Title (en)

Barrel spring and method of shaping it

Title (de)

Schließzylinderfeder und Verfahren zur ihrer Formgebung

Title (fr)

Ressort de barillet et procede pour sa mise en forme

Publication

EP 2154581 A1 20100217 (FR)

Application

EP 08405192 A 20080804

Priority

EP 08405192 A 20080804

Abstract (en)

The mainspring is formed from a metallic glass monolithic ribbon, where thickness of the mainspring amounts approximately between 50 and 150 micrometers. Shape of the mainspring in a free state is defined by a radius of an nth turn in a wound state so that the mainspring, which is wound into Archimedean spiral, is stressed to the maximum bending stress over the entire length. The radius is produced by adding the radius of a barrel core with multiplication of a number of winding turns and the ribbon thickness.

Abstract (fr)

Ressort de barillet pour mécanisme entraîné par un ressort moteur, notamment pour pièce d'horlogerie, formé d'un ruban de matériau en verre métallique. Ce ruban est monolithique.

IPC 8 full level

G04B 1/14 (2006.01); **G04D 3/00** (2006.01)

CPC (source: EP)

G04B 1/145 (2013.01); **G04D 3/0007** (2013.01)

Citation (applicant)

EP 0942337 A1 19990915 - SEIKO EPSON CORP [JP]

Citation (search report)

- [XDA] EP 0942337 A1 19990915 - SEIKO EPSON CORP [JP]
- [A] DE 3136303 A1 19830414 - VACUUMSCHMELZE GMBH [DE]
- [A] US 3187416 A 19650608 - PAUL TUETEY, et al

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EP2133756A3; EP2703911A1; RU2625733C2; US9201399B2; WO2014033309A3; EP2133756B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

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