

Title (en)
HAIRSPRING INTENDED FOR BEING ATTACHED BY A SPRING WASHER

Title (de)
SPIRALE ZUR BEFESTIGUNG MIT EINER FEDERSCHEIBE

Title (fr)
SPIRAL DESTINÉ À ÊTRE FIXÉ PAR UNE RONDELLE ÉLASTIQUE

Publication
EP 3309625 B1 20200729 (FR)

Application
EP 16193768 A 20161013

Priority
EP 16193768 A 20161013

Abstract (en)
[origin: JP2018063250A] PROBLEM TO BE SOLVED: To maintain advantages of a collet without recourse to soldering, while suppressing generation of contact and bending stresses in a strip. SOLUTION: A strip includes, at each of the vertices of a triangle, a bulge extending radially towards an inner coil of a spring. A point of attachment between the spring and a collet is located on one of the bulges of the triangle which is symmetrical with respect to a staff 103 passing through the center of the collet and the point of attachment. In a balance spring 107, the strip between the vertices of the triangle is formed of first and second areas of substantially constant widths and of a third area, between the first and second areas, which has a thickened width compared to those of the first and second areas and which is arranged to be fitted onto the staff 103 in order to vary elastic deformation stresses on the first and second two areas. SELECTED DRAWING: Figure 1

IPC 8 full level
G04B 17/34 (2006.01)

CPC (source: CN EP RU US)
G04B 17/00 (2013.01 - RU); **G04B 17/06** (2013.01 - CN US); **G04B 17/32** (2013.01 - CN); **G04B 17/345** (2013.01 - CN EP US)

Cited by
EP3722889A1; CN113632014A; EP3627238A1; EP3627235A1; EP3627236A1; US12019398B2; US11906930B2; WO2020057943A1; WO2020057969A1; WO2020057919A1

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 3309625 A1 20180418; EP 3309625 B1 20200729; CN 107942639 A 20180420; CN 107942639 B 20201016; HK 1253932 A1 20190705; JP 2018063250 A 20180419; JP 6606535 B2 20191113; RU 2017134919 A 20190404; RU 2017134919 A3 20201217; RU 2760638 C2 20211129; US 10444707 B2 20191015; US 2018107162 A1 20180419

DOCDB simple family (application)
EP 16193768 A 20161013; CN 201710952282 A 20171013; HK 18113081 A 20181012; JP 2017195774 A 20171006; RU 2017134919 A 20171004; US 201715725392 A 20171005