

Title (en)

DEVICE INTENDED TO CONTROL THE ANGULAR SPEED OF A TRAIN IN A TIMEPIECE MOVEMENT AND INCLUDING A MAGNETIC ESCAPEMENT

Title (de)

VORRICHTUNG ZUR STEUERN DER WINKELGESCHWINDIGKEIT EINES RÄDERWERKS IN EINEM EINE MAGNETISCHE HEMMUNG UNFASSNDEN UHRWERK

Title (fr)

DISPOSITIF REGULATEUR DE LA VITESSE ANGULAIRE D'UN MOBILE DANS UN MOUVEMENT HORLOGER COMPRENANT UN ECHAPPEMENT MAGNETIQUE

Publication

**EP 3087435 B1 20200422 (FR)**

Application

**EP 14821180 A 20141222**

Priority

- EP 13199428 A 20131223
- EP 13199427 A 20131223
- EP 14176816 A 20140711
- EP 14186261 A 20140924
- EP 2014079036 W 20141222
- EP 14821180 A 20141222

Abstract (en)

[origin: WO2015097172A2] The invention relates to a device for controlling the operation of a timepiece movement, which includes a magnetic escapement. Said device includes a resonator (90) and a magnetic escapement train (82) rotating about an axis (20). Said train includes at least one magnetic track (86) comprising a plurality of magnets (102) having an angular size greater than the radial size thereof. The resonator includes at least one magnetic element for coupling with the magnetic track. Said coupling element (92, 94) is radially extended relative to the rotational axis and has a contour comprising one portion that is substantially angularly oriented when the resonator is in the resting position thereof. When the escapement train is rotated, each magnet penetrates under the coupling element and gradually accumulates a certain magnetic potential energy. Then, said magnet comes out from under the coupling element via the abovementioned portion, and said coupling element receives a pulse located around the resting position of said coupling element.

IPC 8 full level

**G04C 5/00** (2006.01)

CPC (source: CN EP US)

**G04B 15/00** (2013.01 - US); **G04B 15/06** (2013.01 - US); **G04B 17/04** (2013.01 - US); **G04B 17/32** (2013.01 - CN); **G04B 18/00** (2013.01 - CN); **G04C 3/08** (2013.01 - US); **G04C 3/107** (2013.01 - CN); **G04C 5/005** (2013.01 - CN EP US); **G04B 17/06** (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)

**WO 2015097172 A2 20150702**; **WO 2015097172 A3 20160107**; CN 106030422 A 20161012; CN 106030422 B 20181016; EP 3087435 A2 20161102; EP 3087435 B1 20200422; US 2016357155 A1 20161208; US 9715217 B2 20170725

DOCDB simple family (application)

**EP 2014079036 W 20141222**; CN 201480076123 A 20141222; EP 14821180 A 20141222; US 201415109066 A 20141222