

Title (en)
DEVICE FOR WINDING A CLOCK MOVEMENT

Title (de)
VORRICHTUNG ZUM AUFGIEHEN EINES UHRWERKS

Title (fr)
DISPOSITIF DE REMONTAGE D'UN MOUVEMENT HORLOGER

Publication
EP 3285123 A1 20180221 (FR)

Application
EP 17183848 A 20170728

Priority
EP 16184191 A 20160815

Abstract (en)
[origin: US2018046141A1] A component of a winding device, in particular an automatic winding device, of a timepiece movement, wherein it is made of austenitic stainless steel and wherein it comprises at least one friction surface hardened by carbon or nitrogen type atoms introduced into the austenitic stainless steel over a predetermined depth.

Abstract (fr)
Composant de dispositif de remontage, notamment automatique, de mouvement horloger, caractérisé en ce qu'il est en acier inoxydable austénitique et en ce qu'il comprend au moins une surface de frottement durcie par des atomes de type carbone ou azote introduits dans l'acier inoxydable austénitique sur une profondeur prédéterminée.

IPC 8 full level
G04B 11/02 (2006.01); **G04B 5/00** (2006.01); **G04B 7/00** (2006.01)

CPC (source: CH CN EP US)
G04B 3/006 (2013.01 - US); **G04B 5/00** (2013.01 - EP US); **G04B 5/02** (2013.01 - CN); **G04B 7/00** (2013.01 - EP US);
G04B 11/00 (2013.01 - CH); **G04B 11/024** (2013.01 - EP US); **G04B 13/02** (2013.01 - EP US); **G04B 27/04** (2013.01 - US);
G04D 3/0069 (2013.01 - CN); **G04D 3/0074** (2013.01 - CN); **G04D 3/0079** (2013.01 - CH); **C23C 8/08** (2013.01 - CH); **G04B 19/082** (2013.01 - EP)

Citation (search report)
• [XY] JP 2003214526 A 20030730 - SEIKO EPSON CORP
• [Y] EP 2757423 A1 20140723 - OMEGA SA [CH]

Cited by
EP3940112A1; CH717663A1; EP4375758A2

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 3285123 A1 20180221; **EP 3285123 B1 20210414**; CH 712813 A2 20180215; CH 712813 B1 20211130; CN 107765535 A 20180306;
CN 107765535 B 20220823; JP 2018066721 A 20180426; JP 7127970 B2 20220830; US 11144011 B2 20211012; US 2018046141 A1 20180215

DOCDB simple family (application)
EP 17183848 A 20170728; CH 9842017 A 20170728; CN 201710693087 A 20170814; JP 2017147492 A 20170731;
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