

Title (en)

TIMEPIECE CHIMING MECHANISM WITH SUSPENDED HAMMER

Title (de)

SCHLAGWERKMECHANISMUS EINER UHR MIT HÄNGEHAMMER

Title (fr)

MECANISME DE SONNERIE D'HORLOGERIE A MARTEAU SUSPENDU

Publication

EP 3663869 A1 20200610 (FR)

Application

EP 18210745 A 20181206

Priority

EP 18210745 A 20181206

Abstract (en)

[origin: JP2020091287A] To provide a striking mechanism of a suspended hammer type clock.SOLUTION: A striking mechanism 100 of a clock comprises a fixed structure 1 for supporting at least one gong or radiating element, and a movable hammer 3 in a plane under action of an actuated movable part 4. The actuated movable part 4 regulates an ankle and release of the hammer 3 for a strike of the gong. The striking mechanism 100 provides at least one planar flexible guide 10 between the structure 1 and the hammer 3 to suspend the hammer 3, thereby enabling the hammer 3 to move only in a plane, and forms an only mechanical connection part between the structure 1 and the hammer 3. The striking mechanism 100 drives the actuated movable part 4 and makes the actuated movable part 4 execute a winding cycle. During the winding cycle, the actuated movable part 4 supplies a certain amount of energy to the flexible guide 10 while driving the hammer 3, then releases the hammer 3 and executes the striking mechanism with the strike of the gong while the hammer falls down.SELECTED DRAWING: Figure 1

Abstract (fr)

Mécanisme de sonnerie (100) d'horlogerie, comportant une structure (1) portant un timbre ou élément rayonnant (2) et un marteau (3) mobile dans un plan (P) sous l'action d'un mobile d'activation (4) commandant la levée du marteau (3) et sa libération pour la percussion du timbre (2), et comportant, pour la suspension du marteau (3), au moins un guidage flexible (10) plan entre la structure (1) et le marteau (3) pour autoriser des mouvements du marteau (3) uniquement dans le plan (P), constituant la seule liaison mécanique entre la structure (1) et le marteau (3), et, plus particulièrement, pour l'exécution d'une sonnerie, le mécanisme de sonnerie (100) entraîne le mobile d'activation (4), et lui fait effectuer un cycle d'armage au cours duquel il fournit une quantité d'énergie constante au guidage flexible (10) en entraînant le marteau (3) avant de le libérer pour l'exécution de la sonnerie par percussion du timbre (2) lors du désarmage.

IPC 8 full level

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CPC (source: CN EP US)

G04B 5/165 (2013.01 - CN); **G04B 5/188** (2013.01 - CN); **G04B 15/10** (2013.01 - CN); **G04B 15/14** (2013.01 - CN);
G04B 21/06 (2013.01 - EP US); **G04B 23/026** (2013.01 - EP); **G04B 31/02** (2013.01 - EP); **G04B 21/08** (2013.01 - US);
G04B 23/023 (2013.01 - EP); **G04B 31/06** (2013.01 - EP)

Citation (applicant)

- CH 142116 A 19300915 - JACOB HOLM & SONNERS FABRIKER [DK]
- EP 16195405 A 20161025
- EP 2831677 B1 20160525 - NIVAROX SA [CH]

Citation (search report)

- [A] CH 706468 A2 20131115 - PATEK PHILIPPE SA GENEVE [CH]
- [A] WO 2018193365 A1 20181025 - PATEK PHILIPPE SA GENEVE [CH]
- [A] WO 2012010408 A1 20120126 - NIVAROX SA [CH], et al
- [E] EP 3483666 A1 20190515 - PATEK PHILIPPE SA GENEVE [CH]

Cited by

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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

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JP 6872596 B2 20210519; US 11754976 B2 20230912; US 2020183333 A1 20200611

DOCDB simple family (application)

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