

Title (en)
Magnetic shield for a spiral of a timepiece

Title (de)
Magnetische Abschirmung für Spirallunruh einer Uhr

Title (fr)
Blindage magnétique pour spiral de pièce d'horlogerie

Publication
EP 2466396 A1 20120620 (FR)

Application
EP 10195192 A 20101215

Priority
EP 10195192 A 20101215

Abstract (en)
The device has a balance (2) made of ferromagnetic material i.e. amorphous metal alloy, where diameter (D) of the balance is two times greater than diameter of a hairspring of a timepiece. The balance is surface-treated by an anti-corrosion agent. The balance is provided with a set of flattened arms (3) covering a surface that is equal to or greater than one-fourth of a disk defined by a casing ring (4). The balance comprises another set of arms that is mounted on the top of the casing ring.

Abstract (fr)
Dispositif de protection d'un spiral (1) de pièce d'horlogerie contre des champs magnétiques perturbateurs comportant un balancier (2) réalisé en matériau ferromagnétique.

IPC 8 full level
G04B 17/06 (2006.01); **G04B 17/22** (2006.01); **G04B 43/00** (2006.01)

CPC (source: EP US)
G04B 17/063 (2013.01 - EP US); **G04B 17/20** (2013.01 - US); **G04B 17/22** (2013.01 - US); **G04B 17/222** (2013.01 - US);
G04B 17/227 (2013.01 - EP US); **G04B 43/00** (2013.01 - US); **G04B 43/002** (2013.01 - EP US)

Citation (applicant)
• CH 122391 A 19270916 - DITISHEIM PAUL [FR]
• FR 1408872 A 19650820 - LIP SA

Citation (search report)
• [X] FR 2063101 A1 19710709 - LIP HORLOGERIE
• [X] CH 361247 A 19620331 - LIP SOCIETE ANONYME D HORLOGER [FR]
• [X] FR 2000706 A1 19690912 - JUNGHANS GMBH GEB
• [X] EP 2230570 A2 20100922 - MHVJ MANUFACTURE HORLOGERE VAL [CH]
• [XY] CH 289106 A 19530228 - DUBOIS ERNEST [CH]
• [X] CH 692218 A5 20020315 - SCHMIDT LOTHAR [CH]
• [Y] US 965506 A 19100726 - ECAUBERT FREDERIC [US]

Cited by
EP3502786A1; WO2019120959A1

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 2466396 A1 20120620; CN 103261976 A 20130821; CN 103261976 B 20160511; EP 2652560 A1 20131023; EP 2652560 B1 20191113; HK 1188488 A1 20140502; JP 2014508918 A 20140410; JP 5815043 B2 20151117; RU 2013132473 A 20150120; RU 2545488 C2 20150410; US 2013265859 A1 20131010; US 9494921 B2 20161115; WO 2012080021 A1 20120621

DOCDB simple family (application)
EP 10195192 A 20101215; CN 201180060137 A 20111205; EP 11793747 A 20111205; EP 2011071753 W 20111205; HK 14101518 A 20140218; JP 2013543637 A 20111205; RU 2013132473 A 20111205; US 201113993645 A 20111205