

Title (en)

SPRING DEVICE FOR OPENING AND CLOSING SHUTTER MEANS FOR DOOR OR WINDOW OPENINGS

Publication

EP 0216680 B1 19900606 (FR)

Application

EP 86401883 A 19860827

Priority

- FR 8512875 A 19850829
- FR 8518757 A 19851218

Abstract (en)

[origin: EP0216680A1] 1. Device for opening and closing a shutter means (1) for a structural opening, having a spring (3) acting in compression, articulated on the one hand on the periphery of the opening and, on the other hand, on the shutter means at a point distant from the axis of pivoting (2) of the said shutter means, the said spring being arranged such that during its pivoting the shutter means passes through a neutral position, where the three joints (2, 4, 5) of the shutter means and of the spring on the periphery of the opening and of the spring on the shutter means are aligned, the spring generating forces which tend to displace the shutter means towards the closed position or towards the open position when it is outside the neutral position, characterized in that : the spring (3) consists of a cylinder (3d) closed at its two ends, containing a compressed gas and a certain quantity of oil, and in which a piston (3b), integral with a rod (3a) which leaves the enclosure through a leaktight seal, can be displaced to and fro, the points of articulation (4, 5) of the spring (3) are arranged such that the said spring is permanently inclined relative to the horizontal with the exit of the rod (3a) in the lower part, and the oil is maintained near the exit of the rod.

IPC 1-7

E05F 1/10; **E05F 3/02**

IPC 8 full level

E05F 1/10 (2006.01); **E05F 3/02** (2006.01)

CPC (source: EP)

E05F 1/1091 (2013.01); **E05F 3/02** (2013.01); **E05Y 2900/146** (2013.01)

Cited by

US5539042A; FR2638779A1; EP2006480A1; WO9005231A1

Designated contracting state (EPC)

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