Title (en)

Apparatus for actuating and locking a window sash.

Title (de)

Vorrichtung zur Betätigung und Verriegelung eines Fensterflügels.

Title (fr)

Dispositif pour l'actionnement et le verrouillage d'un vantail.

Publication

EP 0323241 A1 19890705 (EN)

Application

EP 88312376 A 19881228

Priority

- US 13997787 A 19871231
- US 21958288 A 19880714

Abstract (en)

A latch (53 min) on the window frame moves between a locked position, in which it engages a strike on the swingable seal and holds the sash in the closed position, and an unlocked position, in which it releases the strike and frees the sash for movement away from the closed position. A reversible rotary actuator (41 min) mounted on the frame, is rotated in a first direction to first move the latch (53 min) from the locked position to the unlocked position and to then move the sash away from the closed position, and it rotated in a second direction to first move the sash the closed position and then to move the latch (53 min) toward the locked position at about the same time as the sash reaches the closed position. Two nuts (104,105) move along a screw (101) rotated by the actuator (41 min). A first linkage (115-117) connected between the sash and the first nut (104) is operable to move the sash towards and away from the closed position when first nut (104) is moved in opposite direction along the screw (101). A second linkage (72 min ,77 min) connected between the latch (53 min) and the second nut (105) is operable to move the latch (53 min) toward and away from the locked position when the second nut (105) is moved in opposite direction along the screw (101). When the sash is closed and the latch (53 min) is locked, movement of the first nut (104) along the screw (101) is delayed until the screw has been rotated sufficiently far to advance the second nut (105) along the screw a predetermined distance. When the sadh is closed and the latch (53 min) is unlocked, movement of the first nut (104) along the screw (101) in the said closing direction is prevented during rotation of the screw while permitting the second nut (105) to move along the screw in the latch-locking direction.

IPC 1-7

E05F 11/12; E05F 11/34

IPC 8 full level

E05F 11/16 (2006.01); E05F 11/34 (2006.01)

CPC (source: EP)

E05F 11/16 (2013.01); E05F 11/34 (2013.01); E05Y 2900/148 (2013.01)

Citation (search report)

- [YD] US 4497135 A 19850205 VETTER GREGORY J [US]
- [Y] US 2366613 A 19450102 GOTTHARD HAGSTROM
- [A] EP 0226785 A2 19870701 SCHUERMANN & CO HEINZ [DE]
- [A] FR 692652 A 19301108

Cited by

US5440837A; USRE34230E; AU699739B2; FR2652376A1; BE1004838A3; GB2320520A; US6122863A; GB2320520B; CN111449528A; GB2287064A; GB2287064B; US5152103A; EP0450227A1; GB2245021A; US5111615A; GB2245021B

Designated contracting state (EPC)

DE GB SE

DOCDB simple family (publication)

EP 0323241 A1 19890705; CA 1319936 C 19930706; NO 885809 D0 19881229; NO 885809 L 19890703

DOCDB simple family (application)

EP 88312376 A 19881228; CA 587280 A 19881229; NO 885809 A 19881229