

Title (en)
TIMEPIECE RESONATOR WITH CROSSED BLADES

Title (de)
RESONATOR EINER UHR MIT SICH KREUZENDEN BLÄTTERN

Title (fr)
RESONATEUR D'HORLOGERIE A LAMES CROISEES

Publication
EP 3234699 B1 20230308 (FR)

Application
EP 15808400 A 20151214

Priority
• EP 14199039 A 20141218
• EP 2015079515 W 20151214

Abstract (en)
[origin: US2017010586A1] A timepiece or watch includes at least one resonator, which includes at least one weight that oscillates with respect to a connecting element fixed to a structure of a timepiece movement. The weight is suspended from the connecting element by resilient crossed strips which extend at a distance from each other in two parallel planes. The projections of the strips on one of the parallel planes intersect at a virtual pivot axis of the weight, and define a first angle which is the apex angle opposite which there extends the portion of the connecting element that is located between the attachments of the crossed strips to the connecting element. The first angle is between 68° and 76°.

IPC 8 full level
G04B 17/28 (2006.01); **G04B 17/04** (2006.01)

CPC (source: CN EP US)
G04B 17/04 (2013.01 - CN); **G04B 17/045** (2013.01 - EP US); **G04B 17/28** (2013.01 - 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)
US 2017010586 A1 20170112; US 9836024 B2 20171205; CH 710524 A2 20160630; CN 105980938 A 20160928; CN 105980938 B 20180403; EP 3035126 A1 20160622; EP 3035126 B1 20171213; EP 3234699 A1 20171025; EP 3234699 B1 20230308; JP 2017223701 A 20171221; JP 2017223702 A 20171221; JP 2017503155 A 20170126; JP 6231686 B2 20171115; JP 6401354 B2 20181010; JP 6449951 B2 20190109; WO 2016096677 A1 20160623

DOCDB simple family (application)
US 201515114336 A 20151214; CH 19792014 A 20141218; CN 201580003174 A 20151214; EP 14199039 A 20141218; EP 15808400 A 20151214; EP 2015079515 W 20151214; JP 2016535688 A 20151214; JP 2017157043 A 20170816; JP 2017157045 A 20170816