SECTION E — FIXED CONSTRUCTIONS

E05 LOCKS; KEYS; WINDOW OR DOOR FITTINGS; SAFES

Note(s)

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

- "wing" is a general term for swingable, slidable, or otherwise movable doors or windows. This term also includes other movable structures such as drawers, lids of chests, car boots, or car bonnets, to which the operating, mounting, latching, or locking means covered by this class may be applied;
- "frame" means any member to which a wing may be held by a fastening device. It does not include a framework forming part of the wing, but it may be another wing;
- "lock" means primarily a device for releasing or securing any member, which requires a key or a permutation mechanism for release. In groups E05B 1/00-E05B 9/00, E05B 13/00-E05B 17/00, E05B 39/00-E05B 47/00, E05B 51/00, E05B 53/00, E05B 63/00 and E05B 65/00 however, the term "lock" may include other fastening devices;
- "bolt" means a sliding, pivoted, or otherwise movable member such as is normally carried by a door to hold it shut by engagement with a keeper on the frame. It may be operated by hand directly or through mechanism or by a key; it may be a latch (see below);
- "latch" means a bolt arranged to be moved to the releasing position against the force of a spring, or some other returning force, when a wing meets the frame on closing, so that it does not have to be operated by hand to secure the wing, but only to open it;
- "hasp" means a member hinged to the frame or wing so that it can be moved towards the face of the wing or frame and secured thereto, e.g. by a turn-button, by a padlock and staple.

E05B LOCKS; ACCESSORIES THEREFOR; HANDCUFFS

Note(s) [2014.01]

1. Operating or controlling of locks for vehicle wings are classified in groups E05B 77/00-E05B 81/00.
2. Knobs, handles or press buttons for locks of vehicle wings are classified in groups E05B 79/00-E05B 85/00.

Subclass index

Details or accessories of locks or the like; Keys

1/00 Knobs or handles for wings; Knobs, handles, or press buttons for locks or latches on wings (E05B 5/00, E05B 7/00 take precedence) **[1, 2006.01]**

1/02 • of solid material **[1, 2006.01]**

1/04 • with inner rigid member and outer cover or covers **[1, 2006.01]**

1/06 • of sheet material **[1, 2006.01]**

3/00 Fastening handles to lock or latch parts [1, 2006.01]

3/02 • Fastening handles to the spindle by pinning or riveting **[1, 2006.01]**

3/04 • Fastening the handle shank to the spindle by screws, springs, or snap bolts **[1, 2006.01]**

3/06 • by means arranged in or on the rose **[1, 2006.01]**

3/08 • Fastening the spindle to the follower **[1, 2006.01]**
3/10 • by a bipartite or cleft spindle in the follower or in the handle shank **[1, 2006.01]**

5/00 Handles completely let into the surface of the wing [1, 2006.01]
5/02 • able to be turned outwards before operation **[1, 2006.01]**
5/04 • able to be shifted parallel to the wing after being pulled out **[1, 2006.01]**

7/00 Handles pivoted about an axis parallel to the wing (E05B 5/00 takes precedence) **[1, 2006.01]**

9/00 Lock casings or latch-mechanism casings (padlock casings E05B 67/02; for vehicles E05B 79/04, E05B 85/02) **[1, 2006.01]**
9/02 • of latch-bolt locks **[1, 2006.01]**
9/04 • of cylinder locks **[1, 2006.01]**
9/06 • Fastening together the parts of casings **[1, 2006.01]**
9/08 • Fastening the casings of latch-bolt locks or cylinder locks to the wing **[1, 2006.01]**
9/10 • Coupling devices for the two halves of double cylinder locks **[1, 2006.01]**

11/00 Devices preventing keys from being removed from the lock [1, 2006.01]
11/02 • before the wing is locked **[1, 2006.01]**
11/04 • before the wing is closed **[1, 2006.01]**
11/06 • for catching skeleton or incorrect keys **[1, 2006.01]**

13/00 Devices preventing the key or the handle or both from being used [1, 2006.01]
13/02 • shaped as sectors of escutcheons, arranged in the keyhole **[1, 2006.01]**
13/04 • shaped as fork-like implements grasping and fixing the key **[1, 2006.01]**
13/06 • shaped as bolt detents arranged in the path of motion of the key bit **[1, 2006.01]**
13/08 • formed by longitudinal bolt or cross-bar connecting the handle with a stationary lock part or fitting **[1, 2006.01]**
13/10 • formed by a lock arranged in the handle **[1, 2006.01]**

15/00 Other details of locks; Parts for engagement by bolts of fastening devices [1, 2006.01]
15/02 • Striking-plates; Keepers; Bolt staples; Escutcheons **[1, 2006.01]**
15/04 • Spring arrangements in locks **[1, 2006.01]**
15/06 • Lock wards **[1, 2006.01]**
15/08 • Key guides; Key pins **[1, 2006.01]**
15/10 • Bolts of locks or night latches **[1, 2006.01]**
15/12 • Pins or detents for locking bolts **[1, 2006.01]**
15/14 • Tumblers **[1, 2006.01]**
15/16 • Use of special materials for parts of locks **[1, 2006.01]**

17/00 Accessories in connection with locks (locks with indicating or timing devices E05B 39/00-E05B 45/00) **[1, 4, 2006.01]**
17/02 • Coupling devices for double doors, i.e. two doors one behind the other and hinged on the same side **[1, 2006.01]**
17/04 • Devices for coupling the turning cylinder of a single or double cylinder lock with the bolt-operating member **[1, 2006.01]**
17/06 • Templates for marking the position of apertures in fittings of wings **[1, 2006.01]**
17/08 • Lubricating devices **[1, 2006.01]**
17/10 • Illuminating devices on, or for, locks or keys **[1, 2006.01]**
17/12 • Devices for removing keys stuck in the lock **[1, 2006.01]**
17/14 • Closures or guards for keyholes **[1, 2006.01]**
17/16 • • shaped as pins or key bits **[1, 2006.01]**
17/18 • • shaped as lids or slides **[1, 2006.01]**
17/20 • Means independent of the locking mechanism for preventing unauthorised opening, e.g. for securing the bolt in the fastening position (pins or detents E05B 15/12) **[4, 2006.01]**
17/22 • Means for operating or controlling lock or fastening device accessories, i.e. other than the fastening members, e.g. switches, indicators **[4, 2006.01]**

19/00 Keys; Accessories therefor (making keys, see the relevant places, e.g. B21D 53/42; milling grooves in keys B23C 3/35) **[1, 2006.01]**
19/02 • Construction of the shank of the key **[1, 2006.01]**
19/04 • Construction of the bow of the key; Construction of flat keys **[1, 2006.01]**
19/06 • Key bits; Flat key bits **[1, 2006.01]**
19/08 • • Special forms of key bits, e.g. double key bits, folding key bits **[1, 2006.01]**
19/10 • Fastening the key bit and bow on the shank of the key **[1, 2006.01]**
19/12 • Keys with several bits moving relatively to each other when in use **[1, 2006.01]**
19/14 • Double keys **[1, 2006.01]**
19/16 • Extremely thin keys acting without rotation **[1, 2006.01]**
19/18 • Keys adjustable before use **[1, 2006.01]**
19/20 • Skeleton keys; Devices for picking locks; Other devices for similar purposes **[1, 2006.01]**
19/22 • Keys with devices for indicating whether the last operation was locking or unlocking **[1, 2006.01]**
19/24 • Key-distinguishing marks **[1, 2006.01]**
19/26 • Use of special materials for keys **[1, 2006.01]**

Locks with rotary keys moving lamelliform tumblers perpendicular to the key

21/00 Locks with rotary keys moving lamelliform tumblers perpendicular to the key, in which the tumblers do not follow the movement of the bolt [1, 2006.01]
21/02 • with identical tumblers **[1, 2006.01]**
21/04 • with stop pins on the tumbler (E05B 21/02 takes precedence) **[1, 2006.01]**
21/06 • Cylinder locks, e.g. protector locks **[1, 2006.01]**

23/00 Locks with rotary keys moving lamelliform tumblers perpendicular to the key, in which the tumblers follow the movement of the bolt [1, 2006.01]

25/00 Locks with rotary keys moving lamelliform tumblers perpendicular to the key, characterised by the tumblers [1, 2006.01]
25/02 • with tumblers in the cut-out of which the key bit is moved **[1, 2006.01]**
25/04 • with tumblers in which the stop pin is guided from one locked position to the other in an inclined direction **[1, 2006.01]**
25/06 • with tumblers in which the stop pin is guided from one locked position to the other along a curved path **[1, 2006.01]**

25/08 • with tumblers with movable pawls engaging the key **[1, 2006.01]**
25/10 • with tumblers formed to engage one another to determine their unlocked position **[1, 2006.01]**

Locks of which the tumblers are set by pushing the key in

27/00 Cylinder locks with tumbler pins or balls that are set by pushing the key in [1, 2006.01]
27/02 • operated by the edge of the key **[1, 2006.01]**
27/04 • • arranged radially in one row **[1, 2006.01]**
27/06 • • arranged radially in more than one row **[1, 2006.01]**
27/08 • • arranged axially **[1, 2006.01]**
27/10 • operated by other surfaces of the key, e.g. openings receiving projections on the tumblers **[1, 2006.01]**

29/00 Cylinder locks with plate tumblers that are set by pushing the key in [1, 2006.01]
29/02 • operated by the edge of the key **[1, 2006.01]**
29/04 • • arranged singly **[1, 2006.01]**
29/06 • • arranged in pairs **[1, 2006.01]**
29/08 • operated by other surfaces of the key **[1, 2006.01]**
29/10 • • operated by a curved groove or slot **[1, 2006.01]**
29/12 • • operated by a curved rib **[1, 2006.01]**
29/14 • with both axially and radially arranged plate tumblers **[1, 2006.01]**

31/00 Cylinder locks with both tumbler pins or balls and plate tumblers that are set by pushing the key in [1, 2006.01]

33/00 Cylinder locks with tumblers that are set by pushing the key in, in which the bolt is moved by means other than the key [1, 2006.01]

35/00 Locks for use with special keys or a plurality of keys [1, 2006.01]
35/02 • which can be shifted laterally **[1, 2006.01]**
35/04 • for pull keys **[1, 2006.01]**
35/06 • for screw keys **[1, 2006.01]**
35/08 • operable by a plurality of keys **[1, 2006.01]**
35/10 • • with master and pass keys **[1, 2006.01]**
35/12 • • requiring the use of two keys, e.g. safe-deposit locks **[1, 2006.01]**
35/14 • with keys of which different parts operate separate mechanisms **[1, 2006.01]**

37/00 Permutation locks (electric permutation locks E05B 49/00)**; Puzzle locks [1, 2006.01]**
37/02 • with tumbler discs or rings arranged on a single axis, each disc being adjustable independently of the others **[1, 2006.01]**
37/04 • with tumbler discs on a single axis, all the discs being adjustable by rotating a shiftable knob **[1, 2006.01]**
37/06 • • in padlocks **[1, 2006.01]**
37/08 • with tumbler discs on a single axis, all the discs being adjustable by a rotary knob which is not shifted **[1, 2006.01]**
37/10 • • in padlocks **[1, 2006.01]**
37/12 • with tumbler discs on several axes **[1, 2006.01]**
37/14 • • in padlocks **[1, 2006.01]**
37/16 • with two or more push or pull knobs, slides, or the like **[1, 2006.01]**
37/18 • • in padlocks **[1, 2006.01]**
37/20 • Puzzle locks **[1, 2006.01]**
37/22 • • in padlocks **[1, 2006.01]**

Locks with indicating or timing devices

39/00 Locks giving indication of unauthorised unlocking [1, 2006.01]
39/02 • with destructible seal closures or paper closures **[1, 4, 2006.01]**
39/04 • with counting or registering devices **[1, 2006.01]**

41/00 Locks with visible indication as to whether the lock is locked or unlocked [1, 2006.01]

43/00 Time locks [1, 2006.01]

45/00 Alarm locks [1, 2006.01]
45/02 • with mechanically-operated bells **[1, 2006.01]**
45/04 • with detonating alarm devices **[1, 2006.01]**
45/06 • Electric alarm locks **[1, 2006.01]**
45/08 • • with contact making inside the lock or in the striking plate **[1, 2006.01]**
45/10 • • • by introducing the key **[1, 2006.01]**
45/12 • • • by movement of the bolt **[1, 2006.01]**
45/14 • • with contact making outside the lock **[1, 2006.01]**

Operation or control of locks by non-mechanical means, e.g. from a distance

47/00 Operating or controlling locks or other fastening devices by electric or magnetic means (electric permutation locks E05B 49/00) **[1, 2, 2006.01]**
47/02 • Adaptation of locks, latches, or parts thereof, for movement of the bolt by electromagnetic means **[1, 2006.01]**
47/04 • • for unlocking only **[1, 2006.01]**
47/06 • Controlling mechanically-operated bolts by electromagnetically-operated detents **[1, 2006.01]**
47/08 • • the bolt being withdrawn by a spring which is stressed by closing the wing **[1, 2006.01]**

49/00 Electric permutation locks; Circuits therefor [1, 2006.01]
49/02 • with electrical arrangements inside the lock **[1, 2006.01]**
49/04 • with electrical arrangements outside the lock **[1, 2006.01]**

51/00 Operating or controlling locks or other fastening devices by other non-mechanical means [1, 2006.01]
51/02 • by pneumatic or hydraulic means **[1, 2006.01]**

53/00 Operation or control of locks by mechanical transmissions, e.g. from a distance [1, 2006.01]

Locks with provision for latching

55/00 Locks in which a sliding latch is used also as a locking bolt [1, 2006.01]
55/02 • the bolt being secured by the tumbler **[1, 2006.01]**
55/04 • the bolt being secured by the cross-bar or the turnbuckle and the handle being locked **[1, 2006.01]**
55/06 • the handle being disconnected **[1, 2006.01]**

55/08 • • the bolt being secured by transverse bolts **[1, 2006.01]**
55/10 • • without securing the bolt **[1, 2006.01]**
55/12 • the bolt being secured by the operation of a hidden parallel member **[1, 2006.01]**
55/14 • the bolt being secured by the operation of a wing handle, or by means in the wing handle or knob **[1, 2006.01]**
55/16 • • merely by normal use of the handle on one side of the wing **[1, 2006.01]**

57/00 Locks in which a pivoted latch is used also as locking means [1, 2006.01]

59/00 Locks with latches separate from the lock-bolts, or with a plurality of latches or lock-bolts [1, 2006.01]
59/02 • with arrangements for securing the latch while shooting the lock-bolt **[1, 2006.01]**
59/04 • Locks in which the latch is moved by a lock-bolt, or the lock-bolt by a latch, or one latch by another, or the like **[1, 2006.01]**
59/06 • with a lock-bolt slidable in the latch **[1, 2006.01]**

61/00 Other locks with provision for latching [1, 2006.01]

Locks with special structural characteristics or for special use

63/00 Locks with special structural characteristics [1, 2006.01]
63/02 • without springs **[1, 2006.01]**
63/04 • for alternative use on the right-hand or left-hand side of wings **[1, 2006.01]**
63/06 • with lengthwise-adjustable bolts **[1, 2006.01]**
63/08 • Mortise locks **[1, 2006.01]**
63/10 • • requiring only two cylindrical holes in the wing **[1, 2006.01]**
63/12 • with means carried by the bolt for interlocking with the keeper **[1, 2006.01]**
63/14 • Arrangement of several locks or locks with several bolts, e.g. arranged one behind the other (with provision for latching E05B 59/00, E05B 61/00) **[1, 4, 2006.01]**
63/16 • with the handles on opposite sides moving independently **[1, 2006.01]**
63/18 • with arrangements independent of the locking mechanism for retaining the bolt in the retracted position **[1, 2006.01]**
63/20 • • released automatically when the wing is closed **[1, 2006.01]**
63/22 • operated by a pulling or pushing action perpendicular to the front plate (E05B 35/04 takes precedence) **[1, 2006.01]**
63/24 • Arrangements in which the fastening members which engage one another are mounted respectively on the wing and the frame and are both movable, e.g. for release by moving either of them (hasp locks E05B 65/48) **[4, 2006.01]**

65/00 Locks for special use [1, 2006.01]
65/02 • for thin, hollow, or thin-metal wings **[1, 2006.01]**
65/04 • for wings, one behind the other, hinged on the same side **[1, 4, 2006.01]**
65/06 • for swing doors **[1, 2006.01]**
65/08 • for sliding wings **[1, 2006.01]**
65/10 • for panic or emergency doors **[1, 2006.01]**
65/44 • for furniture (for drawers E05B 65/46) **[1, 2006.01]**
65/46 • for drawers **[1, 4, 2006.01, 2017.01]**
65/462 • • for two or more drawers **[2017.01]**
65/463 • • • Drawer interlock or anti-tilt mechanisms, i.e. when one drawer is open, at least one of the remaining drawers is locked **[2017.01]**
65/464 • • • • comprising two or more lock elements aligned in end-to-end abutting relation **[2017.01]**
65/465 • • • • with rotary locking bars **[2017.01]**
65/466 • • • • with tensionable or flexible elements, e.g. cables, bands, chains or ropes **[2017.01]**
65/467 • • • Locking bars secured in front of the drawers **[2017.01]**
65/468 • • • using rotary locking bars (E05B 65/465, E05B 65/467 take precedence) **[2017.01]**
65/48 • Hasp locks (hasp fastenings other than locks E05C 19/08) **[1, 2006.01]**
65/50 • • for briefcases **[1, 2006.01]**
65/52 • Other locks for chests, boxes, trunks, baskets, travelling bags, or the like **[1, 2006.01]**

67/00 Padlocks (permutation locks E05B 37/00)**; Details thereof [1, 2006.01]**
67/02 • Cases **[1, 2006.01]**
67/04 • • Armoured cases **[1, 2006.01]**
67/06 • Shackles; Arrangement of the shackle **[1, 2006.01]**
67/08 • • Padlocks with shackles hinged on the case **[1, 2006.01]**
67/10 • • • with devices for securing the free end of the shackle **[1, 2006.01]**
67/12 • • • • with built-in cylinder locks **[1, 2006.01]**
67/14 • • • with devices for securing the hinged end of the shackle **[1, 2006.01]**
67/16 • • • • with built-in cylinder locks **[1, 2006.01]**
67/18 • • • with devices for securing both ends of the shackle **[1, 2006.01]**
67/20 • • • • with built-in cylinder locks **[1, 2006.01]**
67/22 • • Padlocks with sliding shackles, with or without rotary or pivotal movement **[1, 2006.01]**
67/24 • • • with built-in cylinder locks **[1, 2006.01]**
67/26 • • • with screw action, with or without the shackle being moved by turning the key **[1, 2006.01]**
67/28 • • Padlocks with shackles forming a circle **[1, 2006.01]**
67/30 • • • with built-in cylinder locks **[1, 2006.01]**
67/32 • • Padlocks with pincer-like shackles **[1, 2006.01]**
67/34 • • • with built-in cylinder locks **[1, 2006.01]**
67/36 • Padlocks with closing means other than shackles **[1, 2006.01]**
67/38 • Auxiliary or protective devices **[1, 2006.01]**

Locking devices for clothing, sticks, umbrellas, or cycles

69/00 Devices for locking clothing; Lockable clothing holders or hangers [1, 2006.01]
69/02 • Lockable clothing hooks (coin-controlled locking hooks G07F 17/10) **[1, 2006.01]**

71/00 Locks specially adapted for bicycles, other than padlocks (locks integral with cycles B62H 5/00) **[1, 2006.01]**
71/02 • with permutation locking devices **[1, 2006.01]**

73/00 Devices for locking portable objects against unauthorised removal; Locking devices not provided for in other groups of this subclass [1, 2006.01]
73/02 • for walking-sticks or umbrellas **[1, 2006.01]**

75/00 Handcuffs [1, 2006.01]

Locks for vehicles other than bicycles [2014.01]

77/00 Vehicle locks characterised by special functions or purposes (locks specially adapted for bicycles E05B 71/00; locking arrangements for non-fixed vehicle roofs B60J 7/185) **[2014.01]**

77/02 • for accident situations **[2014.01]**

77/04 • • Preventing unwanted lock actuation, e.g. unlatching, at the moment of collision **[2014.01]**

77/06 • • • by means of inertial forces **[2014.01]**

77/08 • • Arrangements for protection of pedestrians **[2014.01]**

77/10 • • Allowing opening in case of deformed bodywork, e.g. by preventing deformation of lock parts **[2014.01]**

77/12 • • Automatic locking or unlocking at the moment of collision **[2014.01]**

77/14 • Specially controlled locking actions in case of open doors or in case of doors moved from an open to a closed position, e.g. lock-out prevention or self-cancelling **[2014.01]**

77/16 • • Preventing locking with the bolt in the unlatched position, i.e. when the door is open **[2014.01]**

77/18 • • Keyless locking with self-cancellation, e.g. resulting in an unlocking action when the door is being closed **[2014.01]**

77/20 • • • Override of self-cancellation, e.g. by actuation of the handle while the door is being closed **[2014.01]**

77/22 • Functions related to actuation of locks from the passenger compartment of the vehicle **[2014.01]**

77/24 • • preventing use of an inner door handle, sill button, lock knob or the like **[2014.01]**

77/26 • • • specially adapted for child safety **[2014.01]**

77/28 • • • for anti-theft purposes, e.g. double-locking or super-locking **[2014.01]**

77/30 • • allowing opening by means of an inner door handle, even if the door is locked **[2014.01]**

77/32 • allowing simultaneous actuation of locking or unlocking elements and a handle, e.g. preventing interference between an unlocking and an unlatching action **[2014.01]**

77/34 • Protection against weather or dirt, e.g. against water ingress (closures or guards for keyholes E05B 17/14) **[2014.01]**

77/36 • Noise prevention; Anti-rattling means **[2014.01]**

77/38 • • Cushion elements, elastic guiding elements or holding elements, e.g. for cushioning or damping the impact of the bolt against the striker during closing of the wing **[2014.01]**

77/40 • • Lock elements covered by silencing layers, e.g. coatings **[2014.01]**

77/42 • Means for damping the movement of lock parts, e.g. slowing down the return movement of a handle (E05B 77/38 takes precedence) **[2014.01]**

77/44 • Burglar prevention, e.g. protecting against opening by unauthorised tools (E05B 77/28 takes precedence) **[2014.01]**

77/46 • Locking several wings simultaneously **[2014.01]**

77/48 • • by electrical means **[2014.01]**

77/50 • • by pneumatic or hydraulic means **[2014.01]**

77/52 • Locking one wing by shutting another **[2014.01]**

77/54 • Automatic securing or unlocking of bolts triggered by certain vehicle parameters, e.g. exceeding a speed threshold (triggered by vehicle collision E05B 77/12) **[2014.01]**

79/00 Mounting or connecting vehicle locks or parts thereof [2014.01]

79/02 • Mounting of vehicle locks or parts thereof **[2014.01]**

79/04 • • Mounting of lock casings to the vehicle, e.g. to the wing **[2014.01]**

79/06 • • Mounting of handles, e.g. to the wing or to the lock **[2014.01]**

79/08 • • Mounting of individual lock elements in the lock, e.g. levers **[2014.01]**

79/10 • Connections between movable lock parts **[2014.01]**

79/12 • • using connecting rods **[2014.01]**

79/14 • • • the rods being linked to each other **[2014.01]**

79/16 • • • characterised by means for linking the rods to other lock parts, e.g. to levers **[2014.01]**

79/18 • • • Rod guides **[2014.01]**

79/20 • • using flexible connections, e.g. Bowden cables **[2014.01]**

79/22 • • Operative connections between handles, sill buttons or lock knobs and the lock unit (mounting of non-movable base elements of a handle to a lock E05B 79/06) **[2014.01]**

81/00 Power-actuated vehicle locks [2014.01]

81/02 • characterised by the type of actuators used **[2014.01]**

81/04 • • Electrical (electrical circuits E05B 81/54) **[2014.01]**

81/06 • • • using rotary motors **[2014.01]**

81/08 • • • using electromagnets or solenoids **[2014.01]**

81/10 • • Hydraulic or pneumatic (hydraulic or pneumatic circuits E05B 81/52) **[2014.01]**

81/12 • characterised by the function or purpose of the powered actuators **[2014.01]**

81/14 • • operating on bolt detents, e.g. for unlatching the bolt **[2014.01]**

81/16 • • operating on locking elements for locking or unlocking action **[2014.01]**

81/18 • • to effect movement of bolts (E05B 81/20 takes precedence) **[2014.01]**

81/20 • • for assisting final closing or for initiating opening **[2014.01]**

81/22 • • • by movement of the striker **[2014.01]**

81/24 • characterised by constructional features of the actuator or the power transmission **[2014.01]**

81/26 • • Output elements **[2014.01]**

81/28 • • • Linearly reciprocating elements **[2014.01]**

81/30 • • • Rotary elements **[2014.01]**

81/32 • • Details of the actuator transmission **[2014.01]**

81/34 • • • of geared transmissions **[2014.01]**

81/36 • • • • Geared sectors, e.g. fan-shaped gears **[2014.01]**

81/38 • • • • Planetary gears **[2014.01]**

81/40 • • • Nuts or nut-like elements moving along a driven threaded axle **[2014.01]**

81/42 • • • Cams **[2014.01]**

81/44 • • • • in the form of grooves **[2014.01]**

81/46 • • • Clutches **[2014.01]**

81/48 • • Actuators being driven in a single direction **[2014.01]**

81/50 • • Powered actuators with automatic return to the neutral position by non-powered means, e.g. by springs **[2014.01]**

81/52 • Pneumatic or hydraulic circuits (for locking several wings simultaneously E05B 77/50) **[2014.01]**
81/54 • Electrical circuits (for locking several wings simultaneously E05B 77/48) **[2014.01]**
81/56 • • Control of actuators **[2014.01]**
81/58 • • • involving time control, e.g. for controlling run-time of electric motors **[2014.01]**
81/60 • • • using pulse control, e.g. pulse-width modulation **[2014.01]**
81/62 • • • for opening or closing of a circuit depending on electrical parameters, e.g. increase of motor current **[2014.01]**
81/64 • • Monitoring or sensing, e.g. by using switches or sensors **[2014.01]**
81/66 • • • the bolt position, i.e. the latching status **[2014.01]**
81/68 • • • • by sensing the position of the detent **[2014.01]**
81/70 • • • the wing position **[2014.01]**
81/72 • • • the lock status, i.e. locked or unlocked condition **[2014.01]**
81/74 • • • • by sensing the state of the actuator **[2014.01]**
81/76 • • • Detection of handle operation; Detection of a user approaching a handle; Electrical switching actions performed by handles **[2014.01]**
81/78 • • • • as part of a hands-free locking or unlocking operation **[2014.01]**
81/80 • • characterised by the power supply; Emergency power operation **[2014.01]**
81/82 • • • using batteries other than the vehicle main battery **[2014.01]**
81/84 • • • using manually operated generator means **[2014.01]**
81/86 • • • using capacitors **[2014.01]**
81/88 • • • using inductive energy transmission **[2014.01]**
81/90 • Manual override in case of power failure **[2014.01]**

83/00 Vehicle locks specially adapted for particular types of wing or vehicle (locks specially adapted for bicycles E05B 71/00; locking arrangements for non-fixed vehicle roofs B60J 7/185; latching means for sideboards or tailgates of open load compartments B62D 33/037) **[2014.01]**

83/02 • Locks for railway freight-cars, freight containers or the like; Locks for the cargo compartments of commercial lorries, trucks or vans **[2014.01]**
83/04 • • for sliding wings **[2014.01]**
83/06 • • • of railway freight-cars **[2014.01]**
83/08 • • with elongated bars for actuating the fastening means **[2014.01]**
83/10 • • • Rotary bars **[2014.01]**
83/12 • • for back doors of vans (E05B 83/04, E05B 83/08 take precedence) **[2014.01]**
83/14 • • with provisions for sealing **[2014.01]**
83/16 • Locks for luggage compartments, car boot lids or car bonnets **[2014.01]**
83/18 • • for car boot lids or rear luggage compartments **[2014.01]**
83/20 • • • with two or more wings, which together close a single compartment **[2014.01]**
83/22 • • for luggage compartments at the side of the vehicle, e.g. of buses or camper vans **[2014.01]**
83/24 • • for car bonnets **[2014.01]**
83/26 • • Emergency opening means for persons trapped in the luggage compartment **[2014.01]**
83/28 • Locks for glove compartments, console boxes, fuel inlet covers or the like **[2014.01]**
83/30 • • for glove compartments **[2014.01]**
83/32 • • for console boxes, e.g. between passenger seats **[2014.01]**
83/34 • • for fuel inlet covers essentially flush with the vehicle surface **[2014.01]**
83/36 • Locks for passenger or like doors **[2014.01]**
83/38 • • for pillar-less vehicles, i.e.vehicles where a front and a back door engage each other in the closed position **[2014.01]**
83/40 • • for sliding doors **[2014.01]**
83/42 • • for large commercial vehicles, e.g. trucks, construction vehicles or vehicles for mass transport **[2014.01]**
83/44 • • for recreational vehicles, e.g. caravans or camper vans **[2014.01]**

85/00 Details of vehicle locks not provided for in groups E05B 77/00-E05B 83/00 [2014.01]

85/02 • Lock casings **[2014.01]**
85/04 • Strikers **[2014.01]**
85/06 • Lock cylinder arrangements **[2014.01]**
85/08 • Sill-buttons, garnish buttons or inner door lock knobs **[2014.01]**
85/10 • Handles **[2014.01]**
85/12 • • Inner door handles **[2014.01]**
85/14 • • Handles pivoted about an axis parallel to the wing **[2014.01]**
85/16 • • • a longitudinal grip part being pivoted at one end about an axis perpendicular to the longitudinal axis of the grip part **[2014.01]**
85/18 • • • a longitudinal grip part being pivoted about an axis parallel to the longitudinal axis of the grip part **[2014.01]**
85/20 • Bolts or detents **[2014.01]**
85/22 • • Rectilinearly moving bolts **[2014.01]**
85/24 • • Bolts rotating about an axis **[2014.01]**
85/26 • • • Cooperation between bolts and detents **[2014.01]**
85/28 • • • in which the member engaging the keeper is shaped as a toothed wheel or the like **[2014.01]**

E05C BOLTS OR FASTENING DEVICES FOR WINGS, SPECIALLY FOR DOORS OR WINDOWS (latching means for sideboard or tailgate structures for vehicles B62D 33/037; fastening devices for constructional or engineering elements E04, F16B; locks, fastening devices structurally or operatively combined or having significant cooperation with locks E05B; means for operating or controlling wing fasteners in conjunction with mechanisms for moving the wing E05F)

Note(s)

1. In this subclass, only the movement essential for securing the wing is considered, e.g. a sliding bolt which is rotated on its axis to prevent its withdrawal is classified as having only a sliding movement.
2. Attention is drawn to the definitions following the title of class E05.

Subclass index

Bolts, latches or equivalent wing-fastening devices, characterised by special way of movement, e.g. moving rectilinearly, pivotally or rotatively

1/00 **Fastening devices with bolts moving rectilinearly** (devices released automatically by pull or pressure on the wing E05C 19/02) **[1, 2006.01]**

1/02 • without latching action **[1, 2006.01]**

1/04 • • with operating handle or equivalent member rigid with the bolt **[1, 2006.01]**

1/06 • • with operating handle or equivalent member moving otherwise than rigidly with the bolt **[1, 2006.01]**

1/08 • with latching action **[1, 2006.01]**

1/10 • • with operating handle or equivalent member rigid with the latch **[1, 2006.01]**

1/12 • • with operating handle or equivalent member moving otherwise than rigidly with the latch **[1, 2006.01]**

1/14 • • • the handle or member moving essentially towards, or away from, the plane of the wing or frame **[1, 2006.01]**

1/16 • • • the handle or member moving essentially in a plane substantially parallel to the wing **[1, 2006.01]**

3/00 **Fastening devices with bolts moving pivotally or rotatively** (devices released automatically by pull or pressure on the wing E05C 19/02) **[1, 2006.01]**

3/02 • without latching action **[1, 2006.01]**

3/04 • • with operating handle or equivalent member rigid with the bolt **[1, 2006.01]**

3/06 • • with operating handle or equivalent member moving otherwise than rigidly with the bolt **[1, 2006.01]**

3/08 • • • the handle or member moving essentially towards, or away from, the plane of the wing or frame **[1, 2006.01]**

3/10 • • • the handle or member moving essentially in a plane substantially parallel to the wing **[1, 2006.01]**

3/12 • with latching action (devices in which the securing part is formed or merely carried by a spring and moves only by distortion of the spring, e.g. snaps, E05C 19/06) **[1, 2006.01]**

3/14 • • with operating handle or equivalent member rigid with the latch **[1, 2006.01]**

3/16 • • with operating handle or equivalent member moving otherwise than rigidly with the latch **[1, 2006.01]**

3/22 • • • the bolt being spring-controlled **[1, 2006.01]**

3/24 • • • • in the form of a bifurcated member **[1, 2006.01]**

3/26 • • • • • engaging a stud-like keeper **[1, 2006.01]**

3/28 • • • • • • with simultaneously-operating double bolts **[1, 2006.01]**

3/30 • • • • in the form of a hook **[1, 2006.01]**

3/32 • • • • • engaging a hooked keeper (E05C 3/34 takes precedence) **[1, 2006.01]**

3/34 • • • • • with simultaneously-operating double bolts **[1, 2006.01]**

3/36 • • • • in the form of a rotary gear **[1, 2006.01]**

3/38 • • • • with bolts engaging a hooked keeper (E05C 3/24, E05C 3/30, E05C 3/36 take precedence) **[1, 2006.01]**

3/40 • • • • with bolts engaging a stud-like keeper (E05C 3/24, E05C 3/30, E05C 3/36 take precedence) **[1, 2006.01]**

5/00 **Fastening devices with bolts moving otherwise than only rectilinearly and only pivotally or rotatively** (devices released automatically by pull or pressure on the wing E05C 19/02) **[1, 2006.01]**

5/02 • both moving axially and turning about their axes to secure the wing **[1, 2006.01]**

5/04 • • performing both movements simultaneously, e.g. screwing into a keeper **[1, 2006.01]**

7/00 **Fastening devices specially adapted for two wings [1, 2006.01]**

Note(s)

In this group, if a fastening device merely secures one wing to another wing which is already closed it is not regarded as specially adapted for two wings.

7/02 • for wings which lie one behind the other when closed **[1, 2006.01]**

7/04 • for wings which abut when closed **[1, 2006.01]**

7/06 • • a fastening device for one wing being actuated or controlled by closing another wing **[1, 2006.01]**

9/00 **Arrangement of simultaneously-actuated bolts or other securing devices at well-separated positions on the same wing** (essentially involving locking means E05B 63/14; similar constructions for engineering closures for pressure vessels, in general F16J 13/08) **[1, 2006.01]**

9/02 • with one sliding bar for fastening when moved in one direction and unfastening when moved in opposite direction; with two sliding bars moved in the same direction when fastening or unfastening **[1, 4, 2006.01]**

9/04 • with two sliding bars moved in opposite directions when fastening or unfastening **[1, 2006.01]**

9/06 • with three or more sliding bars **[1, 2006.01]**

9/08 • with a rotary bar for actuating the fastening means **[1, 2006.01]**

9/10 • Actuating mechanisms for bars **[1, 2006.01]**

9/12 • • with gears and racks **[1, 2006.01]**

9/14 • • with pins engaging slots **[1, 2006.01]**

9/16 • • with crank pins and connecting rods **[1, 2006.01]**

9/18 • Details of fastening means or of fixed retaining means for the ends of bars **[1, 2006.01]**

9/20 • Coupling means for sliding bars, rods, or cables **[4, 2006.01]**

9/22 • Guides for sliding bars, rods, or cables (corner guides E05C 9/24) **[4, 2006.01]**

9/24 • Means for transmitting movements between vertical and horizontal sliding bars, rods, or cables, e.g. corner guides (means for transmitting movements between vertical and horizontal sliding bars, rods, or cables, for moving wings into open or closed position E05F 7/08) **[4, 2006.01]**

17/00 Devices for holding wings open; Devices for limiting opening of wings or for holding wings open by a movable member extending between frame and wing; Braking devices, stops or buffers, combined therewith (combined with hinges E05D 11/00; combined with operating apparatus for wings E05F; other braking devices, stops, buffers E05F 5/00) **[1, 4, 2006.01]**

17/02 • by mechanical means (E05C 17/60 takes precedence) **[1, 4, 2006.01]**

17/04 • • with a movable bar or equivalent member extending between frame and wing **[1, 2006.01]**

17/06 • • • releasable to allow further opening only when the wing is nearly closed **[1, 2006.01]**

17/08 • • • with special means for release, e.g. automatic release by further opening **[1, 2006.01]**

17/10 • • • incorporating a special device for securing the wing in the closed position **[1, 2006.01]**

17/12 • • • consisting of a single rod **[1, 2006.01]**

17/14 • • • • Hook and eye, or equivalent **[1, 2006.01]**

17/16 • • • • pivoted only at one end and having an elongated slot **[1, 2006.01]**

17/18 • • • • pivoted only at one end and having a row of holes, notches, or pins **[1, 2006.01]**

17/20 • • • • sliding through a guide (E05C 17/18 takes precedence) **[1, 2006.01]**

17/22 • • • • • with braking, clamping or securing means in the guide **[1, 4, 2006.01]**

17/24 • • • • pivoted at one end, and with the other end running along a guide member **[1, 2006.01]**

17/26 • • • • • with braking, clamping or securing means at the pivot of the rod **[1, 4, 2006.01]**

17/28 • • • • • with braking, clamping or securing means at the connection to the guide member **[1, 4, 2006.01]**

17/30 • • • of extensible, e.g. telescopic, construction (flexible members E05C 17/36) **[1, 2006.01]**

17/32 • • • consisting of two or more pivoted rods **[1, 2006.01]**

17/34 • • • • with means for holding in more than one position **[1, 2006.01]**

17/36 • • • comprising a flexible member, e.g. chains **[1, 2006.01]**

17/38 • • with a curved rail rigid with the frame for engagement with means on the wing, or vice versa **[1, 2006.01]**

17/40 • • Bars or like parts connecting a right wing with a left wing which move against each other when being closed **[1, 2006.01]**

17/42 • • connecting exterior and interior wings **[1, 2006.01]**

17/44 • • with a device carried on the wing for frictional or like engagement with a fixed flat surface, e.g. retractable feet **[1, 2006.01]**

17/46 • • in which the wing or a member fixed thereon is engaged by a movable fastening member in a fixed position; in which a movable fastening member mounted on the wing engages a stationary member **[1, 4, 2006.01]**

17/48 • • • comprising a sliding securing member **[1, 2006.01]**

17/50 • • • comprising a single pivoted securing member **[1, 2006.01]**

17/52 • • • comprising a snap, catch, or the like **[1, 2006.01]**

17/54 • • Portable devices, e.g. wedges **[1, 2006.01]**

17/56 • by magnetic or electromagnetic attraction (operation of locks or fasteners by electric or magnetic means E05B 47/00) **[1, 2, 2006.01]**

17/58 • operated or controlled from a distance **[1, 2006.01]**

17/60 • holding sliding wings open **[4, 2006.01]**

17/62 • • using notches **[4, 2006.01]**

17/64 • • by friction **[4, 2006.01]**

19/00 Other devices specially designed for securing wings (movable draft sealings additionally used for bolting E06B 7/18) **[1, 2, 2006.01]**

19/02 • Automatic catches, i.e. released by pull or pressure on the wing (E05C 19/06 takes precedence) **[1, 2006.01]**

19/04 • • Ball or roller catches **[1, 2006.01]**

19/06 • in which the securing part is formed or carried by a spring and moves only by distortion of the spring, e.g. snaps **[1, 2006.01]**

19/08 • Hasps; Hasp fastenings; Spring catches therefor **[1, 2006.01]**

19/10 • Hook fastenings; Fastenings in which a link engages a fixed hook-like member **[1, 2006.01]**

19/12 • • pivotally mounted **[1, 2006.01]**

19/14 • • • with toggle action **[1, 2006.01]**

19/16 • Devices holding the wing by magnetic or electromagnetic attraction **[1, 2006.01]**

19/18 • Portable devices specially adapted for securing wings (preventing operation of handles E05B 13/00) **[1, 2006.01]**

21/00 Arrangement or combinations of wing fastening, securing, or holding devices, not covered by any single one of main groups E05C 1/00- E05C 19/00 [1, 2006.01]

21/02 • for holding a wing closed only **[1, 2006.01]**

E05D HINGES OR SUSPENSION DEVICES FOR DOORS, WINDOWS OR WINGS (pivotal connections in general F16C 11/00)

Subclass index

1/00 **Pinless hinges; Substitutes for hinges [1, 2006.01]**
1/02 • made of one piece **[1, 2006.01]**
1/04 • with guide members shaped as circular arcs **[1, 2006.01]**
1/06 • consisting of two easily-separable parts **[1, 2006.01]**

3/00 **Hinges with pins [1, 2006.01]**
3/02 • with one pin **[1, 2006.01]**
3/04 • • engaging three or more parts, e.g. sleeves, movable relatively to one another for connecting two or more wings to another member **[1, 2006.01]**
3/06 • with two or more pins (E05D 7/08 takes precedence) **[1, 2, 2006.01]**
3/08 • • for swing-doors, i.e. openable by pushing from either side **[1, 2006.01]**
3/10 • • with non-parallel pins **[1, 2006.01]**
3/12 • • with two parallel pins and one arm (E05D 3/08 takes precedence) **[7, 2006.01]**
3/14 • • with four parallel pins and two arms (E05D 3/08 takes precedence) **[7, 2006.01]**
3/16 • • with seven parallel pins and four arms (E05D 3/08 takes precedence) **[7, 2006.01]**
3/18 • • with sliding pins or guides (E05D 3/08 takes precedence) **[7, 2006.01]**

5/00 **Construction of single parts, e.g. the parts for attachment [1, 2006.01]**
5/02 • Parts for attachment, e.g. flaps **[1, 2006.01]**
5/04 • • Flat flaps **[1, 2006.01]**
5/06 • • Bent flaps **[1, 2006.01]**
5/08 • • of cylindrical shape **[1, 2006.01]**
5/10 • Pins, sockets or sleeves; Removable pins (E05D 15/522 takes precedence) **[1, 2, 2006.01]**
5/12 • • Securing pins in sockets, movably or not **[1, 2006.01]**
5/14 • • Construction of sockets or sleeves **[1, 2006.01]**
5/16 • • • to be secured without special attachment parts on the socket or sleeve **[1, 2006.01]**

7/00 **Hinges or pivots of special construction** (used for special suspension arrangements E05D 15/00; so as to be self-closing E05F 1/06, E05F 1/12; with means for raising wings before being turned E05F 7/02) **[1, 2006.01]**
7/02 • for use on the right-hand as well as on the left-hand side; Convertible right-hand or left-hand hinges **[1, 2006.01]**
7/04 • Hinges adjustable relative to the wing or the frame **[1, 2006.01]**
7/06 • to allow tilting of the members **[1, 2006.01]**
7/08 • for use in suspensions comprising two spigots placed at opposite edges of the wing, especially at the top and the bottom, e.g. trunnions **[1, 2006.01]**
7/081 • • the pivot axis of the wing being situated near one edge of the wing (braking devices therefor E05D 11/08) **[2, 2006.01]**
7/082 • • the pivot axis of the wing being situated at a considerable distance from the edges of the wing **[2, 2006.01]**
7/083 • • • with a fixed pivot axis **[2, 2006.01]**
7/084 • • • with a movable pivot axis **[2, 2006.01]**
7/085 • • • • with two or more pivot axes, e.g. used at the same time **[2, 2006.01]**
7/086 • • • Braking devices structurally combined with hinges (braking devices for windows per se E05F 5/00) **[2, 2006.01]**
7/10 • to allow easy separation of the parts at the hinge axis (substitutes for hinges E05D 1/06) **[1, 2006.01]**
7/12 • to allow easy detachment of the hinge from the wing or the frame **[1, 2006.01]**
7/14 • Hinges for safes **[1, 2006.01]**

9/00 **Flaps or sleeves specially designed for making from particular material, e.g. hoop-iron, sheet metal, plastics [1, 2006.01]**

11/00 **Additional features or accessories of hinges [1, 2006.01]**
11/02 • Lubricating arrangements **[1, 2006.01]**
11/04 • relating to the use of free balls as bearing-surfaces (E05D 7/06 takes precedence) **[1, 2006.01]**
11/06 • Devices for limiting the opening movement of hinges **[1, 2006.01]**
11/08 • Friction devices between relatively-movable hinge parts (E05D 7/086 takes precedence) **[1, 2, 2006.01]**
11/10 • Devices for preventing movement between relatively-movable hinge parts **[1, 2006.01]**

13/00 **Accessories for sliding or lifting wings, e.g. pulleys, safety catches** (counterbalance devices E05F 1/00, E05F 3/00) **[1, 4, 2006.01]**

15/00 **Suspension arrangements for wings** (arrangements of wings not characterised by the construction of the supporting means E06B 3/32) **[1, 2006.01]**
15/02 • for revolving wings **[1, 2006.01]**
15/04 • with arms fixed on the wing pivoting about an axis outside of the wing **[1, 2006.01]**
15/06 • for wings sliding horizontally more or less in their own plane **[1, 2006.01]**
15/08 • • consisting of two or more independent parts movable each in its own guides **[1, 2006.01]**
15/10 • • movable out of one plane into a second parallel plane **[1, 2006.01]**
15/12 • • consisting of parts connected at their edges **[1, 2006.01]**
15/14 • • with movable arms situated in the plane of the wing **[1, 2006.01]**
15/16 • for wings sliding vertically more or less in their own plane **[1, 2006.01]**
15/18 • • consisting of two or more independent parts movable each in its own guides **[1, 2006.01]**
15/20 • • movable out of one plane into a second parallel plane **[1, 2006.01]**
15/22 • • allowing an additional movement **[1, 2006.01]**
15/24 • • consisting of parts connected at their edges **[1, 2006.01]**
15/26 • for folding wings **[1, 2006.01]**
15/28 • supported on arms movable in horizontal plane **[1, 2006.01]**
15/30 • • with pivoted arms and sliding guides **[1, 2006.01]**
15/32 • • with two pairs of pivoted arms **[1, 2006.01]**
15/34 • • • with wings opening parallel to themselves **[1, 2006.01]**
15/36 • moving along slide-ways so arranged that one guide member of the wing moves in a direction substantially perpendicular to the movement of another guide member **[1, 2006.01]**

15/38 • • for upwardly-moving wings, e.g. up-and-over doors **[1, 2006.01]**
15/40 • supported on arms movable in vertical planes **[1, 2006.01]**
15/42 • • with pivoted arms and horizontally-sliding guides **[1, 2006.01]**
15/44 • • with pivoted arms and vertically-sliding guides **[1, 2006.01]**
15/46 • • with two pairs of pivoted arms **[1, 2006.01]**
15/48 • allowing alternative movements (for vertically-sliding wings E05D 15/22) **[1, 2006.01]**
15/50 • • for opening at either of two opposite edges **[1, 2006.01]**
15/52 • • for opening about a vertical as well as a horizontal axis **[1, 2006.01]**
15/522 • • • with disconnecting means for the appropriate pivoting parts **[2, 2006.01]**
15/523 • • • • using movable rods **[2, 2006.01]**
15/524 • • • • • Actuating mechanisms **[2, 2006.01]**
15/526 • • • Safety devices **[2, 2006.01]**
15/54 • • for opening both inwards and outwards **[1, 2006.01]**
15/56 • with successive different movements **[1, 2006.01]**
15/58 • • with both swinging and sliding movements **[1, 2006.01]**

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(s) [4]

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.

Subclass index

1/00 Closers or openers for wings, not otherwise provided for in this subclass [1, 2006.01]
1/02 • gravity-actuated **[1, 2006.01]**
1/04 • • for wings which lift during movement **[1, 2006.01]**
1/06 • • • Mechanisms in the shape of hinges or pivots, operated by the weight of the wing **[1, 2006.01]**
1/08 • spring-actuated **[1, 2006.01]**
1/10 • • for swinging wings **[1, 2006.01]**
1/12 • • • Mechanisms in the shape of hinges or pivots, operated by springs **[1, 2006.01]**
1/14 • • • with double-acting springs, e.g. for closing and opening or checking and closing **[1, 2006.01]**
1/16 • • for sliding wings **[4, 2006.01]**

3/00 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 E05F 5/00; friction devices in hinges E05D 11/08) **[1, 2006.01]**
3/02 • with pneumatic piston brakes (rotary type E05F 3/14) **[1, 2006.01]**
3/04 • with liquid piston brakes (rotary type E05F 3/14) **[1, 2006.01]**
3/06 • • in which a torsion spring rotates a member around an axis perpendicular to the axis of the piston **[1, 2006.01]**
3/08 • • in which a torsion spring rotates a member around an axis arranged in the direction of the axis of the piston **[1, 2006.01]**
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 **[1, 2006.01]**
3/12 • • Special devices controlling the circulation of the liquid, e.g. valve arrangement (valves per se F16K) **[1, 2006.01]**
3/14 • with fluid brakes of the rotary type **[1, 2006.01]**
3/16 • with friction brakes **[1, 2006.01]**
3/18 • with counteracting springs (double-acting springs E05F 1/14) **[1, 2006.01]**
3/20 • in hinges **[1, 2006.01]**
3/22 • Additional arrangements for closers, e.g. for holding the wing in opened or other position **[1, 2006.01]**

5/00 Braking devices, e.g. checks; Stops; Buffers (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) **[1, 4, 2006.01, 2017.01]**
5/02 • specially for preventing the slamming of wings **[1, 2006.01]**
5/04 • • hand-operated; operated by centrifugal action **[1, 2006.01]**
5/06 • Buffers (E05F 5/02 takes precedence) **[1, 2006.01]**
5/08 • • with springs **[1, 2006.01]**
5/10 • • with piston brakes **[1, 2006.01]**
5/12 • specially for preventing the closing of a wing before another wing has been closed **[1, 2006.01]**

7/00 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) **[1, 2, 2006.01]**
7/02 • for raising wings before being turned **[1, 2006.01]**
7/04 • Arrangements affording protection against rattling (with buffering action E05F 5/00) **[1, 2006.01]**
7/06 • Devices for taking the weight of the wing, arranged away from the hinge axis **[1, 2006.01]**

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) **[1, 2006.01]**

Operating mechanisms for wings [2]

9/00 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) **[1, 2006.01]**

11/00 Man-operated mechanisms for operating wings, including those which also operate the fastening (connecting mechanisms for a plurality of wings E05F 17/00) **[1, 2006.01]**

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) **[1, 2006.01]**

11/04 • • with cords, chains, or cables **[1, 2006.01]**

11/06 • • • in guide-channels **[1, 2006.01]**

11/08 • • with longitudinally-moving bars guided, e.g. by pivoted links, in or on the frame **[1, 2006.01]**

11/10 • • • Mechanisms by which a handle moves the bar **[1, 2006.01]**

11/12 • • • Mechanisms by which the bar shifts the wing **[1, 2006.01]**

11/14 • • • • directly, i.e. without links, shifting the wing, e.g. by rack-and-gear or pin-and-slot **[1, 2006.01]**

11/16 • • • • shifting the wing by pivotally-connected members moving in a plane perpendicular to the pivot axis of the wing **[1, 2006.01]**

11/18 • • • • • consisting of a lever, e.g. an angle lever, only **[1, 2006.01]**

11/20 • • • • • consisting of a lever, e.g. an angle lever, and only one additional link **[1, 2006.01]**

11/22 • • • • • consisting of a lever, e.g. an angle lever, and two or more additional links in series **[1, 2006.01]**

11/24 • • • • shifting the wing by pivotally-connected members moving in a plane parallel to the pivot axis of the wing **[1, 2006.01]**

11/26 • • • • • consisting of a lever, e.g. an angle lever, only **[1, 2006.01]**

11/28 • • • • • consisting of a lever, e.g. an angle lever, and one or more additional links **[1, 2006.01]**

11/30 • • • • • consisting of links in rhomb form **[1, 2006.01]**

11/32 • • with rotary bars guided in the frame (E05F 11/34 takes precedence) **[1, 2006.01]**

11/34 • • with screw mechanisms **[1, 2006.01]**

11/36 • specially designed for passing through a wall **[1, 2006.01]**

11/38 • for sliding windows, e.g. vehicle windows, to be opened or closed by vertical movement **[1, 2006.01]**

11/40 • • operated by screw mechanism **[1, 2006.01]**

11/42 • • operated by rack bars and toothed wheels **[1, 2006.01]**

11/44 • • operated by one or more lifting arms **[1, 2006.01]**

11/46 • • operated by lazy-tongs mechanism **[1, 2006.01]**

11/48 • • operated by cords or chains **[1, 2006.01]**

11/50 • • Crank gear with clutches or retaining brakes, for operating window mechanisms **[1, 2006.01]**

11/52 • • combined with means for producing an additional movement, e.g. a horizontal or a rotary movement **[1, 2006.01]**

11/53 • for sliding windows, e.g. vehicle windows, to be opened or closed by horizontal movement **[2, 2006.01]**

11/54 • for doors **[1, 2006.01]**

13/00 Operating mechanisms for wings, operated by the movement or weight of a person or vehicle (through power-operated wing-operating mechanisms E05F 15/00) **[1, 2006.01]**

13/02 • by devices, e.g. lever arms, affected by the movement of the user **[1, 2006.01]**

13/04 • by platforms lowered by the weight of the user **[1, 2006.01]**

15/00 Power-operated mechanisms for wings (motor-operated accessories in locks for completing closing or initiating opening of a wing E05B 17/00) **[1, 2006.01, 2015.01]**

15/40 • Safety devices, e.g. detection of obstructions or end positions **[2015.01]**

15/41 • • Detection by monitoring transmitted force or torque (E05F 15/48 takes precedence); Safety couplings with activation dependent upon torque or force, e.g. slip couplings **[2015.01]**

15/42 • • Detection using safety edges **[2015.01]**

15/43 • • • responsive to disruption of energy beams, e.g. light or sound **[2015.01]**

15/44 • • • responsive to changes in electrical conductivity **[2015.01]**

15/46 • • • responsive to changes in electrical capacitance **[2015.01]**

15/47 • • • responsive to changes in fluid pressure **[2015.01]**

15/48 • • • by transmission of mechanical forces, e.g. by rigid or movable members **[2015.01]**

15/49 • • specially adapted for mechanisms operated by fluid pressure, e.g. detection by monitoring transmitted fluid pressure (E05F 15/47 takes precedence) **[2015.01]**

15/50 • using fluid-pressure actuators **[2015.01]**

15/51 • • for folding wings **[2015.01]**

15/53 • • for swinging wings **[2015.01]**

15/54 • • • operated by linear actuators acting on a helical track coaxial with the swinging axis **[2015.01]**

15/56 • • for horizontally-sliding wings **[2015.01]**

15/57 • • for vertically-sliding wings **[2015.01]**

15/59 • • • for overhead wings **[2015.01]**

15/60 • using electrical actuators **[2015.01]**

15/603 • • using rotary electromotors **[2015.01]**

15/605 • • • for folding wings **[2015.01]**

15/608 • • • for revolving wings **[2015.01]**

15/611 • • • for swinging wings **[2015.01]**

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 **[2015.01]**

15/616 • • • • operated by push-pull mechanisms **[2015.01]**

15/619 • • • • • using flexible or rigid rack-and-pinion arrangements **[2015.01]**

15/622 • • • • • using screw-and-nut mechanisms **[2015.01]**

15/624 • • • • • using friction wheels **[2015.01]**

15/627 • • • • operated by flexible elongated pulling elements, e.g. belts, chains or cables (using flexible elongated push-pull mechanisms E05F 15/619) **[2015.01]**
15/63 • • • • operated by swinging arms **[2015.01]**
15/632 • • • for horizontally-sliding wings **[2015.01]**
15/635 • • • • operated by push-pull mechanisms, e.g. flexible or rigid rack-and-pinion arrangements (E05F 15/652 takes precedence) **[2015.01]**
15/638 • • • • • allowing or involving a secondary movement of the wing, e.g. rotational or transversal **[2015.01]**
15/641 • • • • • operated by friction wheels **[2015.01]**
15/643 • • • • operated by flexible elongated pulling elements, e.g. belts, chains or cables (by flexible elongated push-pull mechanisms E05F 15/635) **[2015.01]**
15/646 • • • • • allowing or involving a secondary movement of the wing, e.g. rotational or transversal **[2015.01]**
15/649 • • • • operated by swinging arms **[2015.01]**
15/652 • • • • operated by screw-and-nut mechanisms **[2015.01]**
15/655 • • • • specially adapted for vehicle wings **[2015.01]**
15/657 • • • • • enabling manual drive, e.g. in case of power failure **[2015.01]**
15/659 • • • • • Control circuits therefor **[2015.01]**
15/662 • • • • • Motor units therefor, e.g. geared motors **[2015.01]**
15/665 • • • for vertically-sliding wings **[2015.01]**
15/668 • • • • for overhead wings **[2015.01]**
15/67 • • • • • operated by flexible or rigid rack-and-pinion arrangements **[2015.01]**
15/673 • • • • • operated by screw-and-nut mechanisms **[2015.01]**
15/676 • • • • • operated by friction wheels **[2015.01]**
15/678 • • • • • operated by swinging lever arms **[2015.01]**
15/681 • • • • • operated by flexible elongated pulling elements, e.g. belts **[2015.01]**
15/684 • • • • • • by chains **[2015.01]**
15/686 • • • • • • by cables or ropes **[2015.01]**
15/689 • • • • specially adapted for vehicle windows **[2015.01]**
15/692 • • • • • enabling manual drive, e.g. in case of power failure **[2015.01]**
15/695 • • • • • Control circuits therefor **[2015.01]**
15/697 • • • • • Motor units therefor, e.g. geared motors **[2015.01]**
15/70 • with automatic actuation **[2015.01]**
15/71 • • responsive to temperature changes, rain, wind or noise **[2015.01]**
15/72 • • responsive to emergency conditions, e.g. fire **[2015.01]**
15/73 • • responsive to movement or presence of persons or objects **[2015.01]**
15/74 • • • using photoelectric cells **[2015.01]**
15/75 • • • responsive to the weight or other physical contact of a person or object **[2015.01]**
15/76 • • • responsive to devices carried by persons or objects, e.g. magnets or reflectors (E05F 15/77 takes precedence) **[2015.01]**
15/77 • • using wireless control **[2015.01]**
15/78 • • • using light beams **[2015.01]**
15/79 • • using time control **[2015.01]**

17/00 **Special devices for shifting a plurality of wings operated simultaneously** (for simultaneously moving a plurality of interconnected ventilating lamellae E06B 7/086) **[1, 2, 2006.01]**

E05G **SAFES OR STRONG-ROOMS FOR VALUABLES; BANK PROTECTION DEVICES; SAFETY TRANSACTION PARTITIONS** (alarm arrangements per se G08B) **[2]**

Note(s) [2]

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

- "bank" is a building or portion of a building devoted to the safekeeping or exchange of valuables between the "bank" and its customers;
- "bank protection device" is a mechanism in or on a bank for protecting the valuables or repelling attacks by stealth or force.

1/00 **Safes or strong-rooms for valuables** (savings boxes A45C 1/12; floatable safes B63C 7/30; storage containers without attack or fire-retardant features B65D; bank buildings in general, e.g. modular construction or floor plan, E04H 1/06; buildings resistant to earthquake or war action E04H 9/00) **[1, 2006.01]**
1/02 • Details (safe hinges E05D 7/14) **[1, 2006.01]**
1/024 • • Wall or panel structure **[2, 2006.01]**
1/026 • • Closures (protective doors, windows, or like closures against air-raid or other war-like action E06B 5/10; shutters, movable grilles, other safety closures E06B 9/02) **[2, 2006.01]**
1/04 • • Closure fasteners (locks E05B) **[1, 2006.01]**
1/06 • having provision for multiple compartments **[2, 2006.01]**
1/08 • • secured individually **[2, 2006.01]**
1/10 • with alarm, signal, or indicator (burglar, theft, or intruder alarm per se G08B 13/00; fire or explosion alarm per se G08B 17/00) **[2, 2006.01]**
1/12 • with fluent-material releasing, generating or distributing means, e.g. fire-retardant or fire extinguishing means (E05G 1/14 takes precedence; identifying, scaring or incapacitating burglars, thieves or intruders with smoke, gas, powder or liquid G08B 15/02) **[2, 6, 2006.01]**
1/14 • with means for marking or destroying the valuables, e.g. in case of theft **[6, 2006.01]**

5/00 **Bank protection devices** (E05G 1/12, E05G 7/00 take precedence; closed-circuit television systems H04N 7/18) **[2, 2006.01]**
5/02 • Trapping or confining mechanisms (thief or burglar incapacitating means in general G08B 15/00) **[2, 2006.01]**

7/00 Safety transaction partitions, e.g. movable payplates (non-safety paying counters, e.g. for supermarkets, A47F 9/02) **[2, 2006.01]**