

Title (en)

Regulating organ comprising at least two balances

Title (de)

Regulierorgan mit mindestens zwei Unruhen

Title (fr)

Organe régulateur comportant au moins deux balanciers

Publication

EP 2315082 A3 20161207 (FR)

Application

EP 10178111 A 20100921

Priority

CH 16302009 A 20091026

Abstract (en)

[origin: EP2315082A2] The member (1) has first balance (2.2) fixed on an arbor (4) of a second balance (2.1). A first hairspring (3.2) is arranged on the first balance. The first hairspring and a second hairspring (3.1) are arranged on sides oriented towards the first and second balances, respectively, where the hairsprings are flat or Breguet hairsprings. A third balance is fixed on the arbor of the second balance and the first balance, and is arranged between the first and the second balances. An independent claim is also included for a watch movement comprising a regulating member.

IPC 8 full level

G04B 17/06 (2006.01); **G04B 17/20** (2006.01); **G04B 45/02** (2006.01)

CPC (source: CH EP US)

G04B 17/06 (2013.01 - CH EP US); **G04B 17/063** (2013.01 - CH EP US); **G04B 17/20** (2013.01 - CH EP US); **G04B 45/02** (2013.01 - EP US); **G04B 18/006** (2013.01 - EP US)

Citation (search report)

- [XAYI] US 3186157 A 19650601 - FAVRET MAXIME A, et al
- [Y] EP 1918791 A1 20080507 - LANGE UHREN GMBH [DE]
- [XAYI] FR 2160835 A1 19730706 - SEIKO INSTR & ELECTRONICS
- [A] CH 156801 A 19320831 - VUILLEUMIER MARCEL [CH]

Cited by

WO2014072168A1; EP2728423A1; CN108693758A; CN104849993A; CH716384A1; US10114341B2; WO2021001722A1

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 SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

EP 2315082 A2 20110427; **EP 2315082 A3 20161207**; **EP 2315082 B1 20200527**; **EP 2315082 B8 20200812**; CH 702062 A1 20110429; CH 702062 B1 20220131; CN 102053553 A 20110511; CN 102053553 B 20150401; ES 2801002 T3 20210107; HK 1154291 A1 20120413; JP 2011089991 A 20110506; JP 5670151 B2 20150218; US 2011096636 A1 20110428; US 8668378 B2 20140311

DOCDB simple family (application)

EP 10178111 A 20100921; CH 16302009 A 20091026; CN 201010504376 A 20101011; ES 10178111 T 20100921; HK 11108066 A 20110803; JP 2010238354 A 20101025; US 91199010 A 20101026