

Title (en)
AUTO-ADJUSTABLE CLOCK OSCILLATOR

Title (de)
AUTOMATISCH REGULIERBARER OSZILLATOR EINER UHR

Title (fr)
OSCILLATEUR HORLOGER AUTO-RÉGLABLE

Publication
EP 3719588 B1 20211103 (FR)

Application
EP 19166996 A 20190403

Priority
EP 19166996 A 20190403

Abstract (en)
[origin: US2020319598A1] A horological movement (6) including: a plate (7); a mechanical resonator (8) including an oscillating balance (11) rotatably mounted relative to the plate (7), and a spiral spring (22) coupled to the balance (11); an electromagnetic regulator (29) coupled to the mechanical resonator (8) to regulate the frequency of the oscillations of the balance (11), and including at least one permanent magnet (30) fixedly mounted relative to the plate (7), at least one coil (31), a quartz or silicon resonator (32) and an electronic circuit (33) connected to the resonator (32) and to the coil (31), all mounted on the balance (11) while being completely included in an inner cavity (18) delimited by the latter.

IPC 8 full level
G04C 11/08 (2006.01); **G04B 17/20** (2006.01); **G04C 3/06** (2006.01)

CPC (source: CN EP US)
G04B 17/063 (2013.01 - US); **G04B 17/20** (2013.01 - CN EP US); **G04C 3/06** (2013.01 - CN US); **G04C 3/066** (2013.01 - EP); **G04C 11/084** (2013.01 - EP US); **G04D 7/1257** (2013.01 - CN); **G04C 10/00** (2013.01 - US); **G04D 7/12** (2013.01 - US)

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

DOCDB simple family (publication)
EP 3719588 A1 20201007; **EP 3719588 B1 20211103**; CN 111796503 A 20201020; CN 111796503 B 20220225; JP 2020169988 A 20201015; JP 6883684 B2 20210609; US 11537085 B2 20221227; US 2020319598 A1 20201008

DOCDB simple family (application)
EP 19166996 A 20190403; CN 202010259849 A 20200403; JP 2020059492 A 20200330; US 202016821038 A 20200317