

Title (en)

MECHANICAL TIMEPIECE WITH ELECTROSTATIC CAPACITY TYPE DETECTING PART AND BRAKING PART

Title (de)

MECHANISCHE UHR MIT EINEM DETEKTIONSELEMENT VON ELEKTROSTATISCHEM KAPAZITTSTYP UND MIT EINEM BREMSELEMENT

Title (fr)

PIECE D'HORLOGERIE MECANIQUE A ELEMENT DE DETECTION A CAPACITE ELECTROSTATIQUE ET ELEMENT DE FREINAGE

Publication

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Application

EP 00905402 A 20000229

Priority

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Abstract (en)

[origin: EP1178371A1] In a mechanical timepiece of the present invention, a movement 200 includes a barrel complete 120, a center wheel and pinion 124, a third wheel and pinion 126, a fourth wheel and pinion 128, a balance with hairspring 140, an escape wheel and pinion 130 and a pallet fork 142. Coils 180a, 180b are attached on a front surface of a main plate in a manner facing a surface of a balance wheel 140b close to the main plate. A balance magnet 140e is attached on a surface of the balance wheel 140b close to the main plate in a manner facing a front surface of the main plate 102. The mechanical timepiece of the invention has a detector section 276 provided to detect a swing angle of the balance with hairspring by detecting a change of electrostatic capacitance between a balance electrostatic capacitor electrode portion 240 and a detecting electrostatic capacitor electrode 250 varying corresponding to an operating state of the balance with hairspring 140, and a brake section 146 structured to apply such a force as suppressing rotation of the balance with hairspring 140 to the balance with hairspring 140 when a swing angle of the balance with hairspring 140 detected by the detector section 276 is greater than a previously-set set angle. <IMAGE>

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IPC 8 full level

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Citation (search report)

- [A] US 3937001 A 19760210 - BERNEY JEAN-CLAUDE
- See references of WO 0165319A1

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