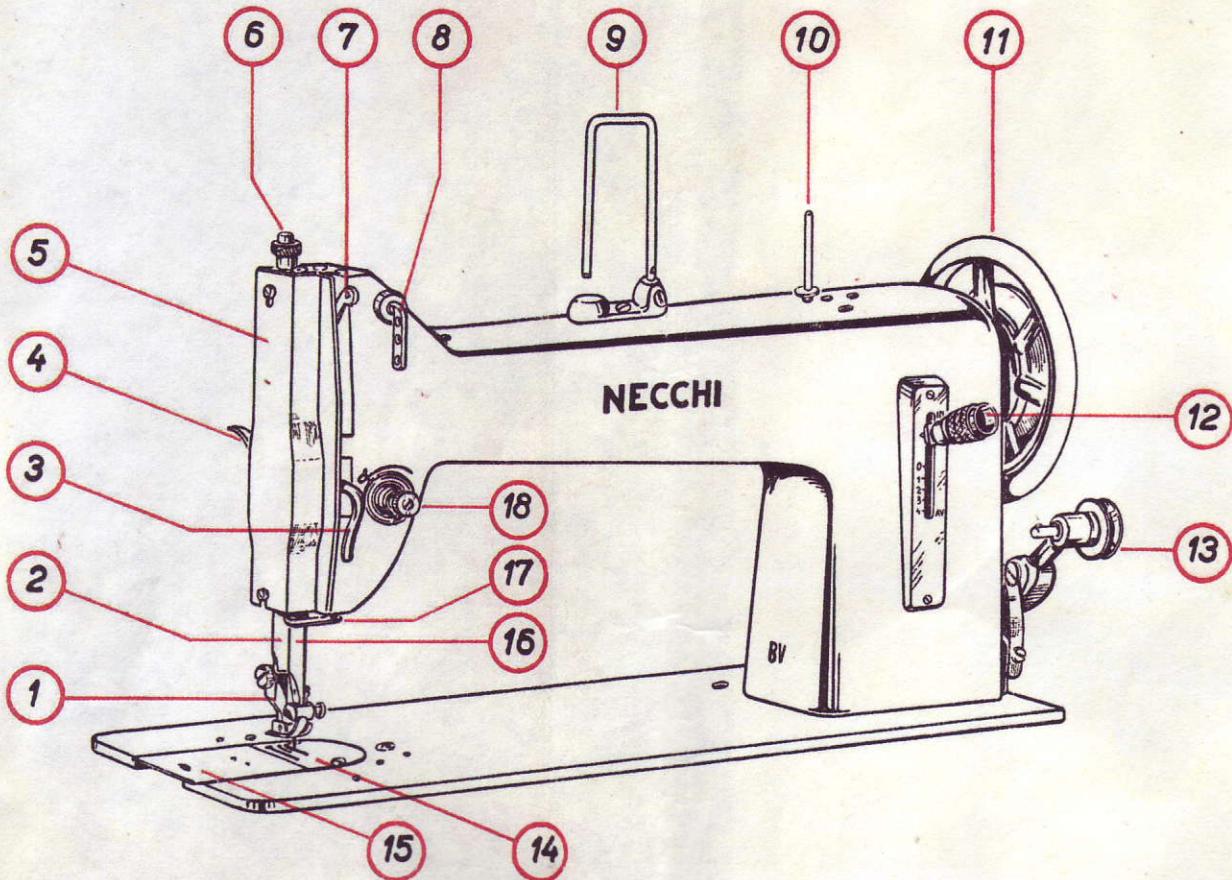


INSTRUCTIONS

FOR USING THE SEWING MACHINE

NECCHI | BV

INDUSTRIA GRAFICA MARIO PONZIO - PAVIA  
MOD. N. 195 C - INGLESE - 7-53 - 1.500  
*Printed in Italy*



#### MACHINE PARTS

- |                                     |                                     |                           |
|-------------------------------------|-------------------------------------|---------------------------|
| 1 - Presser foot                    | 7 - Thread take-up Lever            | 13 - Bobbin winder        |
| 2 - Presser bar                     | 8 - Thread retainer                 | 14 - Needle plate         |
| 3 - Slack thread regulator          | 9 - Hinged spool pin                | 15 - Slide plate          |
| 4 - Presser bar lifter              | 10 - Spool pin                      | 16 - Needle bar           |
| 5 - Face plate                      | 11 - Balance wheel                  | 17 - Lower thread guide   |
| 6 - Pressure regulating thumb screw | 12 - Stitch length regulating lever | 18 - Upper thread tension |

**INSTRUCTIONS**

FOR USING THE SEWING MACHINE

**NECCHI BV**

## FOREWORD

The NECCHI BV Sewing Machine, a high speed industrial type, with central bobbin, oscillating shuttle and link-type thread take-up lever, can most efficiently be used for tailoring and dressmaking. It may be operated either by foot or by motor. For foot operation, the machine is equipped with a large balance wheel and a bobbin winder which is attached to the machine arm. For motor operation, the machine is equipped with a small balance wheel and a knee lifter for the presser foot, furthermore with a separate bobbin winder and separate spool stand, both of which are attached to the top of the sewing table.

## VARIOUS DATA

Dimensions of bed plate	18 11/16 X 7 inches
Space under arm	11 X 5 1/4 »
Maximum thickness of fabric to be sewn (according to type of fabric)	up to 9/32 » about 13/64 »
Maximum stich length	2.200 stitches per minute
Required Motor Power:	Single Phase 0,3 HP Three Phase 0,1 HP

## OPERATING SPEED

The BV machine may be operated up to 2.200 r.p.m. If the machine is new, however, it is advisable not to exceed the speed of 1.800 r.p.m., for about 100 hours, to permit all movable parts of the machine to wear themselves in and to run smoothly afterwards. In case the materials to be sewn, are exceptionally hard, it will be necessary to reduce the speed still further, to prevent excessive heating of the needle.

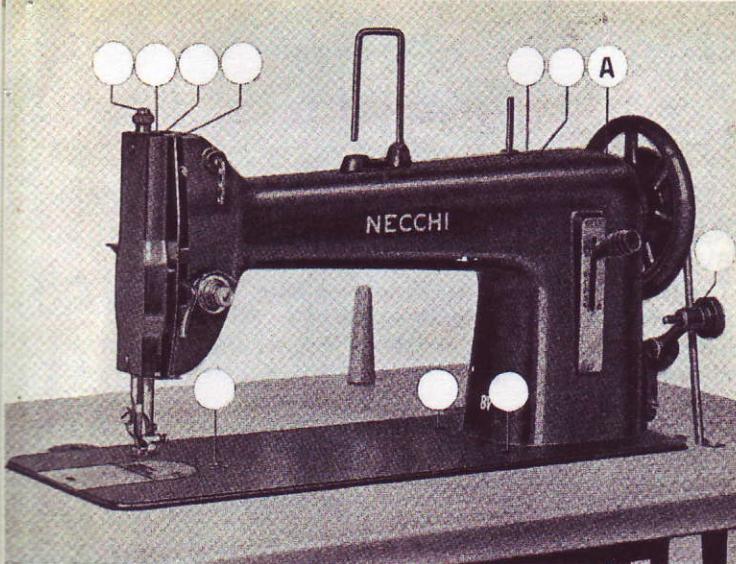


Fig. 1

### MAINTENANCE HINTS

To obtain a perfect and trouble-free performance, it is essential to oil properly all bearing portions of the machine. For lubrication use a good quality light

Fig. 2

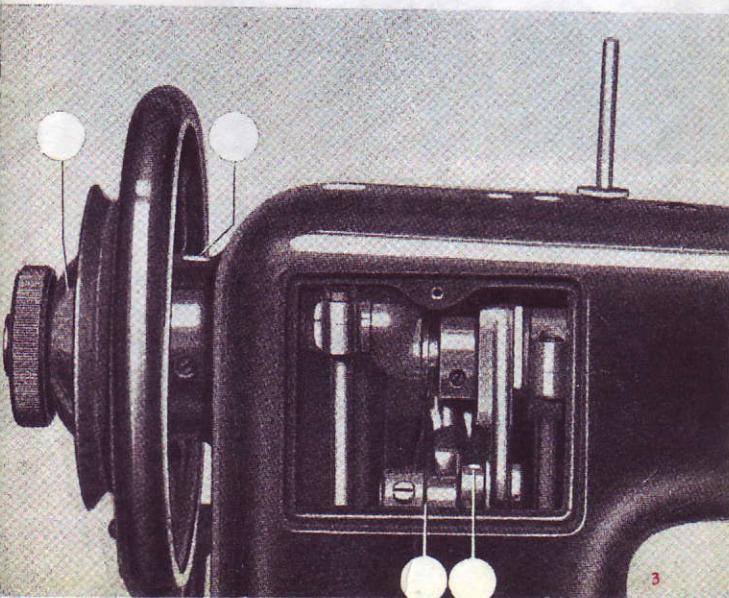


Fig. 3

Fig. 4

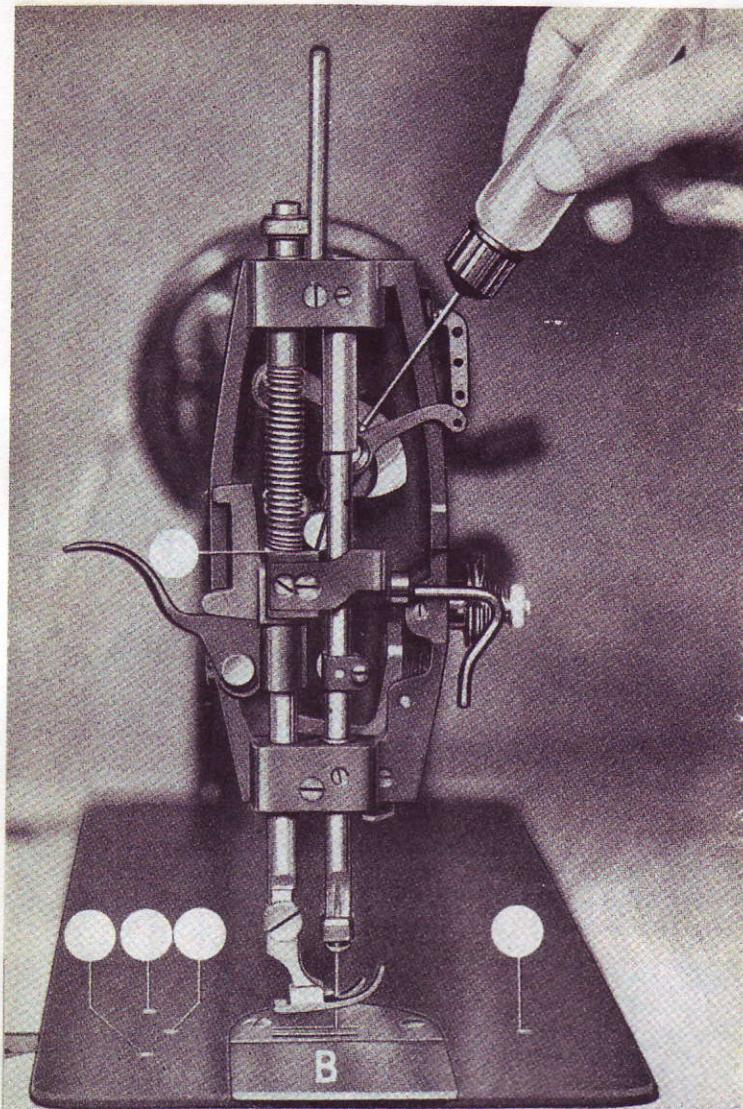


Fig. 5

machine oil. The use of vegetable oils must under any circumstances be avoided, since these oils get hard quickly and gum the various parts of the machine, making them run hard and wear quickly.

Oil should be applied at all points indicated in illustrations Figs. 1, 2, 3, 4 and 5. When oiling the point **A** (see Fig. 1), make certain that the needle is in its lowest position.

## NEEDLE AND THREAD SIZES

Needles of the style 16x73 are used on the Necchi BV Machines.

The thread is selected in accordance with the type of fabric to be sewn. The following chart will be of help in choosing needle and thread size for the kind of material to be used.

Size of needle New nos	Old nos.	Kind of Fabric and class of work	Number of thread	
			Cotton	Silk
70	10	Muslin, Cambric, Batiste, Fine Linen and other sheer fabrics	80 to 150	00-000
90	14	Calico, Sheetting, Towelling, Heavy Silk, Shirting and other lightweight and medium lightweight fabrics	60 to 80	0-00
100	16	Light woolen cloth, women's dress cloth, heavy table linen, bed coverings, draperies, heavy cotton goods and other light-heavy fabrics such as Crash, Heavy Cretonne, Corduroy, Flannel, etc.	50 to 60	A or B
110	18	Heavy woolen cloth, any type of cloth for dresses and men's suits, upholstery and awning materials, slip-cover fabrics	40 to 50	A or B
120	20	Any type of cloth for over-coats and heavy dresses, heavy linen fabrics, Denim, Canvas, Burlap, etc.	30 to 40	C or D

The selection of the proper thread is essential for the flawless functioning of the machine. The types of thread are to be chosen in accordance with the kind of work to be done. It is essential to use threads of good quality and of uniform sizes. Good results will be obtained by using an upper thread with a left twist, and a lower thread with a right twist.

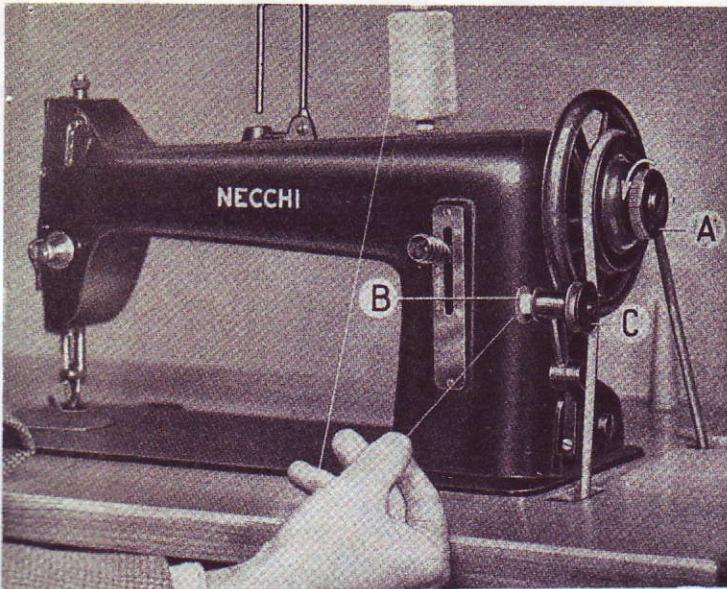


Fig. 6

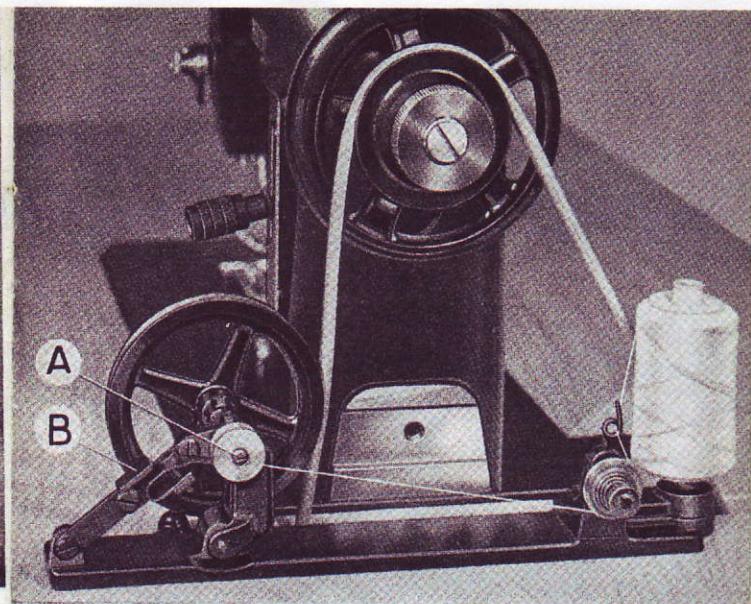


Fig. 7

### FILLING THE BOBBIN

On foot-operated machines proceed as follows:

1. Hold the balance yheel with one hand and disconnect it from the sewing mechanism by turning the knob **A** (Fig. 6) in the direction of the arrow.
2. Tie the thread to the empty bobbin by winding the thread end several times around the bobbin, then place the bobbin on the spindle **B**.
3. Press the small wheel **C** of the bobbin winder against the driving belt by moving its hinged support away from you.
4. Hold the thread as shown in Fig. 6 and drive the machine. Guide the thread by hand so that it is wound uniformly (in even layers) around the bobbin.

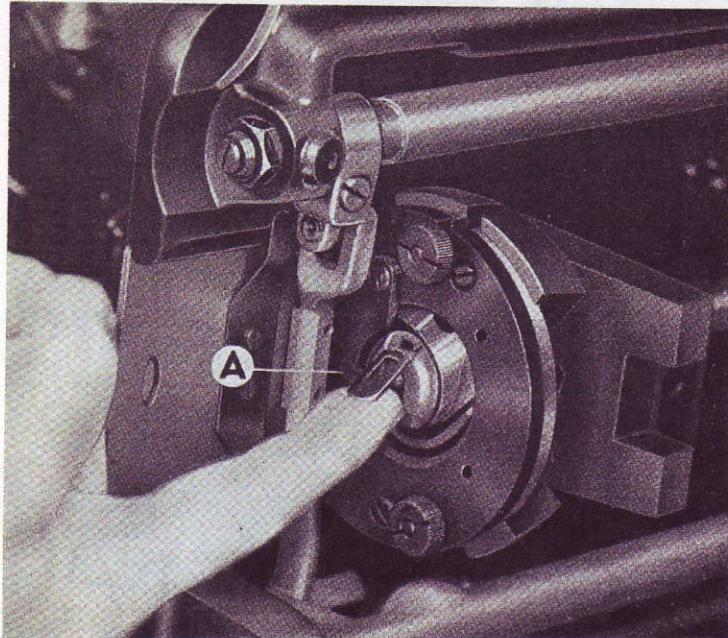
On motor-driven machines the filling of the bobbin may be effected either with released balance wheel (as explained previously) or while the machine is sewing. Proceed as follows:

1. Place spool of thread on spool pin of bobbin winder (see Fig. 7), then guide thread between tension discs of bobbin winder and tie the thread to the empty bobbin by winding the thread end several times around the bobbin. Finally, place the bobbin on the spindle **A**.

2. Press down lever **B** so that the large wheel of the bobbin winder touches the belt and let the machine be driven. The bobbin will be filled with even layers of thread and the winder will be automatically released when the filling of the bobbin is completed.

### INSERTING THE BOBBIN INTO THE BOBBIN CASE

1. Hold the bobbin so that the thread on top leads from the left to the right (clockwise) as indicated in illustration Fig. 9.
2. Insert the bobbin into the bobbin case, pull the thread into the slot of the bobbin case and then draw it under the tension spring, as shown in Fig. 9. Leave about four inches of free thread hanging from the bobbin case.

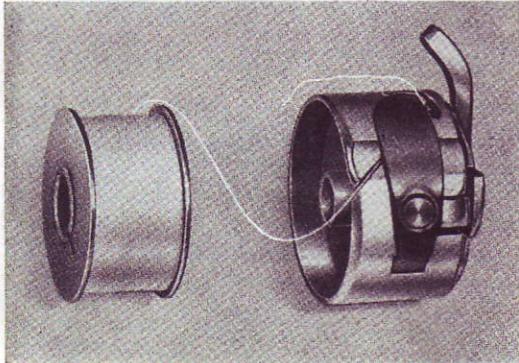


INSERTING THE BOBBIN CASE

Fig. 8

1. Raise presser foot, bring needle to its highest position and pull slide plate entirely to the left.
2. With thumb and forefinger of the left hand take bobbin case by the latch, after the full bobbin has been inserted, and place it on the center stud of the shuttle. The position finger **A** (see Fig. 8) must fit into the notch on top of the shuttle race cover.
3. Release the latch and press bobbin case into the shuttle as far as it will go. Leave about four inches of free bobbin thread hanging down.
4. Push slide plate completely to the right, thus closing it.

Fig. 9



8

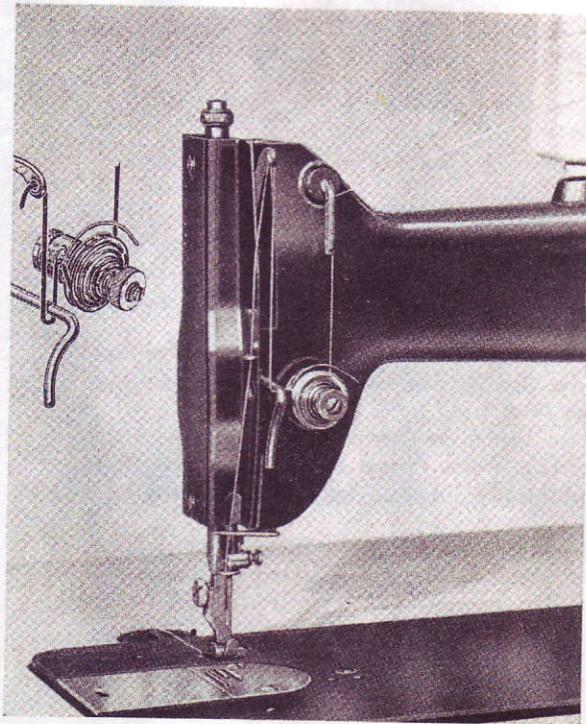
## THREADING THE MACHINE

On foot-operated machines the upper thread comes from a spool which is placed on the spool pin on top of the machine arm. On motor-driven machines, the spool of thread is placed on a spool stand which is mounted separately on top of the sewing table. Illustration Fig. 10 indicates how the upper thread must be drawn over the various portions of the machine arm. The thread must be inserted through the needle eye from the left to the right. About four inches of thread must be left hanging from the needle eye when the thread take-up lever is in its highest position.

## REGULATING THE THREAD TENSIONS

A proper degree of the tensions of upper and lower thread is essential for good sewing. The tension of the upper thread (needle thread) can be increased by turning the tension nut (see Fig. 11) to the right (clockwise). It can be decreased by turning this nut to the left (counter-clockwise).

Fig. 10



9

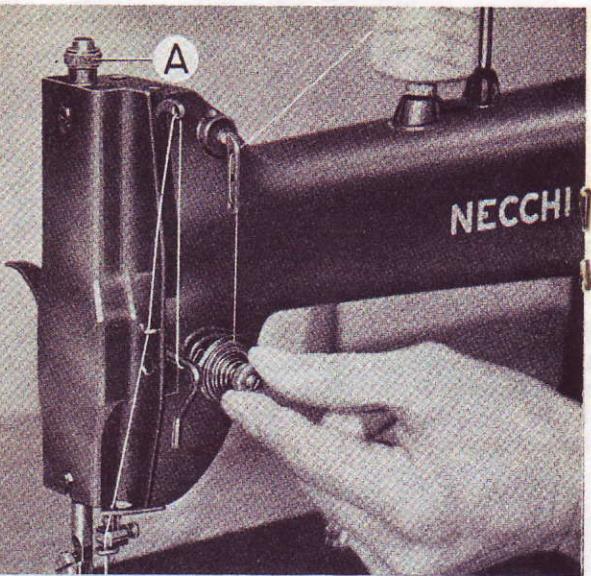


Fig. 11

The tension of the lower thread (bobbin thread) is regulated by loosening or tightening the adjusting screw **A**, shown in Fig. 12.

It is easy to determine whether or not the tensions of upper thread and lower thread are correct:

When the tension of upper thread and lower thread are properly adjusted, the stitches on both sides of the material will look alike. No further adjustment is required.

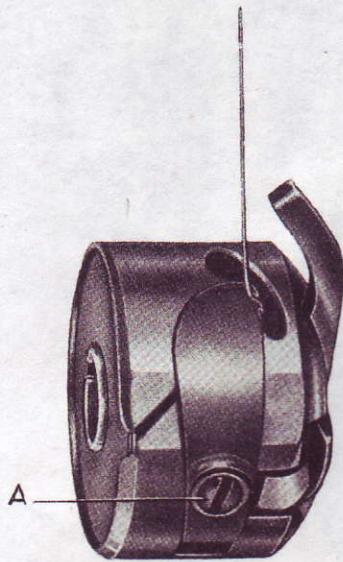


Fig. 12

10

If the tension of upper thread is too tight, or that of the lower tread is too loose, then the upper thread will lie flat on the top surface of the material and the lower thread will be drawn up to that top surface and appear there in form of small knots. This condition can be remedied by lowering the presser foot and turning the tension regulating nut (see Fig. 12) counter-clockwise. Make several stitches to see whether upper thread tension is correct.

Adjust until proper seam is obtained.

If the tension of upper thread is too loose, or that of lower thread is too tight, then lower thread will be stretched straight along the underside of the material and upper thread will be drawn down to the underside and appear there in form of knots or loops. This condition can be remedied by lowering the presser foot and turning the tension regulating nut clockwise. Make several stitches to see whether upper thread tension is correct. Adjust until proper seam is obtained.

### REGULATING THE LENGTH OF STITCH

The length of the stitch is determined by the position of the Stitch Regulating Lever **A** on the graduated scale (Fig. 13). The graduated scale indicates the

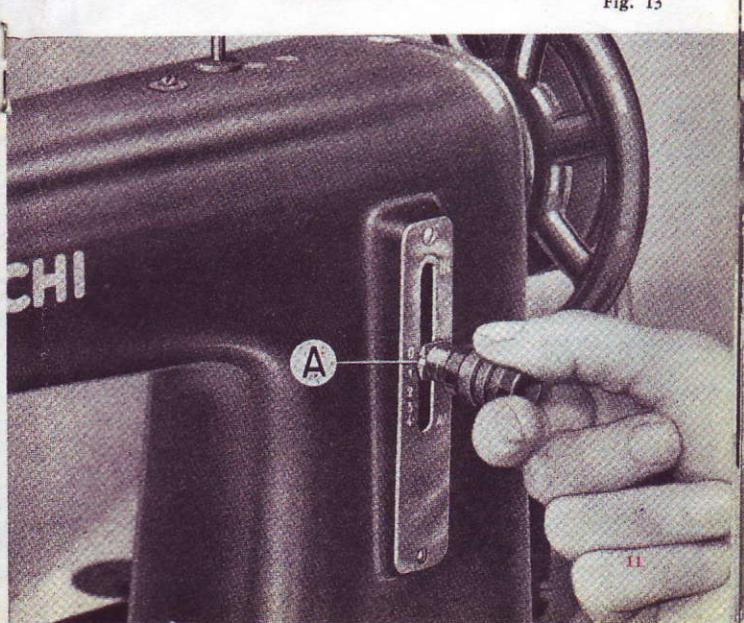


Fig. 13

11

various lengths of stitches from 0 to about 13/64". To move the Stitch Regulating Lever up or down, disengage it first from the graduated scale by turning the knurled handle of this lever to the left, then move the lever to the desired position and finally tighten it firmly against the graduated scale by turning the knurled handle to the right.

### REVERSE SEWING

When the Stitch Regulating Lever **A** is below the number **0**, the machine will sew forwards; when it is above the **0**, the machine will sew backwards.

### REGULATING THE PRESSURE OF THE PRESSER FOOT

The pressure of the foot is regulated with the aid of the Pressure Regulating Thumb Screw **A** (see Fig. 11) which is located at the top end of the Presser Bar. To increase the pressure, turn the thumb screw clockwise; to decrease the pressure, turn it counterclockwise.

The pressure of the foot must be increased when stiff or heavy materials are to be sewn. Fine or sheer materials require less pressure.

### GETTING READY FOR SEWING

1. Hold the end of the upper thread, which hangs down from the needle, with the left hand so that this thread remains slack, and with the right hand turn the balance wheel slowly toward you until the needle goes down into the stitch hole of the needle plate and up again to its highest position. This will cause the lower thread to be caught by the upper thread.
2. Draw the upper thread by hand until the lower thread will be pulled up through the stitch hole of the needle plate. Place the ends of both threads backward (away from you) underneath the presser foot.
3. Place fabric underneath the presser foot, lower it and start sewing. With your left hand hold ends of both threads until about four or five stitches have been made.

### REMOVING AND INSERTING A NEEDLE

Bring needle bar to its highest position by turning the balance wheel slowly towards you.

Loosen the thumb screw of the needle clamp (see Fig. 15) and remove the old needle.

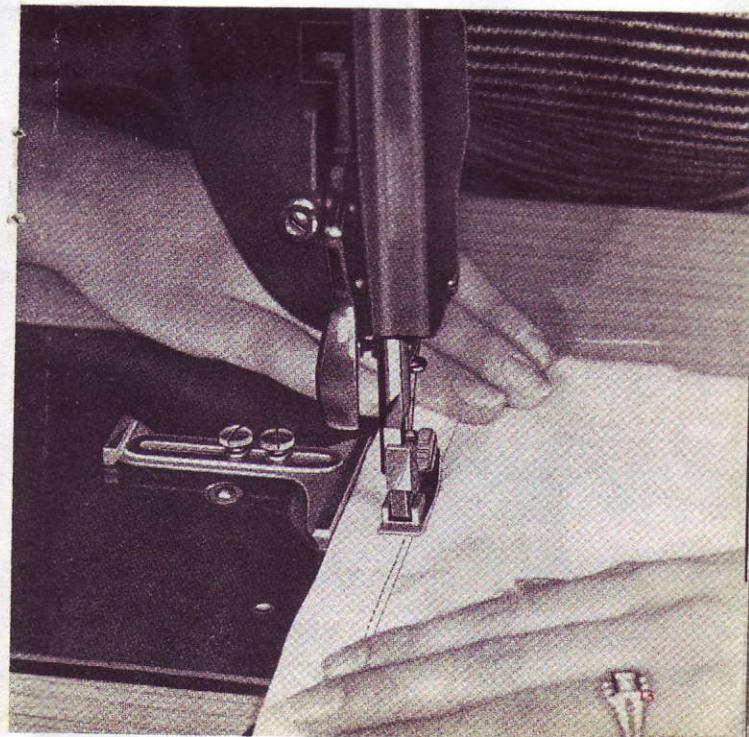
While inserting a new needle into the groove of the needle bar, make certain that the long groove of the needle faces *toward the left*. Push the needle up into the needle clamp as far as it will go, then tighten the needle clamp screw securely.

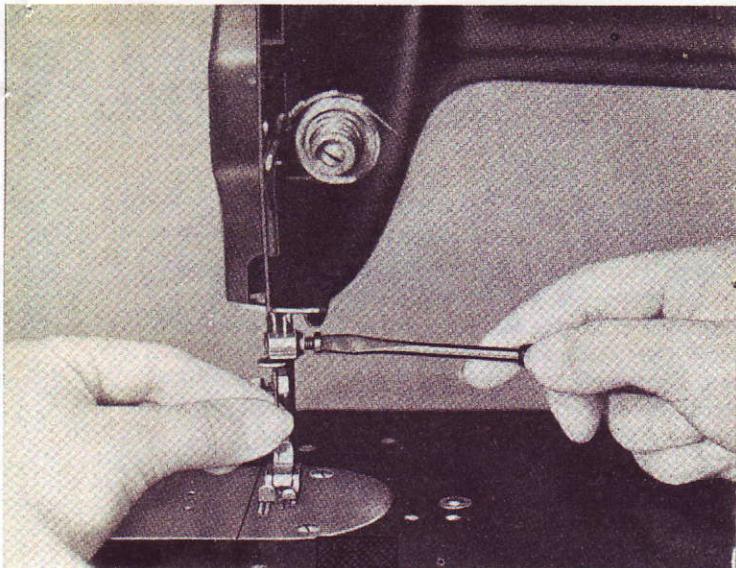
### USING THE STRAIGHT CLOTH GUIDE

For straight stitching use this guide with the ordinary presser foot.

The guide is fastened to the bed plate, as shown in Fig. 14, and the knurled thumb screws permit to vary the distance between two parallel seams, or between a seam and the edge of the material.

Fig. 14





## MAINTENANCE OF THE MACHINE

Use and handle your machine with care. Do not keep it in a damp room when not using it. Ordinary maintenance usually consists of oiling the machine every 8 hours of continuous use (see oiling instructions). When used only occasionally, or when not used at all, the machine should be lubricated every 15 days.

The raceway of the shuttle race body (see Fig. 16) should be cleaned frequently, especially when starched or glue-finished materials are being sewn. To remove the oscillating shuttle, proceed as follows: Loosen the two knurled nuts in front of the race cover (see Fig. 17), swing the race snap-out pins sideways, remove the race cover and take out the oscillating shuttle by gripping it at its center post (see Fig. 18). While removing the shuttle, the needle must be in its highest position.

## GENERAL REMARKS

Always choose the needle and the thread in accordance with the material to be sewn. Consult the needle and thread chart on page 5.

Do not operate the threaded machine when there is no fabric underneath the presser foot.

The presser foot must always be in a raised position, unless a piece of fabric is placed between the bottom face of the presser foot and the needle plate.

Fig. 16

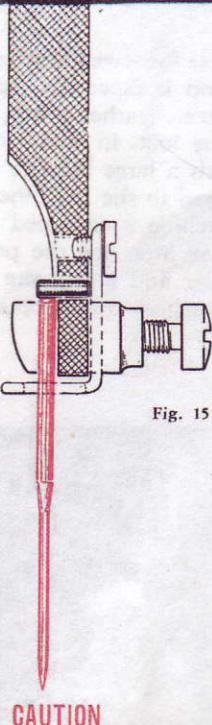
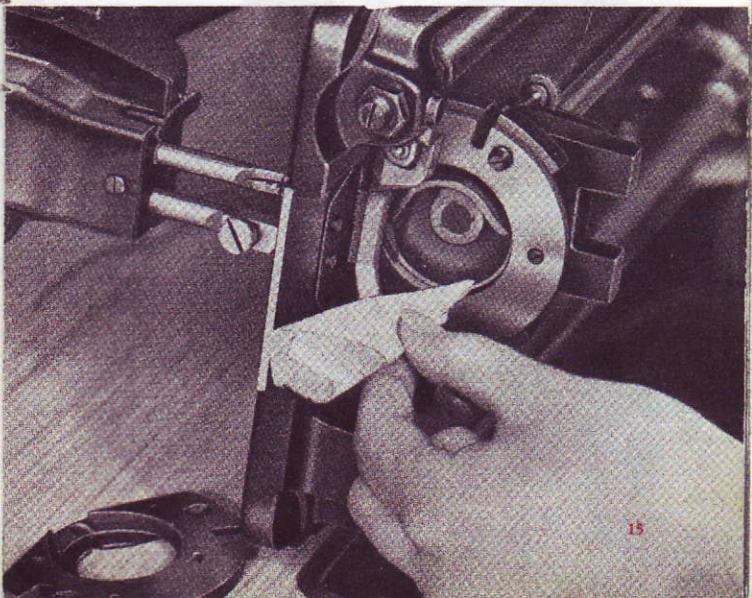


Fig. 15

**CAUTION**  
Be careful when replacing the needle. Insert needle correctly and do not bend it while attaching it to the needle bar. An incorrectly inserted or bent needle will cause skip stitching, needle breaking, snapping of the thread and may also damage the stitch hole of the needle plate.

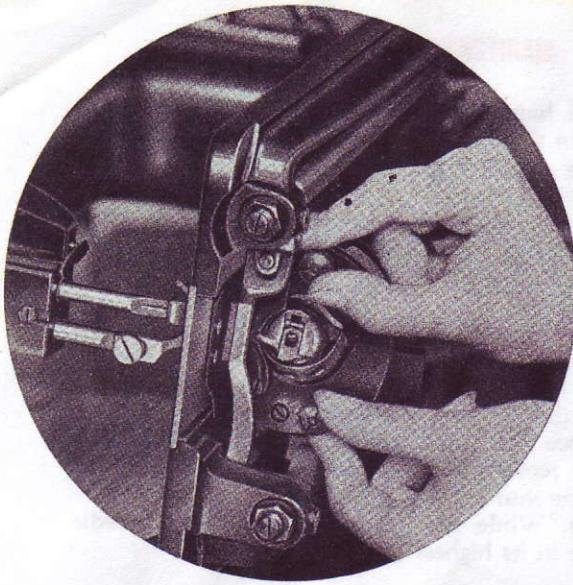


Fig. 17

The balance wheel must always be turned toward the operator.

Never turn it in the reversed direction.

Do not help feeding the fabric by pulling it by hand, since this may result in bending or breaking the needle and damaging the needle plate. The machine alone must be able to feed the fabric.

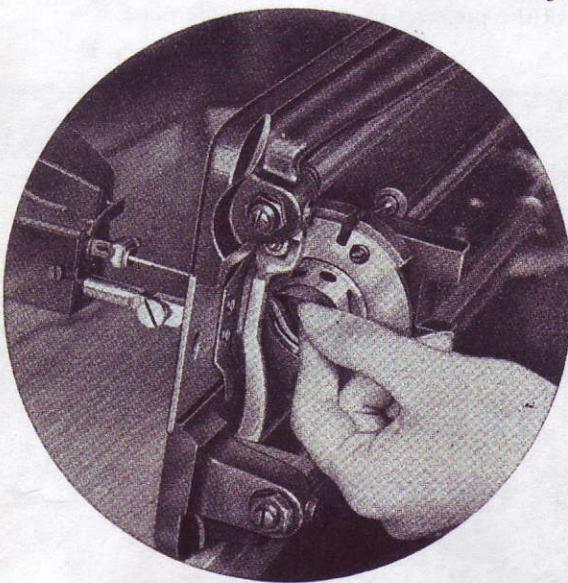


Fig. 18

## BV 3

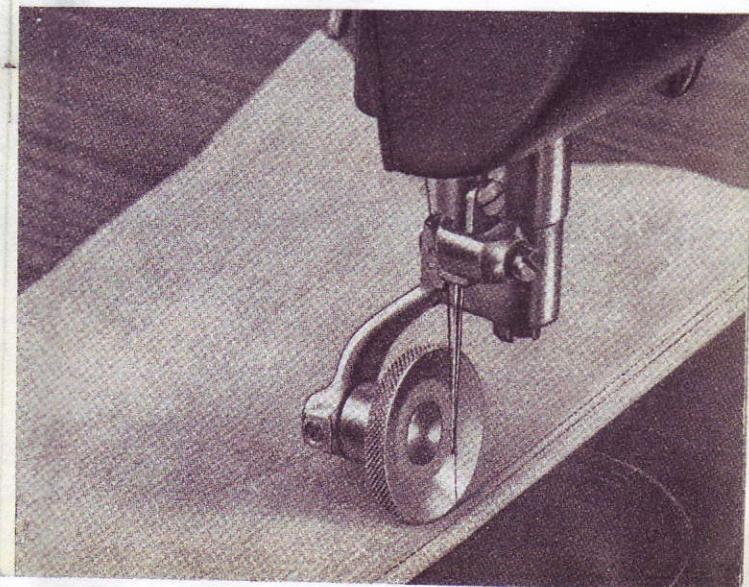
This machine possesses the same features as the BV machine. However, it is equipped with a knurled wheel foot (see Fig. 19) and a special feed dog so as to be suitable of sewing leather. To facilitate the threading of the needle, the wheel foot can be swung sideways. To do this, raise the presser bar, then simultaneously press the wheel foot downward and sideways toward the left.

### USE OF THE BV. 3 MACHINE

This machine is suitable for sewing leather of thin and medium thickness, and is especially applicable for factories producing shoes, leather goods, etc.

It may be operated by foot, in which case the machine is equipped with a large balance wheel and a bobbin winder, attached to the machine arm. When motor-driven, the machine is equipped with a small balance wheel, a knee lifter for the presser foot, a separate bobbin winder and a separate spool stand, both of which are attached to the top of the sewing table.

Fig. 19



## OPERATING SPEED

The BV. 3 machine may be run with a maximum speed of 1.800 R.P.M.

If the material to be sewn is exceptionally hard, it is advisable to reduce the above maximum speed to avoid excessive heating of the needle.

## SIZES OF THREAD AND NEEDLE

### Needles :

Use needles of the system 16 x 6.

### Threads :

The size of thread must be selected in accordance with the kind of material to be sewn and the size of needle used. See chart below:

Size of needle New no	Old no.	Type of leather	Number of thread	
			Cotton	Silk
70	10	Very thin skins	80	00-0
90	14	Thin skins and fine leathers	60 to 80	0-A
100	16	Leather of medium thickness	40 to 60	A-B-C
110 120	18 20	Heavy soft leathers	30 to 40	C-D

## BV 6

The features of this machine are similar to those of the BV. 3 machine. However, it is equipped with a feed wheel (rotating feed dog).

## USE OF THE BV. 6 MACHINE

This machine is suitable for sewing leather of thin and medium thickness. It is especially applicable for sewing shoe uppers.

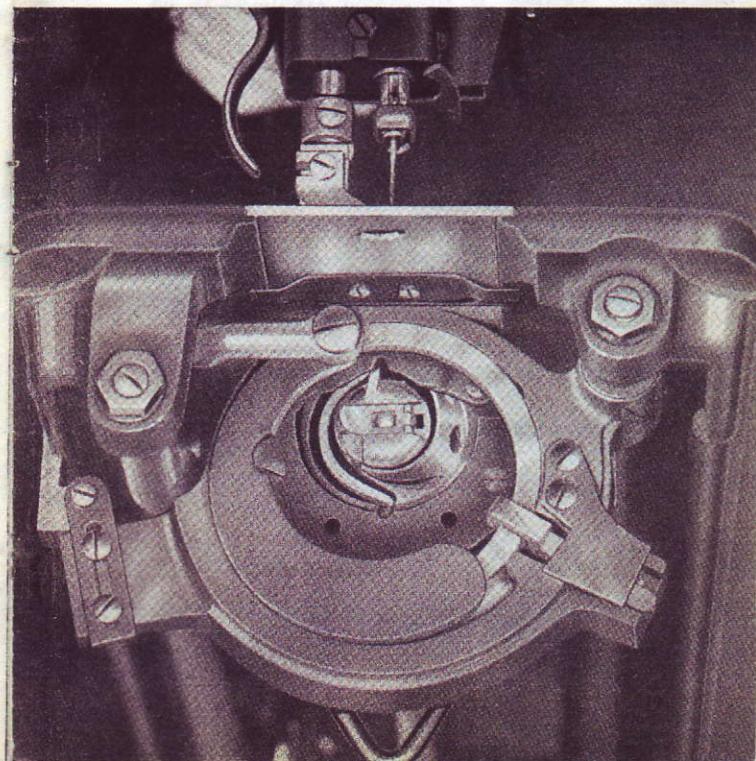
## OPERATING SPEED

Maximum speed: 1.500 R.P.M.

## NEEDLE AND THREADS

See needle and thread chart for the BV. 3 machine on page 5.

Fig. 20



## BV 66

This machine incorporates similar features as the BV. 6 machine, however the feed wheel of the BV. 66 machine is moved by gears.

The following approximate lengths of stiches may be obtained with the BV. 66 machine:  
3/64", 1/16", 3/32" and 1/8".

To vary the length of stitches from one size to the other of the given figures, reverse the two pairs of gears **A** and **B**, shown in Fig. 21.

### OPERATING SPEED

The BV. 66 machine may be run with a maximum speed of 1,800 R.P.M.

### USE OF THE BV. 66 MACHINE

The performance of the BV. 66 machine is similar to that of the BV. 6 machine. A characteristic feature of the BV. 66 machine is the exact regularity of its stitches.

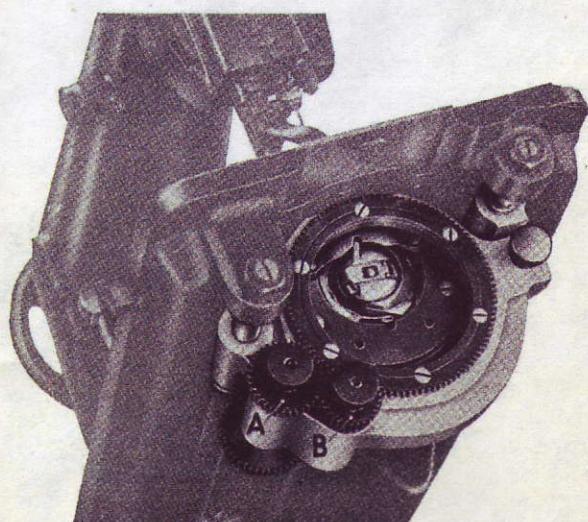


Fig. 21

## BV 3-8

The features of this machine are similar to those of the BV. 3 machine.

However, it is equipped with a two-needle clamp and two upper tension devices, thus permitting to sew a double seam with two upper threads and one single lower thread.

### USE OF THE BV. 3-8 MACHINE

This machine is suitable for sewing leathers of thin and medium thickness. It is especially applicable for tacking shoe uppers and fine leathers in general.

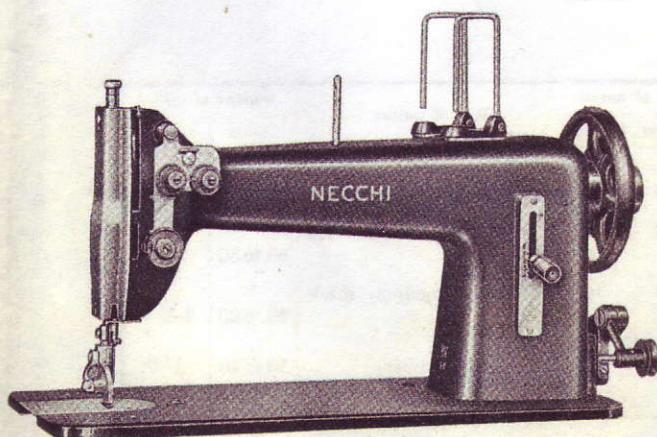
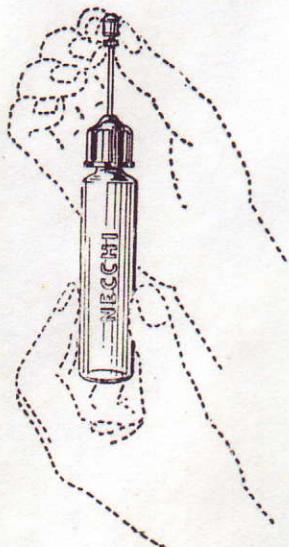
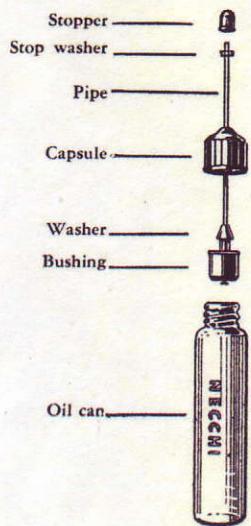


Fig. 22

## HOW TO USE OIL FEEDER

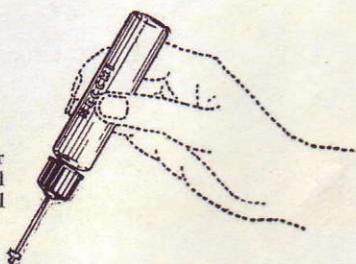
### Filling

1. Unscrew the capsule totally.
2. By holding the stopper draw the bushing out from the oil can.
3. Fill the oil can.
4. Replace the mechanism in 1st previous position and screw the capsule on.



### Adjusting the length of the pipe

1. Unscrew the capsule by about  $1/8$  turn.
2. By handling the stopper, draw out the pipe to the wished length.
3. Screw the capsule on, in order to have the pipe fastened.



### Oiling

Unscrew the stopper and press the oil can to pour oil out.