

Title (en)
TIMEPIECE COMPRISING A MECHANICAL MOVEMENT OF WHICH THE OPERATION IS CONTROLLED BY AN ELECTROMECHANICAL DEVICE

Title (de)
UHR, DIE EIN MECHANISCHES UHRWERK UMFASST, DESSEN GANGGENAUIGKEIT DURCH EINE ELEKTROMECHANISCHE VORRICHTUNG REGULIERT WIRD

Title (fr)
PIÈCE D'HORLOGERIE COMPRENANT UN MOUVEMENT MÉCANIQUE DONT LA MARCHE EST RÉGULÉE PAR UN DISPOSITIF ÉLECTROMÉCANIQUE

Publication
EP 3584645 B1 20210630 (FR)

Application
EP 19175180 A 20190517

Priority
EP 18178547 A 20180619

Abstract (en)
[origin: US2019384228A1] A timepiece includes a mechanical oscillator, formed of a mechanical resonator, and a device for regulating the frequency of the mechanical oscillator. This regulation device includes an auxiliary oscillator, an electromechanical device for stopping the mechanical resonator, a sensor arranged to detect the passage of the mechanical resonator via the neutral position thereof, and a measuring device arranged to measure a time drift of the mechanical oscillator. The regulation device is arranged to stop, during a given alternation, the natural oscillation movement of the mechanical resonator selectively either momentarily during a first half-alternation occurring before the passage of the mechanical resonator via the neutral position thereof when the time drift measured corresponds to at least a certain gain, or prematurely during a second half-alternation occurring after the passage of the mechanical resonator via the neutral position thereof when the time drift measured corresponds to at least a certain loss.

IPC 8 full level
G04C 3/04 (2006.01); **G04C 11/00** (2006.01); **G04C 13/02** (2006.01)

CPC (source: CH CN EP US)
G04B 17/20 (2013.01 - CH); **G04B 18/04** (2013.01 - CN); **G04C 3/04** (2013.01 - EP US); **G04C 3/042** (2013.01 - EP); **G04C 3/045** (2013.01 - EP); **G04C 11/00** (2013.01 - EP); **G04C 11/084** (2013.01 - US); **G04C 11/088** (2013.01 - CH); **G04C 13/02** (2013.01 - EP); **G04C 13/028** (2013.01 - EP); **G04D 7/1264** (2013.01 - CH)

Cited by
CN115113511A; EP4174586A1; CN116068872A

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

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EP 19175180 A 20190517; CH 6472019 A 20190517; CN 201910526655 A 20190618; JP 2019109234 A 20190612; US 201916427405 A 20190531