

# OMEGA



## TECHNICAL GUIDE

No. 17 1960

### THE CENTRE SECONDS CALENDAR CALIBRE 610

(27.90 SC PC CAL AM 17P)



*This is a centre seconds movement with calendar work having the date aperture at 3 o'clock.*

*The main feature of this movement lies in its reduced height which is only 3.85 mm thus facilitating the use of slim and fashionable cases.*

#### CHARACTERISTICS

##### Dimensions

Major diameter 28.40 mm  
Casing diameter 27.90 mm  
Height 3.85 mm  
Diameter of Winding Stem thread 0.90 mm

##### Train Ebauche

19800  
1 bridge for barrel and centre wheel  
1 bridge for third, fourth and escape wheel  
1 pallet cock  
1 balance cock  
1 printed date indicator  
1 date guard  
1 centre seconds cock

##### Finish

Rose gilt with large wave effect and diamond polished bevelled edges

##### Jewelling

17 jewels including 10 olive holes for train and escapement  
2 balance endstones  
2 pallet stones  
1 roller jewel  
2 beryllium bronze bouchons for upper barrel (bridge) and centre wheel holes



### **Mainspring**

This is a stainless unbreakable and non distorting spring which develops seven turns and allows a running time of 50 hours.

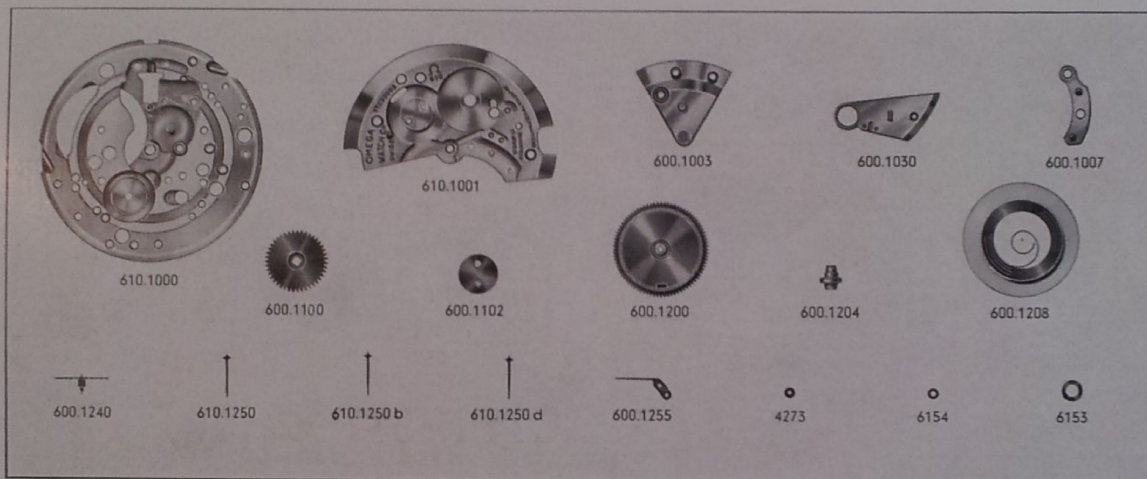
### **Escapement**

The escape wheel and pallets are of steel, the roller is rose gilt brass.

### **Shock Protection**

Incabloc

### **Special Material for Calibre 610**



No.	PART	No.	PART
610.1000	Plate	600.1240	Third wheel
610.1001	Barrel bridge	610.1250	Centre seconds pinion
600.1003	Train bridge	610.1250b	Centre seconds pinion H1
600.1030	Balance cock	610.1250d	Centre seconds pinion H2
600.1007	Centre seconds bridge	610.1255	Centre seconds friction spring
600.1100	Ratchet wheel	4273	Jewel hole (upper) for third wheel
600.1102	Crown wheel centre	4273	Jewel hole (upper) for fourth wheel
600.1200	Barrel complete with arbor	6154	Centre wheel bouchon
600.1204	Barrel arbor	6153	Barrel arbor bouchon
600.1208	Mainspring		

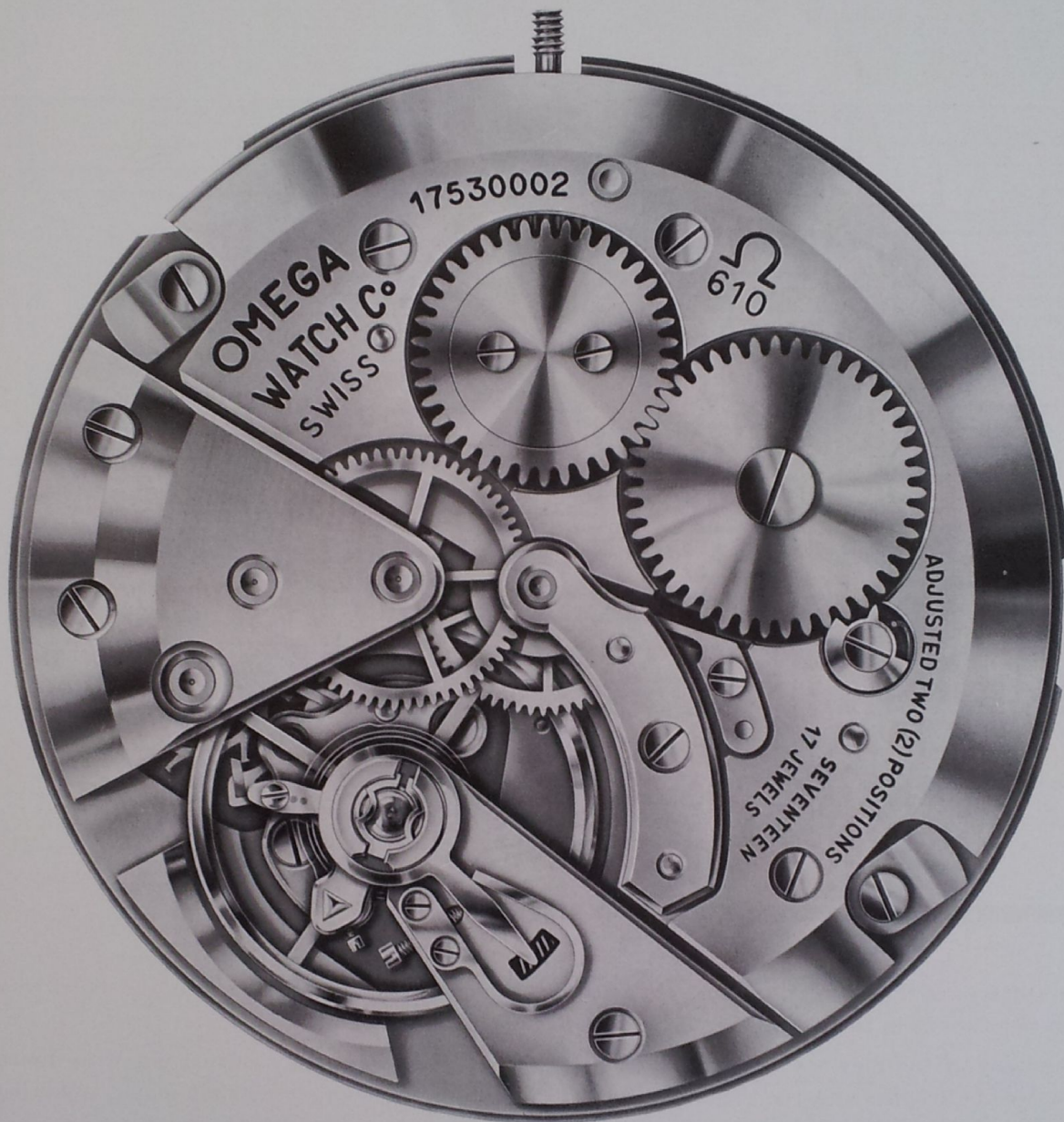
### **Date Mechanism**

As calibre 561, the description of which will be found in Technical Guide No. 16.



### **Balance and Spring**

This is a non magnetic assembly having a flat compensating spring and a beryllium bronze screwless balance; the advantages of which are described in Technical Guide No. 12.



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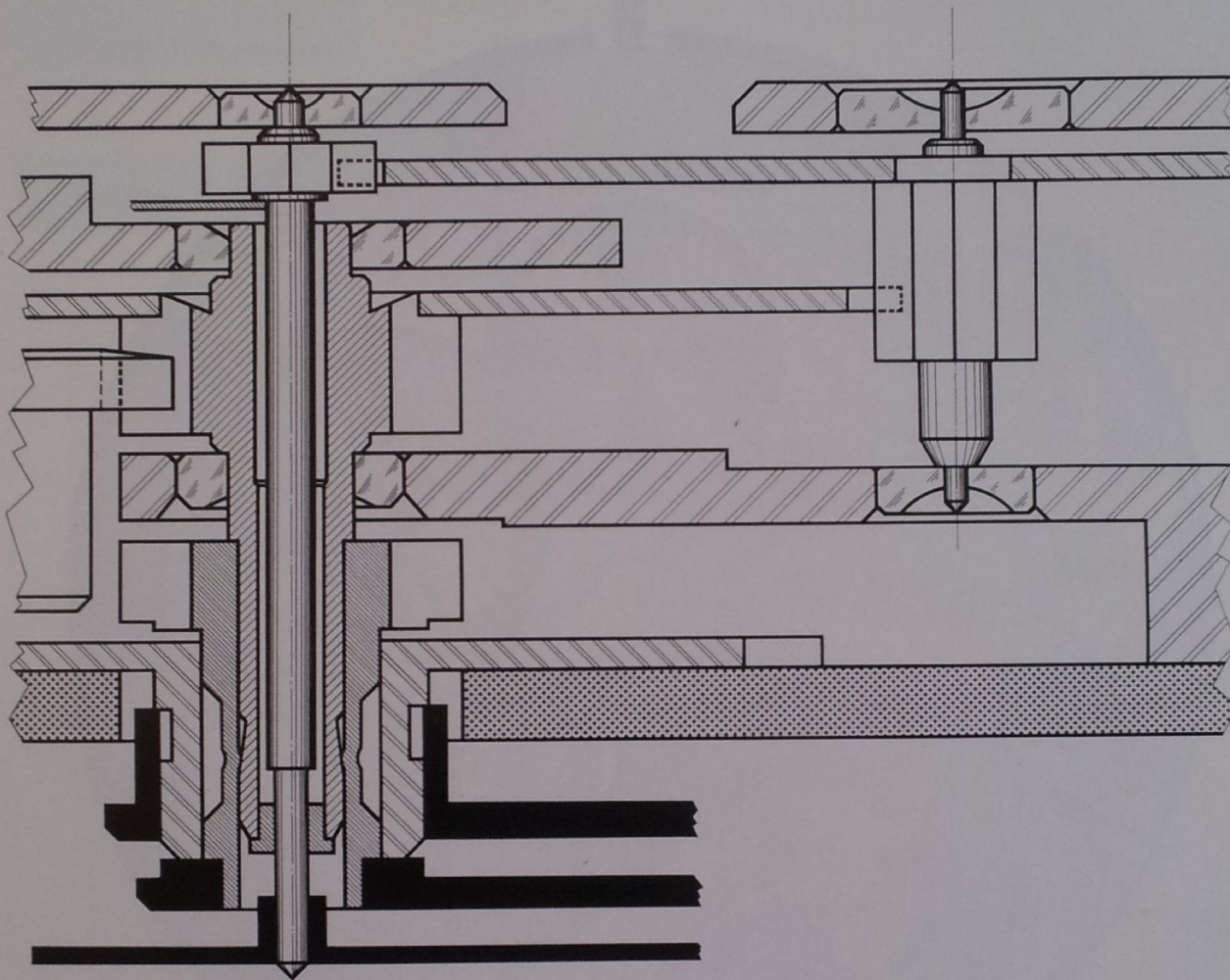
This is of the two piece type which allows for very wide range of adjustment. The head of the friction tight rivet holding the boot is slotted (screw head) allowing the boot to be turned with the cock in place, thus facilitating easy dismantling.

The balance cock is also fitted with a movable stud mounting, the advantages of which are described in Technical Guide No. 13. This enables the balance to be easily and accurately set in beat.



## CENTRE SECONDS

Why Omega centre second watches are fitted with the indirect drive



The advantages of the indirectly driven centre seconds are its simplicity which allows the direct transmission of power from the mainspring to the escapement without complication.

The jewelling of the fourth wheel top and bottom, which is not normally carried out with directly driven seconds. It allows for the conversion to the small (non Sc.) seconds without major alterations.

Furthermore this design allows the placing of the escapement close to the edge of the movement, thus facilitating easy assembly, observation and adjustment.

The centre seconds pinion which runs in pressed in bouchons through the centre pinion, is driven by the third wheel which engages simultaneously with the fourth wheel and the afore mentioned centre seconds pinion.

This is a delicate component and should not be subjected to undue stress.

