## CPC
### COOPERATIVE PATENT CLASSIFICATION
#### E
##### FIXED CONSTRUCTIONS

#### BUILDING

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

*NOTE omitted*

##### 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.

<table>
<thead>
<tr>
<th>1/00</th>
<th>Pinless hinges; Substitutes for hinges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/02</td>
<td>. made of one piece</td>
</tr>
<tr>
<td>1/04</td>
<td>. with guide members shaped as circular arcs</td>
</tr>
<tr>
<td>2001/045</td>
<td>. (for telescopic hinges)</td>
</tr>
<tr>
<td>1/06</td>
<td>. consisting of two easily-separable parts</td>
</tr>
<tr>
<td>3/00</td>
<td>Hinges with pins (E05D 7/08 takes precedence)</td>
</tr>
<tr>
<td>3/02</td>
<td>. with one pin</td>
</tr>
<tr>
<td>3/022</td>
<td>. (allowing an additional lateral movement, e.g. for scaling)</td>
</tr>
<tr>
<td>2003/025</td>
<td>. (having three knuckles)</td>
</tr>
<tr>
<td>2003/027</td>
<td>. [the end knuckles being mutually connected]</td>
</tr>
<tr>
<td>3/04</td>
<td>. engaging three or more parts, e.g. sleeves, movable relatively to one another for connecting two or more wings to another member</td>
</tr>
<tr>
<td>3/06</td>
<td>. with two or more pins (E05D 7/08 takes precedence)</td>
</tr>
<tr>
<td>3/08</td>
<td>. for swing-doors, i.e. openable by pushing from either side</td>
</tr>
<tr>
<td>3/10</td>
<td>. with non-parallel pins</td>
</tr>
<tr>
<td>3/12</td>
<td>. with two parallel pins and one arm</td>
</tr>
<tr>
<td>3/122</td>
<td>. [for vehicle doors]</td>
</tr>
<tr>
<td>3/125</td>
<td>. [specially adapted for vehicles]</td>
</tr>
<tr>
<td>3/127</td>
<td>. [for vehicle doors]</td>
</tr>
<tr>
<td>3/14</td>
<td>. with four parallel pins and two arms</td>
</tr>
<tr>
<td>3/142</td>
<td>. [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)]</td>
</tr>
<tr>
<td>3/145</td>
<td>. [specially adapted for vehicles]</td>
</tr>
<tr>
<td>3/147</td>
<td>. [for vehicle doors]</td>
</tr>
<tr>
<td>3/16</td>
<td>. with seven parallel pins and four arms</td>
</tr>
<tr>
<td>2003/163</td>
<td>. [Horizontal pivot-axis]</td>
</tr>
<tr>
<td>2003/166</td>
<td>. [Vertical pivot-axis]</td>
</tr>
<tr>
<td>3/18</td>
<td>. with sliding pins or guides</td>
</tr>
<tr>
<td>3/183</td>
<td>. [with at least one of the hinge parts having a cup-shaped fixing part, e.g. for attachment to cabinets or furniture]</td>
</tr>
<tr>
<td>3/186</td>
<td>. . . [Scissors hinges, with two crossing levers and five parallel pins]</td>
</tr>
<tr>
<td>5/00</td>
<td>Construction of single parts, e.g. the parts for attachment</td>
</tr>
<tr>
<td>5/02</td>
<td>. Parts for attachment, e.g. flaps</td>
</tr>
<tr>
<td>5/0207</td>
<td>. . [for attachment to vehicles (E05D 5/043, E05D 5/062 take precedence)]</td>
</tr>
<tr>
<td>5/0215</td>
<td>. . [for attachment to profile members or the like]</td>
</tr>
<tr>
<td>5/0223</td>
<td>. . [with parts, e.g. screws, extending through the profile wall or engaging profile grooves]</td>
</tr>
<tr>
<td>5/023</td>
<td>. . . [with parts extending through the profile wall]</td>
</tr>
<tr>
<td>5/0238</td>
<td>. . . [with parts engaging profile grooves]</td>
</tr>
<tr>
<td>5/0246</td>
<td>. [for attachment to glass panels]</td>
</tr>
<tr>
<td>2005/0253</td>
<td>. . [the panels having conical or stepped recesses]</td>
</tr>
<tr>
<td>2005/0261</td>
<td>. . [connecting two or more glass panels]</td>
</tr>
<tr>
<td>2005/0269</td>
<td>. . . [the panels being coplanar]</td>
</tr>
<tr>
<td>5/0276</td>
<td>. . . [for attachment to cabinets or furniture, the hinge having two or more pins (E05D 5/046, E05D 5/065, E05D 7/125 take precedence)]</td>
</tr>
<tr>
<td>2005/0284</td>
<td>. . . [for embedding in concrete or masonry]</td>
</tr>
<tr>
<td>2005/0292</td>
<td>. . . [for passing through insulating layers]</td>
</tr>
<tr>
<td>5/04</td>
<td>. Flat flaps</td>
</tr>
<tr>
<td>5/043</td>
<td>. . [specially adapted for vehicles]</td>
</tr>
<tr>
<td>5/046</td>
<td>. . [specially adapted for cabinets or furniture]</td>
</tr>
<tr>
<td>5/06</td>
<td>. Bent flaps</td>
</tr>
<tr>
<td>5/062</td>
<td>. . [specially adapted for vehicles]</td>
</tr>
<tr>
<td>5/065</td>
<td>. . . [specially adapted for cabinets or furniture]</td>
</tr>
<tr>
<td>2005/067</td>
<td>. . . . . [gooseneck shaped]</td>
</tr>
<tr>
<td>5/08</td>
<td>. . . . . of cylindrical shape</td>
</tr>
<tr>
<td>5/10</td>
<td>. . . . . Pins, sockets or sleeves; Removable pins (E05D 15/522 takes precedence)</td>
</tr>
<tr>
<td>2005/102</td>
<td>. . . . [Pins]</td>
</tr>
<tr>
<td>2005/104</td>
<td>. . . . [characterised by the materials]</td>
</tr>
<tr>
<td>2005/106</td>
<td>. . . . [with non-cylindrical portions]</td>
</tr>
<tr>
<td>2005/108</td>
<td>. . . . [with elastically deformable parts]</td>
</tr>
<tr>
<td>5/12</td>
<td>. . . Securing pins in sockets, movably or not</td>
</tr>
</tbody>
</table>
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)

7/007  . . . 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 \( ([E05D \ 5/12 \text{ and } E05D \ 15/50 \text{ take precedence }]) \); 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)
7/1027  . . . (by axially moving free pins)
7/1033  . . . (by axially moving free balls)
7/1038  . . . (by axially moving free sockets)
7/1044  . . . (in an axial direction \( (E05D \ 7/1005 \text{ takes precedence}) \))
7/105  . . . (requiring a specific angular position)
7/1055  . . . (with snap-fitted pins)
7/1061  . . . (in a radial direction \( (E05D \ 7/1005 \text{ takes precedence}) \))
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)
7/1088  . . . (using hinge pins having different lengths)
7/1094  . . . (Guiding devices therefor)
7/12  . . . (to allow easy detachment of the hinge from the wing or the frame \( (E05D \ 15/50 \text{ takes precedence}) \))
7/121  . . . (specialy adapted for vehicles)
7/123  . . . (specially adapted for cabinets or furniture)
7/125  . . . (the hinge having two or more pins)
7/126  . . . (in an axial direction)
7/128  . . . (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 \( (E05D \ 1/02 \text{ takes precedence}) \))
11/00  . . . Additional features or accessories of hinges \( (edge \text{ protecting devices } E06B \ 3/08) \)
11/0009  . . . (Templates for marking the position of fittings on wings or frames \( \text{implements for making doors, windows or frames } E04F \ 21/003) \))
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)
11/0036  . . . (near the hinge)
11/0045  . . . (on the hinge)
11/0054  . . . (Covers, e.g. for protection)
11/0063  . . . (for screw-heads or bolt-heads)
11/0072  . . . (for the gap between hinge parts)
11/0081  . . . (for transmitting energy, e.g. electrical cable routing)
11/009  . . . (Impact absorbing hinges for vehicle doors)
11/02  . . . Lubricating arrangements
11/04  . . . relating to the use of free balls as bearing-surfaces \( (E05D \ 7/06 \text{ takes precedence}) \))
11/045  . . . (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 7/086 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 11/1064 takes precedence))

11/1064 . . (with a coil spring perpendicular to the pivot axis)

11/1071 . . (specially adapted for vehicles)

11/1078 . . (specially adapted for vehicles)

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 . (Fasteners specially adapted for holding sliding wings open (for holding wings closed E05C))

13/06 . (with notch 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 13/1269 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 13/1292 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 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 15/0604, 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 15/0663 - 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 for railway-cars or mass transit vehicles (E05D 15/1002, 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 . . . {involving 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}
15/1028 . . . {with only the wing moving transversely}
15/1031 . . . {the wing supported on arms extending from the carriage}
15/1034 . . . {the carriage having means for preventing rotation of the wing}
15/1036 . . . {the arms being movable in vertical, e.g. transverse, planes}
15/1039 . . . {the wing sliding transversely on the carriage}
15/1042 . . . {with transversely moving carriage}
15/1044 . . . {specially adapted for use in railway-cars or mass transit vehicles}
15/1047 . . . {specially adapted for vehicles}
2015/1049 . . . {the carriage swinging or rotating in a transverse plane}
15/1052 . . . {transversely over-dimensioned track sections or carriage}
15/1055 . . . {with slanted or curved track sections or cams}
15/1057 . . . {the carriage swinging or rotating in those track sections}
15/106 . . . {transversely orientated track sections}
15/1063 . . . {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}
15/1071 . . . {the track being directly linked to the fixed frame, e.g. slidingly}
15/1073 . . . {rocking transversely}
15/1076 . . . {swinging transversely, e.g. on arms}
15/1078 . . . {swinging or rotating in a horizontal plane}
15/1081 . . . {specially adapted for vehicles}
15/1084 . . . {the carriage being directly linked to the fixed frame, e.g. slidingly}
15/1086 . . . {swingingly, e.g. on arms}
15/1089 . . . {the carriage having means for preventing rotation of the wing}
15/1092 . . . {the carriage swinging or rotating in curved track sections}
15/1094 . . . {disconnecting itself from the track}
15/1097 . . . {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}
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}
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}
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}
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}
2015/482 . . . {for vertically-sliding wings}
15/485 . . . {Swinging or sliding movements}
15/487 . . . {Tilting or swinging movements}
15/50 . . . {for opening at either of two opposite edges}
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