

Title (en)  
METHOD FOR MANUFACTURING A BALANCE FOR A TIMEPIECE

Title (de)  
HERSTELLUNGSVERFAHREN EINER UNRUH FÜR UHREN

Title (fr)  
PROCÉDÉ DE FABRICATION D'UN BALANCIER POUR PIÈCE D'HORLOGERIE

Publication  
**EP 3502787 A1 20190626 (FR)**

Application  
**EP 17210299 A 20171222**

Priority  
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Abstract (en)  
[origin: US2019196408A1] A process for producing a metal alloy balance wheel by molding, the process including the following steps: a) making a mold in the negative shape of the balance wheel, b) getting hold of a metal alloy that has a thermal expansion coefficient of less than 25 ppm/° C. and is able to be in an at least partly amorphous state when it is heated to a temperature between its glass transition temperature and its crystallization temperature, c) putting the metal alloy into the mold, the metal alloy being heated to a temperature between its glass transition temperature and its crystallization temperature so as to be hot-molded and to form a balance wheel, d) cooling the metal alloy to obtain a balance wheel made of the metal alloy, e) releasing the balance wheel obtained in step d) from its mold.

Abstract (fr)  
L'invention concerne un procédé de fabrication d'un balancier en alliage métallique par moulage, ledit procédé comprenant les étapes suivantes: a) réaliser un moule ayant la forme négative du balancier (1) b) se munir d'un alliage métallique présentant un coefficient de dilatation thermique inférieur à 25 ppm/°C et capable d'être sous une forme au moins partiellement amorphe lorsqu'il est chauffé à une température comprise entre sa température de transition vitreuse et sa température de cristallisation c) introduire dans le moule l'alliage métallique, ledit alliage métallique étant chauffé à une température comprise entre sa température de transition vitreuse et sa température de cristallisation pour être formé à chaud et pour former un balancier d) refroidir ledit alliage métallique pour obtenir un balancier (1) dans ledit alliage métallique e) libérer le balancier (1) obtenu à l'étape d) de son moule

IPC 8 full level  
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CPC (source: CN EP US)  
**G04B 17/063** (2013.01 - CN US); **G04B 17/066** (2013.01 - CN US); **G04B 17/222** (2013.01 - CN EP US); **G04B 17/227** (2013.01 - CN EP US); **G04B 18/006** (2013.01 - CN EP US); **G04D 3/0038** (2013.01 - CN); **B22C 9/00** (2013.01 - CN EP US); **B22D 15/00** (2013.01 - CN EP US); **B22D 25/026** (2013.01 - CN EP US); **B22D 27/04** (2013.01 - CN EP US); **C22C 14/00** (2013.01 - CN EP US); **C22C 16/00** (2013.01 - CN EP US); **C22C 21/00** (2013.01 - CN EP US); **C22C 38/08** (2013.01 - CN EP US); **G04C 3/04** (2013.01 - CN US)

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