COOPERATIVE PATENT CLASSIFICATION

E

FIND CONSTRUCTIONS

LOCKS; KEYS; WINDOW OR DOOR FITTINGS; SAFES

(E05D)

HINGES OR OTHER SUSPENSION DEVICES FOR DOORS, WINDOWS OR WINGS

({ foldable tables A47B 3/00; hinged panels A47B 5/00; foldable chairs A47C 4/00; making hinges B21D 53/40, B21K 13/02; making holes for taking-up fittings B27F 5/12; for vehicle tailboards B60P 1/26; for refuse receptacles B65F 1/1646 } ; pivotal connections in general F16C 11/00 } ; mounting of stove or range doors F24C 15/023; for folding flat displays of portable computers G06F 1/161)
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)

7/009 . . . . [Adjustable hinges (E05D 7/04 takes precedence)]
7/0018 . . . . [at the hinge axis]
7/0027 . . . . [in an axial direction]
2007/0036 . . . . [with axially fixed hinge pins]
7/0045 . . . . [in a radial direction]
7/0054 . . . . [by means of eccentric parts]
2007/0063 . . . . [Eccentric hinge pins]
2007/0072 . . . . [with sliding sleeves]
2007/0081 . . . . [with swinging or rolling sleeves]
7/009 . . . . [Elongate hinges, e.g. piano-hinges]
7/002 . . . . for use on the right-hand as well as the left-hand side; Convertible right-hand or left-hand hinges
7/04 . . . . Hinges adjustable relative to the wing or the frame
7/0407 . . . . [the hinges having two or more pins and being specially adapted for cabinets or furniture]
7/0415 . . . . [with adjusting drive means]
7/0423 . . . . [Screw-and-nut mechanisms (E05D 7/0407, E05D 7/043 takes precedence)]
7/043 . . . . [by means of dowel attachments]
2007/0438 . . . . [with bolts fixedly mounted on the hinge part]
2007/0446 . . . . [with threaded bolts fixedly mounted on the hinge part]
2007/0453 . . . . [with threaded sleeves]
2007/0461 . . . . [in angular arrangement to the wing or the frame]
2007/0469 . . . . [in an axial direction]
2007/0476 . . . . [Pocket hinges]
2007/0484 . . . . [in a radial direction]
2007/0492 . . . . [in three directions]
7/06 . . . . to allow tilting of the members
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 (E05D 15/266 takes precedence)
7/081 . . . . the pivot axis of the wing being situated near one edge of the wing, especially at the top and bottom, e.g. trunnions
7/082 . . . . the pivot axis of the wing being situated at a considerable distance from the edges of the wing, e.g. for balanced wings
7/083 . . . . with a fixed pivot axis
7/084 . . . . with a movable pivot axis
7/085 . . . . with two or more pivot axes, e.g. used at the same time

7/086 . . . . Braking devices structurally combined with hinges (braking devices for windows per se E05F 5/00)
7/10 . . . . to allow easy separation (or connection) of the parts at the hinge axis (E05D 5/12 and E05D 15/50 take precedence); substitutes for hinges E05D 1/06
7/1005 . . . . [by axially moving free pins, balls or sockets]
7/1011 . . . . [biased by free springs (E05D 7/1016 takes precedence)]
7/1016 . . . . [requiring a specific angular position]
7/1022 . . . . [with snap-fitted pins]
2007/0127 . . . . [by axially moving free pins]
2007/0133 . . . . [by axially moving free balls]
2007/0138 . . . . [by axially moving free sockets]
7/1044 . . . . [in an axial direction (E05D 7/1005 takes precedence)]
7/105 . . . . [requiring a specific angular position]
7/1055 . . . . [with snap-fitted pins]
7/1061 . . . . [in a radial direction (E05D 7/1005 takes precedence)]
7/1066 . . . . [requiring a specific angular position]
7/1072 . . . . [the pin having a non-circular cross-section]
7/1077 . . . . [with snap-fitted pins]
7/1083 . . . . [facilitating simultaneous assembly of a plurality of hinges, e.g. for mounting heavy wings]
2007/1088 . . . . [using hinge pins having different lengths]
2007/1094 . . . . [Guiding devices therefor]
7/12 . . . . to allow easy detachment of the hinge from the wing or the frame (E05D 15/507 takes precedence)
7/121 . . . . [specially adapted for vehicles]
7/123 . . . . [specially adapted for cabinets or furniture]
7/125 . . . . [the hinge having two or more pins]
2007/126 . . . . [in an axial direction]
2007/128 . . . . [in a radial direction]
7/14 . . . . Hinges for safes

9/00 Flaps or sleeves specially designed for making from particular material, e.g. hoop-iron, sheet metal, plastics
9/005 . . . . [from plastics (E05D 1/02 takes precedence)]
11/00 Additional features or accessories of hinges (edge protecting devices E06B 3/88)
11/0009 . . . . [Templates for marking the position of fittings on wings or frames (implements for making doors, windows or frames E04F 21/003)]
11/0018 . . . . [Anti-tamper devices]
11/0027 . . . . [arranged on or near the hinge and comprising parts interlocking as the wing closes, e.g. security studs]
2011/0036 . . . . [near the hinge]
2011/0045 . . . . [on the hinge]
11/0054 . . . . [Covers, e.g. for protection]
2011/0063 . . . . [for screw-heads or bolt-heads]
2011/0072 . . . . [for the gap between hinge parts]
11/0081 . . . . [for transmitting energy, e.g. electrical cable routing]
2011/009 . . . . [Impact absorbing hinges for vehicle doors]
11/02 . . . . Lubricating arrangements
11/04 . . . . relating to the use of free balls as bearing-surfaces (E05D 7/06 takes precedence)
2011/045 . . . . [located in line with the hinge axis]
11/06 . . . . Devices for limiting the opening movement of hinges
11/08 . . . Friction devices between relatively-movable hinge parts (E05D 7/006 takes precedence)
11/081 . . . [with both radial and axial friction, e.g. conical friction surfaces]
11/082 . . . [with substantially radial friction, e.g. cylindrical friction surfaces]
11/084 . . . [the friction depending on direction of rotation or opening angle of the hinge]
2011/085 . . . [the friction depending on the opening angle]
11/087 . . . [with substantially axial friction, e.g. friction disks]
2011/088 . . . [with automatic disengagement]
11/10 . . . Devices for preventing movement between relatively-movable hinge parts
11/1007 . . . [with positive locking]
11/1014 . . . [for maintaining the hinge in only one position, e.g. closed]
11/1021 . . . [the hinge having two or more pins and being specially adapted for cabinets or furniture]
11/1028 . . . [for maintaining the hinge in two or more positions, e.g. intermediate or fully open]
2011/1035 . . . [with circumferential and evenly distributed detents around the pivot-axis]
11/1042 . . . [the maintaining means being a cam and a torsion bar, e.g. motor vehicle hinge mechanisms]
11/105 . . . [the maintaining means acting perpendicularly to the pivot axis]
11/1057 . . . [specially adapted for vehicles (E05D 11/0064 takes precedence)]
11/1064 . . . [with a coil spring perpendicular to the pivot axis]
11/1071 . . . [specially adapted for vehicles]
11/1078 . . . [the maintaining means acting parallel to the pivot]
11/1085 . . . [specially adapted for vehicles]
2011/1092 . . . [the angle between the hinge parts being adjustable]

13/00 Accessories for sliding or lifting wings, e.g. pulleys, safety catches ([closers or openers for horizontally sliding wings E05F 1/02, E05F 1/08]: counterbalance devices [for swinging wings E05F 1/00, E05F 3/00])
13/003 . . . [Anti-dropping devices (E05D 13/1223, E05D 13/1246, E05D 13/1269, E05D 13/1292 take precedence)]
13/006 . . . [fixed to the wing, i.e. safety catches]
13/04 . . . [Fastenings specially adapted for holding sliding wings open (for holding wings closed E05C)]
13/06 . . . [with notches for vertically sliding wings]
13/08 . . . [acting by friction for vertically sliding wings]
13/10 . . . [Counterbalance devices]
13/12 . . . [with springs]
13/1207 . . . [with tension springs]
13/1215 . . . [specially adapted for overhead wings (E05D 13/1223 takes precedence)]
13/1223 . . . [Spring safety devices]
13/123 . . . [with compression springs]
13/1238 . . . [specially adapted for overhead wings (E05D 13/1246 takes precedence)]
13/1246 . . . [Spring safety devices]
13/1253 . . . [with canted-coil torsion springs]
13/1261 . . . [specially adapted for overhead wings (E05D 13/1229 takes precedence)]
13/1269 . . . [Spring safety devices]
13/1276 . . . [with coiled ribbon springs, e.g. constant force springs (E05D 13/1252 takes precedence)]
13/1284 . . . [specially adapted for overhead wings (E05D 13/1212 takes precedence)]
13/1292 . . . [Spring safety devices]
13/14 . . . [with weights]
13/145 . . . [specially adapted for overhead wings]

15/00 Suspension arrangements for wings (arrangements of wings not characterised by the construction of the supporting means E06B 3/32)
15/02 . . . for revolving wings
15/04 . . . with arms fixed on the wing pivoting about an axis outside of the wing
15/06 . . . for wings sliding horizontally more or less in their own plane
15/0604 . . . [allowing an additional movement (E05D 15/10 takes precedence; raising wings before sliding E05D 15/565)]
15/0608 . . . [caused by track lay-out]
15/0613 . . . [with multi-directional trolleys]
15/0617 . . . [of cantilever type]
15/0621 . . . [Details, e.g. suspension or supporting guides (E05D 15/0664, E05D 15/08 - E05D 15/14 take precedence)]
15/0626 . . . [for wings suspended at the top]
15/063 . . . [on wheels with fixed axis]
15/0634 . . . [with height adjustment]
15/0639 . . . [by vertical bolts]
15/0643 . . . [on balls or floating rollers]
15/0647 . . . [on sliding blocks]
15/0652 . . . [Tracks (E05D 15/063 - E05D 15/0647 and E05D 15/0656 take precedence)]
15/0656 . . . [Bottom guides]
15/066 . . . [for wings supported at the bottom]
15/0665 . . . [on wheels with fixed axis]
15/0669 . . . [with height adjustment]
15/0673 . . . [by vertical bolts]
15/0678 . . . [on balls or floating rollers]
15/0682 . . . [on sliding blocks]
15/0686 . . . [Tracks (E05D 15/0665 - E05D 15/0682 and E05D 15/0691 take precedence)]
15/0691 . . . [Top guides]
2015/0695 . . . [Magnetic suspension or supporting means]
15/08 . . . consisting of two or more independent parts movable each in its own guides
15/10 . . . movable out of one plane into a second parallel plane
15/1002 . . . [specially adapted for use in railway-cars or mass transit vehicles (E05D 15/1007, E05D 15/1023, E05D 15/1044, E05D 15/1068 take precedence)]
15/1005 . . . [the wing being supported on arms movable in horizontal planes]
15/1007 . . . [specially adapted for use in railway-cars or mass transit vehicles]
15/101 . . . [specially adapted for vehicles (E05D 15/1007 takes precedence)]
15/1013 . . . [specially adapted for windows]
15/1015 . . . [with an intermediate tilt position]
2015/1018 . . . [with the track rotating around its axis]
15/1021 . . . [including movement in a third direction, e.g. vertically]
15/1023 . . . [specially adapted for use in railway-cars or mass transit vehicles]
2015/1026 . . . [accessories, e.g. sliding or rolling guides, latches]
2015/1028 . . . [with only the wing moving transversely]
15/1031 . . . [the wing supported on arms extending from the carriage]
2015/1034 . . . [the carriage having means for preventing rotation of the wing]
2015/1036 . . . [the arms being movable in vertical, e.g. transverse, planes]
2015/1039 . . . [the wing sliding transversely on the carriage]
15/1042 . . . [with transversely moving carriage (E05D 15/1065 takes precedence)]
15/1044 . . . [specially adapted for use in railway-cars or mass transit vehicles]
15/1047 . . . [specially adapted for vehicles (E05D 15/1044 takes precedence)]
2015/1049 . . . [the carriage swinging or rotating in a transverse plane]
2015/1052 . . . [transversely over-dimensioned track sections or carriage]
2015/1055 . . . [with slanted or curved track sections or cams]
2015/1057 . . . [the carriage swinging or rotating in those track sections]
2015/106 . . . [transversely orientated track sections]
2015/1063 . . . [disconnecting the carriage from the track]
15/1065 . . . [with transversely moving track]
15/1068 . . . [specially adapted for use in railway-cars or mass transit vehicles]
2015/1071 . . . [the track being directly linked to the fixed frame, e.g. slidingly]
2015/1073 . . . [rocking transversely]
2015/1076 . . . [swinging transversely, e.g. on arms]
2015/1078 . . . [swinging or rotating in a horizontal plane]
15/1081 . . . [specially adapted for vehicles (E05D 15/1068 takes precedence)]
2015/1084 . . . [the carriage being directly linked to the fixed frame, e.g. slidingly]
2015/1086 . . . [swingingly, e.g. on arms]
2015/1089 . . . [the carriage having means for preventing rotation of the wing]
2015/1092 . . . [the carriage swinging or rotating in curved track sections]
2015/1094 . . . [disconnecting itself from the track]
2015/1097 . . . [with the carriage and track forming a telescopic element]
15/12 . . . [consisting of parts connected at their edges]
15/14 . . . [with movable arms situated in the plane of the wing]
15/16 . . . [for wings sliding vertically more or less in their own plane]
15/165 . . . [Details, e.g. sliding or rolling guides (E05D 15/18 - E05D 15/24 take precedence)]
15/18 . . . [consisting of two or more independent parts, movable each in its own guides]
15/20 . . . [movable out of one plane into a second parallel plane]
15/22 . . . [allowing an additional movement (E05D 15/20 takes precedence)]
2015/225 . . . [specially adapted for overhead wings]
15/24 . . . [consisting of parts connected at their edges]
15/242 . . . [Hinge connections between the parts]
15/244 . . . [Upper part guiding means]
15/246 . . . [with additional guide rail for producing an additional movement]
15/248 . . . [with lever arms for producing an additional movement]
15/26 . . . [for folding wings]
15/262 . . . [folding vertically]
15/264 . . . [for bi-fold wings]
15/266 . . . [comprising two pivots placed at opposite edges of the wing]
2015/268 . . . [the wings being successively folded]
15/28 . . . [supported on arms movable in horizontal plane]
15/30 . . . [with pivoted arms and sliding guides]
15/32 . . . [with two pairs of pivoted arms]
15/34 . . . [with wings opening parallel to themselves]
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]
15/38 . . . [for upwardly-moving wings, e.g. up-and-over doors]
15/40 . . . [supported on arms movable in vertical planes]
15/401 . . . [specially adapted for overhead wings (E05D 15/403 - E05D 15/46 take precedence)]
15/403 . . . [with arms fixed on the wing pivoting about an axis outside the wing]
15/405 . . . [with curved arms fixed on the wing, rolling on a support]
15/406 . . . [with pivoted arms and sliding guides (E05D 15/42, E05D 15/44 take precedence)]
15/408 . . . [with sliding guides fixed to the wing]
15/42 . . . [with pivoted arms and horizontally-sliding guides]
15/425 . . . [specially adapted for overhead wings]
15/44 . . . [with pivoted arms and vertically-sliding guides]
15/445 . . . [specially adapted for overhead wings]
15/46 . . . [with two pairs of pivoted arms]
15/463 . . . [specially adapted for overhead wings]
15/466 . . . [specially adapted for windows]
15/48 . . . [allowing alternative movements (E05D 15/0604 takes precedence); for vertically-sliding wings (E05D 15/22)]
2015/482 . . . [for panic doors]
2015/485 . . . [Swinging or sliding movements]
2015/487 . . . [Tilting or swinging movements]
15/50 . . . [for opening at either of two opposite edges (hinges or pivots of special construction to allow easy separation or connection of the parts at the hinge axis E05D 7/10; to allow easy detachment of the hinge from the wing or the frame E05D 7/12)]
15/502 . . . [by axial separation of the hinge parts at the hinge axis]
15/505 . . . [by radial separation of the hinge parts at the hinge axis]
15/507 . . . [by detachment of the hinge from the wing or the frame]
15/52 . . . [for opening about a vertical as well as a horizontal axis]
15/5202 . . . [with non-horizontally extending checks]
15/5205 . . . [with horizontally-extending checks]
15/5208 . . . [with means for transmitting movements between vertical and horizontal sliding bars, rods or cables]
15/5211 . . . [Concealed suspension fittings]
15/5214 . . . [Corner supports]
15/5217 . . . [Tilt-lock devices]
15/522 . . . with disconnecting means for the appropriate pivoting parts
15/523 . . . using movable rods
15/524 . . . . Actuating mechanisms
15/526 . . . Safety devices (E05D 15/5217 takes precedence)

2015/5263 . . . [acting parallel to the plane of the wing]
2015/5266 . . . [acting perpendicular to the plane of the wing]
15/54 . . for opening both inwards and outwards
15/56 . . with successive different movements ([raising wings before being turned E05F 7/02])
15/565 . . [for raising wings before sliding]
15/58 . . with both swinging and sliding movements
15/581 . . . [the swinging axis laying in the sliding direction (E05D 15/1015 takes precedence)]
15/582 . . . [with horizontal swinging axis (E05D 15/581 takes precedence)]
15/583 . . . [specially adapted for overhead wings]
2015/585 . . . [with stationary hinge parts]
2015/586 . . . [with travelling hinge parts]
2015/587 . . . [with axially separating hinge parts]
2015/588 . . . [with radially separating hinge parts]

2700/00 | Hinges or other suspension devices especially for doors or windows
2700/02 . Hinges with one pivot axis and one bearing surface
2700/04 . Hinges with one pivot axis and more than one bearing surface
2700/10 . Various door and window fittings, e.g. suspension devices for double hung windows or screens
2700/12 . Suspension devices for doors or windows movable in a direction perpendicular to their plane or pivotable about an axis being situated at a considerable distance from the edge of the wing by means of pivot arms