

Title (en)

Actuating device for a sliding window of a motor vehicle door.

Title (de)

Fahrzeugetürschiebefensterbetätigungsvorrichtung.

Title (fr)

Dispositif de manoeuvre d'une vitre coulissante d'une porte de véhicule automobile.

Publication

**EP 0255417 A1 19880203 (FR)**

Application

**EP 87401492 A 19870629**

Priority

FR 8610764 A 19860724

Abstract (en)

1. An actuating device for a window (4) slidably mounted in the structure (2) of a door of a motor vehicle, allowing three stable positions (4a, 4b, 4c) to be obtained as the window (4) is lowered or raised, these three positions being respectively a top closed position (4a), an intermediate slightly opened position (4b) for ventilation of the vehicle and a bottom, completely opened position (4c), characterized in that it comprises : - a plate (23) fixed to the door structure (2) in a substantially vertical position and traversed by an oblong opening (25) whose major axis is vertical, carrying a sprocket (27) and roller (28) mounted for rotation on the plate (23), each one by means of a pin perpendicular to the plate, - a slide (7) fixed to the lower portion of the window (4) and disposed in a horizontal direction ; - an arm (20) mounted for rotation on the plate (23) and parallel to the latter by means of a pin (26) fixed to the arm and engaged in the oblong opening (25) of the plate, the arm (20) comprising, moreover, at one of its ends an articulation pin (21, 22) engaged in the slide (7), - a cam (31) fixed to the arm (20) and comprising successively on its actuating surface outside the arm (20) a zone (33) comprising teeth arranged along a circular portion of the cam, a ramp (34) in the form of a flat, and a smooth circular zone (35) ending in a portion (36) returning towards the arm (20), forming with this arm an angle at most equal to approximately 90 degrees, the circular portions (33, 35) of the cam having the axis of rotation of the arm (20) as their axis, - a spiral spring (40) fixed at one of its ends to the pin (26) of the arm (20) and at its other end to the plate (23), ensuring the re-straining of the arm (20) in the direction of closing the window (4), - and an actuating handle (30) joined to the pin of the sprocket (27) that can be operated from the interior of the vehicle, - the engagement of the sprocket (27) with the set of teeth (33) of the cam (31) ensuring the locking of the window (4) in the closed position, and the actuating handle (30) allowing the cam (31) to be turned in contact with the roller (28) by means of the ramp (34) whose direction between the set of teeth (33) and the smooth circular zone (35) is diverging from the axis of rotation of the arm (20), so as to ensure the disengagement of the sprocket (27) in relation to the set of teeth (33) of the cam (31).

Abstract (fr)

Le dispositif comporte une platine (23) solidaire de la structure de la porte, une glissière (7) solidaire de la partie inférieure de la vitre (4), un bras (20) monté rotatif sur la platine (23), une came (31) solidaire du bras (20), un ressort spiral (40) fixé à l'une de ses extrémités au bras (20) et à son autre extrémité à la platine (23) et une poignée de manoeuvre (30). Sur la platine (23) sont montés rotatifs un pignon (27) engrénant avec une partie dentée (33) de la came (31) et un galet (28). La poignée (30) est solidaire de l'axe du pignon (27) et permet de déverrouiller la vitre depuis sa position de fermeture. Le galet (28) coopérant avec la came (31) permet de désengager le pignon (27) par rapport à la came (31). La manoeuvre de la vitre peut alors être obtenue par simple poussée ou traction sur la vitre (4).

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- [A] FR 1559771 A 19690314
- [A] FR 1105907 A 19551209 - FORD
- [A] FR 1337736 A 19630913 - WILMOT BREEDEN LTD
- [A] US 3006214 A 19611031 - HOLLAR JR ARTHUR W

Cited by

US5085004A; EP0443745A1

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