outlined previously.
- (4) **EXAMINE YOUR NEEDLE IF IT IS BENT, BURRED, OR PUT IN WRONG SIDE TO, IT WILL SURELY CAUSE TROUBLE.** When in doubt always put in a new needle.
- (5) With a **NEW** needle in your machine, crank it slowly to see whether the buttons you are using are deflecting the needle. Even a small amount of deflection can cause much trouble. Try other types of buttons and compare the results. Poor quality of pearl buttons have sharp edges that cut the thread and unevenly spaced holes that deflect the needle.

## NEEDLE BREAKAGE

In the event that considerable Needle Breakage is being experienced while using the machine, check the following suggestions:

1. Looper striking the needle or being too close, causing looper to hook the needle upon a slight deflection—(see paragraph "Setting the Looper").
2. Needle striking finger, finger may be out of time—(see paragraph "Timing the finger").
3. Needle striking looper, Needle Bar may be too low—(See paragraph "Setting the Needle Bar"), or **Needle may not be inserted full depth into the Needle Bar hole.** Clean out any part of an old needle that may be left in the hole.
4. Needle may not line up with the holes in the button—(see paragraph "Aligning Button Clamp").

5. Improper Needle, may not be **Genuine Chandler Needle**, any other needle may be too short or too long.
6. Clamp Movement out of Time—(see paragraph "The Cams").

### TIMING THE FINGER

The thread finger timing is one of the most important adjustments in the machine. An improperly set finger adjustment will cause the machine to break thread, miss stitches and cause no end of trouble.

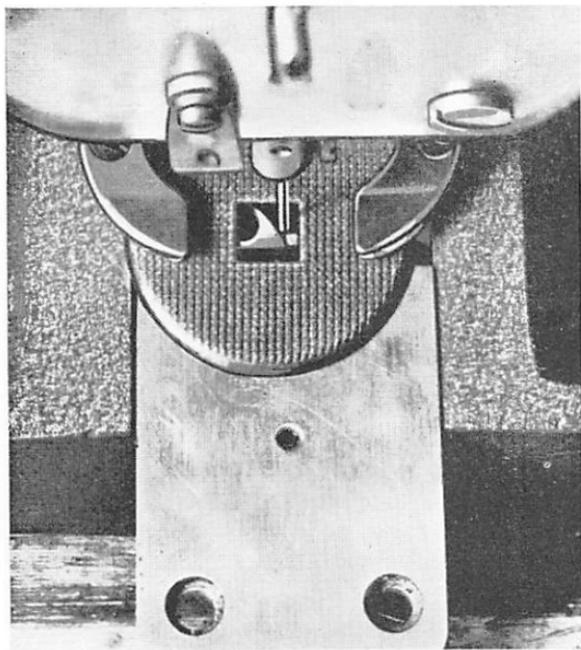
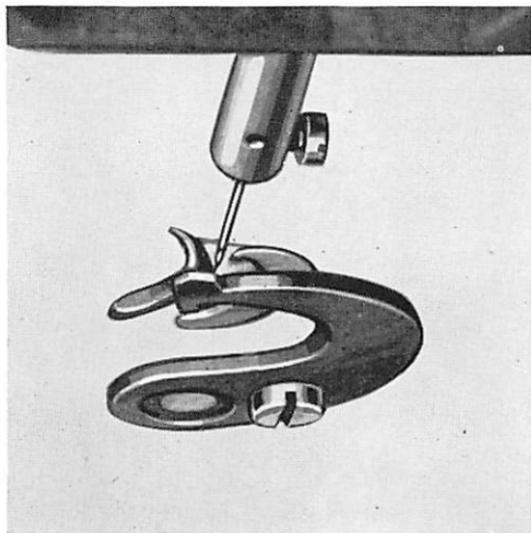


Fig. 4

This view shows Needle Plate pulled away to reveal Finger. Note Finger position at its furthest stroke.

To check this adjustment, loosen the base clamping screw and turn the machine over on its hinges as this adjustment is all made from underneath. Rotate the machine very slowly in the proper direction (careful; not backwards) until the finger

cam throws the finger itself as far forward as it will go. At this point, the finger should have gone beyond the needle hole of the plate so that the needle comes down toward the looper, the back curve of the finger should clear the needle by about  $1/16''$ . See Fig. 4 and Fig. 5.



**Fig. 5**

Cutaway view showing position of Finger to Needle when Finger is clear Forward.

Should the finger go too far beyond needle, or not far enough, loosen clamp screw 8, Fig. 6 and move finger into correct position, tightening clamp screw after making the adjustment. THIS IS THE FIRST STEP TO TAKE IN MAKING THE FINGER ADJUSTMENT.

The finger must be adjusted **sideways** in relation to the needle and needle plate hole. Proper adjustment is when the needle is about  $1/16''$  from the flat face or side of the finger. (The curve at the front of the finger should center with the needle plate hole)

Should the finger need sideway adjustment, loosen the set screw holding the finger bushing and tap the whole assembly in the direction desired, making certain that the cam follower does not ride or contact the hub of the cam. THIS IS THE 2nd STEP IN THE ADJUSTMENT OF THE FINGER. See Fig. 6

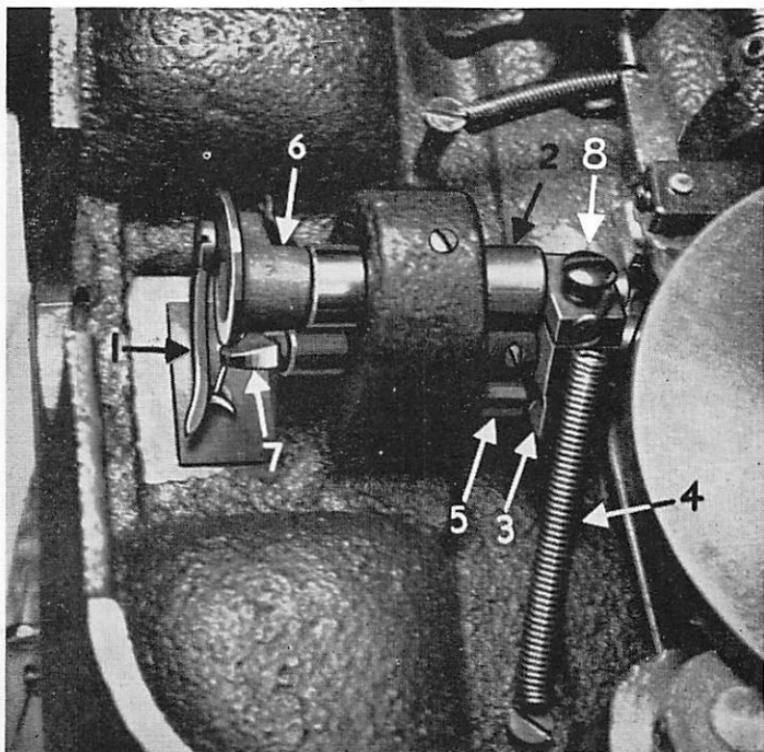


Fig. 6

- |                         |                             |
|-------------------------|-----------------------------|
| 1. Thread Finger        | 5. Finger Cam               |
| 2. Finger Shaft Bushing | 6. Finger Support           |
| 3. Finger Cam Follower  | 7. Looper                   |
| 4. Cam Follower Spring  | 8. Cam Follower Clamp Screw |

After proper positioning the finger as shown, turn machine slowly watching finger and needle very closely. The needle must be on its **upstroke** and the point of the needle should be passing through the needle plate hole as the finger begins to move backward. Should finger move backward too fast, the back of the finger will hit the needle causing needle to bend, burr or scratch the smooth finger surface.

If the finger moves too slowly the needle will have moved up past the needle plate, the thread will be tight and the hook of the finger may snap the thread.

To adjust the oscillation of the finger, retard or advance the finger cam according to the adjustment required. Three set screws hold the cam to the shaft. **Timing** of the finger is controlled by this cam. **THIS IS THE THIRD OR FINAL STEP IN ADJUSTING THE FINGER.** See Fig. 6.

To repeat: **POSITION** of finger to the needle is controlled by adjusting cam follower on finger shaft. **TIMING** of the finger to the stroke of the needle is controlled by adjusting finger cam on main shaft. **SIDEWAYS** adjustment is controlled by moving entire assembly in the bearing block.

## TO TIME AND SET THE LOOPER

Should it become necessary to replace the looper, note that the looper is provided with a flat on the shank of the looper. The looper set screw must always bear and seat against this flat part of the looper shank.

There are two adjustments to consider in checking the **timing** of the looper. One is in relation to the **upstroke** of the needle and the other is the distance, **sideways**, from the needle

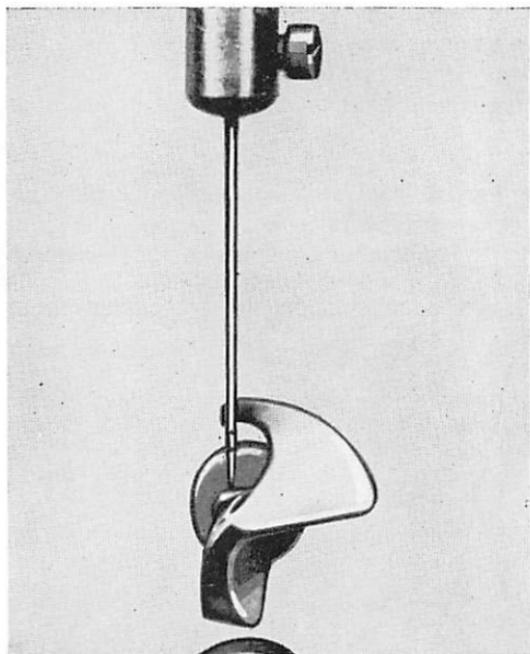


Fig. 7

The hand wheel should be turned in the proper direction until the needle bar is at its lowest point of stroke. Place a scale on the top side of the thread take-up eye (one that projects through the long slot in the faceplate) so that a reading may be obtained (usually against the top edge of the faceplate) then continue to turn the hand wheel until the takeup eye has moved  $\frac{5}{32}$ " **Upward**. At this position the point of the looper should be just beginning to show from behind the needle (see figure 7).

For Class 401 and 461 machines the actual "timing" of relation between looper and needle is controlled by advancing or retarding the small spiral gear on the main shaft towards the back of the machine. This gear drives the vertical shaft running through the upper arm of the machine. The gear is **spotted** on the shaft at the factory, and should not be moved by anyone other than a mechanic thoroughly trained in adjusting these machines.

For Class 471 machine (or previous models that have been modernized) the actual "timing" is made by advancing or retarding a separate looper holder sleeve attached separately on the front end of the main shaft.

Two small set screws on the enlarged shoulder of the disc sleeve (located on inside face of front bearing and finger bearing supports) hold this sleeve in place. Loosen both screws to time the looper, securely retightening the screws after the proper adjustment was made.

In setting the clearance between looper and needle, have the very point of the looper about 1/64" from the needle, or just so that there is a space of light between the point of the looper and the needle. See Fig. 8.

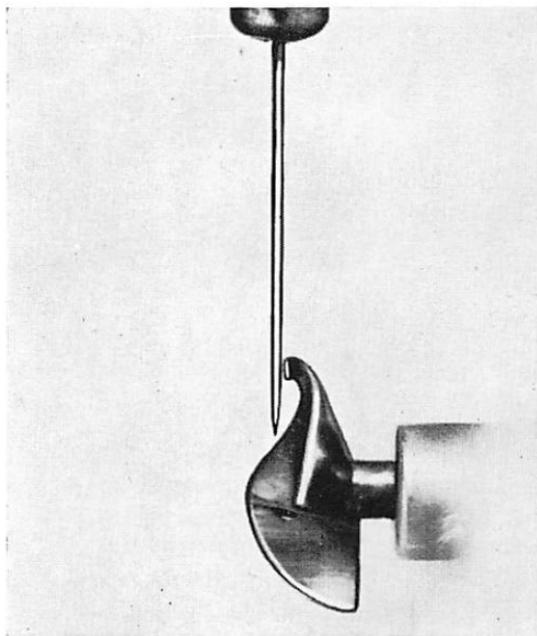


Fig. 8

IN CHECKING THE LOOPER AGAINST THE NEEDLE—  
BE SURE TO USE A NEW STRAIGHT NEEDLE. DO NOT  
CHECK THESE SETTINGS WITH A BENT NEEDLE IN THE  
MACHINE. MAKE SURE THE NEEDLE IS ALL THE WAY UP  
IN THE NEEDLE BAR HOLE.

## SETTING THE NEEDLE BAR

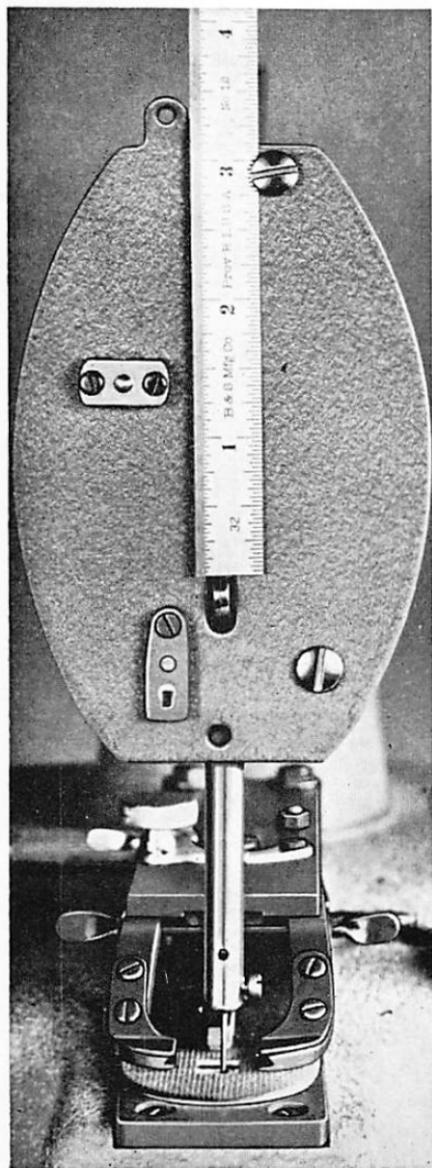


Fig. 9

The needle bar may need replacing and in such an event the new one must be replaced with the proper adjustment and in proper relation to the other mechanism. The following pointers must be observed:

1. Insert new needle **all the way up** in the needle bar hole, making sure that there is no part of an old needle stuck up in the needle hole.
2. Providing the looper is properly timed in relation to the **upstroke** of the needle (see preceding pages "To Time and Set the Looper") the proper height, location, or position of the needle bar is determined by turning the machine until the looper point just begins to project behind the needle, then raise or lower the needle bar so that the **top** of the eye of the needle is  $1/32''$  (or  $3/64''$ ) below the lower edge of the looper (see figure 7).

3. Needle bar must be in line so that thread take-up eye is in line with the slot in the face plate, and does not rub on the sides of the slot as the needle bar moves up and down. Otherwise it may bind causing hand wheel to turn hard.
4. Tighten set screw in needle bar clamp stud.

## BUTTON CLAMP ADJUSTMENTS

At some time it may be necessary to change the stroke of the button clamp to accommodate larger or smaller spaced holes in buttons.

In such a case, stroke of the button clamp **forwards** and **backwards** is controlled by adjustment under rear cover plate, and marked "C" in Fig. 10. Loosening the adjustment nut and moving towards center of the machine increases stroke on the clamp whereas moving it towards the outer edge of the machine decreases the stroke of the clamp. Tighten adjusting nut after moving to desired position.

The stroke of the clamp **sideways** for the **4 hole button only** is controlled by the stop nut "B" Fig. 10, located under first cover. Should greater cross stroke be necessary, move the stop nut back and away from the front of the machine. Be sure to tighten stop nut securely after making the adjustment.

## BUTTON CLAMP ALIGNMENT

At some time it may be necessary to re-align the clamp so as to position the button perfectly in line with the needle. The needle should enter the center of all holes without striking the sides or solid part of the button. If the needle strikes hard on the button itself and must bend in order to enter the hole, the clamp is out of line and should be adjusted to center the hole of the button with the needle as outlined below.

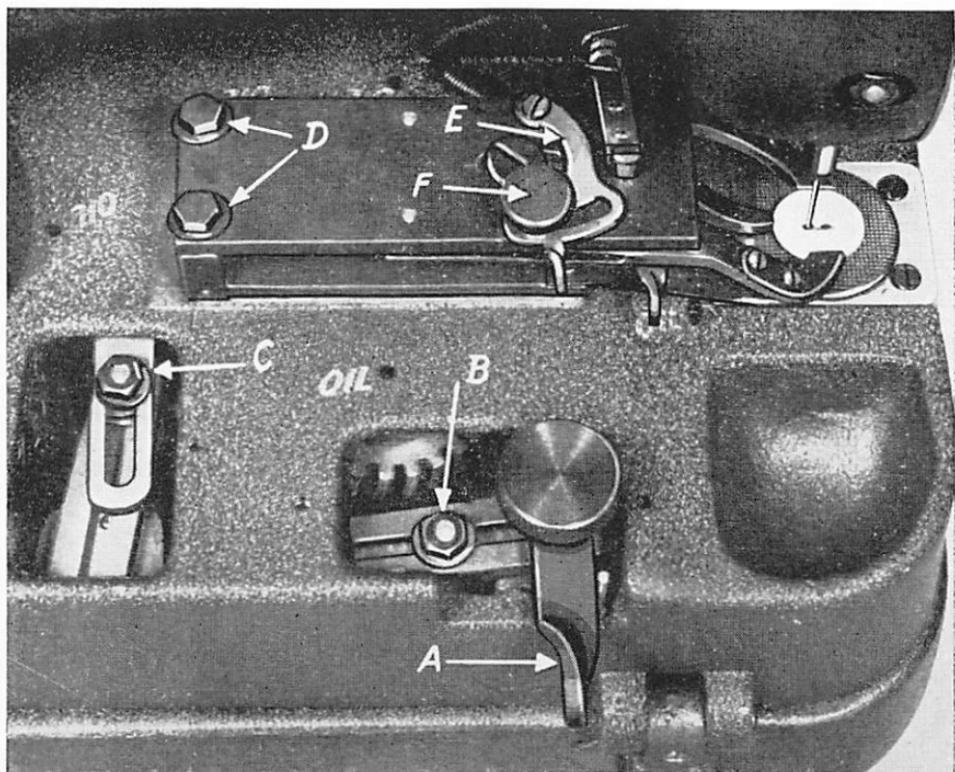


Fig. 10

Before proceeding with any button clamp adjustment be sure to insert a BRAND NEW NEEDLE so as not to make any adjustments to line up with a crooked or bent needle. Omit threading the needle so that the adjustments can be made without the thread being in the way.

The button clamp is held firmly in place by 2 hexagon head screws "D" Fig. 10 at the rear of the top plate. Loosen these screws just enough to loosen the plate. Then insert a **2 hole button** in the jaws and turn the machine until the needle enters the hole of the button. Move the clamp so that the needle is centered both ways, see Fig. 10 and Fig. 11.

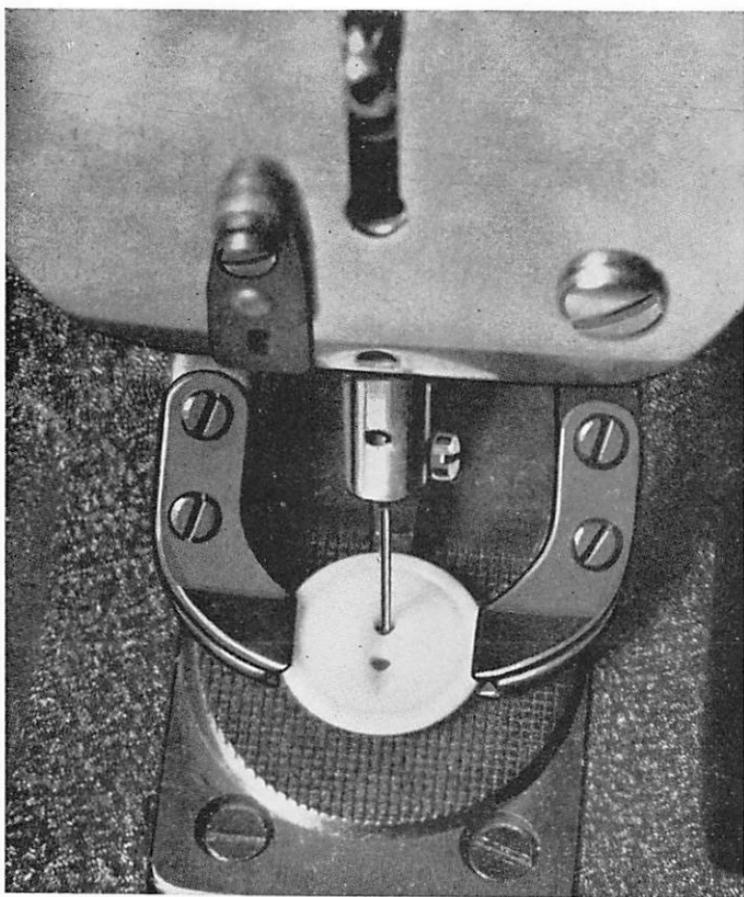


Fig. 11

Then tighten one clamp binding screw and turn machine over slowly by hand, making sure that the needle enters the center of the other hole. Be sure that the needle does not touch any side of the hole, otherwise the needle will be deflected, causing missed stitches, thread breakage and possibly broken needles.

When you are assured clamp is properly adjusted tighten both holding screws.

When this clamp adjustment is made on the **2 hole button** it should automatically line up the clamp for a 4 hole button.

## THE CAMS

The cams must be adjusted so that the clamp and button has completed its shift **before** the needle enters the button or does not begin to move until after the needle has come up out of the button.

These cams are set at the factory but to double check their setting, turn the hand wheel until it is blocked by the stop pin. At this point the line on the outer rim of the cam should match or be opposite the line stamped on the edge of the machine frame.

## AUTOMATIC TENSION RELEASE

In the top arm of the machine is a Cam that controls the automatic release of the rear tension B—Fig. 1.

Function of this automatic intermittent tension is described in first paragraph under "Tensions."

The proper timing is when the thread is released  $5/32''$  **BEFORE** the needle bar reaches its highest point of stroke. To advance or retard this timing adjust the Cam on the top shaft of the machine. A hole for screw driver is located on left hand side of machine close by the Arm hole cover. Do not move cam **sideways**, as otherwise the release pin will drop out of tension post.

The cam has 3 set screws. Loosen 2 and after loosening the 3rd, hold it with screw driver, and turn machine handwheel to adjust backwards and forwards. Space does not allow room for fingers, so cam must be held by screw driver in 3rd set screw and adjusted accordingly.

When cam is loose—turn handle in operating direction to make thread release late or turn handwheel **backward** to make thread release earlier.



BS-93-W



BS-93



BS-94



BS-95



BS-95-T



BS-97



BS-96



BS-144-B



BS-144-A



BS-35



BS-169



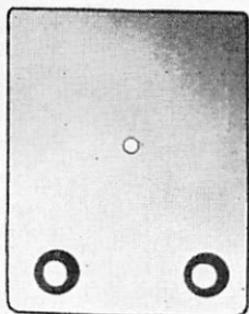
BS-163



BS-166

## PARTS LIST

- BS- 93W** Thread Tension Release Washer.
- BS- 93** Rear Thread Tension Release Stud.
- BS- 94** Rear Thread Tension Release Pin.
- BS- 95** Front Tension Stud.
- BS- 95T** Thread Tension Spring.
- BS- 97** Thread Tension Bottom Disc.
- BS- 96** Thread Tension Top Disc.
- BS-144A** Thread Tension Thumb Nut — Front.
- BS-144B** Thread Tension Thumb Nut — Rear.
- BS- 35** Cam Roller.
- BS- 169** Needle Set Screw.
- BS-163** Button Clamp Lifter Lever Spring.
- BS-166** Button Clamp Lifter Lever Lock Spring.



BS-88



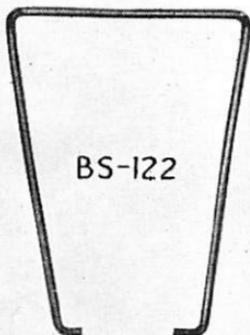
BS-99



BS-105



BS-48



BS-122



BS-47



BS-160



BS-62



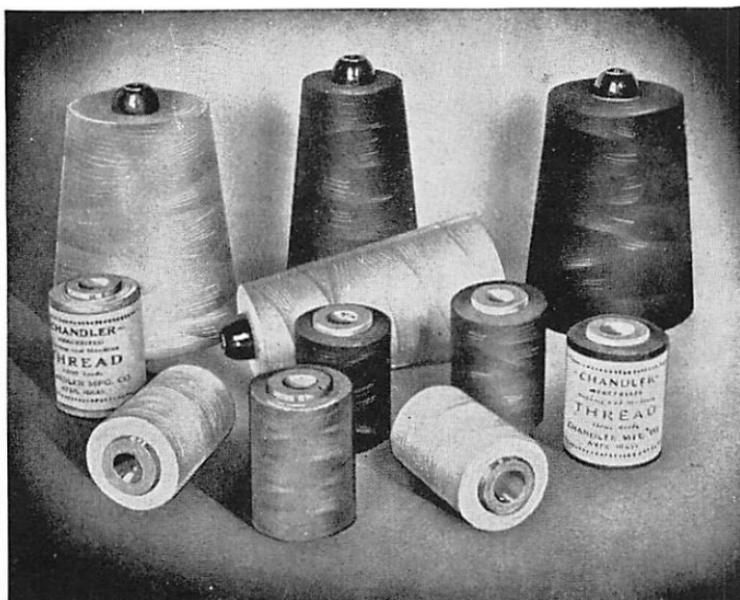
BS-161



BS-44

## PARTS LIST

- BS- 88 Needle Hole Plate.
- BS- 99 Thread Slack Take-up Lever.
- BS-105 Needle Bar Thread Guide and Take-up
- BS- 122 Button Clamp Jaw Spring.
- BS- 47 Thread Finger.
- BS- 48 Thread Looper.
- BS- 62 Hand Wheel Stop Pin.
- BS- 161 Stop Arm Spring.
- BS- 44 Thread Finger Cam Follower.
- BS-160 Thread Finger Cam Follower Spring.



## CHANDLER SEWING THREAD

A large supply of special sewing thread is stocked for the convenience of our many customers, especially for those who have difficulty in securing the proper thread.

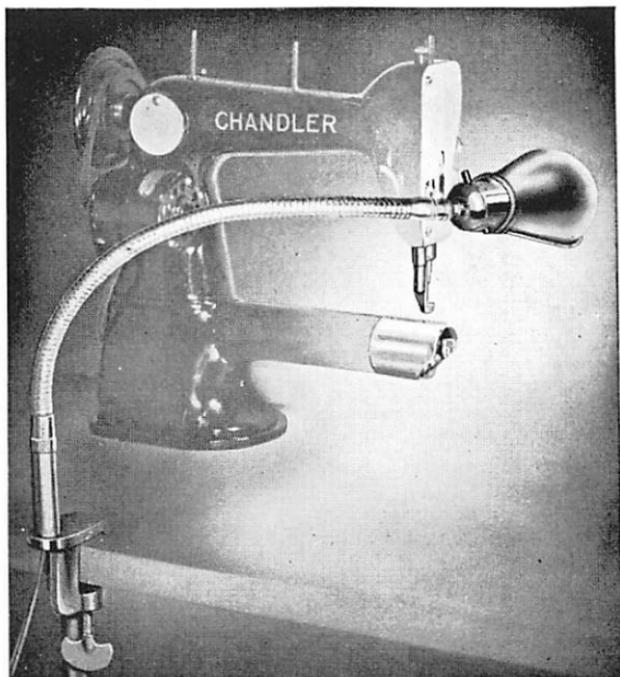
A special soft mercerized thread for darning, mending and general repairing is stocked in 2000 yd. spools in 32 colors and 6M and 12M yd. cones in black and white.

Prices and thread color card mailed on application.

We also stock a large supply of special Button Sewing thread which must be used with the Chandler Hand Operated Button Sewing Machine. This is a special glazed-finish thread and is stocked in three different sized cones in white, black and khaki. Prices on application.

**CHANDLER MFG. COMPANY**  
**Ayer, Mass.**

**Manufacturers of the Famous CHANDLER DARNER**



## Chandler Sewing Light

A complete unit which clamps on any sewing machine table at any location the operator finds most convenient.

A flexible socket attached to a flexible arm gives DOUBLE FEATURE light adjustment. The complete unit is held to the edge of the table by means of an adjustable clamp which can be expanded to fit a table with a maximum thickness of 2". The Chandler Light although designed for the Chandler Darnier can also be used on other types of sewing equipment.

You will find this light indispensable on rainy days or in winter when the light is weak. If your sewing equipment is not well lighted, by all means order a Chandler Light today! It pays big dividends.

SAVE EYESTRAIN — DO NEATER WORK

Write for current price.

**CHANDLER MFG. COMPANY**  
**AYER, MASS.**

Manufacturers of the famous CHANDLER DARNER

# CHANDLER

- ◆ DARNING AND MENDING MACHINES
- ◆ FLUTING MACHINES, HAND OR POWER
- ◆ HAND OR POWER BUTTON SEWERS
- ◆ SEWING THREADS
- ◆ REBUILT TAILORING MACHINES
- ◆ PLEATING MACHINES
- ◆ RUFFLE IRONERS
- ◆ CUFF TACKERS
- ◆ LABEL TAGGERS