

CPC**COOPERATIVE PATENT CLASSIFICATION****E05C**

BOLTS OR FASTENING DEVICES FOR WINGS, SPECIALLY FOR DOORS OR WINDOWS (latching means for sideboard or tailgate structures for vehicles [B62D](#) , { [B62D 33/02](#) }; 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

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

Attention is drawn to the definition following the title of class [E05](#)

Guidance heading: Bolts, latches, or equivalent wing-fastening devices, characterised by special way of movement, e.g. moving rectilinearly, pivotally or rotatively (devices released automatically by pull or pressure on the wing [E05C 19/02](#); hasps [E05C 19/08](#); hook fastenings [E05C 19/10](#))

E05C 1/00

Fastening devices with bolts moving rectilinearly

[E05C 1/002](#)

. { perpendicular to the surface on which the fastener is mounted }

[E05C 1/004](#)

. { parallel to the surface on which the fastener is mounted }

[E05C 1/006](#)

.. { parallel to the wing edge }

[E05C 2001/008](#)

. the axis of the bolt movement forming an oblique angle with the surface from which the bolt protrudes, e.g. the wing edge

[E05C 1/02](#)

. without latching action

[E05C 1/04](#)

.. with operating handle or equivalent member rigid with the bolt

[E05C 1/06](#)

.. with operating handle or equivalent member moving otherwise than rigidly with the bolt

[E05C 1/065](#)

... { flush }

[E05C 1/08](#)

. with latching action

[E05C 1/085](#)

.. { With means for assisting depression of the latch bolt during latching }

[E05C 1/10](#)

.. with operating handle or equivalent member rigid with the latch

[E05C 1/12](#)

.. with operating handle or equivalent member moving otherwise than rigidly with the latch

[E05C 1/14](#)

... the handle or member moving essentially towards or away from the plane of the wing or frame

[E05C 1/145](#)

.... { flush }

[E05C 1/16](#)

... the handle or member moving essentially in a plane substantially parallel to the

	wing or frame
E05C 1/163	.... { Cylindrical or tubular latches }
E05C 1/166	.... { with sliding handle }
E05C 3/00	Fastening devices with bolts moving pivotally or rotatively
E05C 3/002	. { sliding in an arcuate guide or the like (locks with circular bolts E05B 63/123) }
E05C 3/004	. { about an axis perpendicular to the surface on which the fastener is mounted }
E05C 3/006	. { about an axis parallel to the surface on which the fastener is mounted }
E05C 3/008	.. { parallel to the wing edge }
E05C 3/02	. without latching action
E05C 3/04	.. with operating handle or equivalent member rigid with the bolt
E05C 3/041	... { rotating about an axis perpendicular to the surface on which the fastener is mounted }
E05C 3/042	.... { the handle being at one side, the bolt at the other side or inside the wing }
E05C 3/043	.... { the pivot being between bolt and handle (E05C 3/042 takes precedence) }
E05C 3/044	.... { the bolt and handle being at the same side of the pivot (E05C 3/045 , E05C 3/046 take precedence) }
E05C 3/045	.... { in the form of a hook (hook-like fastenings E05C 19/10) }
E05C 3/046	.... { in the form of a crescent-shaped cam (hooks E05C 3/045) }
E05C 3/047	... { rotating about an axis parallel to the surface on which the fastener is mounted }
E05C 3/048	.... { parallel to the wing edge }
E05C 3/06	.. with operating handle or equivalent member moving otherwise than rigidly with the bolt
E05C 3/08	... the handle or member moving essentially towards or away from the plane of the wing or frame
E05C 3/10	... the handle or member moving essentially in a plane substantially parallel to the wing { or frame }
E05C 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 ; tilt-plate latches E05C 19/007)
E05C 3/122	.. { flush }
E05C 3/124	.. { with latch under compression force between its pivot and the striker (E05C 3/122 , E05C 3/14 , E05C 3/16 and E05B 65/0852 take precedence) }
E05C 2003/126	.. Only part of the latch movable for latching
E05C 2003/128	.. Pendulum-type bolt
E05C 3/14	.. with operating handle or equivalent member rigid with the latch { (E05C 3/122 takes precedence) }
E05C 3/145	... { pivoting about an axis perpendicular to the wing }
E05C 3/16	.. with operating handle or equivalent member moving otherwise than rigidly with the latch { (E05C 3/122 takes precedence) }
E05C 3/162	... { the handle or member moving essentially towards or away of the plane of the

- wing or frame ([E05C 3/167](#) takes precedence) }
- E05C 3/165 . . . { the handle or member moving substantially parallel to the wing or frame ([E05C 3/167](#) takes precedence) }
- E05C 3/167 . . . { the latch pivoting about an axis perpendicular to the wing }
- E05C 3/22 . . . the bolt being spring controlled
- E05C 3/24 in the form of a bifurcated member { (automatic catches with a bifurcated latch [E05C 19/024](#); locks with a bifurcated bolt [E05B 65/0046](#), [E05B 85/243](#)) }
- E05C 3/26 engaging a stud-like keeper (stud-like keepers per se [E05B 2015/0235](#))
- E05C 3/28 with simultaneously operating double bolts { (vehicle locks with a pair of bifurcated bolts [E05B 85/245](#)) }
- E05C 3/30 in the form of a hook { (hook-like fastenings [E05C 19/10](#); locks for sliding wings with pivoting bolts [E05B 65/0811](#), [E05B 65/0835](#)) }
- E05C 3/34 with simultaneously operating double bolts { (locks for sliding wings with bolts pivoting about an axis parallel to the wings [E05B 65/0835](#), comprising simultaneously pivoting double hook-like locking members [E05B 65/0858](#)) }
- E05C 3/36 in the form of a rotary gear { (vehicle door locks [E05B 85/28](#)) }
- E05C 3/38 with bolts engaging a hooked keeper ([E05C 3/24](#), [E05C 3/30](#), [E05C 3/36](#) take precedence)
- E05C 3/40 with bolt engaging a stud-like keeper ([E05C 3/24](#), [E05C 3/30](#), [E05C 3/36](#) take precedence)

E05C 5/00 **Fastening devices with bolts moving otherwise than only rectilinearly and only pivotally or rotatively** { ([E05C 9/1883](#), [E05C 19/009](#), [E05B 63/125](#), [E05B 63/126](#), [E05B 63/127](#) take precedence; pivotally-mounted hooks-like fastenings with toggle action [E05C 19/14](#); bayonet-type locks [E05B 63/125](#); locks for sliding wings, with additional movement [E05B 65/0817](#)) }

- E05C 2005/005 . Pivoting bolts or catches being able to move in an additional direction, e.g. by sliding or by pivoting about an additional axis, in order to allow closing of the wing even if the bolt or catch is in its locked position
- E05C 5/02 . both moving axially and turning about their axis to secure the wing
- E05C 5/04 . . performing both movements simultaneously, e.g. screwing into a keeper

E05C 7/00 **Fastening devices specially adapted for two wings**

NOTE

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

- E05C 7/002 . { for sluice doors (for nuclear reactors [G21C 13/0285](#)) }
- E05C 7/005 . { for "Dutch doors", i.e. upper and lower wings }
- E05C 2007/007 . for a double-wing sliding door or window, i.e. where both wings are slidable
- E05C 7/02 . for wings which lie one behind the other when closed { [E05C 7/002](#) takes

}

- E05C 7/04 . for wings which abut when closed { ([pillarless vehicle doors E05B 83/38](#)) }
- E05C 7/045 . . Sliding bolts mounted on or in the edge of a normally closed wing of a double-door or -window
- E05C 7/06 . . a fastening device for one wing being actuated or controlled by closing another wing { ([locking one vehicle door by shutting another E05B 77/52](#)) }

- E05C 9/00** **Arrangements of simultaneously actuated bolts or other securing devices at well-separated positions on the same wing ({ Locking, cross or security bars [E05C 19/003](#); locks for safes or the like [E05B 65/0075](#); of the vertical-rod type for panic or emergency doors [E05B 65/1006](#) }; similar constructions for engineering closures [F16J 13/08](#))**

- E05C 9/002 . { with arrangements allowing the wing to be slam-shut, e.g. by securing elements with latching action ([E05B 63/20](#), [E05B 63/24](#) take precedence) }
- E05C 9/004 . { Faceplates (for other locks or fasteners [E05B 9/002](#)); Fixing the faceplates to the wing }
- E05C 9/006 . { Details of bars }
- E05C 9/008 . { mounted in an elongate casing on the surface of the wing }
- E05C 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
 - E05C 9/021 . . { with rack and pinion mechanism }
 - E05C 9/023 . . . { between a lock cylinder and the bar }
 - E05C 9/025 . . { with pins engaging slots }
 - E05C 9/026 . . { comprising key-operated locks, e.g. a lock cylinder to drive auxiliary deadbolts or latch bolts ([E05C 9/023](#) takes precedence) }
 - E05C 9/028 . . { externally mounted on the wing, i.e. surface mounted ([E05C 9/008](#) takes precedence) }
- E05C 9/04 . with two sliding bars moved in opposite directions when fastening or unfastening
 - E05C 9/041 . . { with rack and pinion mechanism }
 - E05C 9/042 . . { with pins engaging slots }
 - E05C 9/043 . . { with crank pins and connecting rods }
 - E05C 9/045 . . { with inclined surfaces, e.g. spiral or helicoidal }
 - E05C 9/046 . . { with two interconnected mechanisms each driving one rod }
 - E05C 9/047 . . { comprising key-operated locks, e.g. a lock cylinder to drive auxiliary deadbolts or latch bolts ([E05C 9/041](#) takes precedence) }
 - E05C 9/048 . . { externally mounted on the wing, i.e. surface mounted ([E05C 9/008](#) takes precedence) }
- E05C 9/06 . with three or more sliding bars { (for watertight doors in bulkheads of vessels [B63B 43/24](#), [B63B 43/32](#); for safe doors [E05B 65/0075](#); covers or similar closures for pressure vessels [F16J 13/00](#)) }

- E05C 9/063 . . { extending along three or more sides of the wing or frame (means for transmitting movements between vertical and horizontal bars [E05F 7/08](#)) }
- E05C 9/066 . . . { Locks for windows or doors specially adapted for tilt and turn }
- E05C 9/08 . with a rotary bar for actuating the fastening means { ([E05B 83/10](#) and [E05B 65/468](#) take precedence; for a plurality of drawers [E05B 65/465](#)) }
- E05C 9/085 . . { pivoting about an axis perpendicular to the door (locking bars or the like pivoted about an axis perpendicular to the plane of the wing [E05C 19/005](#)) }
- E05C 9/10 . Actuating mechanisms for bars { ([E05C 9/02](#) to [E05C 9/06](#) take precedence) }
- E05C 9/12 . . with rack and pinion mechanism { ([E05C 9/021](#), [E05C 9/041](#) take precedence) }
- E05C 9/14 . . with pin engaging slots { ([E05C 9/025](#), [E05C 9/042](#) take precedence) }
- E05C 9/16 . . with crank pins and connecting rods { ([E05C 9/043](#) takes precedence) }
- E05C 9/18 . Details of fastening means or of fixed retaining means for the ends of bars
- E05C 9/1808 . . { Keepers }
- E05C 2009/1816 . . . snap-mounted without screw fasteners
- E05C 9/1825 . . { Fastening means }
- E05C 9/1833 . . . { performing sliding movements }
- E05C 9/1841 { perpendicular to actuating bar }
- E05C 9/185 { parallel with actuating bar }
- E05C 9/1858 { of the roller bolt type }
- E05C 2009/1866 of the keyhole slot type
- E05C 9/1875 . . . { performing pivoting movements ([E05C 9/08](#) takes precedence) }
- E05C 9/1883 { pivotally mounted on the actuation bar }
- E05C 9/1891 { pivoting around an axis parallel to the bar }
- E05C 9/20 . Coupling means for sliding bars, rods, or cables { (connecting means between actuating rods for vehicle door locks [E05B 79/14](#)) }
- E05C 9/22 . Guides for sliding bars, rods or cables
- E05C 9/24 . Means for transmitting movements between vertical and horizontal sliding bars, rods or cables { for the fastening of wings }, 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](#))
- E05C 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](#))**
- E05C 17/003 . { Power-actuated devices for limiting the opening of vehicle doors }
- E05C 17/006 . . { with means for detecting obstacles outside the doors }
- E05C 17/02 . by mechanical means ([E05C 17/60](#) takes precedence)
- E05C 17/025 . . { Means acting between hinged edge and frame ([E05C 17/203](#) takes precedence) }

E05C 17/04	..	{ Hinges for the movable bar (E05C 17/163 , E05C 17/26 , E05C 17/345 take precedence; hinges in general F16C 11/04 , E05D) }
E05C 17/042	...	{ for anchoring the trunk lid of a car while carrying oversize objects (E05C 17/36 takes precedence) }
E05C 17/045	...	{ Hinges for the movable bar (E05C 17/163 , E05C 17/26 , E05C 17/345 take precedence; hinges in general F16C 11/04 , E05D) }
E05C 17/047	...	{ Portable bars or the like, i.e. completely removable (E05C 17/042 takes precedence) }
E05C 17/08	...	with special means for release, e.g. automatic release by further opening
E05C 17/085	....	{ automatic release by further opening }
E05C 17/12	...	consisting of a single rod
E05C 17/14	....	Hook and eye, or equivalent
E05C 17/16	....	pivoted only at one end and having an elongated slot
E05C 17/163	.....	{ with clamping or securing means at the pivot, e.g. friction hinge }
E05C 17/166	.....	{ Security devices }
E05C 17/18	....	pivoted only at one end having a row of holes, notches, or pins
E05C 17/20	....	sliding through a guide (E05C 17/18 takes precedence)
E05C 17/203	.....	{ concealed, e.g. for vehicles }
E05C 17/206	.....	{ with elastomeric springs to hold wing open }
E05C 17/22	.....	with braking, clamping or securing means in the guide { (E05C 17/203 takes precedence) }
E05C 17/24	....	pivoted at one end, and with the other end running along a guide member
E05C 17/26	.....	with braking, clamping or securing means at the pivot of the rod
E05C 17/28	.....	with braking, clamping or securing means at the connection to the guide member
E05C 17/30	...	of extensible, e.g. telescopic, construction (flexible members E05C 17/36 ; locking of telescopic systems in general F16B 7/10 ; lockable telescopic gas springs F16F 9/0254) }
E05C 17/305	....	{ with hydraulic locks }
E05C 17/32	...	consisting of two or more pivoted rods
E05C 17/34	....	with means for holding in more than one position
E05C 17/345	.....	{ using friction, e.g. friction hinge }
E05C 17/36	...	comprising a flexible member, e.g. chains
E05C 17/365	....	{ Security chains }
E05C 17/38	..	with a curved rail rigid with the frame for engagement with means on the wing, or vice versa
E05C 17/40	..	Bars or like parts connecting a right wing with a left wing which move against each other when being closed
E05C 17/42	..	connecting exterior and interior wings
E05C 17/44	..	with a device carried on the wing for frictional or like engagement with a fixed flat surface, e.g. { for holding wings open or closed by } retractable feet { (with wedging action between the wing and a flat surface E05C 17/54) }
E05C 17/443	...	{ of the pivoted lever or eccentric type, e.g. for sliding windows }
E05C 17/446	...	{ of the retractable sliding feet type (similar devices for sliding wings E05C 17/64) }
E05C 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

- E05C 17/48 . . . comprising a sliding securing member
- E05C 17/50 . . . comprising a single pivoted securing member
- E05C 17/505 { acting directly on the knob or handle }
- E05C 17/52 . . . comprising a snap, catch, or the like
- E05C 17/525 { comprising a suction cup }
- E05C 17/54 . . Portable devices, e.g. wedges; wedges for holding wings open or closed
([E05C 17/047](#) takes precedence)

- E05C 17/56 . by magnetic or electromagnetic attraction { or operated by electric or electromagnetic means (for closed wings [E05C 19/16](#)) }; (operation of locks or fasteners by electric or magnetic means [E05B 47/00](#))

- E05C 17/58 . operated or controlled from a distance, { e.g. pneumatically ([E05C 17/56](#) takes precedence) }

- E05C 17/60 . holding sliding wings open { ([E05C 17/443](#), [E05C 17/54](#) take precedence) }
- E05C 17/62 . . using notches
- E05C 17/64 . . by friction

- E05C 19/00** **Other devices specially designed for securing wings, { e.g. with suction cups }**
(movable draft sealings additionally used for bolting [E06B 7/18](#))

- E05C 19/001 . { with bolts extending over a considerable extent, e.g. nearly along the whole length of at least one side of the wing (movable sealing strips [E06B 7/18](#)) }
- E05C 19/002 . . { Rotating about a longitudinal axis }

- E05C 19/003 . { Locking bars, cross bars, security bars (for sliding wings [E05B 65/0888](#); for a plurality of drawers [E05B 65/467](#)) }
- E05C 19/004 . . { at an angle between door and floor or wall }
- E05C 19/005 . . { pivoted about an axis on the wing, perpendicular to the plane of the wing }

- E05C 19/006 . { by displacement of the wing substantially in its own plane ([E05F 7/02](#) takes precedence) }

- E05C 19/007 . { Latches with wedging action (wedges between wing itself and fixed surface [E05C 17/54](#)) }
- E05C 19/008 . . { Tilt-plate latches }

- E05C 19/009 . { Latches with floating bolts, e.g. rings, balls }

- E05C 19/02 . Automatic catches, i.e. released by pull or pressure on the wing ([E05C 19/06](#) takes precedence; { with locking means [E05B 63/22](#) })
- E05C 19/022 . . { Released by pushing in the closing direction }
- E05C 19/024 . . { with a bifurcated latch }
- E05C 19/026 . . { with a keeper caught between two pivoting bolts }
- E05C 19/028 . . { with sliding bolt(s) }
- E05C 19/04 . . Ball or roller catches

- E05C 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
- E05C 19/063 . . { Released by pull or pressure on the wing ([E05C 19/022](#) takes precedence) }
- E05C 19/066 . . . { made of plastics, e.g. hook-and-loop type fastener }
- E05C 19/08 . Hasps; Hasp fastenings; Spring catches therefor
- E05C 19/10 . Hook fastenings; Fastenings in which a link engages a fixed hook-like member
- E05C 19/105 . . { Butterfly latches }
- E05C 19/12 . . pivotally mounted { around an axis ([E05C 3/045](#), [E05C 3/40](#) take precedence) }
- E05C 19/14 . . . with toggle action
- E05C 19/145 { flush }
- E05C 19/16 . Device holding the wing by magnetic or electromagnetic attraction { ([E05C 17/56](#) takes precedence) }
- E05C 19/161 . . { magnetic gaskets }
- E05C 19/163 . . { a movable bolt being held in the striker by a permanent magnet }
- E05C 19/165 . . { released by pushing in the closing direction }
- E05C 19/166 . . { electromagnetic }
- E05C 19/168 . . . { a movable bolt being electromagnetically held in the striker by electromagnetic attraction }
- E05C 19/18 . Portable devices specially adapted for securing wings ({ [E05C 17/54](#), [E05C 19/003](#), [E05B 65/0894](#), [E05B 67/00](#) take precedence }; preventing operation of handles [E05B 13/00](#))
- E05C 19/182 . . { insertable in the gap between the wing and the frame or in the gap between a lock and its striker, e.g. for cooperation with the striker }
- E05C 19/184 . . { a portable member cooperating with a fixed member or an opening on the wing or the frame, for locking the wing }
- E05C 19/186 . . { with a pair of hooks, which are movable towards each other for grasping of an element on the wing, respectively on the frame, or for grasping of an element on each of the wings forming a double door }
- E05C 19/188 . . { Removably mounted securing devices, e.g. devices clamped to the wing or the frame ([E05C 19/182](#) to [E05C 19/186](#) take precedence) }
- E05C 21/00** **Arrangements or combinations of wing fastening, securing, or holding devices, not covered by a single preceding main group; { Locking kits }**
- E05C 21/005 . { Provisional arrangements between door and frame for holding vehicle doors closed or partially open during manufacturing or maintenance }