

Title (en)

LIQUID INK WRITING ARTICLE WITH SHAPE-MEMORY VALVE

Title (de)

SCHREIBGERÄT FÜR FLÜSSIGE TINTE MIT EINEM AUS FORMGEDÄCHTNISMATERIAL BESTEHENDEM VENTIL

Title (fr)

ARTICLE D'ECRITURE A ENCRE LIQUIDE ET A VALVE A MEMOIRE DE FORME

Publication

EP 1353808 A1 20031022 (FR)

Application

EP 02702445 A 20020125

Priority

- FR 0200319 W 20020125
- FR 0101125 A 20010126

Abstract (en)

[origin: FR2820080A1] The invention concerns a liquid ink writing article having a body which comprises internally, from the rear to the front, an ink reservoir wherein there are a capillary element for transferring ink coming from the reservoir and a writing head, supplied with ink by the capillary element and emerging outside the front part of the body. The reservoir (3) is separated from the front chamber (6) by a shape-memory flexible wall provided with slots (16), acting as valve (13), designed to open when the ratio (A) of pressure (P1) inside the reservoir (3) over the pressure (P2) inside the volume of the front chamber (6) opposite said valve (13) is higher than a first value (A1) and close instantaneously when said ratio (A) is not more than a second value (A2), releasing ink in the form of a jet directed on the rear surface (7a) of the capillary element (7): The article comprises means for pressurising the reservoir. The front chamber communicates with ambient air. Preferably, the first value (A1) of the ratio (A) of pressures (P1/P2) is of the order of 1.07 and the second value (A2) of said ratio (A) is of the order of 1.05.

IPC 1-7

B43K 5/18

IPC 8 full level

B43K 8/00 (2006.01); **B43K 5/18** (2006.01)

CPC (source: EP US)

B43K 5/1836 (2013.01 - EP US)

Citation (search report)

See references of WO 02058943A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

FR 2820080 A1 20020802; FR 2820080 B1 20030418; AU 2002235979 B2 20070104; BR 0206543 A 20040622; CA 2435881 A1 20020801; CA 2435881 C 20091124; CN 1210169 C 20050713; CN 1489527 A 20040414; DE 60225528 D1 20080424; DE 60225528 T2 20080925; EP 1353808 A1 20031022; EP 1353808 B1 20080312; ES 2304239 T3 20081001; JP 2004520198 A 20040708; JP 4090884 B2 20080528; MX PA03006661 A 20040531; US 2004170466 A1 20040902; US 7048459 B2 20060523; WO 02058943 A1 20020801

DOCDB simple family (application)

FR 0101125 A 20010126; AU 2002235979 A 20020125; BR 0206543 A 20020125; CA 2435881 A 20020125; CN 02804142 A 20020125; DE 60225528 T 20020125; EP 02702445 A 20020125; ES 02702445 T 20020125; FR 0200319 W 20020125; JP 2002559256 A 20020125; MX PA03006661 A 20020125; US 62807503 A 20030725