

# CPC COOPERATIVE PATENT CLASSIFICATION

## E FIXED CONSTRUCTIONS

### BUILDING

#### E05 LOCKS; KEYS; WINDOW OR DOOR FITTINGS; SAFES

(NOTE omitted)

#### E05F DEVICES FOR MOVING WINGS INTO OPEN OR CLOSED POSITION; CHECKS FOR WINGS; WING FITTINGS NOT OTHERWISE PROVIDED FOR, CONCERNED WITH THE FUNCTIONING OF THE WING

##### NOTE

In this subclass, the following terms are used with the meanings indicated:

- "closer" or "opener" includes devices for assisting wing-movement or for wing-counterbalancing.

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

|             |  |             |   |
|-------------|--|-------------|---|
| <b>1/00</b> | <b>Closers or openers for wings, not otherwise provided for in this subclass</b>   | 1/105       | . . . . {with a compression spring}   |
| 1/002       | . {controlled by automatically acting means (for powered-operated mechanisms <a href="#">E05F 15/70</a> )}   | 1/1058      | . . . . . {for counterbalancing}  |
| 1/004       | . . {by thermostats, rain, wind or noise ( <a href="#">E05F 1/006</a> takes precedence)}   | 1/1066      | . . . . . {with a traction spring}  |
| 1/006       | . . {by emergency conditions, e.g. fire (operating or controlling mechanisms for physical fire-barriers <a href="#">A62C 2/24</a> )}   | 1/1075      | . . . . . {for counterbalancing}  |
| 1/008       | . . {by time control}  | 1/1083      | . . . {with a leaf or similar spring ( <a href="#">E05F 1/1284</a> takes precedence)}   |
| 1/02        | . gravity-actuated {, e.g. by use of counterweights}   | 1/1091      | . . . {with a gas spring ( <a href="#">E05F 1/1292</a> takes precedence)}   |
| 1/025       | . . {with rectilinearly-moving counterweights}   | 1/12        | . . . Mechanisms in the shape of hinges or pivots, operated by springs  |
| 1/04        | . . for wings which lift during movement {, operated by their own weight}  | 1/1207      | . . . . {with a coil spring parallel with the pivot axis}   |
| 1/043       | . . . {with cams, helical tracks ( <a href="#">E05F 1/061</a> takes precedence)}   | 1/1215      | . . . . . {with a canted-coil torsion spring}   |
| 1/046       | . . . {with rectilinearly-inclined tracks for sliding wings}   | 1/1223      | . . . . . {with a compression or traction spring}   |
| 1/06        | . . . Mechanisms in the shape of hinges or pivots, operated by the weight of the wing  | 1/123       | . . . . . {with a torsion bar}  |
| 1/061       | . . . . {with cams or helical tracks}  | 1/1238      | . . . . . {specially adapted for vehicles}  |
| 1/063       | . . . . . {with complementary, substantially identical and slidingly cooperating cam surfaces ( <a href="#">E05F 1/066</a> takes precedence)}  | 1/1246      | . . . . {with a coil spring perpendicular to the pivot axis}  |
| 1/065       | . . . . . {Cam-and-wheel arrangements}   | 1/1253      | . . . . . {with a compression spring}   |
| 1/066       | . . . . . {Helical grooves, slots, threads or the like}  | 1/1261      | . . . . . {for counterbalancing}  |
| 1/068       | . . . . {with inclined pivot-axes}   | 1/1269      | . . . . . {with a traction spring}  |
| 1/08        | . spring-actuated {, e.g. for horizontally sliding wings (counterbalancing sliding or lifting wings <a href="#">E05D</a> ; springs per se <a href="#">F16F</a> , e.g. gas-springs <a href="#">F16F 9/00</a> )} | 1/1276      | . . . . . {for counterbalancing}  |
| 1/10        | . . for swinging wings {, e.g. counterbalance}   | 1/1284      | . . . . . {with a leaf or similar spring}   |
| 1/1008      | . . . {with a coil spring parallel with the pivot axis ( <a href="#">E05F 1/1207</a> takes precedence)}  | 1/1292      | . . . . . {with a gas spring}   |
| 1/1016      | . . . . {with a canted-coil torsion spring}  | 1/14        | . . . with double-acting springs, e.g. for closing and opening or checking and closing {no material}  |
| 1/1025      | . . . . {with a compression or traction spring}  | 1/16        | . . for sliding wings   |
| 1/1033      | . . . {with a torsion bar ( <a href="#">E05F 1/123</a> takes precedence)}  | <b>3/00</b> | <b>Closers or openers with braking devices, e.g. checks; Construction of pneumatic or liquid braking devices (construction of non-pneumatic or non-liquid braking devices <a href="#">E05F 5/00</a>; friction devices in hinges <a href="#">E05D 11/08</a>)</b> |
| 1/1041      | . . . {with a coil spring perpendicular to the pivot axis ( <a href="#">E05F 1/1246</a> takes precedence)}   | 3/02        | . with pneumatic piston brakes (rotary type <a href="#">E05F 3/14</a> )   |
|             |  | 3/04        | . with liquid piston brakes (rotary type <a href="#">E05F 3/14</a> )  |
|             |  | 3/06        | . . in which a torsion spring rotates a member around an axis perpendicular to the axis of the piston   |

|          |  |          |  |
|----------|--|----------|--|
| 3/08     | . . in which a torsion spring rotates a member around an axis arranged in the direction of the axis of the piston  | 5/04     | . . hand-operated {, e.g. removable}; operated by centrifugal action {or by high closing speed}  |
| 3/10     | . . with a spring, other than a torsion spring, and a piston, the axes of which are the same or lie in the same direction  | 2005/043 | . . . {operated by centrifugal action at high closing speed}   |
| 3/102    | . . . {with rack-and-pinion transmission between driving shaft and piston within the closer housing}   | 2005/046 | . . . {hand operated}  |
| 3/104    | . . . {with cam-and-slide transmission between driving shaft and piston within the closer housing}   | 5/06     | . Buffers {or stops limiting opening of swinging wings, e.g. floor or wall stops} (E05F 5/02 takes precedence)   |
| 3/106    | . . . {with crank-arm transmission between driving shaft and piston within the closer housing}   | 5/08     | . . with springs   |
| 3/108    | . . . {with piston rod protruding from the closer housing; Telescoping closers}  | 5/10     | . . with piston brakes   |
| 3/12     | . . Special devices controlling the circulation of the liquid, e.g. valve arrangement ({E05F 3/223 takes precedence}; valves per se F16K)  | 5/12     | . specially for preventing the closing of a wing before another wing has been closed   |
| 3/14     | . with fluid brakes of the rotary type   | 7/00     | <b>Accessories for wings not provided for in other groups of this subclass (specially adapted for furniture A47B 95/00; door-lifters B66F, E04F 21/00; knobs or handles E05B)</b>  |
| 3/16     | . with friction brakes   | 7/005    | . {Aligning devices for wings}   |
| 3/18     | . with counteracting springs (double-acting springs E05F 1/14)   | 7/02     | . for raising wings before being turned {(before sliding E05D 15/565)}   |
| 3/20     | . in hinges  | 7/04     | . Arrangements affording protection against rattling (with buffering action E05F 5/00)   |
| 3/22     | . Additional arrangements for closers, e.g. for holding the wing in opened or other position   | 7/06     | . Devices for taking the weight of the wing, arranged away from the hinge axis   |
| 3/221    | . . {Mechanical power-locks, e.g. for holding the wing open or for free-moving zones}  | 7/08     | . Means for transmitting movements between vertical and horizontal sliding bars, rods, or cables (means for transmitting movements between vertical and horizontal sliding bars, rods, or cables, for the fastening of wings E05C 9/24 ; with means for transmitting movements between vertical and horizontal sliding bars, rods or cables E05D 15/5208)) |
| 3/222    | . . . {electrically operated (E05F 3/223 takes precedence)}  |          |  |
| 3/223    | . . {Hydraulic power-locks, e.g. with electrically operated hydraulic valves}  |          |  |
| 3/224    | . . {for assisting in opening the wing}  |          |  |
| 3/225    | . . {mounted at the bottom of wings, e.g. details related to seals, covers, connections to the wings, embedding in the floor}  |          |  |
| 3/226    | . . . {with means to adjust the closed position of the wing}   |          |  |
| 3/227    | . . {mounted at the top of wings, e.g. details related to closer housings, covers, end caps or rails therefor}   |          |  |
| 2003/228 | . . {Arrangements where the end of the closer arm is sliding in a track}   |          |  |
| 5/00     | <b>Braking devices, e.g. checks; Stops; Buffers</b> (construction of pneumatic or liquid braking devices E05F 3/00; braking devices, buffers or end stops on drawers for tables, cabinets or like furniture A47B 88/473; combined with devices for holding wings open E05C 17/00; devices for limiting opening of wings or for holding wings open by a movable member extending between frame and wing E05C 17/04) |          |  |
| 5/003    | . {for sliding wings (Fasteners specially adapted for holding sliding wings open E05D 13/04)}  |          |  |
| 5/006    | . {for hinges having a cup-shaped fixing part, e.g. for attachment to cabinets or furniture}   |          |  |
| 5/02     | . specially for preventing the slamming of {swinging} wings {during final closing movement, e.g. jamb stops}   |          |  |
| 5/022    | . . {specially adapted for vehicles, e.g. for hoods or trunks}   |          |  |
| 5/025    | . . . {specially adapted for vehicle doors}  |          |  |
| 5/027    | . . {with closing action}  |          |  |
|          |  |          | <b>Operating mechanisms for wings</b>  |
|          |  | 9/00     | <b>Means for operating wings by hand rods not guided in or on the frame, including those which also operate the fastening (bolts or fastening devices for wings E05C)</b>  |
|          |  | 11/00    | <b>Man-operated mechanisms for operating wings, including those which also operate the fastening (connecting mechanisms for a plurality of wings E05F 17/00)</b>   |
|          |  | 11/02    | . for wings in general, e.g. fanlights (E05F 11/36 takes precedence; for windows to be lowered vertically E05F 11/38; for doors E05F 11/54)  |
|          |  | 11/04    | . . with cords, chains or cables   |
|          |  | 11/06    | . . . in guide-channels  |
|          |  | 11/08    | . . with longitudinally-moving bars guided, e.g. by pivoted links, in or on the frame  |
|          |  | 11/10    | . . . Mechanisms by which a handle moves the bar   |
|          |  | 11/12    | . . . Mechanisms by which the bar shifts the wing  |
|          |  | 11/14    | . . . . directly, i.e. without links, shifting the wing, e.g. by rack and gear or pin and slot   |
|          |  | 11/145   | . . . . . {by pin and slot}  |
|          |  | 11/16    | . . . . shifting the wing by pivotally-connected members {(moving) in a plane perpendicular to the pivot axis of the wing}   |
|          |  | 11/18    | . . . . . consisting of a lever, e.g. an angle lever, only {no material}   |
|          |  | 11/20    | . . . . . consisting of a lever, e.g. an angle lever, and only one additional link {no material}   |
|          |  | 11/22    | . . . . . consisting of a lever, e.g. an angle lever, and two or more additional links in series {no material}   |

- 11/24 . . . . shifting the wing by pivotally-connected members {(moving) in a plane parallel to the pivot axis of the wing}
- 11/26 . . . . . consisting of a lever, e.g. an angle lever, only {no material}
- 11/28 . . . . . consisting of a lever, e.g. an angle lever, and one or more additional links {no material}
- 11/30 . . . . . consisting of links in rhomb-form {no material}
- 11/32 . . with rotary bars guided in the frame (E05F 11/34 takes precedence)
- 11/34 . . with screw mechanisms
- 11/36 . specially designed for passing through a wall
- 11/38 . for sliding windows, e.g. vehicle windows, to be opened or closed by vertical movement

**WARNING**

Group E05F 11/38 is impacted by reclassification into groups E05F 15/6892, E05F 15/6894, E05F 15/6896, E05F 15/6899, E05F 15/6901, E05F 15/6903, E05F 15/6905, E05F 15/6907, E05F 15/6909, E05F 15/6911, E05F 15/6914, E05F 15/6916 and E05F 15/6918.

All groups listed in this Warning should be considered in order to perform a complete search.

- 11/382 . . {for vehicle windows (E05F 11/40 - E05F 11/52 take precedence)}

**WARNING**

Group E05F 11/382 is impacted by reclassification into groups E05F 15/6892, E05F 15/6894, E05F 15/6896, E05F 15/6899, E05F 15/6901, E05F 15/6903, E05F 15/6905, E05F 15/6907, E05F 15/6909, E05F 15/6911, E05F 15/6914, E05F 15/6916 and E05F 15/6918.

All groups listed in this Warning should be considered in order to perform a complete search.

- 11/385 . . . {Fixing of window glass to the carrier of the operating mechanism}

**WARNING**

Group E05F 11/385 is impacted by reclassification into groups E05F 15/6892 and E05F 15/6894.

Groups E05F 11/385, E05F 15/6892 and E05F 15/6894 should be considered in order to perform a complete search.

- 2011/387 . . . . {using arrangements in the window glass, e.g. holes}

**WARNING**

Group E05F 2011/387 is impacted by reclassification into group E05F 15/6894.

Groups E05F 2011/387 and E05F 15/6894 should be considered in order to perform a complete search.

- 11/40 . . operated by screw mechanism

**WARNING**

Group E05F 11/40 is impacted by reclassification into group E05F 15/6896.

Groups E05F 11/40 and E05F 15/6896 should be considered in order to perform a complete search.

- 11/405 . . . {for vehicle windows}

**WARNING**

Group E05F 11/405 is impacted by reclassification into group E05F 15/6896.

Groups E05F 11/405 and E05F 15/6896 should be considered in order to perform a complete search.

- 11/42 . . operated by rack bars and toothed wheels {or other push-pull mechanisms}

**WARNING**

Group E05F 11/42 is impacted by reclassification into groups E05F 15/6899 and E05F 15/6901.

Groups E05F 11/42, E05F 15/6899 and E05F 15/6901 should be considered in order to perform a complete search.

- 11/423 . . . {for vehicle windows}

**WARNING**

Group E05F 11/423 is impacted by reclassification into groups E05F 15/6899 and E05F 15/6901.

Groups E05F 11/423, E05F 15/6899 and E05F 15/6901 should be considered in order to perform a complete search.

- 11/426 . . . . {Flexible rack-and-pinion arrangements}

**WARNING**

Group E05F 11/426 is impacted by reclassification into group E05F 15/6901.

Groups E05F 11/426 and E05F 15/6901 should be considered in order to perform a complete search.

- 11/44 . . operated by one or more lifting arms

**WARNING**

Group E05F 11/44 is impacted by reclassification into groups E05F 15/6903 and E05F 15/6905.

Groups E05F 11/44, E05F 15/6903 and E05F 15/6905 should be considered in order to perform a complete search.

- 11/445 . . . {for vehicle windows}

**WARNING**

Group E05F 11/445 is impacted by reclassification into groups E05F 15/6903 and E05F 15/6905.

Groups E05F 11/445, E05F 15/6903 and E05F 15/6905 should be considered in order to perform a complete search.

- 11/46 . . . operated by lazy-tongs mechanism

**WARNING**

Group [E05F 11/46](#) is impacted by reclassification into groups [E05F 15/6903](#) and [E05F 15/6905](#).

Groups [E05F 11/46](#), [E05F 15/6903](#) and [E05F 15/6905](#) should be considered in order to perform a complete search.

- 11/465 . . . {for vehicle windows}

**WARNING**

Group [E05F 11/465](#) is impacted by reclassification into groups [E05F 15/6903](#) and [E05F 15/6905](#).

Groups [E05F 11/465](#), [E05F 15/6903](#) and [E05F 15/6905](#) should be considered in order to perform a complete search.

- 11/48 . . . operated by cords or chains {or other flexible elongated pulling elements, e.g. tapes}

**WARNING**

Group [E05F 11/48](#) is impacted by reclassification into groups [E05F 15/6907](#), [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#) and [E05F 15/6916](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 11/481 . . . {for vehicle windows}

**WARNING**

Group [E05F 11/481](#) is impacted by reclassification into groups [E05F 15/6907](#), [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#) and [E05F 15/6916](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 11/483 . . . . {by cables}

**WARNING**

Group [E05F 11/483](#) is impacted by reclassification into groups [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#) and [E05F 15/6916](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 11/485 . . . . . {with cable tensioners}

**WARNING**

Group [E05F 11/485](#) is impacted by reclassification into group [E05F 15/6911](#).

Groups [E05F 11/485](#) and [E05F 15/6911](#) should be considered in order to perform a complete search.

- 11/486 . . . . . {with one cable connection to the window glass}

**WARNING**

Group [E05F 11/486](#) is impacted by reclassification into group [E05F 15/6914](#).

Groups [E05F 11/486](#) and [E05F 15/6914](#) should be considered in order to perform a complete search.

- 11/488 . . . . . {with two cable connections to the window glass}

**WARNING**

Group [E05F 11/488](#) is impacted by reclassification into group [E05F 15/6916](#).

Groups [E05F 11/488](#) and [E05F 15/6916](#) should be considered in order to perform a complete search.

- 11/50 . . . Crank gear with clutches or retaining brakes, for operating window mechanisms

**WARNING**

Group [E05F 11/50](#) is impacted by reclassification into group [E05F 15/6918](#).

Groups [E05F 11/50](#) and [E05F 15/6918](#) should be considered in order to perform a complete search.

- 11/505 . . . {for vehicle windows}

**WARNING**

Group [E05F 11/505](#) is impacted by reclassification into group [E05F 15/6918](#).

Groups [E05F 11/505](#) and [E05F 15/6918](#) should be considered in order to perform a complete search.

- 11/52 . . . combined with means for producing an additional movement, e.g. a horizontal or a rotary movement

**WARNING**

Group [E05F 11/52](#) is impacted by reclassification into groups [E05F 15/6892](#), [E05F 15/6894](#), [E05F 15/6896](#), [E05F 15/6899](#), [E05F 15/6901](#), [E05F 15/6903](#), [E05F 15/6905](#), [E05F 15/6907](#), [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#), [E05F 15/6916](#) and [E05F 15/6918](#).

All groups listed in this Warning should be considered in order to perform a complete search.

|  |  |   |   |
|--|--|---|---|
| 11/525   | . . . {for vehicle windows}  | 15/53   | . . for swinging wings  |
| <b>WARNING</b>   |  | 15/54   | . . . operated by linear actuators acting on a helical track coaxial with the swinging axis   |
| Group <a href="#">E05F 11/525</a> is impacted by reclassification into groups <a href="#">E05F 15/6892</a> , <a href="#">E05F 15/6894</a> , <a href="#">E05F 15/6896</a> , <a href="#">E05F 15/6899</a> , <a href="#">E05F 15/6901</a> , <a href="#">E05F 15/6903</a> , <a href="#">E05F 15/6905</a> , <a href="#">E05F 15/6907</a> , <a href="#">E05F 15/6909</a> , <a href="#">E05F 15/6911</a> , <a href="#">E05F 15/6914</a> , <a href="#">E05F 15/6916</a> and <a href="#">E05F 15/6918</a> . |  | 15/56   | . . for horizontally-sliding wings  |
| All groups listed in this Warning should be considered in order to perform a complete search.  |  | 15/565  | . . . {for railway-cars}  |
| 11/53  | . for sliding windows, e.g. vehicle windows, to be opened or closed by horizontal movement   | 15/57   | . . for vertically-sliding wings  |
| 11/535   | . . {for vehicle windows}  | 15/59   | . . . for overhead wings  |
| 11/54  | . for doors  | 15/60   | . using electrical actuators  |
| <b>13/00</b>   | <b>Mechanisms operated by the movement or weight of a person or vehicle (through power-operated wing-operating mechanisms <a href="#">E05F 15/00</a>)</b>                                    | 15/603  | . . using rotary electromotors  |
| 13/02  | . by devices, e.g. lever arms, affected by the movement of the user  | 15/605  | . . . for folding wings   |
| 13/04  | . by platforms lowered by the weight of the user   | 15/608  | . . . for revolving wings   |
| <b>15/00</b>   | <b>Power-operated mechanisms for wings (motor-operated accessories in locks for completing closing or initiating opening of a wing <a href="#">E05B 17/00</a>)</b>                           | 15/611  | . . . for swinging wings  |
| 15/40  | . Safety devices, e.g. detection of obstructions or end positions  | 15/614  | . . . . operated by meshing gear wheels, one of which being mounted at the wing pivot axis; operated by a motor acting directly on the wing pivot axis                                |
| 15/41  | . . Detection by monitoring transmitted force or torque ( <a href="#">E05F 15/48</a> takes precedence); Safety couplings with activation dependent upon torque or force, e.g. slip couplings | 15/616  | . . . . operated by push-pull mechanisms  |
| 15/42  | . . Detection using safety edges   | 15/619  | . . . . . using flexible or rigid rack-and-pinion arrangements  |
| 15/43  | . . . responsive to disruption of energy beams, e.g. light or sound  | 15/622  | . . . . . using screw-and-nut mechanisms  |
| 15/431   | . . . . {specially adapted for vehicle windows or roofs}   | 15/624  | . . . . . using friction wheels   |
| 2015/432   | . . . . {with acoustical sensors}  | 15/627  | . . . . . operated by flexible elongated pulling elements, e.g. belts, chains or cables ( <a href="#">using flexible elongated push-pull mechanisms <a href="#">E05F 15/619</a></a> ) |
| 2015/433   | . . . . . {using reflection from the obstruction}  | <b>NOTE</b>   |   |
| 2015/434   | . . . . . {with cameras or optical sensors}  | In this group, it is desirable to add the indexing codes of <a href="#">E05Y 2201/644</a> . |   |
| 2015/435   | . . . . . {by interruption of the beam}  | 15/63   | . . . . . operated by swinging arms   |
| 2015/436   | . . . . . {the beam being parallel to the wing edge}   | 2015/631  | . . . . . {the end of the arm sliding in a track; Slider arms therefor}   |
| 2015/437   | . . . . . {the beam being perpendicular to the wing edge}  | 15/632  | . . . for horizontally-sliding wings  |
| 15/44  | . . . responsive to changes in electrical conductivity   | 15/635  | . . . . operated by push-pull mechanisms, e.g. flexible or rigid rack-and-pinion arrangements ( <a href="#">E05F 15/652</a> takes precedence)   |
| 15/443   | . . . . {specially adapted for vehicle windows or roofs}   | 15/638  | . . . . . allowing or involving a secondary movement of the wing, e.g. rotational or transversal  |
| 2015/447   | . . . . {using switches in serial arrangement}   | 15/641  | . . . . . operated by friction wheels   |
| 15/46  | . . . responsive to changes in electrical capacitance  | 15/643  | . . . . . operated by flexible elongated pulling elements, e.g. belts, chains or cables ( <a href="#">by flexible elongated push-pull mechanisms <a href="#">E05F 15/635</a></a> )    |
| 15/47  | . . . responsive to changes in fluid pressure  | 15/646  | . . . . . allowing or involving a secondary movement of the wing, e.g. rotational or transversal  |
| 15/48  | . . . by transmission of mechanical forces, e.g. rigid or movable members  | 15/649  | . . . . . operated by swinging arms   |
| 2015/483   | . . . {for detection during opening}   | 15/652  | . . . . . operated by screw-and-nut mechanisms  |
| 2015/487   | . . . {Fault detection of safety edges}  | 15/655  | . . . . . specially adapted for vehicle wings   |
| 15/49  | . . specially adapted for mechanisms operated by fluid pressure, e.g. detection by monitoring transmitted fluid pressure ( <a href="#">E05F 15/47</a> takes precedence)                      | 15/657  | . . . . . enabling manual drive, e.g. in case of power failure  |
| 15/50  | . using fluid-pressure actuators   | 15/659  | . . . . . Control circuits therefor   |
| 15/51  | . . for folding wings  | 15/662  | . . . . . Motor units therefor, e.g. geared motors  |
|  |  | 15/665  | . . . for vertically-sliding wings  |
|  |  | 15/668  | . . . . for overhead wings  |
|  |  | 15/67   | . . . . . operated by flexible or rigid rack-and-pinion arrangements  |
|  |  | 15/673  | . . . . . operated by screw-and-nut mechanisms  |
|  |  | 15/676  | . . . . . operated by friction wheels   |
|  |  | 15/678  | . . . . . operated by swinging lever arms   |



- 15/681 . . . . . operated by flexible elongated pulling elements, e.g. belts
- 15/684 . . . . . by chains
- 15/686 . . . . . by cables or ropes
- 15/689 . . . . . specially adapted for vehicle windows

**WARNING**

Group [E05F 15/689](#) is impacted by reclassification into groups [E05F 15/6892](#), [E05F 15/6894](#), [E05F 15/6896](#), [E05F 15/6899](#), [E05F 15/6901](#), [E05F 15/6903](#), [E05F 15/6905](#), [E05F 15/6907](#), [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#), [E05F 15/6916](#) and [E05F 15/6918](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 15/6892 . . . . . {Fixing of window glass to the carrier of the operating mechanism}

**WARNING**

Group [E05F 15/6892](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/385](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 15/6894 . . . . . {using arrangements in the window glass, e.g. holes}

**WARNING**

Group [E05F 15/6894](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/385](#), [E05F 2011/387](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 15/6896 . . . . . {operated by screw mechanism}

**WARNING**

Group [E05F 15/6896](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/40](#), [E05F 11/405](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 15/6899 . . . . . {operated by rack bars and toothed wheels or other push-pull mechanisms}

**WARNING**

Group [E05F 15/6899](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/42](#), [E05F 11/423](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 15/6901 . . . . . {Flexible rack-and-pinion arrangements}

**WARNING**

Group [E05F 15/6901](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/42](#), [E05F 11/423](#), [E05F 11/426](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 15/6903 . . . . . {operated by one or more lifting arms}

**WARNING**

Groups [E05F 15/6903](#) and [E05F 15/6905](#) are incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/44](#), [E05F 11/445](#), [E05F 11/46](#), [E05F 11/465](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 15/6905 . . . . . {operated by lazy-tongs mechanism}

- 15/6907 . . . . . {operated by cords or chains or other flexible elongated pulling elements, e.g. tapes}

**WARNING**

Group [E05F 15/6907](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/48](#), [E05F 11/481](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/6909 . . . . . {by cables}

**WARNING**

Group [E05F 15/6909](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/48](#), [E05F 11/481](#), [E05F 11/483](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/6911 . . . . . {with cable tensioners}

**WARNING**

Group [E05F 15/6911](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/48](#), [E05F 11/481](#), [E05F 11/483](#), [E05F 11/485](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/6914 . . . . . {with one cable connection to the window glass}

**WARNING**

Group [E05F 15/6914](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/48](#), [E05F 11/481](#), [E05F 11/483](#), [E05F 11/486](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/6916 . . . . . {with two cable connections to the window glass}

**WARNING**

Group [E05F 15/6916](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/48](#), [E05F 11/481](#), [E05F 11/483](#), [E05F 11/488](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/6918 . . . . . {Crank gear with clutches or retaining brakes, for operating window mechanisms}

**WARNING**

Group [E05F 15/6918](#) is incomplete pending reclassification of documents from groups [E05F 11/38](#), [E05F 11/382](#), [E05F 11/50](#), [E05F 11/505](#), [E05F 11/52](#), [E05F 11/525](#), [E05F 15/689](#), [E05F 15/692](#), [E05F 15/695](#) and [E05F 15/697](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/692 . . . . . enabling manual drive, e.g. in case of power failure

**WARNING**

Group [E05F 15/692](#) is impacted by reclassification into groups [E05F 15/6892](#), [E05F 15/6894](#), [E05F 15/6896](#), [E05F 15/6899](#), [E05F 15/6901](#), [E05F 15/6903](#), [E05F 15/6905](#), [E05F 15/6907](#), [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#), [E05F 15/6916](#) and [E05F 15/6918](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/695 . . . . . Control circuits therefor

**WARNING**

Group [E05F 15/695](#) is impacted by reclassification into groups [E05F 15/6892](#), [E05F 15/6894](#), [E05F 15/6896](#), [E05F 15/6899](#), [E05F 15/6901](#), [E05F 15/6903](#), [E05F 15/6905](#), [E05F 15/6907](#), [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#), [E05F 15/6916](#) and [E05F 15/6918](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/697 . . . . . Motor units therefor, e.g. geared motors

**WARNING**

Group [E05F 15/697](#) is impacted by reclassification into groups [E05F 15/6892](#), [E05F 15/6894](#), [E05F 15/6896](#), [E05F 15/6899](#), [E05F 15/6901](#), [E05F 15/6903](#), [E05F 15/6905](#), [E05F 15/6907](#), [E05F 15/6909](#), [E05F 15/6911](#), [E05F 15/6914](#), [E05F 15/6916](#) and [E05F 15/6918](#).

All groups listed in this Warning should be considered in order to perform a complete search.

15/70 . . . with automatic actuation

- 15/71 . . responsive to temperature changes, rain, wind or noise
- 15/72 . . responsive to emergency conditions, e.g. fire
- 15/73 . . responsive to movement or presence of persons or objects
- 15/74 . . . using photoelectric cells
- 15/75 . . . responsive to the weight or other physical contact of a person or object
- 15/76 . . . responsive to devices carried by persons or objects, e.g. magnets or reflectors ([E05F 15/77 takes precedence](#))
- 2015/763 . . . {using acoustical sensors}
- 2015/765 . . . {using optical sensors}
- 2015/767 . . . {using cameras}
- 15/77 . . using wireless control
- 15/78 . . . using light beams
- 15/79 . . using time control
- 17/00 Special devices for shifting a plurality of wings operated simultaneously** ([for simultaneously moving a plurality of interconnected ventilating lamellae E06B 7/086](#))
- 17/001 . {of prison cell doors}
- 17/002 . {for wings which lie one behind the other when closed}
- 17/004 . {for wings which abut when closed}
- 2017/005 . {for sliding wings}
- 2017/007 . . {with means for interlocking the wings}
- 2017/008 . {for swinging wings}