

Title (en)
OSCILLATOR WITH A DETENT ESCAPEMENT

Title (de)
OSZILLATOR MIT EINER CHRONOMETERHEMMUNG

Title (fr)
OSCILLATEUR AVEC UN ECHAPPEMENT A DETENTE

Publication
EP 3059641 A1 20160824 (FR)

Application
EP 16153576 A 20160201

Priority
• EP 15155874 A 20150220
• EP 16153576 A 20160201

Abstract (en)
[origin: JP2016153789A] PROBLEM TO BE SOLVED: To provide an oscillator comprising a resonator of the inertia-elasticity type, cooperating with a detent escapement, which is reliable, compact and not subject to tripping and whose machines are very precisely positioned in relation to each other.SOLUTION: The invention relates to an oscillator 101 including a resonator 105 of the inertia-elasticity type cooperating with a detent escapement including a detent 107 cooperating with an escape wheel 109. The resonator 105 is in one piece and includes an inertia member and a first flexible structure providing the elasticity and forming a virtual pivot axis of the resonator 105, and the detent 107 is in one piece and includes an unlocking spring and a second flexible structure forming a virtual pivot axis of the detent 107.SELECTED DRAWING: Figure 7

Abstract (fr)
L'invention se rapporte à un oscillateur (1, 101) comportant un résonateur (5, 105) du type inertie - élasticité coopérant avec un échappement à détente comprenant une détente (7, 107) coopérant avec une roue (9, 109) d'échappement. Selon l'invention, le résonateur (5, 105) est monobloc et comporte un organe (11, 111) d'inertie et un premier guidage (13, 113) flexible formant l'élasticité et un axe (A 1, A 3) de pivotement virtuel dudit résonateur et, la détente (7, 107) est monobloc et comporte un ressort (37, 137) de dégagement et un deuxième guidage (35, 135) flexible formant un axe (A 2, A 4) de pivotement virtuel de ladite détente.

IPC 8 full level
G04B 15/14 (2006.01); **G04B 17/04** (2006.01)

CPC (source: CN EP US)
G04B 15/00 (2013.01 - CN); **G04B 15/06** (2013.01 - EP US); **G04B 15/14** (2013.01 - CN EP US); **G04B 17/04** (2013.01 - US); **G04B 17/045** (2013.01 - EP US); **G04B 43/002** (2013.01 - EP); **G04B 17/10** (2013.01 - US)

Citation (applicant)
EP 2455821 A1 20120523 - NIVAROX SA [CH]

Citation (search report)
• [Y] US 2012063273 A1 20120315 - KODA MASAYUKI [JP], et al
• [Y] WO 2012010408 A1 20120126 - NIVAROX SA [CH], et al
• [Y] EP 2104008 A1 20090923 - NIVAROX SA [CH]
• [A] US 2012218870 A1 20120830 - KODA MASAYUKI [JP], et al
• [A] WO 2011120180 A1 20111006 - ROLEX SA [CH], et al
• [A] EP 2037335 A2 20090318 - ENZLER AUGUST [CH]

Cited by
EP3686693A1; CN109426127A; CN110023846A; US11520289B2; CH714992A1; US11650544B2

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 3059641 A1 20160824; EP 3059641 B1 20210811; CH 710759 A2 20160831; CN 105911845 A 20160831; CN 105911845 B 20181002; JP 2016153789 A 20160825; JP 6209230 B2 20171004; KR 101799666 B1 20171120; KR 20160102353 A 20160830; TW 201702769 A 20170116; TW I675267 B 20191021; US 2016246257 A1 20160825; US 9465362 B2 20161011

DOCDB simple family (application)
EP 16153576 A 20160201; CH 2232015 A 20150220; CN 201610094892 A 20160219; JP 2016025863 A 20160215; KR 20160019534 A 20160219; TW 105104309 A 20160215; US 201615019495 A 20160209