

Title (en)  
PART FOR CLOCK MOVEMENT

Title (de)  
BAUTEIL FÜR UHRWERK

Title (fr)  
PIÈCE POUR MOUVEMENT D'HORLOGERIE

Publication  
**EP 3273306 A1 20180124 (FR)**

Application  
**EP 16190278 A 20160923**

Priority  
• EP 16180226 A 20160719  
• EP 16190278 A 20160923

Abstract (en)  
[origin: CN107632507A] The invention relates to a pivot axis (1) for a watch movement. The pivot axis includes at least one pivot (3), which is made of a first non-magnetic metal material (4), at at least one of its ends in order to limit its sensitivity to magnetic fields, at least the surface external of said pivot (3) being covered with a first layer (5) of a second material selected from the group comprising Ni, NiBand NiP, and preferably NiP chemical. At least the first layer (5) of the second material is at least partially covered with a second layer (6) of a third material selected from the group consisting of gold, silver, copper, platinum, rhodium, palladium and their alloys. The invention relates to the field of watch movements.

Abstract (fr)  
L'invention se rapporte à un axe de pivotement pour mouvement horloger comportant au moins un pivot (3) en un premier matériau (4) métallique amagnétique à au moins une de ses extrémités afin de limiter sa sensibilité aux champs magnétiques. Au moins la surface externe dudit pivot (3) est recouverte d'une couche (5) d'un second matériau choisi parmi le groupe comprenant Ni et NiP, et de préférence NiP chimique. L'invention concerne le domaine des mouvements d'horlogerie.

IPC 8 full level  
**G04B 1/16** (2006.01); **G04B 13/02** (2006.01); **G04B 15/14** (2006.01); **G04B 17/32** (2006.01); **G04B 43/00** (2006.01)

CPC (source: CN EP RU US)  
**G04B 1/16** (2013.01 - CN US); **G04B 13/02** (2013.01 - EP US); **G04B 13/022** (2013.01 - US); **G04B 13/026** (2024.01 - CN);  
**G04B 15/14** (2013.01 - CN EP US); **G04B 17/32** (2013.01 - EP US); **G04B 29/00** (2013.01 - RU); **G04B 43/007** (2013.01 - EP US)

Citation (applicant)  
• EP 2757423 A1 20140723 - OMEGA SA [CH]  
• Y. BEN AMOR ET AL.: "Dépôt chimique de nickel, synthèse bibliographique", MATÉRIAUX & TECHNIQUES, vol. 102, 2014, pages 101

Citation (search report)  
• [Y] US 3683616 A 19720815 - STEINEMANN SAMUEL, et al & FR 2015873 A1 19700430 - INST REINHARD STRAUMANN, et al  
• [Y] CH 681370 A5 19930315 - ESTOPPEY REBER S A, et al  
• [Y] EP 1237058 A1 20020904 - EBAUCHESFABRIK ETA AG [CH]  
• [A] CH 514873 A 19710715 - FAR FAB ASSORTIMENTS REUNIES [CH]  
• [A] CH 572374 B5 19760213 - FAR FAB ASSORTIMENTS REUNIES  
• [Y] EP 1927681 A1 20080604 - SEIKO EPSON CORP [JP], et al  
• [A] EP 0686706 A1 19951213 - CITIZEN WATCH CO LTD [JP]

Citation (third parties)  
Third party : Anonymous  
• WO 2017141222 A1 20170824 - CREDITIVE AG [CH]  
• EP 3417347 B1 20200624 - CREDITIVE AG [CH]  
• CH 681370 A5 19930315 - ESTOPPEY REBER S A, et al  
• US 3620005 A 19711116 - GANTER WOLFGANG, et al  
• FR 2015873 A1 19700430 - INST REINHARD STRAUMANN, et al

Cited by  
EP3432079A1

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 3273306 A1 20180124**; CN 107632507 A 20180126; CN 107632507 B 20210108; CN 107632508 A 20180126; CN 107632508 B 20220524;  
CN 107632510 A 20180126; CN 107632510 B 20210108

DOCDB simple family (application)  
**EP 16190278 A 20160923**; CN 201710584243 A 20170718; CN 201710584247 A 20170718; CN 201710584919 A 20170718