

Title (en)  
SHOCK ABSORBING SYSTEM WITH ANGULAR LOCKING

Title (de)  
STOSSSICHERUNGSSYSTEM MIT WINKELBLOCKIERUNG

Title (fr)  
SYSTÈME ANTICHOC À BLOCAGE ANGULAIRE

Publication  
**EP 3470934 A1 20190417 (FR)**

Application  
**EP 17195675 A 20171010**

Priority  
EP 17195675 A 20171010

Abstract (en)  
[origin: US2019107810A1] The present invention relates to a shock-absorber device for a wheel arbor of a micromechanical device comprising a support which includes a turning-arbor delimited by a rim defining a housing into which a pivot module is inserted, wherein this pivot module comprises a setting having a central orifice into which is inserted a bored stone, wherein an endstone (34) is placed on top of the bored stone, wherein the shock-absorber device also comprises a spring ring arranged between the support and the pivot module, wherein the shock-absorber device is equipped with a bayonet system for mounting the spring ring, wherein this bayonet system comprises a peripheral shoulder under which is formed a circular groove which defines a holding area, wherein the spring ring is equipped on an outer periphery with at least one catch, wherein at least one first notch which leads to the circular groove is provided in the peripheral shoulder, such that it is simply necessary to present the spring ring in such a way that the catch is engaged in the corresponding first notch, and then pivoting the spring ring so as to enable the catch to slide inside the circular groove, under the peripheral shoulder, wherein at least one second notch is machined in the peripheral shoulder, such that the catch is interlocked in this second notch, ensuring the angular pivot locking of the spring ring.

Abstract (fr)  
La présente invention concerne un dispositif amortisseur de chocs (100) pour un axe d'un élément d'une pièce d'horlogerie comprenant un support (200) comportant une coupelle de fond (201) surmontée par un rebord périphérique (203) délimité, à l'opposé de ladite coupelle, par une surface supérieure (213) et comprenant une paroi extérieure (214), ladite coupelle (201) et le rebord (203) définissant ensemble un logement (206), le dispositif comprenant en outre au moins un module pivot (400) s'étendant selon un axe (C), ledit au moins un module pivot étant agencé dans ledit logement et apte à coopérer avec ledit axe, ledit dispositif comprenant des moyens de fixation comprenant une portée périphérique s'étendant depuis le rebord vers le centre axiale de la coupelle, des moyens élastiques étant agencés entre le module pivot et la portée pour exercer une contrainte sur le module pivot.

IPC 8 full level  
**G04B 31/04** (2006.01)

CPC (source: CN EP US)  
**G04B 13/021** (2013.01 - CN); **G04B 17/32** (2013.01 - CN); **G04B 31/02** (2013.01 - CN); **G04B 31/04** (2013.01 - EP US); **G04B 37/052** (2013.01 - US)

Citation (applicant)  
EP 16160124 A 20160314

Citation (search report)  
• [AD] EP 3220211 A1 20170920 - ETA SA MFT HORLOGÈRE SUISSE [CH]  
• [A] CH 708090 A2 20141128 - SWATCH GROUP RES & DEV LTD [CH]

Cited by  
EP3839661A1; US11448278B2

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 3470934 A1 20190417**; **EP 3470934 B1 20200819**; CN 109656120 A 20190419; CN 109656120 B 20201211; JP 2019070643 A 20190509; JP 6557390 B2 20190807; US 11169487 B2 20211109; US 2019107810 A1 20190411

DOCDB simple family (application)  
**EP 17195675 A 20171010**; CN 201811172481 A 20181009; JP 2018179007 A 20180925; US 201816156115 A 20181010