

Title (en)  
METHOD FOR TESTING AND MANUFACTURING SPIRAL SPRINGS FOR A TIMEPIECE

Title (de)  
VERFAHREN ZUM TESTEN UND HERSTELLEN VON SPIRALFEDERN FÜR UHR

Title (fr)  
PROCÉDÉ DE CONTROLE ET DE FABRICATION DE RESSORTS SPIRAUX D'HORLOGERIE

Publication  
**EP 4278234 A1 20231122 (FR)**

Application  
**EP 22700645 A 20220114**

Priority  
• EP 21152144 A 20210118  
• EP 2022050760 W 20220114

Abstract (en)  
[origin: WO2022152857A1] Method for testing a spiral spring or a spiral spring blank arranged to form a spiral spring, the spiral spring being required to have at least one predetermined resonance frequency, the testing method comprising the following steps: a. applying, to the spiral spring or the spiral spring blank, a vibratory excitation that varies over time to cover a predetermined frequency range, b. identifying at least one characteristic of a resonance frequency, such as a resonance peak, of the spiral spring or the spiral spring blank upon vibratory excitation over the predetermined frequency range, c. subjecting the resonance frequency characteristic identified in step b to a prediction machine to determine the stiffness of the spiral spring or the spiral spring blank and/or to determine whether dimensional correction of the spiral spring or the spiral spring blank is required to obtain the predetermined resonance frequency.

IPC 8 full level  
**G04D 7/10** (2006.01); **G04D 7/12** (2006.01)

CPC (source: EP US)  
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