

Title (en)
THE DEVICE OFFERS A MEANS FOR AUTOMATIC CALIBRATION OF AN OPTICAL SIGHT FOR FIREARMS, BY FIRING ONE ROUND ONLY

Title (de)
EIN MITTEL ZUR AUTOMATISCHEN KALIBRIERUNG EINES OPTISCHEN VISIERS FÜR FEUERWAFFEN DURCH ABFEUERN VON NUR EINER PATRONE BIETENDE VORRICHTUNG

Title (fr)
DISPOSITIF D'ETALONNAGE AUTOMATIQUE DE VISEURS OPTIQUES POUR ARMES A FEU

Publication
EP 1856471 B1 20130814 (EN)

Application
EP 05790214 A 20051010

Priority
• SE 2005001488 W 20051010
• SE 0402472 A 20041013

Abstract (en)
[origin: WO2006041386A1] This patent defines a device for automatic calibration of optical sights for firearms . Only one shot has to be fired to achieve this. The device can be integrated with an optical sight or fitted as a separate unit mounted on the sight. The device consists of a digital camera (e.g. CCD), some kind of beam splitter, a microprocessor including a memory for camera images and computer software, servo motors including a gear mechanism, an electrical switch, light emitting diodes and a shot detecting sensor. In the digital sight application, the device also includes a display unit while servo motors, gear mechanism, light emitting diodes and beam splitter are excluded. The calibration procedure: involves firing a round at a target consisting of a rectangular white surface on a dark background at the chosen range. The camera saves the last image immediately before the firing moment and compares the cross-hairs position with that of a following image from which the projectile point of impact can be found. After calculations, the position of the cross-hairs is adjusted by servomotors to align with the detected projectile impact point position. In the digital sight application, the cross-hairs is simply "drawn" at the new correct location on the display. The weapon and the optical sight is now calibrated at the chosen range.

IPC 8 full level
F41G 3/32 (2006.01); **F41G 1/38** (2006.01); **F41G 1/54** (2006.01)

IPC 8 main group level
F41G (2006.01)

CPC (source: EP SE US)
F41G 1/54 (2013.01 - EP US); **F41G 3/32** (2013.01 - SE); **F41G 3/323** (2013.01 - SE)

Cited by
GB2537398A; DE102014009401A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2006041386 A1 20060420; EP 1856471 A1 20071121; EP 1856471 A4 20091111; EP 1856471 B1 20130814; ES 2431612 T3 20131127; SE 0402472 D0 20041013; SE 0402472 L 20051101; SE 526742 C2 20051101; US 2010251593 A1 20101007

DOCDB simple family (application)
SE 2005001488 W 20051010; EP 05790214 A 20051010; ES 05790214 T 20051010; SE 0402472 A 20041013; US 62710207 A 20070125