

Title (en)
Coupled resonators for timepiece

Title (de)
Gekoppelte Resonatoren für Uhr

Title (fr)
Résonateurs couplés pour pièce d'horlogerie

Publication
EP 2141555 B1 20110406 (FR)

Application
EP 08159759 A 20080704

Priority
EP 08159759 A 20080704

Abstract (en)
[origin: EP2141555A1] The resonator (1) has a low frequency resonator (2) coupled with a high frequency resonator (3). The low and high frequency resonators have inertia masses associated with balance springs (5, 7), respectively. Another balance spring (8) is arranged between the inertia masses to couple the low frequency and high frequency resonators. The inertia masses are respectively formed by balances (4, 6). The resonators are placed coaxially inside a timepiece.

IPC 8 full level
G04B 17/06 (2006.01); **G04B 17/20** (2006.01)

CPC (source: EP KR US)
G04B 17/04 (2013.01 - KR); **G04B 17/06** (2013.01 - EP KR US); **G04B 17/20** (2013.01 - EP KR US); **G04C 5/005** (2013.01 - KR)

Cited by
EP2570870A1; US9958832B2; EP2551732A1; EP2365403A3; CH709394A1; EP2908189A3; RU2680411C1; EP2570869A1; RU2598299C2; EP2570866A1; EP2570867A1; US8668378B2; US8801270B2; US8905630B2; WO2015140168A2; WO2016037717A3; WO2015140168A3; US9016933B2; EP3206090A1; EP2874023A1; EP2891928A1; US9128464B2; US11422506B2; WO2024175797A1

Designated contracting state (EPC)
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EP 08159759 A 20080704; CN 200910158412 A 20090706; DE 602008006057 T 20080704; HK 10106464 A 20100702; JP 2009159544 A 20090706; KR 20090060996 A 20090706; TW 98121379 A 20090625; US 49713609 A 20090702