

Title (en)

BALL-POINT PEN WITH MEANS OF PREVENTING INCLINATION OF THE STRAIGHT PORTION OF THE BALL-PRESSING SPRING

Title (de)

KUGELSCHREIBER MIT MITTELN ZUM VERHINDERN EINER NEIGUNG DES GERADEN TEILS DER KUGELPRESSFEDER

Title (fr)

STYLO A BILLE DOTE D'UN MOYEN EMPECHANT L'INCLINAISON DE LA PORTION DROITE DU RESSORT DE PRESSION DE BILLE

Publication

EP 1699641 B1 20080709 (EN)

Application

EP 04801415 A 20041216

Priority

- IB 2004004200 W 20041216
- CH 22202003 A 20031229

Abstract (en)

[origin: WO2005065967A1] A ball-point pen (1) is described, said pen comprising a reservoir (2) communicating with a hole (10) connected to a capillary channel (3) of a tip (4) which is provided with a cavity (9) which seats the ball (5) for writing, this ball (5) being kept pressed against a retaining edge (9t) of the abovementioned cavity (9) as a result of the thrust of a compression resilient spring (6) terminating in a straight portion (6r) which is aligned with the longitudinal axis (N-N) of the ball-point pen (1) and the free end (6p) of which is in contact with the said ball (5). In the ball-point pen (1) according to the invention, the said capillary channel (3) has, inside it, means (7) which, coming into contact with the said straight portion (6r) of the spring (6), prevent it from becoming inclined with respect to the said longitudinal axis (N-N) of the ball-point pen (1).

IPC 8 full level

B43K 7/10 (2006.01); **A61B 17/22** (2006.01); **A61B 17/225** (2006.01); **A61B 19/00** (2006.01); **B43K 1/08** (2006.01); **B43K 7/00** (2006.01); **F16M 11/04** (2006.01); **F16M 11/42** (2006.01)

CPC (source: EP KR)

B43K 1/00 (2013.01 - KR); **B43K 1/08** (2013.01 - KR); **B43K 1/086** (2013.01 - EP); **B43K 7/00** (2013.01 - EP KR); **B43K 7/10** (2013.01 - EP KR)

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 MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005065967 A1 20050721; AT E400452 T1 20080715; CH 696635 A5 20070831; CN 100445106 C 20081224; CN 1898093 A 20070117; DE 602004014977 D1 20080821; EP 1699641 A1 20060913; EP 1699641 B1 20080709; ES 2309585 T3 20081216; HK 1102923 A1 20071207; JP 2007516872 A 20070628; JP 4737554 B2 20110803; KR 101169482 B1 20120727; KR 20060114290 A 20061106

DOCDB simple family (application)

IB 2004004200 W 20041216; AT 04801415 T 20041216; CH 22202003 A 20031229; CN 200480039060 A 20041216; DE 602004014977 T 20041216; EP 04801415 A 20041216; ES 04801415 T 20041216; HK 07107346 A 20070709; JP 2006546375 A 20041216; KR 20057021395 A 20041216