

Title (en)
SAFETY REGULATOR FOR TIMEPIECE ESCAPEMENT

Title (de)
SICHERHEITSREGULATOR FÜR UHRHEMMUNG

Title (fr)
REGULATION DE SECURITE POUR ECHAPPEMENT D'HORLOGERIE

Publication
EP 3182224 A1 20170621 (FR)

Application
EP 15201020 A 20151218

Priority
EP 15201020 A 20151218

Abstract (en)
[origin: JP2017111141A] PROBLEM TO BE SOLVED: To provide an adjustment mechanism for scattering surplus energy for achievement of a function of a timing piece mechanism having a functional wheel set.SOLUTION: There is provided a mechanism 100 for adjusting energy for achieving a function of a timing piece mechanism comprising a functional movable component 300, the mechanism controls scattering of the energy by an eddy current when the movable component 300 operates in excessive operation. The mechanism 100 comprises: a permeable or magnetized rotor 10 which is connected to the movable component 300 in a kinetic manner; and a permeable or a magnetized stator which contacts the rotor 10 in an annular area where the eddy current is generated. The rotor 10 and the stator are disposed on outside each other. The rotor 10 and/or the stator comprise a protrusion area which has an alternation configuration, on which the rotor and/or stator can move so as to overlap each other for performing a correlation for generating the eddy current, and a void area on which the rotor and/or stator cannot move so as to overlap each other.SELECTED DRAWING: Figure 1

Abstract (fr)
Mécanisme de régulation (100) de l'énergie pour l'accomplissement de la fonction d'un mécanisme horloger (200) comportant un mobile fonctionnel (300), contrôlant une dissipation d'énergie par courants de Foucault en cas d'emballement dudit mobile (300), comportant un rotor (10) magnétiquement perméable ou magnétisé lié cinématiquement audit mobile (300), et un stator (20) magnétisé, ou respectivement magnétiquement perméable, faisant face audit rotor (10) dans une zone annulaire où se développent lesdits courants de Foucault, et où ledit rotor (10) et ledit stator (20) sont extérieurs l'un à l'autre, ledit rotor (10) ou/et ledit stator (20) comportant une alternance de zones en relief où il peut venir en superposition avec l'autre dans une interaction génératrice de courants de Foucault, et de zones en creux dans lesquelles il ne peut venir en superposition avec l'autre. Mécanisme d'échappement (200) comportant tel un mécanisme de régulation (100), limitant l'effet des accélérations sur une roue d'échappement (300).

IPC 8 full level
G04B 17/06 (2006.01); **G04B 17/30** (2006.01); **G04B 21/06** (2006.01); **G04C 5/00** (2006.01)

CPC (source: CN EP US)
G04B 15/10 (2013.01 - US); **G04B 15/12** (2013.01 - CN); **G04B 17/06** (2013.01 - EP US); **G04B 17/30** (2013.01 - EP US); **G04B 21/06** (2013.01 - EP US); **G04C 5/005** (2013.01 - EP US)

Citation (search report)

- [XYI] CH 704457 A2 20120815 - MONTRES BREQUET SA [CH]
- [Y] EP 2891930 A2 20150708 - SWATCH GROUP RES & DEV LTD [CH]
- [A] EP 2463732 A1 20120613 - MONTRES BREQUET SA [CH]
- [A] JP S58221182 A 19831222 - TSUKAGOSHI TOMOHACHI, et al
- [A] CH 709018 A2 20150630 - SWATCH GROUP RES & DEV LTD [CH]
- [A] FR 2768242 A1 19990312 - FLASH [FR]

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US2021294269A1; US11927917B2; US2021356911A1; US11934150B2

Designated contracting state (EPC)
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EP 3182224 A1 20170621; **EP 3182224 B1 20190522**; CN 106896697 A 20170627; CN 106896697 B 20191129; JP 2017111141 A 20170622; JP 6386522 B2 20180905; US 10228659 B2 20190312; US 2017176938 A1 20170622

DOCDB simple family (application)
EP 15201020 A 20151218; CN 201611151889 A 20161214; JP 2016242073 A 20161214; US 201615373003 A 20161208