

# NECCHI

## **instructions**

for the use  
and maintenance  
of your  
sewing machine

### **mirella**



NECCHI Società per Azioni - Pavia (Italy)

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## ACCESSORIES

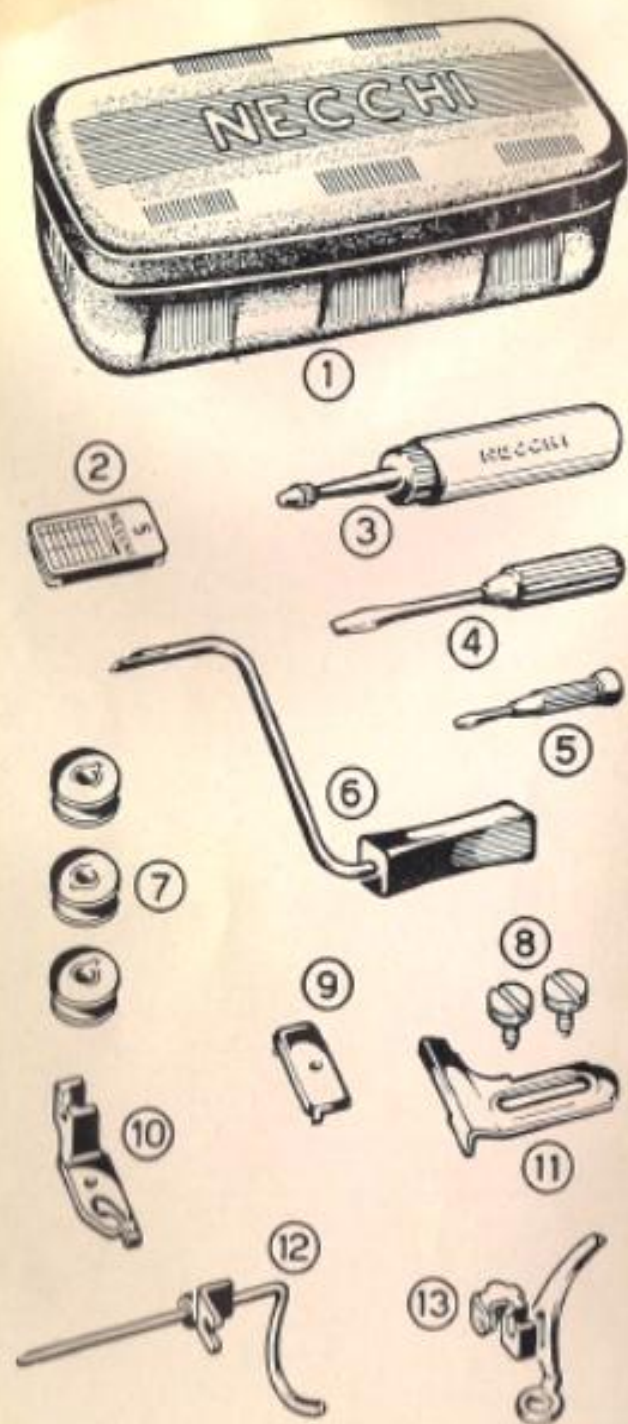


Fig. 1

## LIST OF ACCESSORIES

- |                               |  |
|-------------------------------|--|
| 1) Accessory box              | 7) Bobbins (3)                         |
| 2) Case with needles          | 8) Fastening screws for straight guide |
| 3) Plastic oiler              | 9) Embroidery plate                    |
| 4) Screw driver (medium size) | 10) Hemmer                             |
| 5) Screw driver (small size)  | 11) Straight guide                     |
| 6) Hand crank                 | 12) Quilter                            |
|                               | 13) Darning foot,                      |

## RECOMMENDED NEEDLE AND THREAD SIZES

	Sizes of thread		Sizes of needles	
	mercerized cotton	silk	syst. 15 x 1	syst. 703
Muslin - Batiste - Fine linens - thin fabrics	80 to 150	D and 60 twist	10	70
Shirtings - Sheetings - Heavy silks	80 to 60	A & B twist	14	90
Heavy weight linens - Woollen goods	60 to 40	C twist	16	100
Heavy weight woollens - Woven coating	40 to 30	D twist	18	110
Heavy fabrics in general	30 to 24	E twist	20	120

1 - To run the machine by motor

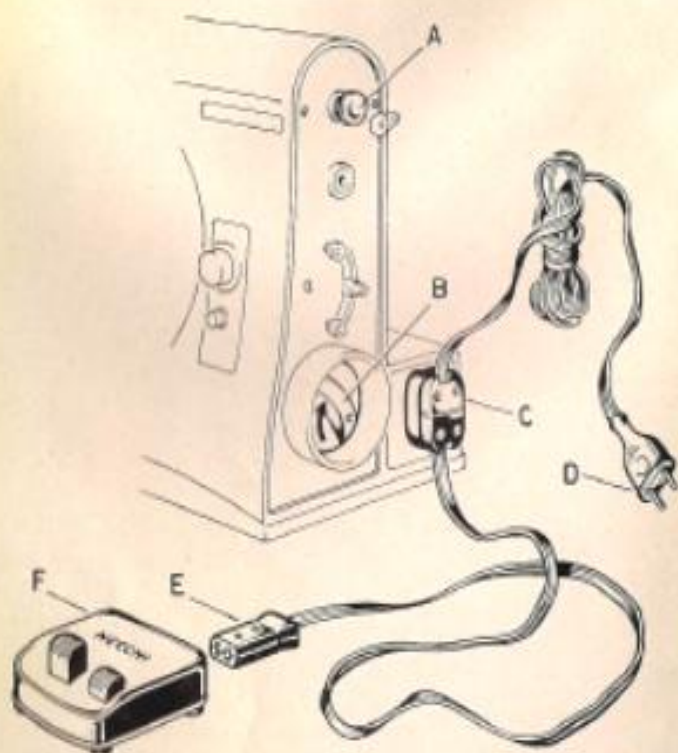


Fig. 2

- Pull out button « A » (Fig. 2);
- Screw in button « B » following the direction of the arrow;
- Connect the machine as shown in the illustration.

The sewing machine runs by pressing the rheostat « F ». The switch, which is found at the back of the sewing machine, controls the built-in light only.

2 - To run the machine by hand

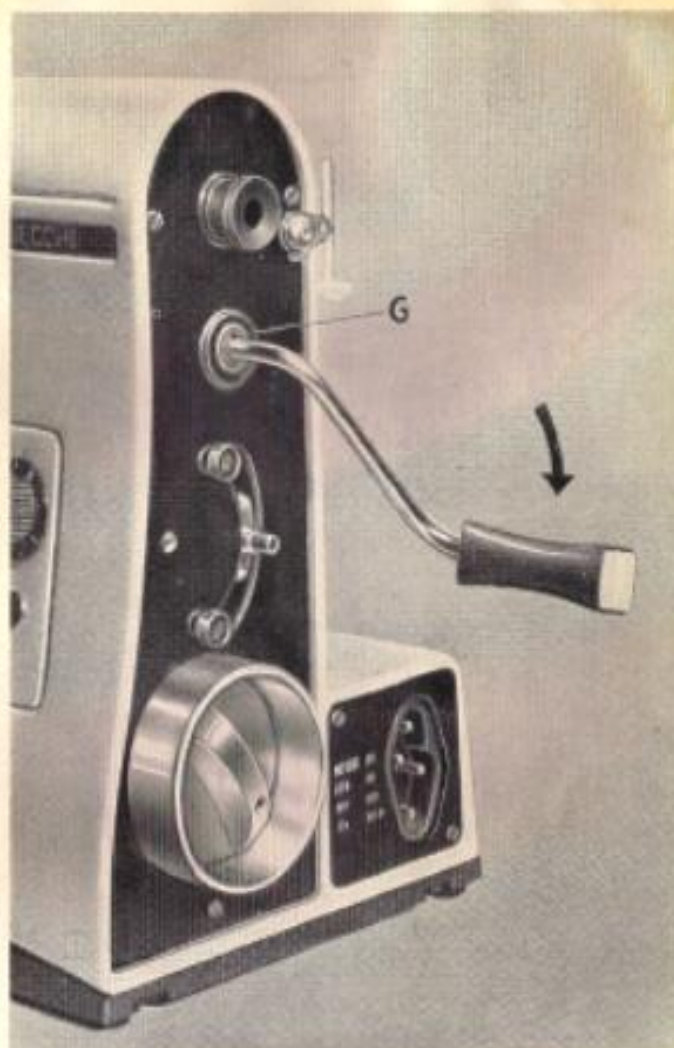


Fig. 3

- Disconnect the machine;
- Push in button « A » (Fig. 2) by rotating it as far as it will go;
- Unscrew button « B »;
- Insert hand crank in « G » (Fig. 3), to be rotated in the direction of the arrow.

When you wish to run the sewing machine by



hand and have the light on, connect plugs « C » and « D » (Fig. 2), disregarding plug « E ».

### 3 - To remove the flat base

In order to pass from a flat-bed machine to a free-arm one, unscrew button « A » (Fig. 4), remove the flat base and close the free arm by means of carter « B » (Fig. 5).

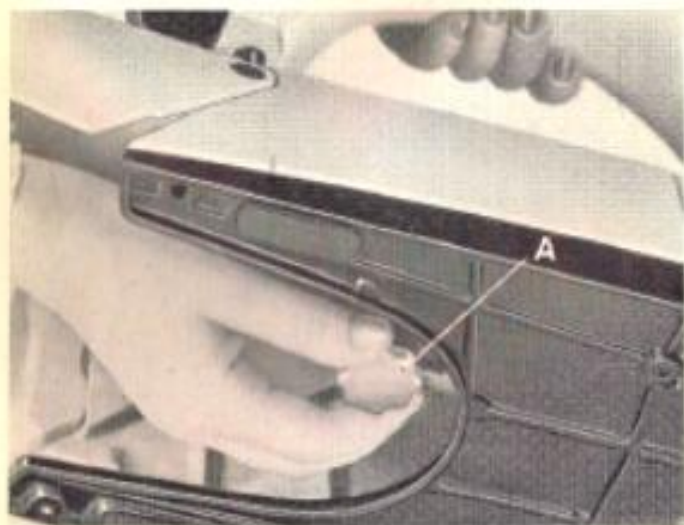


Fig. 4

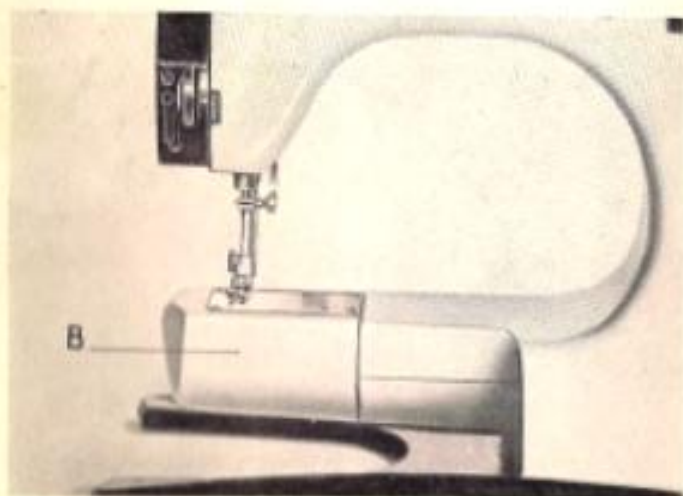


Fig. 5

## CHAPTER II

### 1 - Points to observe

- Always keep a piece of cloth under the presser foot when the sewing machine is not in use. This will prevent damage to the feed dog and the presser foot.
- Do not push or pull the material to assist the feeding action; the material must advance by itself.

### 2 - To oil the machine

- Oil the machine in all oiling points indicated in Fig. 6 with a circle mark;
- It is advisable to oil the machine frequently;
- Use NECCHI oil, which is on sale at all NECCHI stores.

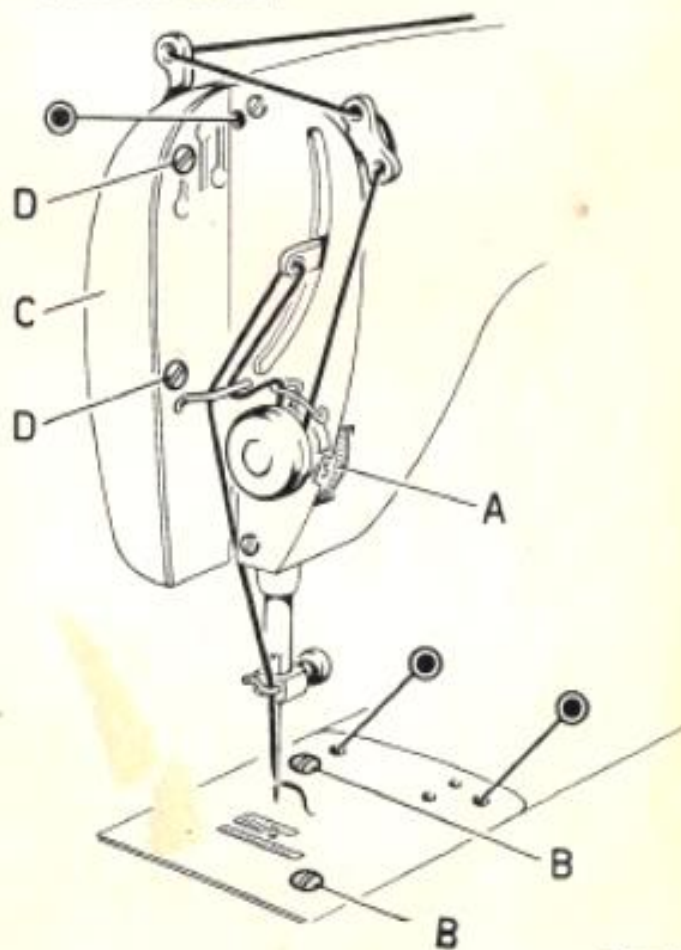


Fig. 6

### 3 - To insert the needle

- a) Bring the needle bar to its highest position by turning the balance wheel;
- b) Loosen screw « A » and insert the needle (Fig. 7) into the groove pushing it up as far as it will go.

Make sure that the flat side of the needle shank is toward the right.

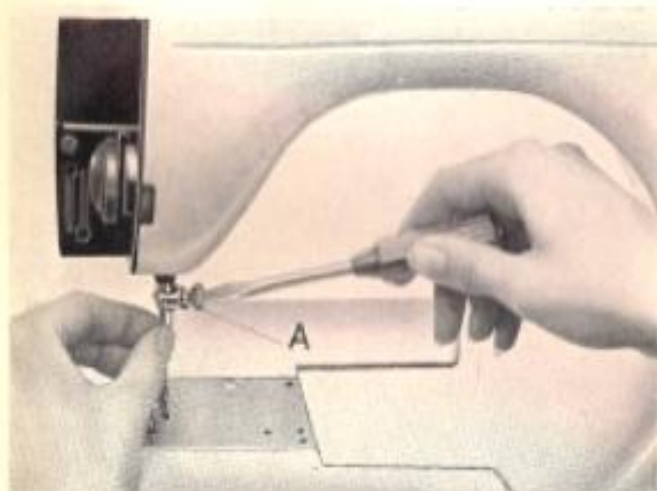


Fig. 7

### 4 - To thread the machine

Thread the machine as illustrated in Fig. 6.

### 5 - To remove the bobbin case

- a) Bring the needle bar to its highest position;
- b) Lift the extension leaf or remove the small carter, according to the particular case;

- c) Lift the latch of the bobbin case (Fig. 8) and remove bobbin case and bobbin.

The bobbin will be free only when the latch of the bobbin case is released.

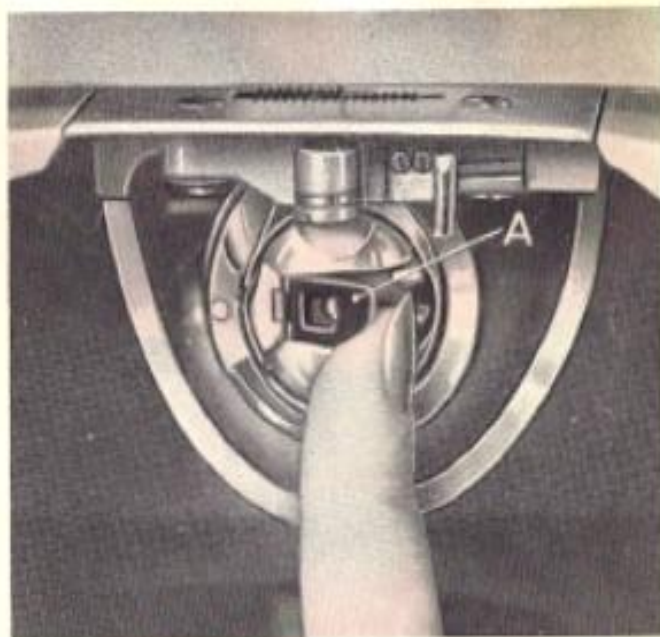


Fig. 8

### 6 - To wind the empty bobbin

Motor operation	Treadle operation
a) Unscrew button « B », (Fig. 9);	a) Unscrew button « B », Fig. 9, and pull out button « A »;
b) Place thread as shown in the illustration;	b) Place thread as shown in the illustration;
c) Insert bobbin on bobbin winder spindle « C », which is in its central position.	



d) Wind thread a few times round bobbin by hand;

e) Shift bobbin downward and run the motor;

e) Shift bobbin upwards and hand crank;

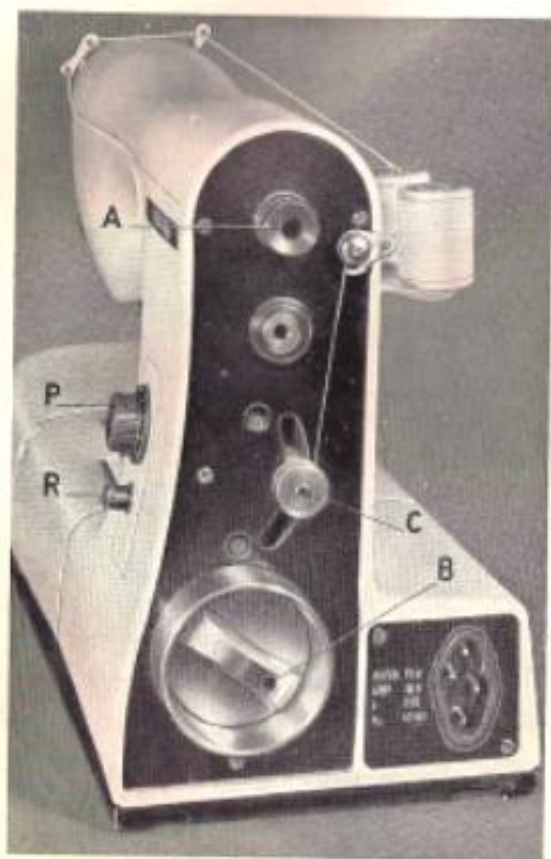


Fig. 9

When bobbin is full, the bobbin winder will automatically stop; shift bobbin winder spindle « C » back to its central position.

## 7 - To insert the bobbin into the bobbin case

Insert the bobbin as shown in Fig. 10, leaving about four inches of thread hanging free.

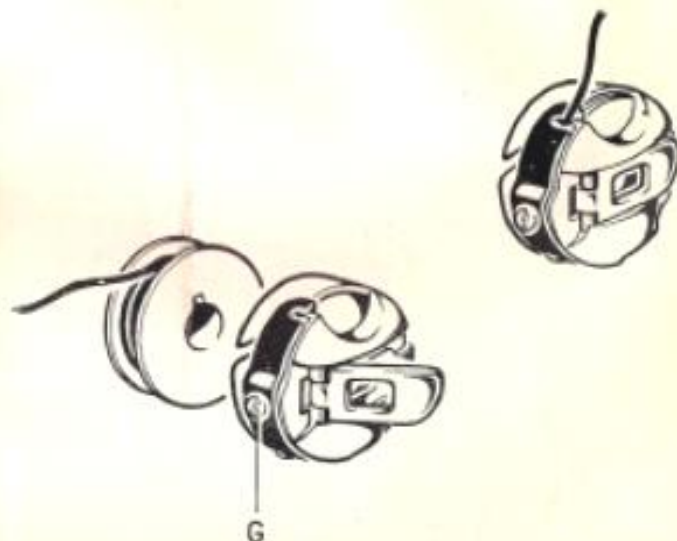


Fig. 10

## 8 - To insert the bobbin case

See Fig. 8; the latch « A » must always be kept horizontally.

## 9 - To prepare the machine for sewing

- Turn the balance wheel through two complete cycles slowly and counter-clockwise;
- When the needle is in its highest position, pull the upper thread which will draw the lower thread up through the stitch hole in the needle plate; place the fabric under the needle and lower the presser foot;

- c) Start the machine by gently turning the balance wheel, taking care to hold the two threads taut behind the presser foot for the first 3 or 4 stitches: this precaution will prevent the thread from getting tangled under the needle plate, damaging the hook or breaking the needle.

#### 10 - To adjust the tensions

If the tensions are correctly adjusted (Fig. 11), the stitches will look alike on both sides of the fabric since the two threads will interlock inside the material.

Should the upper tension be too strong, the threads will interlock as shown in Fig. 12; the threads will look as in Fig. 13 when the lower tension is too strong in relation to that of the upper thread.

— The upper tension increases by turning button « A » (Fig. 6) upwards; it decreases by turning the button in the opposite direction;

— The lower tension increases by tightening screw « G » (Fig. 10); it decreases by loosening the screw.

The tension adjustment will be quite simple after a while.



Fig. 11



Fig. 12

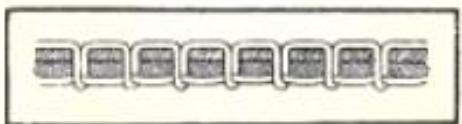


Fig. 13

#### 11 - To adjust the stitch length

Turn button « P » (Fig. 9).

The numbers from 0 to 4 indicate the lengths of stitch.

#### 12 - To sew in reverse

Press down button « R », Fig. 9.

#### 13 - Thread cutter

Pass the threads through the opening « A » of the thread cutter (Fig. 14) which will cut them.

The threads will be held by the thread cutter and the machine will thus be ready for the next sewing operation without the necessity of holding them taut for the first few stitches by hand.

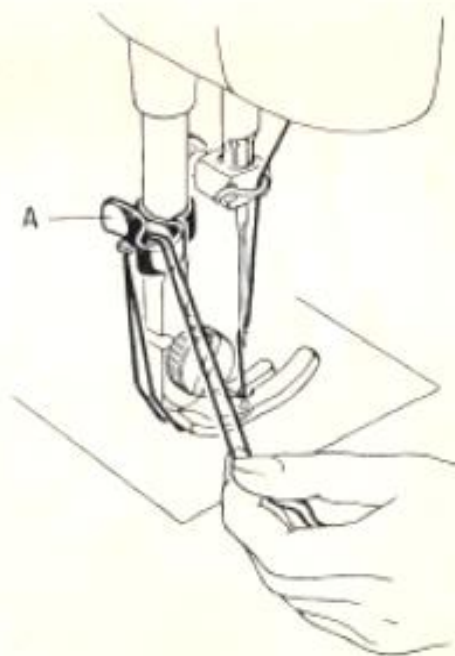


Fig. 14



#### 14 - To remove the bobbin case holder

This operation is necessary for cleaning the hook race and its retaining ring.

- a) Bring the needle bar to its highest position;
- b) Remove the bobbin case;
- c) Snap out the retainer for bobbin case holder (Fig. 15) and rotate it to the left;



Fig. 15

- d) Keeping the balance wheel still, rotate the rear ring « A » (Fig. 16) as indicated by the arrow;

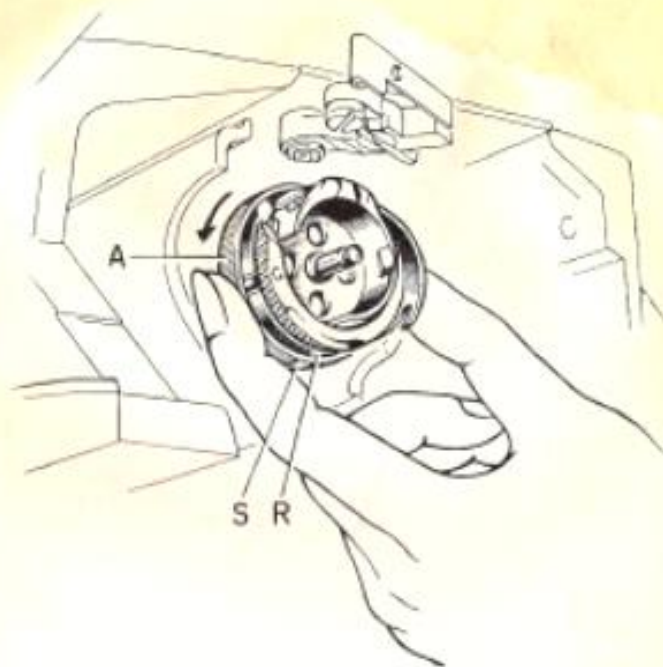


Fig. 16

- e) Remove the retaining ring « C » and the bobbin case holder « B » (Fig. 17).

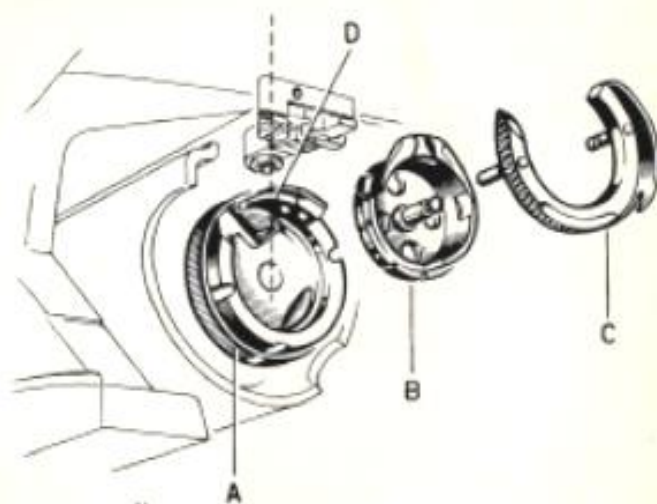


Fig. 17

#### 15 - To insert the bobbin case holder

- a) Check that the point of the hook « D » is in the position shown in Fig. 17;
- b) Insert the bobbin case holder « B » as shown in the illustration;
- c) Insert the ring « C »;
- d) Keeping the balance wheel still, rotate the ring « A » in the opposite direction of the arrow (Fig. 16) until it comes to a stop.

In this position the white mark « S » on the ring « A » will coincide with the red mark « R » on the hook;

- e) Fasten the retainer for bobbin case holder.

#### 16 - To clean the feed dog and the needle plate housing

- a) Bring the needle bar to its highest position and remove needle and presser foot;
- b) Unscrew the two screws « B » (Fig. 6);
- c) Snap out the retainer for bobbin case holder (Fig. 15);
- d) Lift the extension leaf if applied to the machine;
- e) Remove the needle plate, sliding it to the left;
- f) Clean the feed dog teeth and the needle plate support by means of a small brush;
- g) Insert the needle plate and fit the retainer for bobbin case holder.

#### 17 - To replace the light bulb

- a) Loosen the two screws « D » (Fig. 6) and remove the small carter « C »;
- b) Push bulb « E » (Fig. 18) upwards and slide it downwards by rotating it toward the left;

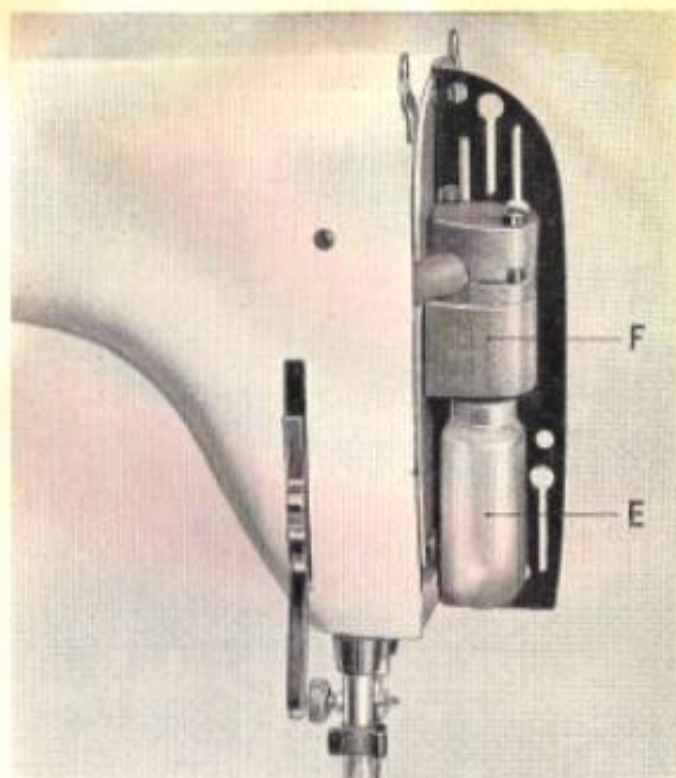


Fig. 18

- c) Insert the new bulb in the lamp holder « F », rotating and pushing it upwards;
- d) Fasten the small carter « C » by means of the two screws « D » (Fig. 6).

#### 18 - Causes of minor difficulties

##### Upper thread breaks

This may be due to the following causes:

- a) Needle fitted incorrectly;
- b) Machine not correctly threaded;
- c) Thread tension too light;
- d) Thread used not suitable for material being sewn;
- e) Knots in the thread;
- f) Eye of needle is rough or sharp;



- g) Point of the needle is damaged;
- h) Hole in needle plate not smooth;
- i) Machine run at too great a speed;
- j) Sewing started with thread take-up lever not in a sufficiently high position;
- k) Hook damaged by needle.

#### Needle breaks

This may be due to the following causes:

- a) Pulling material by hand causing the needle to hit against the needle plate;
- b) Bent or blunt needle.

#### Lower thread breaks

This may be due to the following causes:

- a) Thread tension too low;
- b) Bobbin badly wound or too full;
- c) Dirt in bobbin case.

#### Knotted stitches

This may be due to the following causes:

- a) Needle incorrectly fitted;
- b) Bent or blunt needle;
- c) Incorrect thread for the size of needle being used;
- d) Incorrect needle for material to be sewn.

#### Heavy running of the machine:

This may be due to a loose piece of thread caught by the hook (See instructions at Paragraph 14).

#### IMPORTANT

It is possible that after considerable use some of the mechanical parts of your machine will require adjustment. If, after referring to the causes of minor difficulties listed above, you cannot make your machine work perfectly, do not attempt to repair the machine yourself, but call your local NECCHI sewing machine Dealer. He will put your machine in perfect running order.

#### Accessories and their use

##### 1 - Hemmer (No. 10 in Fig. 1).

Fold fabric over the edge for a couple of inches and insert this fold into the scroll of the hemmer. Commence sewing guiding the fabric as indicated in Fig. 19 to ease feeding it into the scroll of the hemmer.



Fig. 19

## 2 - Straight guide (No. 11 in Fig. 1)

This attachment is used to make seams parallel to the edge of the fabric.

It is mounted on the machine by means of two screws (Fig. 20).

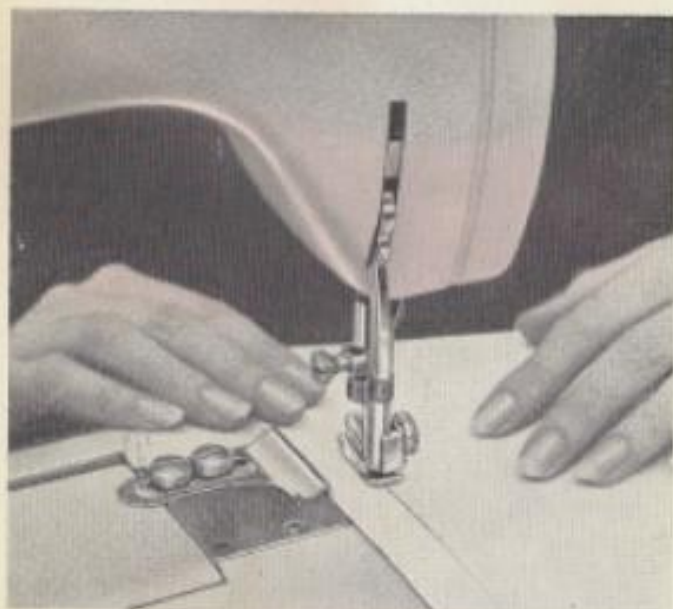


Fig. 20

## 3 - Quilter (No. 12 in Fig. 1)

The attachment is fitted to the presser bar as shown in Fig. 21 and used with the general presser foot. The quilter is used to make evenly distributed parallel seams over the fabric so that regular squares can be obtained.



Fig. 21

## 4 - Embroidering

- Bring the needle to its highest position and remove the presser foot;
- Fit the embroidery plate on the machine (No. 9 in Fig. 1) by inserting the two teeth « A » in the slots of the plate and, subsequently, the tooth « B » (Fig. 22);

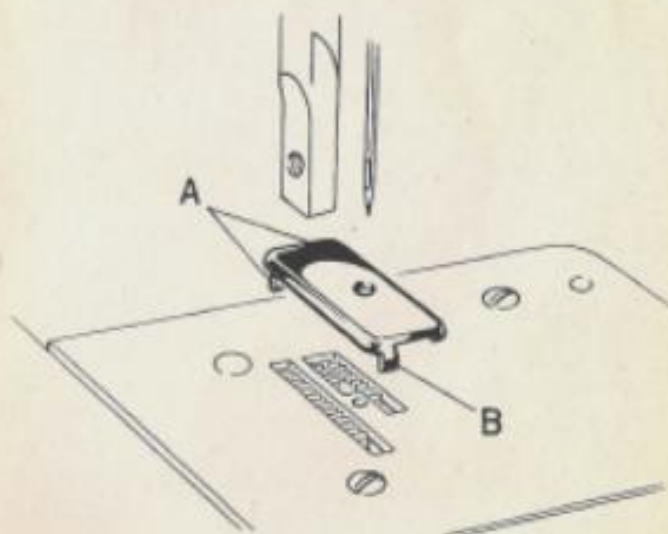


Fig. 22



- c) Shift presser foot lever to its central position (Fig. 23);



Fig. 23

- d) Move the hoop only when the needle is out of the fabric.

The tension of the upper thread must be rather loose and that of the lower thread tight.

In order to remove the embroidery plate, lift it inserting a nail under the front part of the plate itself.

#### 5 - Darning

- a) Fit the embroidery plate (See paragraph 4, point b);  
b) Apply the darning foot (No. 13 in Fig. 1);

- c) Adjust tensions in such a way that threads are not too tight;  
d) Lower the presser bar and commence sewing moving the fabric back and forth underneath the darning foot until the hole to be darned is filled with stitches (Fig. 24).



Fig. 24

## Other MIRELLA versions

The Mirella sewing machine is furthermore available in the following versions:

### Flat base dual operation Mirella

In this machine the flat base cannot be removed. It can be run either by motor or by hand.

### Flat base Mirella for hand operation

This machine is missing the following parts:

- Electric motor
- Wire and rheostat
- Bulb
- Switch

and it can be run by hand only.

## CORRIGE

bobbin case	Line 17
Hand operation	6
Press button	6
the red mark	10
Insert the new bulb in the lamp holder "F", pushing it upwards and rotating it towards the right.	1-2

## ERRATA

Page 3	bobbin case
13	Treadle operation
17	Press down button
20	the white mark
21	Insert the new bulb in the lamp holder "F", rotating it towards the right and pushing it upwards.