

Title (en)

METHOD FOR HARMONIC TUNING OF AT LEAST ONE GONG FOR A CHIMING MECHANISM OF A WATCH

Title (de)

VERFAHREN ZUM HARMONISCHEN STIMMEN MINDESTENS EINES KLANGS EINES SCHLAGWERKMECHANISMUS EINER ARMBANDUHR

Title (fr)

PROCEDE D'ACCORDAGE HARMONIQUE D'AU MOINS UN TIMBRE D'UN MECANISME DE SONNERIE D'UNE MONTRE

Publication

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Application

EP 20213374 A 20201211

Priority

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Abstract (en)

[origin: CN114624984A] The invention relates to a method for tuning at least one gong of a timepiece. The gong is fastened by one end thereof to a gong carrier, which can be mounted on a suitable support in the watchcase. The gong is knocked by the hammer to vibrate on the support of the measuring instrument to determine frequency peaks in the audible frequency band by a fast Fourier transform. A comparison of the vibration frequency within the plane XY and the vibration frequency of the out-of-plane Z in the first natural mode is performed, and a ratio calculation is performed, where f_{1p} is the vibration frequency within the plane XY, and f_{1h} is the vibration frequency of the out-of-plane Z. If the ratio r is less than or equal to a desired value of 0.006, the gong has been tuned. On the other hand, if the ratio is greater than a desired value of 0.006, a gong adjustment operation is performed, and the method is repeated as many as the number of times the ratio r is necessary to be less than or equal to 0.006 from the striking of the gong. Preferably, all natural frequencies of the gong in the audible frequency band must be tuned.

IPC 8 full level

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CPC (source: CN EP US)

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- EP 2290479 B1 20131113 - MONTRES BREGUET SA [CH]
- CH 708885 B1 20181214 - RICHEMONT INT SA [CH]

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