COOPERATIVE PATENT CLASSIFICATION

E FIXED CONSTRUCTIONS

BUILDING

E05 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 1/1616))

WARNING

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

1/00 Pinless hinges; Substitutes for hinges
   1/02 . made of one piece
   1/04 . with guide members shaped as circular arcs
   2001/045 . (for telescopic hinges)
   1/06 . consisting of two easily-separable parts

3/00 Hinges with pins ((E05D 7/08 takes precedence))
   3/02 . with one pin
   3/022 . (allowing an additional lateral movement, e.g. for sealing)
   2003/025 . (having three knuckles)
   2003/027 . (the end knuckles being mutually connected)
   3/04 . engaging three or more parts, e.g. sleeves, movable relatively to one another for connecting two or more wings to another member
   3/06 . with two or more pins (E05D 7/08 takes precedence)
   3/08 . for swing-doors, i.e. openable by pushing from either side
   3/10 . with non-parallel pins
   3/12 . with two parallel pins and one arm
   3/122 . (for vehicle doors)
   3/125 . (specially adapted for vehicles)
   3/127 . (for vehicle doors)
   3/14 . with four parallel pins and two arms
   3/142 . (with at least one of the hinge parts having a cup-shaped fixing part, e.g. for attachment to cabinets or furniture (E05D 11/1021 takes precedence))
   3/145 . (specially adapted for vehicles)
   3/147 . (for vehicle doors)
   3/16 . with seven parallel pins and four arms
   2003/163 . (Horizontal pivot-axis)
   2003/166 . (Vertical pivot-axis)
   3/18 . with sliding pins or guides
   3/183 . (with at least one of the hinge parts having a cup-shaped fixing part, e.g. for attachment to cabinets or furniture)

3/186 . . . (Scissors hinges, with two crossing levers and five parallel pins)

5/00 Construction of single parts, e.g. the parts for attachment
   5/02 . Parts for attachment, e.g. flaps
   5/0207 . (for attachment to vehicles (E05D 5/043, E05D 5/062 take precedence))
   5/0215 . (for attachment to profile members or the like)
   5/0223 . (with parts, e.g. screws, extending through the profile wall or engaging profile grooves)
   5/023 . . . . (with parts extending through the profile wall)
   5/0238 . . . . (with parts engaging profile grooves)
   5/0246 . . . . (for attachment to glass panels)
   2005/0253 . . . . (the panels having conical or stepped recesses)
   2005/0261 . . . . (connecting two or more glass panels)
   2005/0269 . . . . (the panels being coplanar)
   5/0276 . . . . (for attachment to cabinets or furniture, the hinge having two or more pins (E05D 5/046, E05D 5/065, E05D 7/125 take precedence))
   2005/0284 . . . . (for embedding in concrete or masonry)
   2005/0292 . . . . (for passing through insulating layers)
   5/04 . Flat flaps
   5/043 . . . . (specially adapted for vehicles)
   5/046 . . . . (specially adapted for cabinets or furniture)
   5/06 . Bent flaps
   5/062 . . . . (specially adapted for vehicles)
   5/065 . . . . (specially adapted for cabinets or furniture)
   2005/067 . . . . (gooseneck shaped)
   5/08 . . . . of cylindrical shape
   5/10 . Pins, sockets or sleeves; Removable pins (E05D 15/522 takes precedence)
   2005/102 . . . . [Pins]
   2005/104 . . . . [characterised by the materials]
   2005/106 . . . . [with non-cylindrical portions]
   2005/108 . . . . [with elastically deformable parts]
   5/12 . . . . Securing pins in sockets, movably or not
7/086 . . . Braking devices structurally combined with hinges (braking devices for windows see 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)
2007/1027 . . . (by axially moving free pins)
2007/1033 . . . (by axially moving free balls)
2007/1038 . . . (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 \( (\text{E05D } 7/086 \text{ takes precedence}) \)
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 especially adapted for cabinets or furniture]
11/10247 . [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 \( (\text{E05D } 11/1064 \text{ takes precedence}) \)]
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 \( ([\text{closers or openers for horizontally sliding wings } \text{E05F } 1/02, \text{E05F } 1/08]; \text{counterbalance devices (for swinging wings) } \text{E05F } 1/00, \text{E05F } 3/00]) \)
13/003 . (Anti-dropping devices \( \text{E05D } 13/1223, \text{E05D } 13/1246, \text{E05D } 13/1269, \text{E05D } 13/1292 \text{ take precedence}) \)
13/006 . [fixed to the wing, i.e. safety catches]
13/04 . [Fasteners specially adapted for holding sliding wings open (for holding wings closed \( \text{E05C} \))]
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 \( (\text{E05D } 13/1223 \text{ takes precedence}) \)]
13/1223 . [Spring safety devices]
13/123 . [with compression springs]
13/1238 . [specially adapted for overhead wings \( (\text{E05D } 13/1246 \text{ takes precedence}) \)]
13/1246 . [Spring safety devices]
13/1253 . [with cantilever torsion springs]
13/1261 . [specially adapted for overhead wings \( (\text{E05D } 13/1269 \text{ takes precedence}) \)]
13/1269 . [Spring safety devices]
13/1276 . [with coiled ribbon springs, e.g. constant force springs \( (\text{E05D } 13/1252 \text{ takes precedence}) \)]
13/1284 . [specially adapted for overhead wings \( (\text{E05D } 13/1292 \text{ takes precedence}) \)]
13/1292 . [Spring safety devices]
13/14 . [with weights]
13/145 . [specially adapted for overhead wings]
15/00 Suspension arrangements for wings \( ([\text{arrangements of wings not characterised by the construction of the supporting means } \text{E06B } 3/32]) \)
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 \( (\text{E05D } 15/10 \text{ takes precedence}; \text{raising wings before sliding } \text{E05D } 15/565) \)]
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 \( (\text{E05D } 15/0604, \text{E05D } 15/08 - \text{E05D } 15/14 \text{ take precedence}) \)]
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 \( (\text{E05D } 15/063 - \text{E05D } 15/0647 \text{ and } \text{E05D } 15/0656 \text{ take precedence}) \)]
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 \( (\text{E05D } 15/0665 - \text{E05D } 15/0682 \text{ and } \text{E05D } 15/0691 \text{ take precedence}) \)]
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 \( (\text{E05D } 15/1007, \text{E05D } 15/1023, \text{E05D } 15/1044, \text{E05D } 15/1068 \text{ take precedence}) \)]
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 \( (\text{E05D } 15/1007 \text{ takes precedence}) \)]
15/1013 . [specially adapted for windows]
15/1015 . [with an intermediate tilt position]
2015/1018 . [with the track rotating around its axis]
plane

for wings sliding vertically more or less in their own plane

movable out of one plane into a second parallel plane

{ involving movement in a third direction, e.g. vertically }

{specially adapted for use in railway-cars or mass transit vehicles }

{accessories, e.g. sliding or rolling guides, latches }

{with only the wing moving transversely }

{the wing supported on arms extending from the carriage }

{the carriage having means for preventing rotation of the wing }

{the arms being movable in vertical, e.g. transverse, planes }

{the wing sliding transversely on the carriage }

{with transversely moving carriage (E05D 15/1065 takes precedence) }

{specially adapted for use in railway-cars or mass transit vehicles }

{specially adapted for vehicles (E05D 15/1044 takes precedence) }

{the carriage swinging or rotating in a transverse plane }

{transversely over-dimensioned track sections or carriage }

{with slanted or curved track sections or cams }

{the carriage swinging or rotating in those track sections }

{transversely orientated track sections }

{disconnecting the carriage from the track }

{with transversely moving track }

{specially adapted for use in railway-cars or mass transit vehicles }

{the track being directly linked to the fixed frame, e.g. slidingly }

{rocking transversely }

{swinging transversely, e.g. on arms }

{swinging or rotating in a horizontal plane }

{specially adapted for vehicles (E05D 15/1068 takes precedence) }

{the carriage being directly linked to the fixed frame, e.g. slidingly }

{swinging or rotating, e.g. on arms }

{the carriage having means for preventing rotation of the wing }

{the carriage swinging or rotating in curved track sections }

{disconnecting itself from the track }

{with the carriage and track forming a telescopic element }

{consisting of parts connected at their edges }

{with movable arms situated in the plane of the wing }

{for wings sliding vertically more or less in their own plane }

{Details, e.g. sliding or rolling guides (E05D 15/18 - E05D 15/24 take precedence) }

{consisting of two or more independent parts, movable each in its own guides }

{movable out of one plane into a second parallel plane }

allowing an additional movement { (E05D 15/20 takes precedence) }

{specially adapted for overhead wings }

{consisting of parts connected at their edges }

{Hinge connections between the parts }

{Upper part guiding means }

{with additional guide rail for producing an additional movement }

{with lever arms for producing an additional movement }

{for folding wings }

{folding vertically }

{for bi-fold wings }

{comprising two pivots placed at opposite edges of the wing }

{the wings being successively folded }

{supported on arms movable in horizontal plane }

{with pivoted arms and sliding guides }

{with two pairs of pivoted arms }

{with wings opening parallel to themselves }

{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 }

{for upwardly-moving wings, e.g. up-and-over doors }

{supported on arms movable in vertical planes }

{specially adapted for overhead wings (E05D 15/403 - E05D 15/46 take precedence) }

{with arms fixed on the wing pivoting about an axis outside the wing }

{with curved arms fixed on the wing, rolling on a support }

{with pivoted arms and sliding guides (E05D 15/42, E05D 15/44 take precedence) }

{with sliding guides fixed to the wing }

{with pivoted arms and horizontally-sliding guides }

{specially adapted for overhead wings }

{with pivoted arms and vertically-sliding guides }

{specially adapted for overhead wings }

{with two pairs of pivoted arms }

{specially adapted for overhead wings }

{specially adapted for windows }

{allowing alternative movements (E05D 15/0604 takes precedence) ; for vertically-sliding wings (E05D 15/22) }

{for panic doors }

{Swinging or sliding movements }

{Titling or swinging movements }

{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) }

{by axial separation of the hinge parts at the hinge axis }

{by radial separation of the hinge parts at the hinge axis }

{by detachment of the hinge from the wing or the frame }

{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])

15/5263 . . . . [acting parallel to the plane of the wing]
15/5266 . . . . [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]

15/585 . . . [with stationary hinge parts]
15/586 . . . . [with travelling hinge parts]
15/587 . . . . [with axially separating hinge parts]
15/588 . . . . [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