

Title (en)

WATCH ESCAPEMENT WITH OPTIMIZED TORQUE TRANSMISSION

Title (de)

UHR HEMMUNG MIT OPTIMIERTER DREHMOMENTÜBERTRAGUNG

Title (fr)

ECHAPPEMENT D'HORLOGERIE A TRANSMISSION DE COUPLE OPTIMISE

Publication

**EP 3542224 B1 20220518 (FR)**

Application

**EP 17801690 A 20171116**

Priority

- CH 15212016 A 20161117
- EP 2017079518 W 20171116

Abstract (en)

[origin: WO2018091616A1] An escapement (1) for a timepiece, comprising: - an escapement wheel (3) pivotally mounted around a corresponding axis of rotation (5) and intended to be driven by a drive source, said escapement wheel (3) comprising a plurality of teeth (7); - a pallet fork (9) pivotably mounted around a corresponding axis of rotation (11), said pallet fork (9) comprising an entry pallet (13) and an exit pallet (15), each pallet (13, 15) comprising a rest face (13a, 15a) arranged to block the escapement wheel (3), as well as a pulse face (13b, 15b) arranged to interact with the escapement wheel (3) in order to transmit the pulses received from the latter to a regulating member arranged to perform oscillations, said pallet fork (9) being arranged to free the escapement wheel (3) periodically under the control of the regulating member, characterized in that at least one of the pulse faces (13b, 15b) is shaped in such a way that, on at least one portion of the pulse face (13b, 15b), and considered at each point of contact (C') between the escapement wheel (3) and the pulse face (13b, 15b), the tangent of the pulse face (13b, 15b) intersects the center-to-center distance (12) between the escapement wheel (3) and the pallet fork (9) according to an angle (αorientation) that observes a particular relation.

IPC 8 full level

**G04B 15/08** (2006.01); **G04B 15/14** (2006.01)

CPC (source: CH EP US)

**G04B 15/08** (2013.01 - CH EP US); **G04B 15/14** (2013.01 - CH EP 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 2018091616 A1 20180524**; CH 713143 A1 20180531; CN 109997084 A 20190709; CN 109997084 B 20210312; EP 3542224 A1 20190925; EP 3542224 B1 20220518; EP 3869279 A1 20210825; JP 2019536031 A 20191212; JP 7016360 B2 20220221; US 11480923 B2 20221025; US 2020064776 A1 20200227

DOCDB simple family (application)

**EP 2017079518 W 20171116**; CH 15212016 A 20161117; CN 201780073775 A 20171116; EP 17801690 A 20171116; EP 21169122 A 20171116; JP 2019525883 A 20171116; US 201716349905 A 20171116