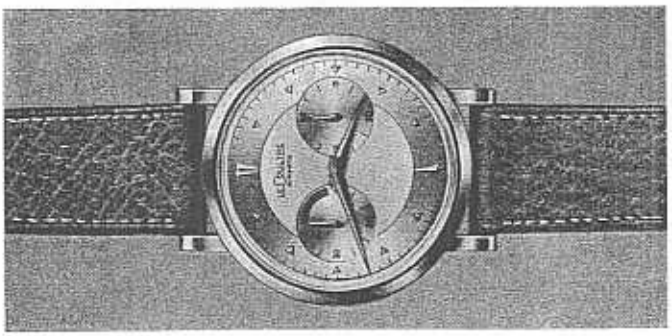
LE COULTRE

REPAIR NOTES

CALIBRE N° 497
FUTUREMATIC
Automatic Watch

CHARACTERISTICS

- **100% self-winding** - it has no winding stem. A few oscillations of the weight will start the balance running at a sufficient amplitude.
- Engineered to be the most accurate automatic watch in the world. A 12 ligne sized escapement, assisted by a special device, insures the regularity of the driving power.
- **The mainspring barrel may readily** be removed to change the mainspring. This is a simple mainspring like that of an ordinary watch without self-winding work.
- **Reserve Power Indicator.**
- **A device for stopping the balance** has been provided, allowing the watch to be set to the exact second of time.



TECHNICAL BULLETIN

NOTE

Do not dismount any part of the movement before having unwound the mainspring; but proceed as follows:

A Insert a screwdriver into the mainspring-loosening screw (5510, figs. 2 and 5) indicated by an arrow on the barrel bridge.

B Pull the automatic stop click (1428, figs. 3 and 5) outwards with a pointed tool introduced through the hole [T] fig. 5. Allow the mainspring to slowly unwind holding it carefully with the screwdriver on the winding pinion screw.

(4 turns of screw N° 5510 = 1 turn of barrel arbor.)

Warning! Screw N° 5510 and stop-disc N° 9504 have left-hand thread.

KEY TO ILLUSTRATIONS:

▶ = **Special** points to oil **very slightly,** in addition to the train, escapement and self-winding work pivots.

[E 1] [E 2] = Eccentrics

The figures (1) (2) (3) etc, indicate the order in which the parts should be assembled.

Fig. 1

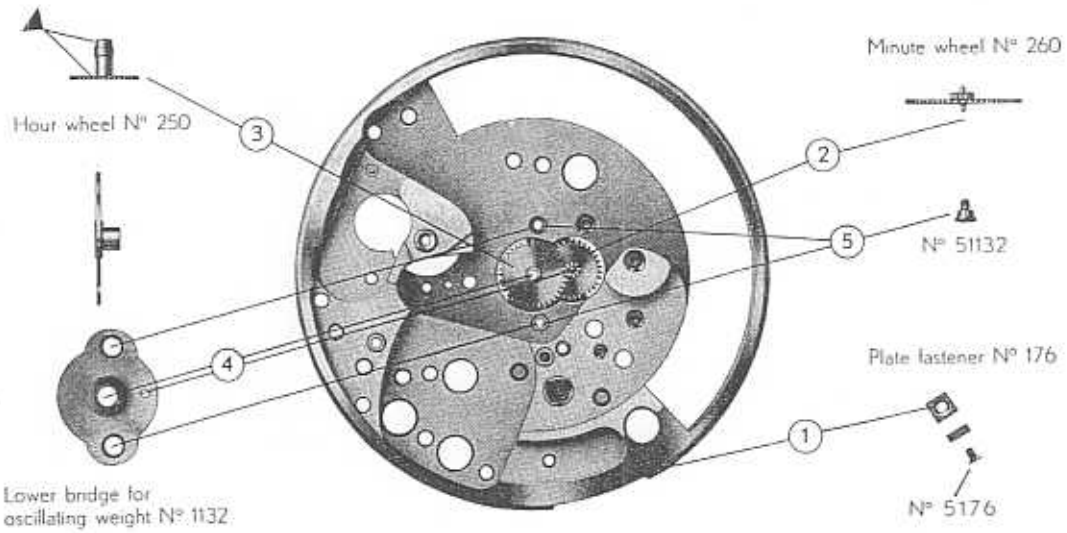


Fig. 2

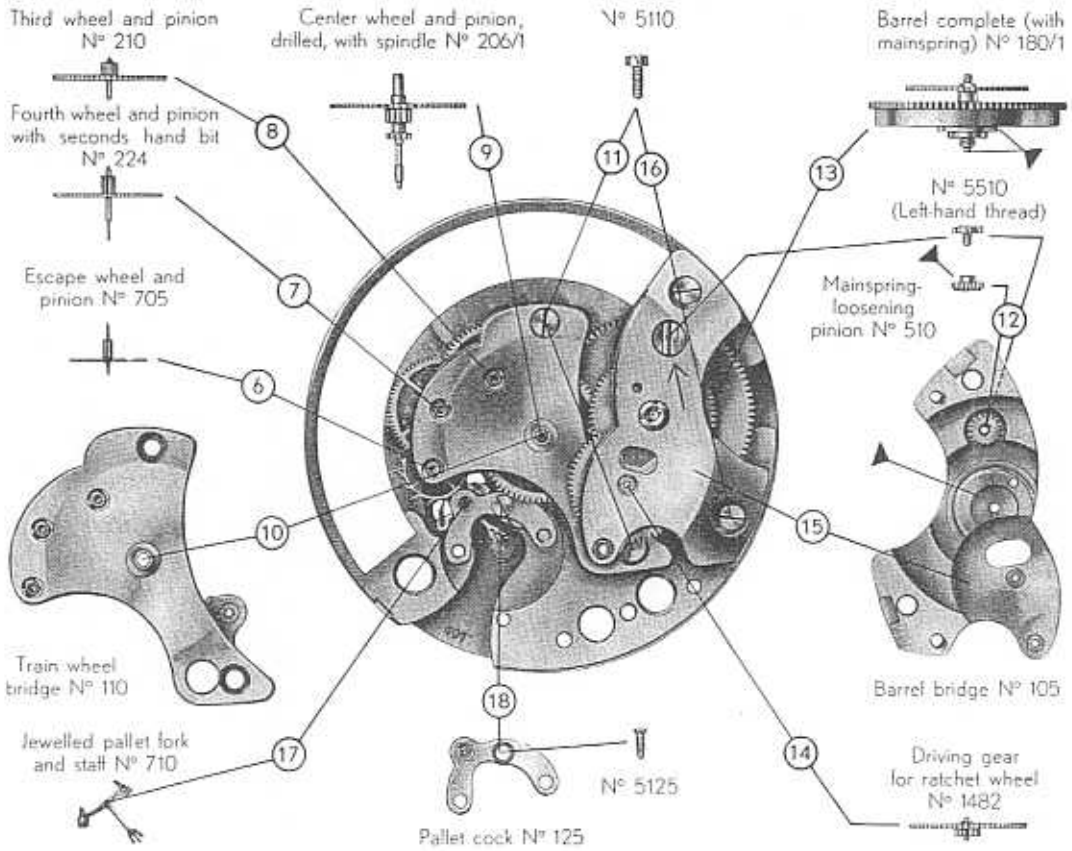


Fig. 3

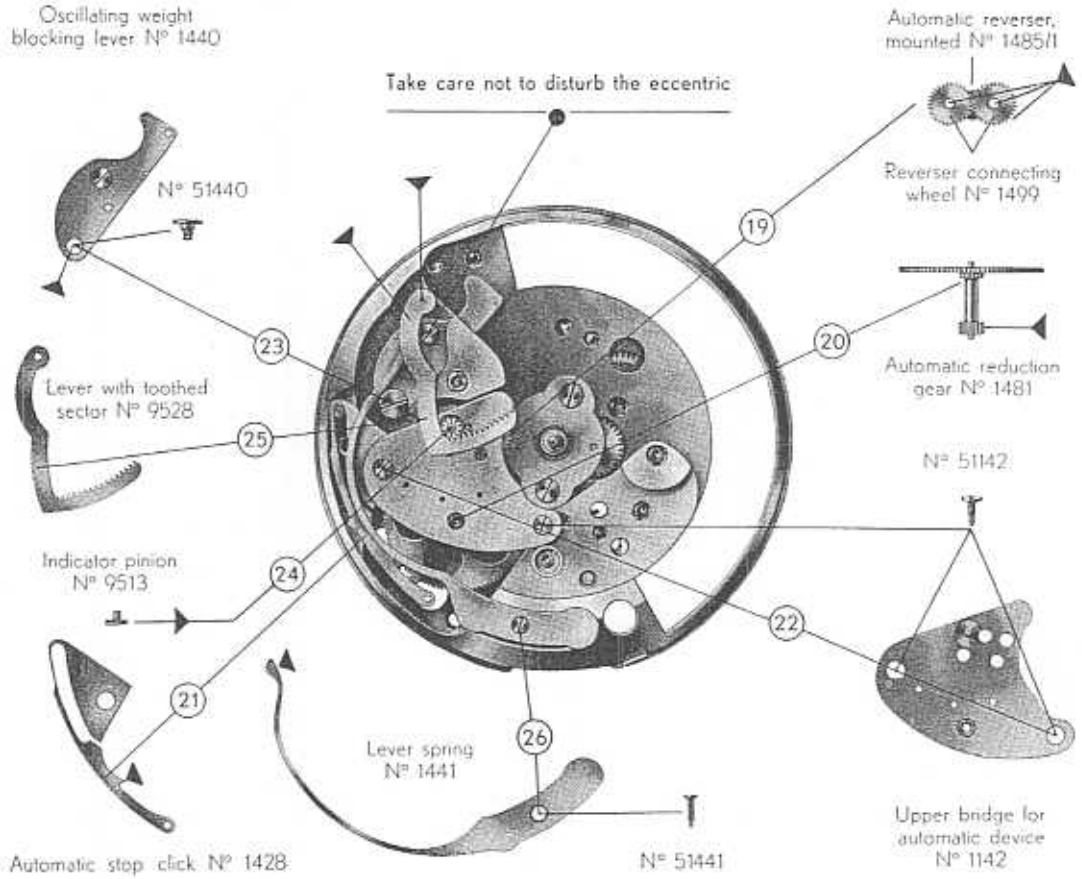
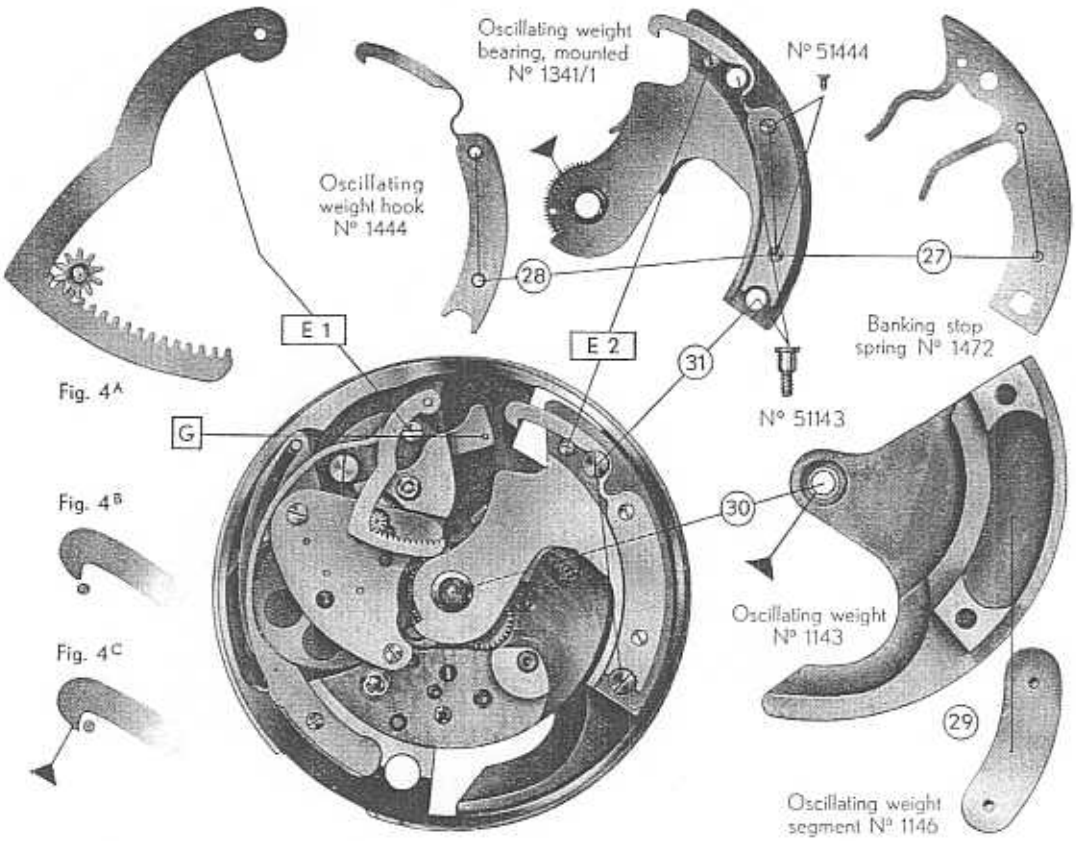


Fig. 4



ADJUSTING THE SELF-WINDING MECHANISM

The movement can be dismantled and re-assembled without upsetting the adjustment of the mechanism, provided that the eccentrics [E 1] and [E 2] in fig. 4 are not disturbed. If a part has been changed in the self-winding mechanism, check the following points:

A Unwind the mainspring completely — the lever with toothed sector N° 9528 and the indicator pinion N° 9513 should no longer be in contact with the bottom of the groove in the eccentric [E 1] (clearance 2 to 5 hundredths mm.).

B Wind the mainspring 3 turns (1·2 turns of the screw 5510) and adjust the weight hook 1444 with the eccentric [E 2] so that its nose passes just clear of the locking pin [G] (fig. 4 b).

C Wind the spring one turn **more** (4 turns of the screw) and check that the weight hook is properly engaged with the locking pin, so that it cannot come free even if the watch is subjected to heavy shocks.

Assembling the hands:

Unwind the mainspring and put on the up-and-down hand above 0.

Fig. 5

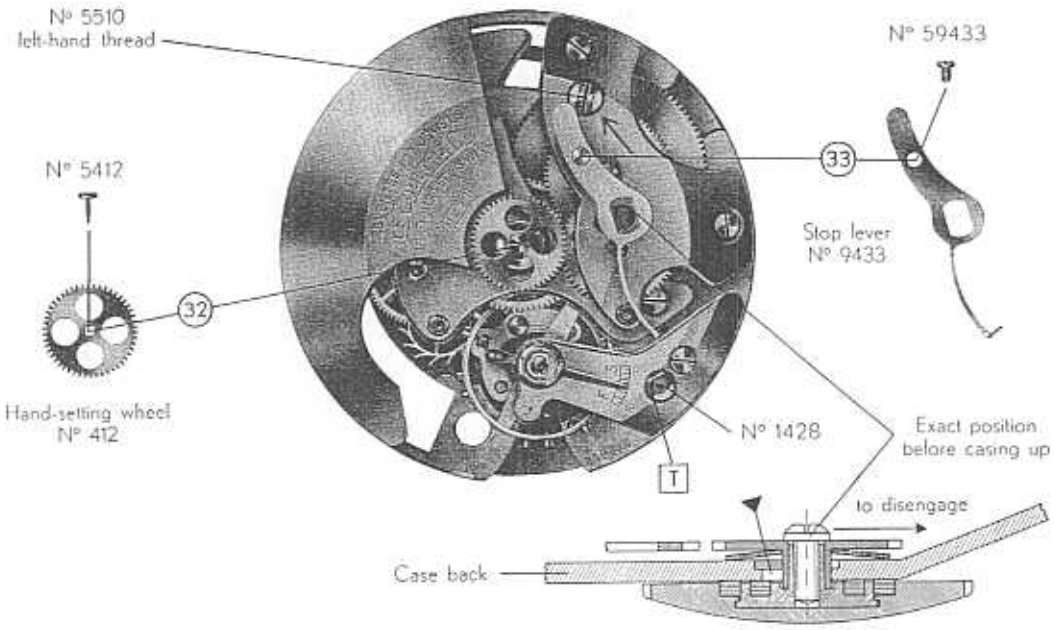
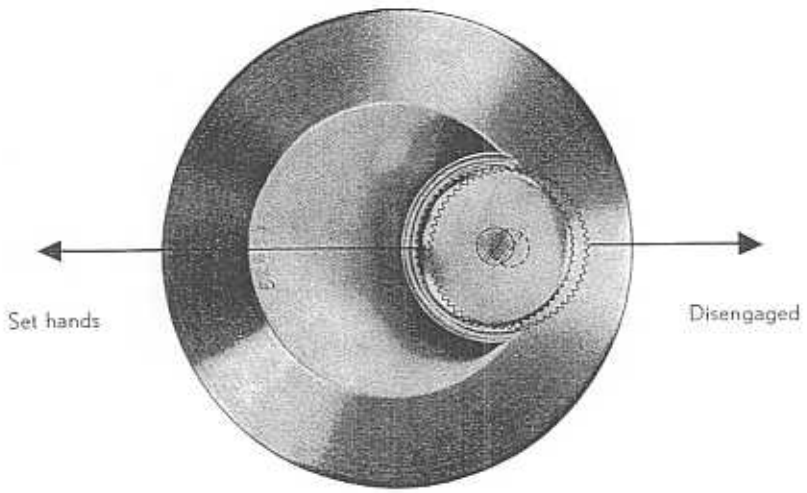


Fig. 6

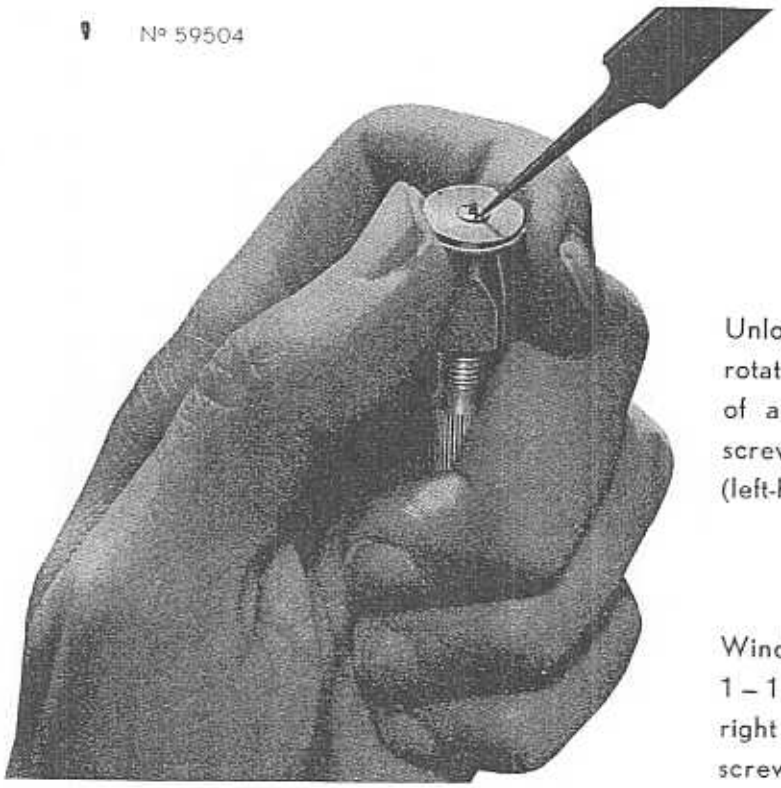


Sideways movement (do not pull out)

Stop-work disc N° 9504 (left-hand thread)

N° 59504

Fig. 7



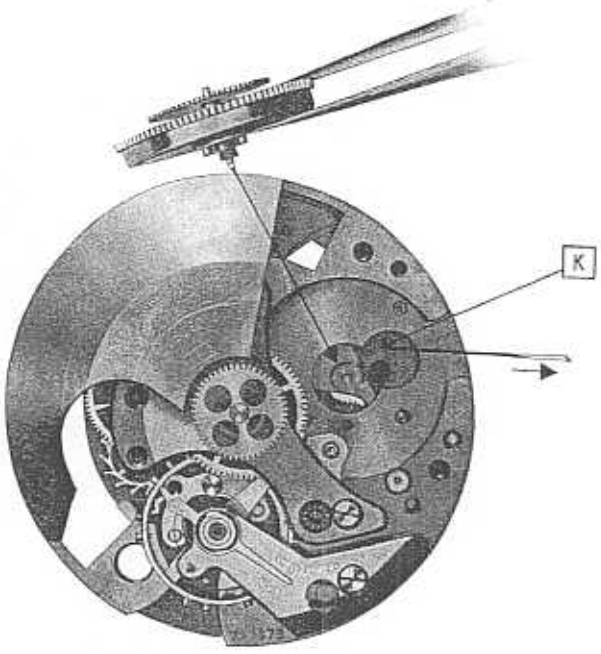
To dismantle

Unlock the disc N° 9504 by rotating the barrel arbor 1/4 of a turn, remove the two screws and remove the disc (left-hand thread).

To re-assemble

Wind the mainspring up to 1 – 1 1/2 turn, screw the disc right home, and insert the two screws.

Fig. 8



To place the barrel in position, pull outwards the lever N° 1440, holding it by the pin K.