Title (en)

Device for regulating the angular speed of a mobile in a clock movement comprising a magnetic escapement

Title (de)

Vorrichtung zur Regulierung der Winkelgeschwindigkeit einer Triebfeder in einem Uhrwerk, das einen magnetischen Hemmungsmechanismus umfasst

Title (fr)

Dispositif régulateur de la vitesse angulaire d'un mobile dans un mouvement horloger comprenant un échappement magnétique

Publication

EP 2891930 A3 20160713 (FR)

Application

EP 14199882 A 20141222

Priority

- EP 13199428 A 20131223
- EP 14176816 A 20140711
- EP 14199882 A 20141222

Abstract (en)

[origin: CN104730898A] The invention concerns a device for regulating the relative angular speed between a magnetic structure (42) and a resonator (46) magnetically coupled to each other and forming an oscillator which defines a magnetic escapement. The magnetic structure includes at least one annular magnetic path (52) at least partially formed of a magnetic material of which one physical parameter is correlated to the magnetic potential energy of the oscillator, the magnetic material being arranged along the annular path so that the physical parameter varies angularly in a periodic manner. The annular path includes, in each angular period, an area of accumulation of magnetic potential energy (56) in the oscillator, radially adjacent to an impulse area. The magnetic material, in each accumulation area, is arranged so that the physical parameter of said magnetic material gradually increases angularly or gradually decreases angularly.

IPC 8 full level

G04C 3/10 (2006.01); **G04B 17/06** (2006.01); **G04B 17/32** (2006.01); **G04C 5/00** (2006.01)

CPC (source: CH EP RU US)

G04B 15/00 (2013.01 - RU); **G04B 15/06** (2013.01 - CH); **G04B 17/00** (2013.01 - CH); **G04B 17/32** (2013.01 - EP US); **G04C 3/04** (2013.01 - US); **G04C 3/06** (2013.01 - US); **G04C 3/066** (2013.01 - US); **G04C 3/067** (2013.01 - US); **G04C 5/00** (2013.01 - US); **G04C 5/005** (2013.01 - CH EP US)

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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 2891930 A2 20150708; **EP 2891930 A3 20160713**; **EP 2891930 B1 20180919**; CH 709031 A2 20150630; CH 709031 B1 20210129; CN 104730898 A 20150624; CN 104730898 B 20171117; HK 1211711 A1 20160527; JP 2015121541 A 20150702; JP 6087895 B2 20170301; RU 2014152043 A 20160710; RU 2670236 C2 20181019; US 2015177697 A1 20150625; US 2015177698 A1 20150625; US 9465366 B2 20161011; US 9483026 B2 20161101

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