

Title (en)  
Combined resonator with minimal friction

Title (de)  
Kombinierter Resonator mit minimaler Reibung

Title (fr)  
Résonateur combiné à frottement minimal

Publication  
**EP 2908190 A3 20151104 (FR)**

Application  
**EP 14184631 A 20140912**

Priority  

- EP 14155429 A 20140217
- EP 14155431 A 20140217
- EP 14155433 A 20140217
- EP 14184631 A 20140912

Abstract (en)  
[origin: RU2680411C1] FIELD: watches and other time measuring instruments.SUBSTANCE: claimed group of inventions relates to devices of control clockwork mechanisms and clocks comprising such mechanisms. Control clock mechanism (100) comprises movably mounted at least rotatable relative to platinum (1) trigger wheel (51), to which torque is transmitted through a gear train, first oscillator (110) comprising first rigid structure (310) connected to platinum (1) by first flexible strip (210A) and second flexible strip (210B), intersecting with each other, second oscillator (120) comprising second rigid structure (320) connected to first rigid structure (310) third flexible strip (220A) and fourth flexible strip (220B) intersecting with each other, wherein second structure (320) including guide means (42), interacting with response guide means (52), included in trigger wheel (51), synchronizing first oscillator (110) and second oscillator (120) with the gear train.EFFECT: technical result is improved clock chronometric characteristics.27 cl, 5 dwg

IPC 8 full level  
**G04B 17/26** (2006.01); **G04B 17/06** (2006.01); **G04B 18/04** (2006.01)

CPC (source: EP RU)  
**G04B 17/045** (2013.01 - EP); **G04B 17/063** (2013.01 - EP); **G04B 17/26** (2013.01 - EP RU); **G04B 18/04** (2013.01 - EP)

Citation (search report)  

- [A] CH 703475 A2 20120131 - SWATCH GROUP RES & DEV LTD [CH]
- [A] JP 2002307254 A 20021023 - OKAMOTO MACHINE TOOL WORKS
- [A] EP 2570870 A1 20130320 - SWATCH GROUP RES & DEV LTD [CH]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2908189 A2 20150819; EP 2908189 A3 20160601**; EP 2908190 A2 20150819; EP 2908190 A3 20151104; EP 2908190 B1 20171101; JP 2017515119 A 20170608; JP 6224854 B2 20171101; RU 2680411 C1 20190221

DOCDB simple family (application)  
**EP 14184155 A 20140909**; EP 14184631 A 20140912; JP 2016566664 A 20150622; RU 2016150515 A 20150622