

Title (en)
CLOCK MOVEMENT HAVING A BALANCE AND A HAIRSPRING

Title (de)
UHRWERK MIT EINER UNRUH UND SPIRALFEDER

Title (fr)
MOUVEMENT D'HORLOGERIE A BALANCIER-SPIRAL

Publication
EP 2917787 B1 20200819 (FR)

Application
EP 13812065 A 20131022

Priority
• CH 22822012 A 20121107
• IB 2013002355 W 20131022

Abstract (en)
[origin: WO2014072781A2] The invention relates to a clock movement which includes a balance and hairspring oscillator and an escapement engaging with the oscillator. The outer coil of the hairspring includes a stiffened portion (9") arranged such as to at least partially compensate for the variation in the operation of the movement in accordance with the oscillatory amplitude of the balance due to the escapement. The hairspring also includes at least one of the following features: a) a distance (R') between the inner end of the hairspring and the centre of rotation of the hairspring smaller than 400 µm, b) a Grossmann curve (10) defined by the inner coil of the hairspring, and c) a stiffened portion defined by the inner coil of the hairspring.

IPC 8 full level
G04B 17/06 (2006.01)

CPC (source: EP US)
G04B 17/06 (2013.01 - US); **G04B 17/066** (2013.01 - EP US); **G04B 17/26** (2013.01 - EP US)

Cited by
EP4293428A1; WO2023242746A1

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 2014072781 A2 20140515; WO 2014072781 A3 20140626; CH 707165 A2 20140515; CH 707165 B1 20161230;
CN 104756019 A 20150701; CN 104756019 B 20170804; EP 2917787 A2 20150916; EP 2917787 B1 20200819; HK 1208739 A1 20160311;
JP 2015533423 A 20151124; JP 6334548 B2 20180530; SG 11201501727Q A 20150429; US 2015248113 A1 20150903;
US 9323223 B2 20160426

DOCDB simple family (application)
IB 2013002355 W 20131022; CH 22822012 A 20121107; CN 201380056637 A 20131022; EP 13812065 A 20131022; HK 15109127 A 20150917;
JP 2015540224 A 20131022; SG 11201501727Q A 20131022; US 201314437065 A 20131022