Title (en)

OPTICAL METHOD AND APPARATUS TO DETERMINE THE DIMENSIONS OF A RELATIVELY MOVING OBJECT, IN PARTICULAR A COIN IN A VENDING MACHINE

Publication

EP 0119936 B1 19861203 (FR)

Application

EP 84420015 A 19840201

Priority

FR 8302442 A 19830210

Abstract (en)

[origin: US4585936A] The coin rolls on a track of triangular section with a vertical side and an oblique side, in which it penetrates as a function of its thickness. The difference in time between the beginnings (or ends) of occultation of the upper cells determines the mean speed and from the duration of this occultation is deduced the length of the chord (PQ) at the upper level (Y-Y'). Knowing the mean speed, the cell of the second level (Z-Z') makes it possible to determine the corresponding chord (RS). From (PQ) and (RS) are deduced the heights (h1, h2) above the plane of roll (X-X') and the diameter and thickness of the coin may then be calculated. More simply, (PQ) and (RS) may be compared electronically with recorded values to reject the coin or accept it and possibly record its value.

IPC 1-7

G07F 3/02; G07D 5/02

IPC 8 full level

G01B 11/06 (2006.01); **G01B 11/08** (2006.01); **G01B 11/10** (2006.01); **G07D 5/02** (2006.01); **H01J 40/14** (2006.01); **H01L 23/04** (2006.01)

IPC 8 main group level

G07D (2006.01)

CPC (source: EP US)

G07D 5/02 (2013.01 - EP US)

Cited by

DE4313544A1; DE4313544C2; EP0694888A1; LT4004B

Designated contracting state (EPC)

CH DE GB IT LI NL

DOCDB simple family (publication)

FR 2541019 A1 19840817; **FR 2541019 B1 19860718**; DE 3461568 D1 19870115; DK 57184 A 19840811; DK 57184 D0 19840209; EP 0119936 A1 19840926; EP 0119936 B1 19861203; FI 77336 B 19881031; FI 77336 C 19890210; FI 840509 A0 19840208; FI 840509 A 19840811; JP H0374764 B2 19911128; JP S59182303 A 19841017; US 4585936 A 19860429

DOCDB simple family (application)

FR 8302442 A 19830210; DE 3461568 T 19840201; DK 57184 A 19840209; EP 84420015 A 19840201; FI 840509 A 19840208; JP 700484 A 19840117; US 57373684 A 19840125