

Title (en)  
Synchronous escapement for clockwork

Title (de)  
Synchronehemmung für Uhrwerk

Title (fr)  
Echappement synchrone pour mécanisme d'horlogerie

Publication  
**EP 2450755 B1 20150121 (FR)**

Application  
**EP 10189996 A 20101104**

Priority  
EP 10189996 A 20101104

Abstract (en)  
[origin: EP2450755A1] The wheel (1) has a toothed release wheel (4) including a movable gear (5) that includes a release tooth (6) and a locking tooth (8). The release tooth has a drive unit (11) arranged to cooperate with complementary drive unit (12) comprised in the locking tooth to drive the locking tooth in a radial direction (S2) when the release tooth is driven in the direction opposite to another radial direction (S1). The drive unit is arranged to move at a distance from the complementary drive unit, without driving the locking tooth when the release tooth is driven in the latter radial direction. The escape mechanism is made of micro-machinable material, or silicon, or quartz or a silicon or quartz compound, or an alloy derived from microelectromechanical system (MEMS) technology, or an alloy obtained via the Deep reactive-ion etching (DRIE) or lithography, electroplating, and molding methods, or made of an partially amorphous material. An independent claim is also included for a timepiece movement comprising an escape mechanism.

IPC 8 full level  
**G04B 15/06** (2006.01); **G04B 13/02** (2006.01); **G04B 15/14** (2006.01)

CPC (source: EP US)  
**G04B 13/022** (2013.01 - EP US); **G04B 13/027** (2013.01 - EP US); **G04B 15/06** (2013.01 - EP US); **G04B 15/14** (2013.01 - EP US);  
**G04B 17/26** (2013.01 - EP US); **G04B 43/002** (2013.01 - EP US)

Cited by  
WO2013144237A1; EP2645189A1; CH717359A1; US11397408B2; WO2020007619A3; WO2013144238A1; US9304493B2; WO2013144236A1; US9075394B2; US9207640B2

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)  
**EP 2450755 A1 20120509; EP 2450755 B1 20150121**; CH 704051 A2 20120515; CH 704051 B1 20131015; CN 102467071 A 20120523; CN 102467071 B 20130710; HK 1171270 A1 20130322; JP 2012098288 A 20120524; JP 5351237 B2 20131127; RU 2011144882 A 20130510; RU 2571651 C2 20151220; TW 201234145 A 20120816; TW I534566 B 20160521; US 2012113764 A1 20120510; US 8439556 B2 20130514

DOCDB simple family (application)  
**EP 10189996 A 20101104**; CH 18432010 A 20101104; CN 201110345040 A 20111104; HK 12111951 A 20121122; JP 2011242017 A 20111104; RU 2011144882 A 20111103; TW 100136073 A 20111005; US 201113272330 A 20111013