Title (en)

Adjustment of the frequency of a clock resonator by changing the rigidity of a resilient return means

Title (de)

Frequenzregulierung eines Uhrresonators durch Einwirkung auf die Steifheit eines elastischen Rückstellmittels

Title (fr)

Régulation en fréquence d'un résonateur d'horlogerie par action sur la rigidité d'un moyen de rappel élastique

Publication

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Application

EP 15153321 A 20150130

Priority

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Abstract (en)

[origin: CN104849994A] The invention relates to a frequency regulation method of a timepiece regulator via action on the rigidity of an elastic return means, and particularly a method of regulating the frequency of a resonator mechanism (1) around its natural frequency (omega 0). The mechanism includes an elastic return means (40) with a balance spring (4) or a torsion wire (46), wherein a regulator device (2) acts on this resonator mechanism (1) with a periodic motion to control a periodic variation in the real part and/or the imaginary part of the rigidity of this elastic return means (40), with a regulation frequency (omega R) which is comprised between 0.9 times and 1.1 times the value of an integer multiple between 2 and 10 of this natural frequency. This method being applied to a timepiece movement (10) comprising a resonator mechanism (1) of this type and including a regulator device (2) arranged to control a periodic variation in the rigidity of this elastic return means (40).

IPC 8 full level

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CPC (source: EP US)

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