SINGER
66

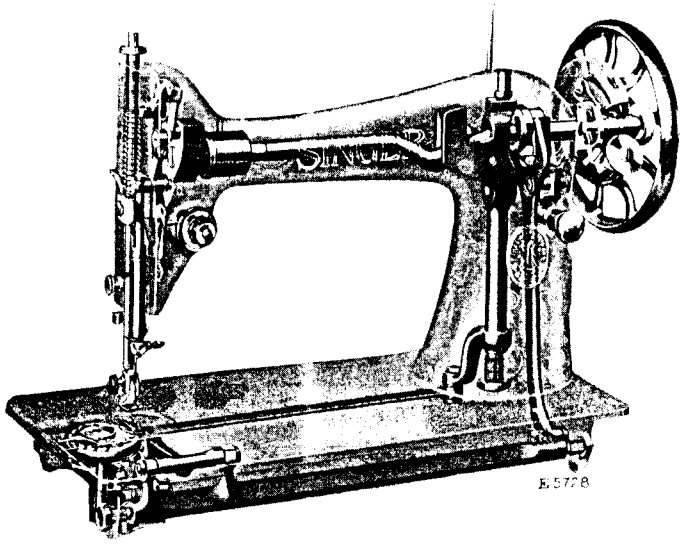
18034

INSTRUCTIONS

FOR TIMING AND ADJUSTING

SINGER SEWING MACHINE

66



FRONT "X-RAY" VIEW OF MACHINE 66

THE SINGER MANUFACTURING CO.

To Remove and Replace the Oscillating Hook Slide

To remove the oscillating hook slide (B, Fig. 2) from the machine, raise the needle to its highest point and draw the slide plate slightly to the left, then lift its right hand end and draw it toward the needle until it is disengaged from the spring (A, Fig. 2) in the bed of the machine.

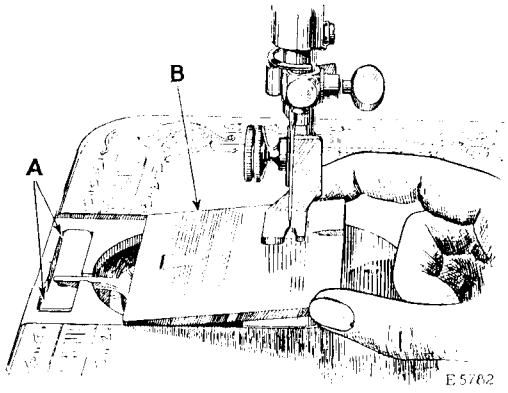


Fig. 2. Replacing Slide Plate

To replace the slide plate, slip it into the slideway from the throat plate end, as shown in Fig. 2, being careful to see that both ends of the spring (A) enter the grooves on the underside of the slide plate.

To Remove the Bobbin Case

(Operator Being at the Front of the Machine)

Raise the needle to its highest point and remove the oscillating hook slide as instructed above.

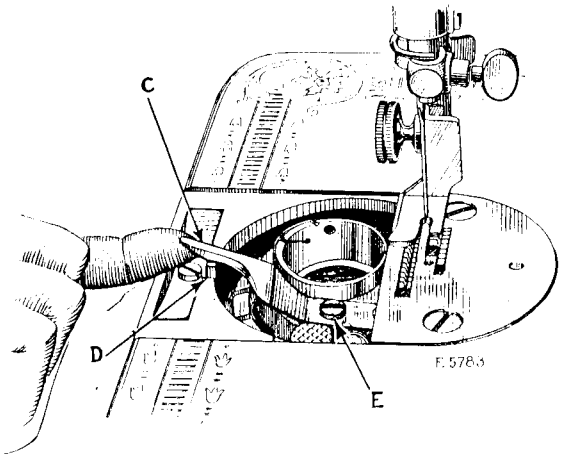


FIG. 3. RAISING THE LATCH

Insert the nail of the forefinger of the left hand under the latch (C, Fig. 3) and raise the latch just high enough to clear the edge at D, Fig. 3, then move it toward you.

Under no circumstances must the screw (E, Fig. 3) be loosened. The loosening of this screw will change the clearance for the thread between the bobbin case and bobbin case position bracket.

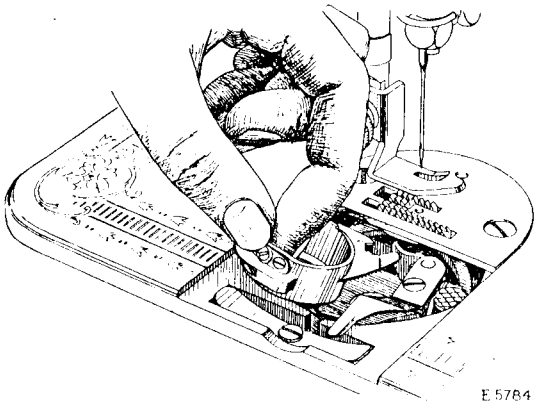


FIG. 4. REMOVING THE BOBBIN CASE

Hold the bobbin case between the forefinger and thumb of the left hand, as shown in Fig. 4. Tilt the bobbin case to the left and at the same time slightly turn the right or forked end toward you so that it is moved out of engagement with the sewing hook. Then tilt the bobbin case toward the right and remove it. (See Fig. 4).

To Replace the Bobbin Case

(OPERATOR BEING AT THE FRONT OF THE MACHINE)

See that the needle is raised to its highest point and that the latch (C, Fig. 5) is raised from the slot (D, Fig. 5) and moved toward you.

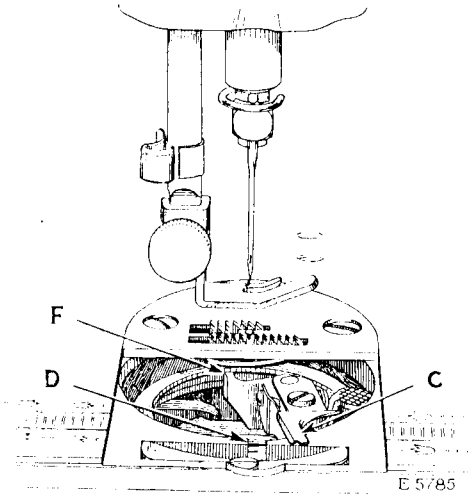


FIG. 5. SHOWING THE POSITION STUD

Hold the bobbin case between the forefinger and thumb of the left hand, as shown in Fig. 4. Insert the forked end of the bobbin case under the throat plate so that the fork straddles the position stud (F, Fig. 5). Then with a slight twisting motion of the fork to the left and to the back, lightly press the bobbin case downward until the edge of the sewing hook engages in the groove under the rim of the bobbin case.

Having set the bobbin case into the correct position, lock the latch (C, Fig. 5) in the notch (D, Fig. 5) to hold the bobbin case in place. Then replace the slide from the right as shown in Fig. 2.

To Time the Sewing Hook

Remove the oscillating hook slide, presser foot, throat plate, bobbin case and feed dog. This will give a clear view of the point of the hook and the needle for the purpose of timing.

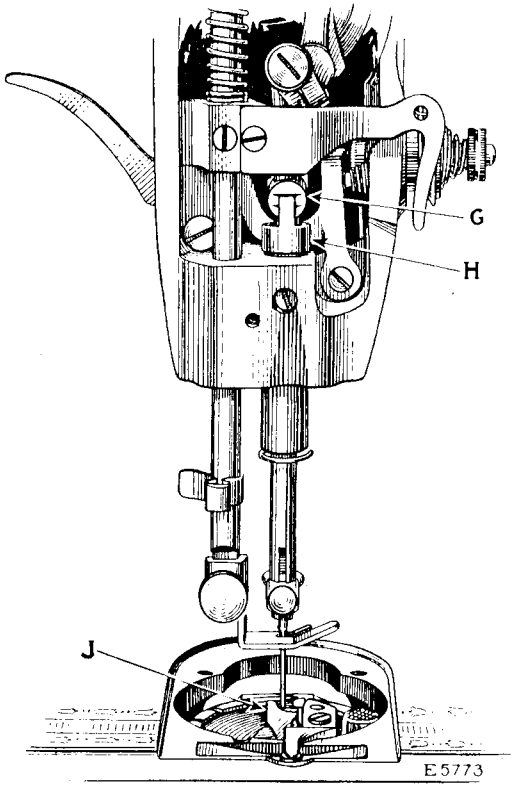


FIG. 6. SHOWING CORRECT ADJUSTMENT OF TIMING GAUGE

Turn the balance wheel over toward you until the needle bar connecting stud (G, Fig. 6) which has upon it two timing marks, moves down to its lowest point. When the stud is in this position, the upper mark should be centred on the top of the finger of the timing gauge (H, Fig. 6) which is fitted around the needle bar bushing. In some cases it may be necessary to raise or lower the timing gauge to bring the top of its finger in line with the upper mark on the stud when the stud is at its lowest point.

Then turn the balance wheel over toward you until the lower timing mark on the needle bar connecting stud is centred on

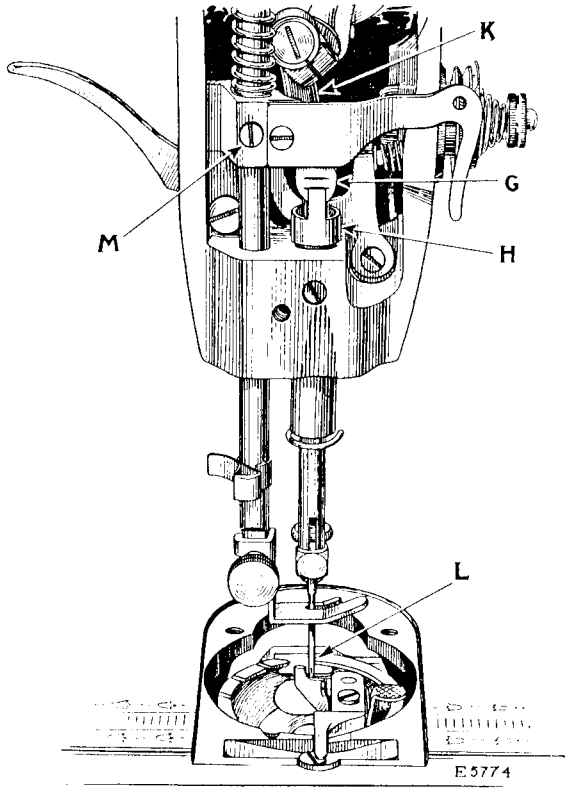


FIG. 7. SHOWING NEEDLE AND OSCILLATING HOOK CORRECTLY TIMED

the top of the finger of the timing gauge (H, Fig. 7) when the needle bar is on its upward stroke. When the needle bar is in this position, the point of the sewing hook should be directly behind the centre of the needle as shown at L, Fig. 7, if the hook is correctly timed.

In case the sewing hook is not correctly timed, turn the machine back on its hinges and loosen the oscillating hook crank clamping screw (O, Fig. 8) and turn the hook until its point is directly behind the centre of the needle, then securely tighten the clamping screw, leaving just enough end play to permit the hook to turn freely.

To Remove the Sewing Hook

Remove the oscillating hook slide, presser foot, throat plate and bobbin case. Turn the machine over on its hinges, take out

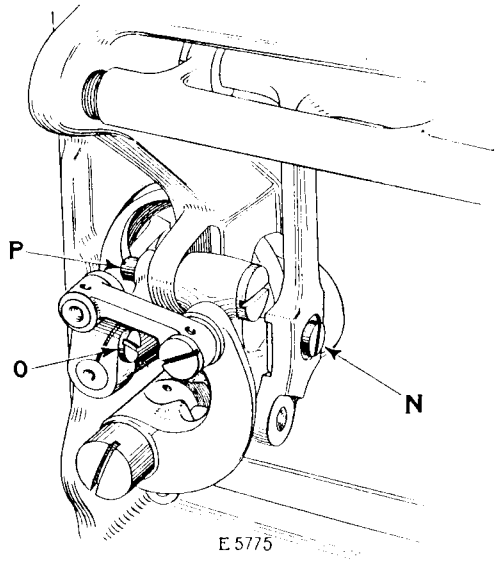


Fig. 8. Adjustments on the Machine

the screw (N, Fig. 8) and remove the feed dog. Also loosen the set screw (P, Fig. 8) and lift out the bobbin case position bracket (F, Fig. 5). Loosen the oscillating hook crank clamping screw (O, Fig. 8), also loosen the presser bar bracket screw (M, Fig. 7) and raise the presser bar high enough to permit the sewing hook to be lifted from the machine.

To Set the Needle Bar at the Correct Height

See that the needle is pushed up into the needle bar as far as it will go.

Also see that the timing gauge (H, Fig. 6) is set at the correct height by having the top of the finger of the timing gauge centred on the upper timing mark on the needle bar connecting stud (G, Fig. 6) when the stud is at its lowest point as instructed on page 6.

Then turn the balance wheel over toward you until the lower timing mark on the needle bar connecting stud (G, Fig. 7) is centred on the top of the finger of the timing gauge (H, Fig. 7) on the upward stroke of the needle bar. When the needle bar connecting stud (G) is in this position, the needle bar should be set so that the top of the eye of the needle will be about $\frac{1}{16}$ inch below the point of the sewing hook.

In case the needle bar is not set at the correct height, loosen the screw (Q, Fig. 9) in the lower end of the needle bar connecting link (K, Fig. 7). (This screw can be reached when the needle bar is at its lowest point by inserting a screwdriver through the hole provided for the purpose in the arm). After loosening the screw, move the needle bar up or down in the needle bar connecting stud until it is at the correct height, as instructed above, then securely tighten the screw (Q) in the needle bar connecting link.

To Raise and Lower the Feed Dog

The feed dog should be set so that when it is raised to its highest point by the feed raising bar, the top of the feed points will be about $\frac{3}{64}$ inch above the top surface of the throat plate. At this height, slightly less than the full depth of the teeth will project through the feed slots in the throat plate.

When it is necessary to raise or lower the feed dog, loosen the feed dog screw (N, Fig. 8) and set the feed dog in the required position, then securely tighten the feed dog screw (N).

To Adjust the Thread Take-Up Spring

The thread take-up spring (T, Fig. 9) should be set so that when the eye of the needle reaches the goods on the downward

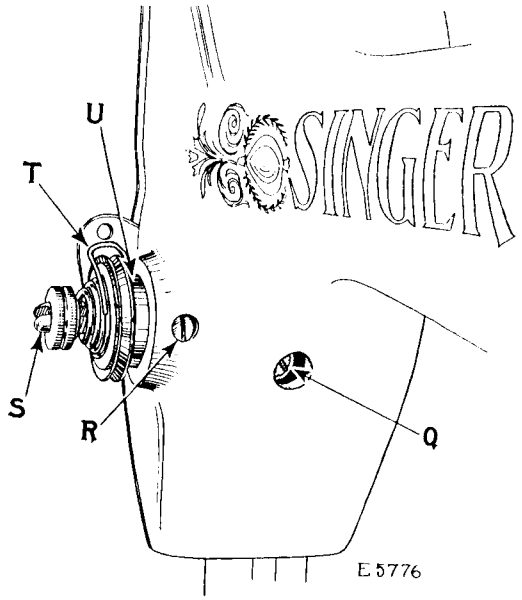


FIG. 9. ADJUSTMENTS ON THE MACHINE

stroke of the needle bar, the spring will be through acting and will rest against the stop on the thread take-up spring regulator (U, Fig. 9). If the thread take-up spring is not correctly set, as instructed above, loosen the set screw (R, Fig. 9) in the arm of the machine and turn the tension stud (S, Fig. 9) to the right for more movement of the spring or to the left for less movement. When the spring is correctly set, securely tighten the set screw (R).

The tension on the thread take-up spring should be just sufficient to take up the slack of the needle thread until the eye of the needle reaches the goods in its descent.

To increase the tension on the thread take-up spring (T), loosen the tension screw stud (S) and force the take-up spring from the recess in the regulator (U) to the right between the regu-

lator and the tension discs until the required tension is obtained, then securely tighten the tension screw stud and force the spring back into its position in the regulator recess. To decrease the tension, force the spring to the left between the regulator and the tension discs.

To Adjust the Presser Bar

The presser bar should be set so that when the presser bar lifter is raised there will be a clearance of about $\frac{5}{16}$ inch between the presser foot and the throat plate, and when the presser bar is lowered, the presser foot will be parallel with the feed dog.

In case the presser bar is not correctly set, raise the presser bar lifter, then loosen the presser bar bracket screw (M, Fig. 7) and raise or lower or turn the presser bar until it is set in the correct position, as instructed above, then securely tighten the screw (M).