

Title (en)

ADJUSTABLE CYLINDRICAL EQUATORIAL SUN DIAL WITH WIRE STYLE HAVING A REFERENCE MARK FOR FOLLOWING THE VARIATIONS IN THE SUN'S DECLINATION.

Title (de)

ZYLINDRISCHE ÄQUATORIALE VERSTELLBARE VORRICHTUNG FÜR EINE SONNENUHR.

Title (fr)

DISPOSITIF REGLABLE DE CADRAN SOLAIRE EQUATORIAL CYLINDRIQUE AVEC STYLE FILIFORME COMPORTANT UN REPERE PERMETTANT DE SUIVRE LES VARIATIONS DE LA DECLINAISON DU SOLEIL.

Publication

EP 0328572 A1 19890823 (FR)

Application

EP 88905891 A 19880629

Priority

FR 8710188 A 19870716

Abstract (en)

[origin: FR2618232A1] A device on a cylindrical equatorial sun dial which can be oriented horizontally and vertically makes it possible: 1) to determine standard time to the nearest minute using a style in the form of a tensioned wire (1) which casts a thin shadow, 2) to determine the months and decades of the year (7) from the vertical displacement on the dial (of sufficient width) of a point shadow formed by a relief reference point (3) located on the wire directly below the equinox, 3) to make an adjustment to correct deviations due to the equation of time. This is done by guided lateral sliding of the cadran along the "8" representing the equation of time located on a fixed part (12). The position of the point shadow cast by the reference point indicates the decade of the year, from which the level of the "8" and hence the deviation to be compensated can be derived, 4) to obtain a reading in all seasons, including at the equinox, of the time from sunrise to sunset. This is made possible by the shape of the dial, the upper part of which is always horizontal and passes through the plane of the reference point (3), and by the constant orientation toward the local noon. A sheet on which the hour lines are marked is glued to the dial, allowance being made for the difference in order to obtain standard time.

Abstract (fr)

Sur un cadran solaire équatorial cylindrique orientable horizontalement et verticalement un dispositif permettant: 1) de connaître l'heure légale avec une précision d'une minute du fait de l'utilisation comme style d'un fil (1) tendu projetant une ombre mince, 2) de connaître les mois et décades de l'année (7) par le déplacement vertical sur le cadran (d'une largeur suffisante) d'un point d'ombre formé par un repère (3) en relief situé sur le fil à l'aplomb de l'équinoxe. 3) de pouvoir effectuer un réglage pour corriger les écarts provenant de l'équation du temps. Il se fait par un glissement latéral du cadran (5) guidé par le "8" figurant l'équation du temps, situé sur une partie fixe (12). La position du point d'ombre porté par le repère indiquant la décade de l'année, permet de connaître le niveau sur le "8" et donc l'écart à compenser, 4) d'avoir en toutes saisons, même à l'équinoxe, une lecture de l'heure du lever au coucher du soleil. Ceci étant rendu possible par la forme du cadran dont la partie haute est toujours horizontale, passant par le plan du repère (3), et par l'orientation toujours vers le midi-local. Une feuille portant les inscriptions horaires est collée sur le cadran en tenant compte du décalage pour avoir l'heure légale. Abstract A device on a cylindrical equatorial sun dial which can be oriented horizontally and vertically makes it possible: 1) to determine standard time to the nearest minute using a style in the form of a tensioned wire (1) which casts a thin shadow, 2) to determine the months and decades of the year (7) from the vertical displacement on the dial (of sufficient width) of a point shadow formed by a relief reference point (3) located on the wire directly below the equinox, 3) to make an adjustment to correct deviations due to the equation of time. This is done by guided lateral sliding of the cadran along the "8" representing the equation of time located on a fixed part (12). The position of the point shadow cast by the reference point indicates the decade of the year, from which the level of the "8" and hence the deviation to be compensated can be derived, 4) to obtain a reading in all seasons, including at the equinox, of the time from sunrise to sunset. This is made possible by the shape of the dial, the upper part of which is always horizontal and passes through the plane of the reference point (3), and by the constant orientation toward the local noon. A sheet on which the hour lines are marked is glued to the dial, allowance being made for the difference in order to obtain standard time.

IPC 1-7

G04B 49/02

IPC 8 full level

G04B 49/02 (2006.01)

CPC (source: EP)

G04B 49/02 (2013.01)

Citation (search report)

See references of WO 8900720A1

Designated contracting state (EPC)

BE CH DE GB IT LI

DOCDB simple family (publication)

FR 2618232 A1 19890120; FR 2618232 B1 19911004; EP 0328572 A1 19890823; WO 8900720 A1 19890126

DOCDB simple family (application)

FR 8710188 A 19870716; EP 88905891 A 19880629; FR 8800344 W 19880629