Title (en)

METHOD AND DEVICE FOR DETERMINING THE TIME LAPSE BETWEEN START AND FINISH OF ATHLETES OR SUCHLIKE WITHOUT USING A LIGHT BARRIER

Publication

EP 0384496 A3 19901122 (DE)

Application

EP 90108080 A 19880121

Priority

- EP 90108080 A 19880121
- DE 3716987 A 19870521

Abstract (en)

[origin: EP0384496A2] A method for determining the time lapse between the start and finish of athletes, vehicles or such like objects not triggering any light barrier at the finish line provides for the use of a recording camera with a replay device for still images and preferably with a monitor, a timer which in each case inserts the running time into these individual images in steps corresponding to the individual images during the camera operation and displays the respective time of the individual photo from still image to still image. The recording camera provides still images at a fixed time interval in this case and is preferably set up in line with the finish line. The procedure is that between the change between two camera images at the time when the object passes through the finish, the distance travelled in front of and/or after the finish line by this object, the finish time of which is to be determined, and the time known from one image change to the next image change and the corresponding distance is subdivided in the ratio of the section of the first still image located in front of the finish line and/or of the second still image located after the finish line and the proportion of time corresponding to the distance in front of the finish being added to the time then inserted and/or the proportion of time after the finish line being subtracted from the time allocated to the second still image. The speed of the object obtained from the difference of the times between two still images and the distance corresponding to this difference can be displayed as a scale or marking lines at the finish and this scale or the like can be adapted to the respective speed of the object. It is particularly expedient if the scale is determined or calculated electronically and is at least inserted into the finish images. <IMAGE>

IPC 1-7

G07C 1/24

IPC 8 full level

G07C 1/24 (2006.01)

CPC (source: EP)

G07C 1/24 (2013.01)

Citation (search report)

- [A] EP 0002870 A1 19790711 - LONGINES MONTRES COMP D [CH]
- [A] CH 515549 A 19710715 - AUTOPHON AG [CH], et al
- [A] US 2819942 A 19580114 - GOODLING RICHARD E
- [A] EP 0207675 A1 19870107 - YAMAGUCHI CINEMA KK [JP]
- [AD] LA SUISSE HORLOGERE ET REVUE INTERNATIONALE DE L'HORLOGERIE vol. 83, no. 3, September 1986, Seiten 51 - 56; "Objectif Mexico"
- [AD] FUNKSCHAU. vol. 44, no. 14, Juli 1972, MUNCHEN DE Seite 510 "Fernsehbildaufzeichnung ergänzt die Zeitmessung "
- [A] UHRENTECHNISCHE FORSCHUNG UND ENTWICKLUNG no. 2, 1972, ULM, DE Seiten 105- - 111; ASSMUS: "Ziellinienphotographie, eine unentbehrliche Methode der objektiven Sportzeitmessung"
- [A] PHOTOTECHNIK UND WIRTSCHAFT. vol. 23, no. 8, August 1972, BERLIN DE Seiten 207 - 211; MAAS: "Sind 10,0 s wirklich 10,0 s ?"

Cited by

AU636184B2; FR2743436A1; EP3792815A1; WO2021048446A1

Designated contracting state (EPC)

AT CH DE FR GB IT LI

DOCDB simple family (publication)

EP 0384496 A2 19900829; **EP 0384496 A3 19901122**

DOCDB simple family (application)

EP 90108080 A 19880121