

Title (en)
POSTURE DETECTION PART AND MECHANICAL TIMEPIECE HAVING ELECTROSTATIC CAPACITY TYPE DETECTION PART

Title (de)
HALTUNGSDETEKTIONSELEMENT UND MECHANISCHE UHR MIT EINEM DETEKTIONSELEMENT VOM ELEKTROSTATISCHEN KAPAZITÄTSTYP

Title (fr)
ELEMENT DE DETECTION DE POSTURE ET PIECE D'HORLOGERIE MECANIQUE A ELEMENT DE DETECTION A CAPACITE ELECTROSTATIQUE

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Application
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Abstract (en)
In a mechanical time piece according to the invention, a movement 400 includes a barrel complete 120, a center wheel & pinion 124, a third wheel & pinion 126, a fourth wheel & pinion 128, a balance with hairspring 140, an escape wheel & pinion 130 and a pallet fork 142. Coils 180a and 180b are attached to a face on a front side of a main plate 102 to be opposed to a face of a balance wheel 140b on the side of the main plate. A balance magnet 140e is attached to a face of the balance wheel 140b, on the side of the main plate to be opposed to a face of the main plate 102 on the front side. The mechanical time piece of the invention includes an attitude detecting unit 361 for detecting the attitude of the mechanical time piece, a balance rotation detecting unit 276 provided for detecting a swing angle of the balance with hairspring by detecting a change in the electrostatic capacitance between a balance electrostatic capacitor electrode portion 240 and a detecting electrostatic capacitor electrode 250 which is changed in correspondence with an operational state of the balance with hairspring 140 and a braking unit 146 constituted to exert force for restraining rotation of the balance with hairspring 140 to the balance with hairspring 140 based on a signal with respect to the attitude of the mechanical time piece detected by the attitude detecting unit 361 when the swing angle of the balance with hairspring 140 detected by the balance rotation detecting unit 276 is equal to or larger than a previously set angle. <IMAGE>

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Cited by
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