

## INSTRUCTIONS

for using the  
improved Central  
Bobbin Household

# NECCHI

B. F.

Sewing Machine  
with articulated  
thread stretcher

## *Important direction*

- The machine, as soon as it is unpacked, must be cleaned thoroughly with petroleum, in order to remove all residues of dried oil, and then must be carefully oiled in all its parts with a special good quality oil, according to directions.
- The greatest part of incidents occurring in all central bobbin sewing machines are due to the fact that the bobbin cotton enters into the shuttle case. In order to avoid this trouble, it is necessary, by beginning of the sewing, to keep the ends of the bobbin cotton and of the needle cotton slightly stretched until three or four stitches have been sewn, and never to turn the wheel backwards, even if only a little.
- In any case, when the cotton enters into the shuttle case, it is necessary to remove it promptly in order to let the machine work regularly again. Details of this operation are given in the last part of direction N. 4 of this booklet.
- The wheel must always turn in the way that the upper part revolves toward the person who is working. The presser foot must always be raised when the machine is not sewing.
- Never start the machine when the cotton is threaded without the stuff being under the presser foot.
- Take care to use needles and cotton of the numbers corresponding with and suitable to the work to be done, according to the table at the end of this booklet.
- Always use needles and cotton of the best quality, as they have a great influence on the perfection of sewing.
- Never draw or push the work, as there is the risk of bending or breaking the needle and spoiling the hole of the needle plate; the machine carries on the work by itself.

### 1/.

## CLEANING & OILING OF THE MACHINE & THE TREADLE

In order to keep the machine in good conditions, oiling is the most important operation: it is necessary to use an oil of excellent quality.

A poor quality oil, and particularly the olive oil, that many people have the bad habit of using, coagulates in the conducting holes and sticks to the parts in the form of a gummy film. The movement of the machine is hereby made stiff with the consequence of a quick wearing out. The machine must be oiled in the places shown by numbers 1 to 8 in fig. 1 and the interior part in the places shown by numbers 1 to 15 in fig. 2. The bobbin winder is to be oiled in all its principal visible joints, taking care that the oil does not fall on the rubber ring.

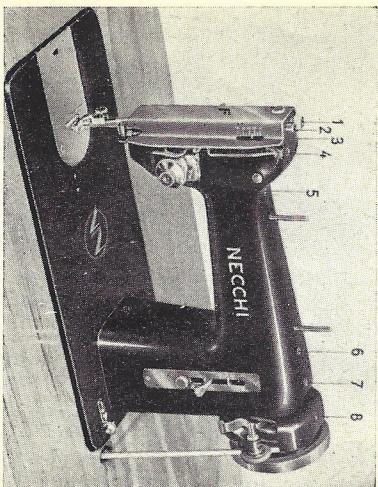


Fig. 1

The front parts of the arm are oiled best by removing the front plate F, by opening the back rectangular plate of the arm, the parts thus being in view can be oiled.

When the machine is continually used, it is necessary to clean and oil the shuttle bed very often with a cotton rag slightly soaked with oil.

When the machine has not been used for a long time and has become hard to work, a little petroleum must be put

in all the parts to be oiled, in order to dissolve the dry oil sticking to the parts. When the machine runs well again, the parts must be thoroughly dried and well oiled.

### 2/.

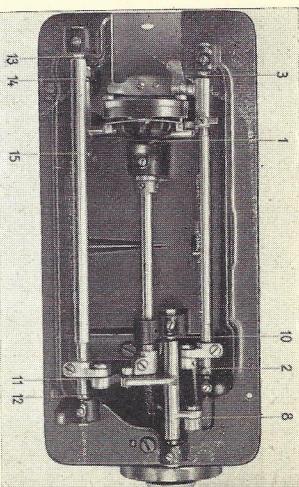


Fig. 2

To oil the treadle, put a few drops of oil in the two points of suspension of the foot board, at the two ends — heel and foot — of the connecting rod, and in the two points of rotation of the shaft with the wheel's bear frame.

## TO ATTACH AND DISJOIN THE WHEEL

To disjoin wheel V (fig. 3) of the machine and have it loose, hold it still with the left hand and turn the knurled button B (fig. 3) with the right in direction of the arrow. To attach it, turn button B in the opposite direction as long as resistance is found. In order to avoid damages, it is necessary to disjoin the wheel when the drive of the machine's treadle has to be learnt, and also when the little bobbin has to be filled by the winder as explained later on. The wheel must always turn towards the person who is doing the work.

### 3/.

## LENGTH OF STITCH

Our machines are endowed with a forward and backward movement device: the two positions are indicated by the initial letters AV (forward) and IN (backward). When the stitch regulating lever is at nought, the stuff

is not moved and no stitch is made. To lengthen the stitch, the button 0 must be slightly loosened, after which the stitch regulating lever can be lowered or raised according to forward or backward stitching is required.

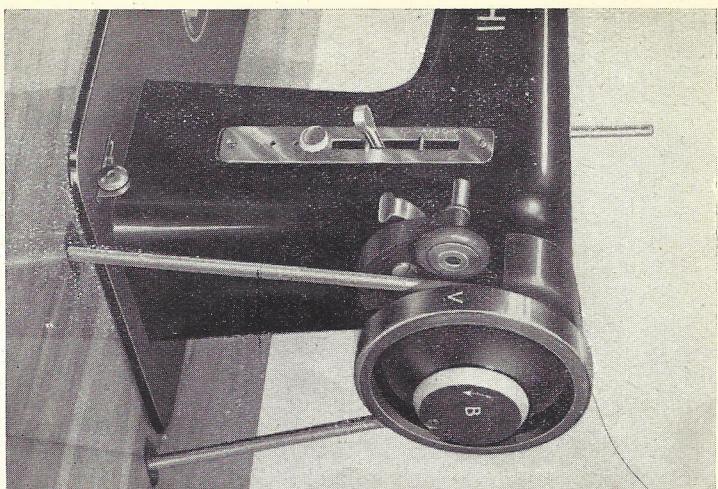


Fig. 3

The horizontal arrow just above the lever moving on the scale from 0 to 4 on the stitch regulating plate, indicates the approximate length of the stitch in millimetres. Another horizontal arrow under the lever moves at the same time with the former: turning button 0 from left to right, the two arrows through which the lever turns are fixed, thus enabling to pass from the forward to the backward movement, maintaining automatically the same length of the stitch.

#### 4/.

### HOW TO REMOVE THE BOBBIN CASE, THE BOBIN & THE HOOK

To remove the bobbin case (fig. 4 Nr. 20177), fastened on the pin of the hook, it is first of all necessary to completely open the running plate (called « square plate » in the catalogue), then turn the wheel until the needle reaches the highest possible position. Afterwards open the lock A (fig. 4) and by pulling slightly take out the bobbin case 20177 containing the bobbin N. 140. To set the bobbin case again in its position, after having entered the bobbin in it, keep lock A open with the left hand and fasten the bobbin case on the pin of the hook. Attention must be paid that the crook B of the bobbin case is perfectly adjusted on the proper bed above the hook retainer, as shown in fig. 4.

Care must be taken that the lock be always kept completely opened by a light pressure, so that the bobbin does not fall, till the bobbin case is well brought into

140

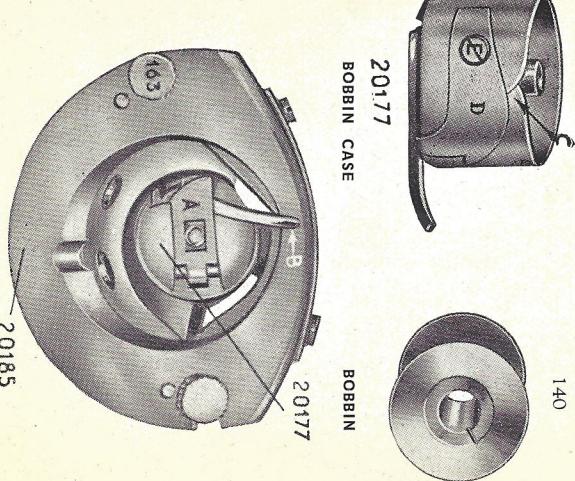


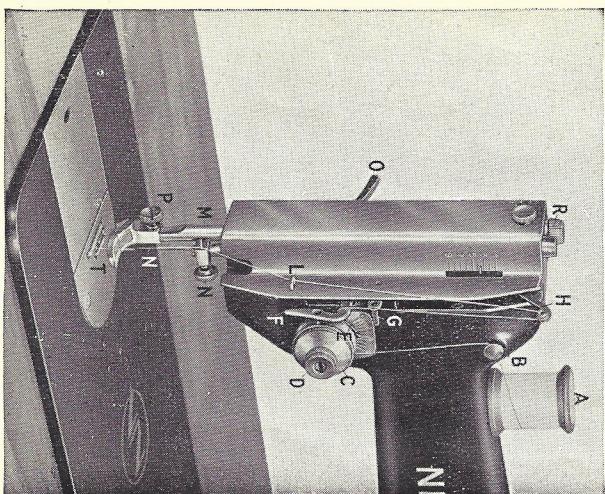
Fig. 4

the hook. If the lock becomes relaxed before time, it may easily happen that the bobbin gets out a little and prevents a complete insertion of the bobbin case, which would come out during the work.

To take out the hook from its bed, particularly if the cotton of the bobbin has entered into the bed so as to hinder the movement, it will be sufficient to push the knurled buttons 163 outside and to take out the plate 20185. The needle must always be in its highest point. After having well cleaned the bed and all other parts taken away, everything must be put back in its proper place. The bed where the hook runs, must always be kept thoroughly cleaned and oiled.

#### 5/. HOW TO THREAD THE UPPER COTTON

The upper cotton (see fig. 5), starting from a reel put on the reel holder A, must first of all pass the special



#### 6/. HOW TO THREAD THE LOWER COTTON

Put a bobbin filled with cotton in the bobbin case, holding the free end of the cotton, which is immediately introduced in the slot shown with C in fig. 4. (Keep in mind as an important rule, that the bobbin must always be adjusted on the bobbin case in such a way that the cotton, getting untold from it, let it run contrary to the hands of the watch), let it pass under the small spring D (fig. 4) so as to let it come out from the hole of the spring. Hereby the bobbin case is threaded.

Allow the end of the thread to stretch 10 cm. outside of the bobbin case; fit the bobbin case on the pin of the hook, as stated in direction Nr. 4, taking care that the free end of the thread goes down towards the outside. Put the upper thread in position, by holding the end with the left hand, turn the wheel with the right, and the needle, after having entered its plate, will return to its highest point; by pulling the upper thread, the lower thread will come out from the hole of the needle plate.

#### 7/. HOW TO REMOVE THE NEEDLE

To remove the needle, the needle plate M (fig. 5) must be raised (by turning the wheel) to its highest point; then loosen slightly the fastening screw N (fig. 5) and remove the needle. To put the needle again, it must be entered in the hole of the needle bar, taking care that the flat part of the needle fits perfectly in the flat part of the hole; push it upwards until it stops and then fasten the screw N.

FIG. 5

8/.

## HOW TO START SEWING

Hold for some stitches the two ends of the threads in order to avoid them winding with consequent stopping of the machine.

Avoid to start the machine before having put the stuff under the presser foot.

To stitch thick stufs or to pass through a seam made before, slacken the movement of the threadle and turn with great care the wheel with the right, in order to avoid bending or breaking the needle.

9/.

## HOW TO ADJUST THE TENSION

Tension of the lower thread is regulated by screw E (fig. 4), which fixes the spring of the bobbin case. When turning to the right, the spring is pressed against the bobbin case and therefore the tension of the thread increases. By turning to the left the opposite result will be obtained. The tension of the upper thread is adjusted by means of the femal screw D (fig. 5). When turning this screw to the right, the tension of the thread increases, and lessens when it is turned to the left.

If the upper tension is too weak (as in fig. 6) the thread of the bobbin draws under the upper thread and forms series of loops in the lower part of the sewing; if the upper tension is too strong (as in fig. 7) the lower thread is drawn above and the upper thread will break easily. If the tension is equal for both threads a regular sewing will be obtained as per fig. 8.

For very thick and strong stufs the pressure of the preser foot must be increased by turning button R (fig. 5) to the right.

## HOW TO USE THE WINDER

First of all the wheel must be disconnected.

Then fix the reel on the pin A (figure 9), the thread must first pass through button B, then in disk C and be wound with a few turns (by hand) on a bobbin. The bobbin is then fixed on the proper pin D, as per figure 9. By starting the wheel the bobbin will automatically be wound with cotton and when full it will stop by itself. To disconnect the bobbin winder before the bobbin is full, press the thread guide F slightly towards the machine.

Fig. 7



Fig. 8

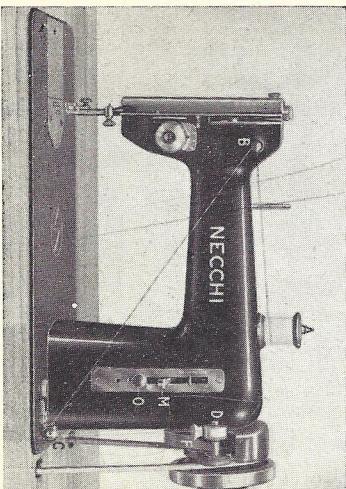


Fig. 6

## 11/.

### CHIEF CAUSES OF THE MOST COMMON TROUBLES

which can generally be avoided by following the foregoing directions.

#### Broken upper thread

Machine not properly threaded; see direction Nr. 5;  
Too strong upper tension; see direction Nr. 9;  
Blunt or bent needles; change them; see direction Nr. 7;  
Needle and thread not fitted each other and to the stuff  
to be sewn; see at the end of this booklet;  
Needle passage hole of the plate spoilt by breakages  
of needles due to pulling the stuff when sewing, or by  
changing to embroidery before proper time; smooth the  
hole with fine emery paper, or change the needle plate if  
this is not sufficient.

Needles not well inserted with regard to height, or to  
the long hole for the thread; see direction Nr. 7;  
Broken spring of the threadstretcher E (fig. 5); have it  
changed by a mechanician.

#### Broken lower thread

Bobbin case 20177 (figure 4) not properly inserted; see  
direction Nr. 6;

Too strong lower tension; see direction Nr. 9;  
Thread not properly wound on the bobbin, or bobbin  
too full; see direction Nr. 10;  
Spring of the bobbin case worn in the long run by the  
running thread; change it;  
Needle passage hole of the plate spoilt; as for the  
previous case.

#### Broken needles

Needle not straight;  
Upper tension too strong,  
Pushing by hand of the stuff during sewing, or of the  
frame for embroidery before the proper time.

#### Loop stitches - Crumpled Stuff and improper Sewing

These troubles are generally caused by wrong tensions.  
Be sure that the threadings are regular, and the cotton  
be of a good quality and fitted to the needle;  
See that the spring of the threadstretcher works regu-  
larly;

Improper sewing can take place when the bobbin has  
been put in the bobbin case without taking care in what  
direction the thread has been wound, as stated at the be-  
ginning of direction Nr. 6;  
Crumpled stuff can also be caused by too long stitches  
for the stuff to be sewn, especially if a fine stuff is in  
question.

#### Why transport may be deficient

Too weak pressure of the presser foot for the stuff to  
be sewn;  
The feed dog may be too much worn: if the teeth  
seem no longer sharp when passing the fingers on the  
feed, it will be necessary to have it changed by a me-  
chanician.

#### Machine hard to work

This is generally due to the thread entering into the  
shuttle's bed; proceed as per direction Nr. 4;  
Belt too tight: change it, on the contrary, if the belt  
is too long, it will slide on the wheel and require more  
treadle work than necessary: it must be shortened;  
Lack of proper oiling and removing of the waste, which  
gathers particularly under the needle's plate.

#### Noisy treadle

This means that play is taking place in the two point  
screws supporting the foot board, or in the junction of  
the connecting rod with the foot board, and in the head  
of the connecting rod, or also in the two ball holder  
boxes at the ends of the wheel's crank shaft.  
All these plays can easily be removed by suitable adjust-  
ments of the parts in question, but it is always better  
to have them done by a mechanician.

## 12/.

# Accessories

A short description concerning the use of the accessories (which we deliver on demand, apart from the usual accessories equipment) follows, with special illustrations showing their practical working.

### Hemming foot

It must be fixed at the place of the usual foot. To use it, fold over the stuff at the edge for the width of the hem and for a length of 2 cm, put it in the front part of the spring at the middle of the foot and turn to the needle; let the presser foot down and begin to sew, taking care that the stuff enters regularly in the spring.

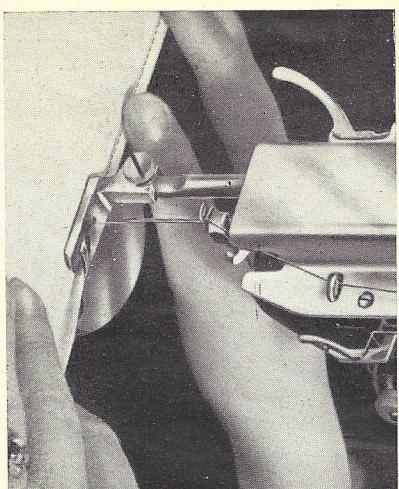


Fig. 10

### Straight guide

It is used with the ordinary foot for sewing parallel to the edges of the stuff, also for plait and hems at equal distances without having to trace the measurement. It is fixed by means of a screw cut button in one of the holes to the right of the needles plate.

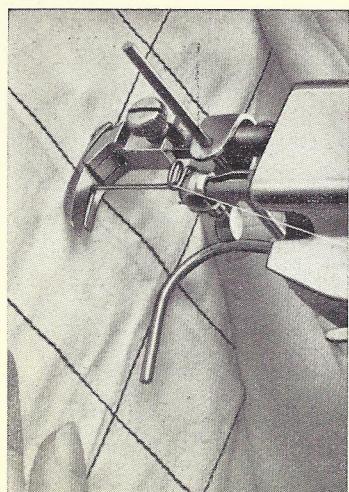


Fig. 12

squares, without having to trace them previously. It is fixed on the stuff presser rod by means of the bridge piece and the screw cut button.

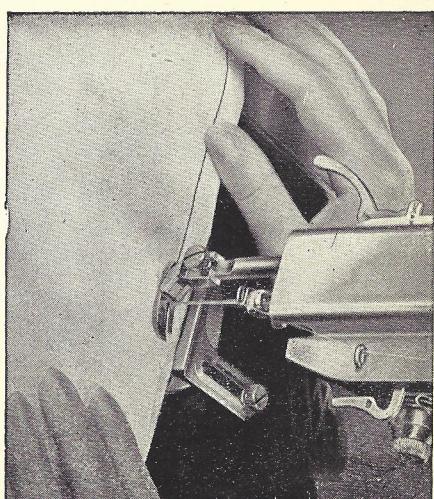


Fig. 11

### Quilting device

This device is for back stitching padded articles and allows to sew lines at equal distances, as well as regular

Straight sewing on a traced line takes place first; the stuff is then pushed to the right as far as required for the distance between each square, and the rod is fixed in such a way that the bent part falls exactly on the first stitch. The other stitches are then sewn successively, but great care must be taken to always keep the previous stitch under the guide.

### 13/.

#### DIRECTIONS FOR EMBROIDERY

Our machine is endowed with an embroidery device which is very easy to be handled.

It is fitted in a convenient position, just below the running square plate, as shown in figure 13, so that it is not necessary to raise the machine and therefore the belt needs not to be taken away and no other operation is required.

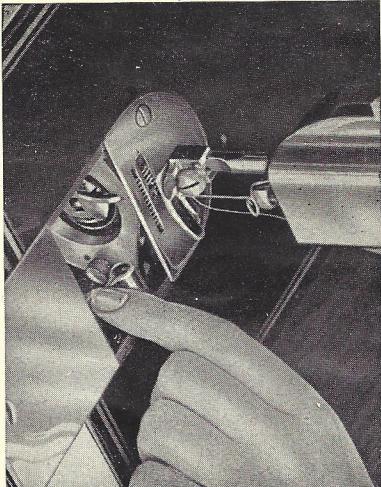


Fig. 13

machine is ready for this work and the laborious change of the needle plate is not needed.  
To return to ordinary sewing conditions, raise the lever and bring it back to its initial position.  
When the machine must be used for long time for embroidery only, it is advisable to replace the needle plate with the special embroidery plate which we supply on demand.

The stuff to be embroidered is then put in the special embroidery frame, after having been well stretched. Take great care to remove the frame only when the needle has reached its highest position.

The most difficult point for beginners is to learn guiding the frame with an exact and rhythmic movement in an alternate direction at every stitch, and to move the frame only when the needle is up. For practice it is advisable to start moving the machine very slowly and to increase the speed by and by as practice is acquired.  
Care must be taken to adjust the tension (for the upper thread slow and rather strong for the lower one).  
For some kinds of embroidery it is advisable that the tension spring works for sewing; in these cases, the presser foot lever being raised, it is necessary to pass the upper thread in the hole of the crook F (fig. 5) instead of letting it pass under the crook.

### 14/.

#### MENDING

The machine prepared for embroidery as said above, can also be used for mending, this work can be learnt easily and is very useful in all homes. The tension must not be too strong; the cloth to be mended must be fixed in the frame as for embroidery: a soft thread must be chosen both for the bobbin and the needle, possibly similar to the fabric to be mended.

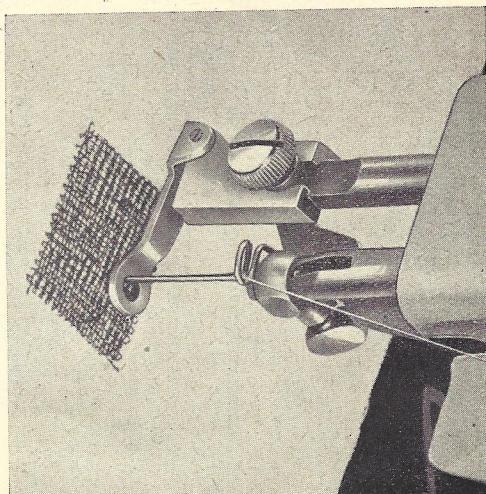
The mending is done by guiding the frame towards and backwards in order to cover the torn part and to arrive to about half centimetre on the sound one with many parallel threads in the direction of the double welt, and joining them in the same way in the direction of the warp.

The work is made-easier by using the mending foot, which holds the stuff when the needle is down, thus avoiding to have stitches skipped: by using this device it is also possible to avoid putting the stuff on the frame and this renders the work quicker.

Stockings and socks can also be darned by means of a small frame fit for this purpose.

It consists of a small lever which is lowered by slight pressure with a finger and stops operating at the feet dog. In this way, by removing the foot and fitting the raising lever of the presser foot in position « Embroidery », the

Fig. 14



**COTTON & NEEDLE TABLE**

The following table should be kept in mind for the needles:

Nr. Needle	Kind of Cloth	Nrs. of the cotton and silk
70	Muslin, cambric, linen cloth and good silk . . . . .	30 to 150 cotton 00 to 000 silk
90	Linen goods, sheetings and heavy silk . . . . .	60 to 80 cotton 0 00 silk
100	Thick linen goods, woollen stuffs and clothes . . . . .	50 to 60 cotton A or B silk
110	Heavy woollen goods and all kinds of thick clothes . . . . .	40 to 50 cotton A or B silk
120	All kinds of stuffs for heavy clothes . . . . .	30 to 40 cotton G or D silk

The needles to be used are those of the 705 system. It should be kept in mind as a practical rule, that the cotton to be used must pass freely through the eye of the needle.

MADE IN  
CHINA