

# CPC COOPERATIVE PATENT CLASSIFICATION

## E FIXED CONSTRUCTIONS

### SUBSECTION: Building

**E01 CONSTRUCTION OF ROADS, RAILWAYS, OR BRIDGES** (of tunnels [E21D](#) )

**E01B PERMANENT WAY; PERMANENT-WAY TOOLS; MACHINES FOR MAKING RAILWAYS OF ALL KINDS** (derailing or rerailing blocks on track, track brakes or retarders [B61K](#) )

**E01C CONSTRUCTION OF, OR SURFACES FOR, ROADS, SPORTS GROUNDS, OR THE LIKE; MACHINES OR AUXILIARY TOOLS FOR CONSTRUCTION OR REPAIR** (forming roads or like surfaces by compacting or grading snow or ice [E01H](#) )

**E01D CONSTRUCTION OF BRIDGES, { ELEVATED ROADWAYS } OR VIADUCTS; ASSEMBLY OF BRIDGES** (bridges extending between terminal buildings and aircraft for embarking or disembarking passengers [B64F 1/305](#); { tracks for special kinds of railways [E01B 25/00](#); culverts [E01F 5/005](#) } )

**E01F ADDITIONAL WORK, SUCH AS EQUIPPING ROADS OR THE CONSTRUCTION OF PLATFORMS, HELICOPTER LANDING STAGES, SIGNS, SNOW FENCES, OR THE LIKE**

#### WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following groups:  
[E01F 15/10](#) covered by [E01F 15/02](#)

**E01H STREET CLEANING; CLEANING OF PERMANENT WAYS; CLEANING BEACHES; DISPERSING {or preventing } FOG IN GENERAL** {Cleaning street or railway furniture or tunnel walls } (cleaning in general [B08B](#) )

**E02 HYDRAULIC ENGINEERING; FOUNDATIONS; SOIL SHIFTING**

**E02B HYDRAULIC ENGINEERING** (ship-lifting [E02C](#) ; dredging [E02F](#) )

**WARNING**

[C12.08]

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E02B 15/06](#) covered by [E02B 15/04B2](#)  
[E02B 15/08](#) covered by [E02B 15/04B](#)  
[E02B 15/10](#) covered by [E02B 15/04C](#) to [E02B 15/04G](#)

**E02C****SHIP-LIFTING DEVICES OR MECHANISMS****E02D**
**FOUNDATIONS; EXCAVATIONS, EMBANKMENTS** (specially adapted for hydraulic engineering [E02B](#) ) ; **UNDERGROUND OR UNDERWATER STRUCTURE** (tunnels, tunnelling, mining [E21](#) )
**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E02D 29/09](#) covered by [E02D 29/06](#)

**E02F****DREDGING; SOIL-SHIFTING** (winning peat [E21C 49/00](#))**NOTE**

This subclass covers :

- primarily equipment for excavating or loosening earth or for moving loose earth;
- equipment for working similarly on other materials and similar equipment for loading or unloading materials

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E02F 3/32](#) covered by [E02F 3/30](#), [E02F 3/425](#)  
[E02F 3/39](#) covered by [E02F 3/286](#), [E02F 3/30K](#), [E02F 3/34K](#)  
[E02F 3/78](#) " " [E02F 7/76](#) + s.gr.  
[E02F 3/85](#) " " [E02F 3/84A](#), [E02F 3/842](#), [E02F 3/84B](#), [E02F 3/845](#), [E02F 3/847](#)  
[E02F 5/04](#) " " [E21B](#)  
[E02F 5/06](#) " " [E02F 3/08](#)  
[E02F 5/08](#) " " [E02F 3/18](#)  
[E02F 5/16](#) " " [E21B](#)  
[E02F 5/18](#) " " [E21B](#)  
[E02F 5/20](#) " " [E21B](#)

## **E03 WATER SUPPLY; SEWERAGE**

**E03B INSTALLATIONS OR METHODS FOR OBTAINING, COLLECTING, OR DISTRIBUTING WATER** (drilling wells, obtaining fluids in general from wells [E21B](#) ; pipe-line systems in general [F17D](#) )

**E03C DOMESTIC PLUMBING INSTALLATIONS FOR FRESH WATER OR WASTE WATER** (not connected to either water-supply main or to waste pipe [A47K](#) ; devices of the kind used in the ground [E03B](#) , F) ; **SINKS**

**E03D WATER-CLOSETS OR URINALS WITH FLUSHING DEVICES; FLUSHING VALVES THEREFOR**

**E03F SEWERS; CESSPOOLS**

**E04 BUILDING** (layered materials, layered products in general [B32B](#) )

**E04B GENERAL BUILDING CONSTRUCTIONS; WALLS, e.g. PARTITIONS; ROOFS; FLOORS; CEILINGS; INSULATION OR OTHER PROTECTION OF BUILDINGS** (border constructions of opening in walls, floors or ceilings [E06B 1/00](#); { electromagnetic shielding [H05K 9/0001](#) } )

### **NOTE**

In this subclass, the following term is used with the meaning indicated :

- "ceiling" includes all the finishing material concealing the the underside of the load-carrying ceiling structure or roof structure.

### **WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E04B 1/682](#) covered by [E04B 1/68](#)  
[E04B 1/684](#) covered by [E04B 1/68](#)  
[E04B 1/686](#) covered by [E04B 1/68](#)

**E04C STRUCTURAL ELEMENTS; BUILDING MATERIALS** (for bridges [E01D](#) ; specially designed for insulation or other protection [E04B](#) ; elements used as building aids [E04G](#) ; for mining [E21](#) ; for tunnels [E21D](#) ; structural elements with broader range of application than for building engineering [F16](#) , particularly [F16S](#) )

**E04D ROOF COVERINGS; SKY-LIGHTS; GUTTERS; ROOF-WORKING**

**TOOLS** (coverings of outer walls by plaster or other porous material [E04F 13/00](#))**NOTE**

In this subclass, the following expression is used with the meaning indicated:

- "roof coverings" includes any similar kind of watertight covering against rain, snow, hail, or the like, for other parts of buildings

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E04D 3/3645](#) covered by [E04D 3/363](#)  
[E04D 3/367](#) " " [E04D 3/364](#)  
[E04D 13/18](#) " " [F24J 2/00](#), [H01L 31/048B](#)

**E04F****FINISHING WORK ON BUILDINGS, e.g. STAIRS, FLOORS** (windows, doors [E06B](#) )**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E04F 11/09](#) covered by [E04F 11/02](#)  
[E04F 11/17](#) covered by [E04F 11/16](#)

**E04G****SCAFFOLDING; FORMS; SHUTTERING; BUILDING IMPLEMENTS OR OTHER BUILDING AIDS, OR THEIR USE; HANDLING BUILDING MATERIALS ON THE SITE; REPAIRING, BREAKING-UP OR OTHER WORK ON EXISTING BUILDINGS****NOTE**

In this subclass the word "scaffolding" includes other supports for like purposes

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E04G 3/02](#) covered by [E04G 3/00](#)  
[E04G 3/04](#) " " [E04G 3/00](#)  
[E04G 3/06](#) " " [E04G 3/00](#)  
[E04G 3/08](#) " " [E04G 3/00](#)  
[E04G 3/10](#) " " [E04G 3/00](#)  
[E04G 3/12](#) " " [E04G 3/00](#)  
[E04G 3/14](#) " " [E04G 3/00](#)  
[E04G 3/16](#) " " [E04G 3/00](#)  
[E04G 23/03](#) " " [E04G 23/0266](#)

**E04H****BUILDINGS OR LIKE STRUCTURES FOR PARTICULAR PURPOSES; SWIMMING OR SPLASH BATHS OR POOLS; MASTS; FENCING; TENTS OR CANOPIES, IN GENERAL** ([foundations E02D](#) )**NOTE**

This subclass deals primarily with the layout of buildings as a whole, but includes details which are peculiar to types of buildings or buildings for special purposes, specified in the groups. The word "buildings" does not exclude engineering structures and other constructions

This subclass provides for canopies in general and for canopies similar in construction to tents. For canopies having special application, see the relevant class, e.g. bed canopies [A47C 29/00](#); protecting chairs against the weather [A47C 7/66](#); sunshades or awnings for buildings [E04F 10/00](#)

In this subclass, the term "tent" means a tent or canopy having a supporting means, e.g. frame and a flexible cover

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E04H 4/02](#) covered by [E04H 4/00C](#), [E04H 4/00D](#)  
[E04H 4/04](#) covered by [E04H 4/00C](#), [E04H 4/00D](#)

**E05****LOCKS; KEYS; WINDOW OR DOOR FITTINGS; SAFES****NOTE**

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](#) to [E05B 9/00](#), [E05B 13/00](#) to [E05B 17/00](#), [E05B 39/00](#) to [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 (5) 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****WARNING**

Groups [E05B 77/00](#) to [E05B 85/28](#) do not correspond to former or current IPC groups. Concordance CPC : IPC for these groups is as follows: - [E05B 77/00](#) to [E05B 85/28](#) : [E05B 65/12](#)

**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](#)

**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 1/00D](#); 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 1/16P2HJ](#))

**WARNING**

The following IPC groups are not used in the CPC classification scheme. Subject matter covered by these groups is classified in the following CPC groups: [E05D 5/16](#) covered by [E05D 5/14](#)  
[E05D 7/081](#) covered by [E05D 7/08](#)

[E05D 7/083](#) covered by [E05D 7/082](#)  
[E05D 15/04](#) covered by [E05D 15/02](#), [E05D 15/28](#), [E05D 15/40B](#)  
[E05D 15/522](#) covered by [E05D 15/52](#)  
[E05D 15/523](#) covered by [E05D 15/52](#)  
[E05D 15/524](#) covered by [E05D 15/52](#)

**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**

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.

**E05G**

**SAFES OR STRONG-ROOMS FOR VALUABLES; BANK PROTECTION DEVICES; SAFETY TRANSACTION PARTITIONS** ( {devices to prevent theft of bags, trunks or baskets [A45C 13/18](#); } alarm arrangements per se [G08B](#) )

**NOTE**

In this subclass, the following terms 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.

**E05Y**

**INDEXING SCHEME RELATING TO HINGES OR OTHER SUSPENSION DEVICES FOR DOORS, WINDOWS OR WINGS AND DEVICES FOR MOVING WINGS INTO OPEN OR CLOSED POSITION, CHECKS FOR WINGS AND WING FITTINGS NOT OTHERWISE PROVIDED FOR, CONCERNED WITH THE FUNCTIONING OF THE WING**

**E06**

**DOORS, WINDOWS, SHUTTERS, OR ROLLER BLINDS IN GENERAL; LADDERS**

**E06B**

**FIXED OR MOVABLE CLOSURES FOR OPENINGS IN BUILDINGS, VEHICLES, FENCES OR LIKE ENCLOSURES IN GENERAL, e.g. DOORS, WINDOWS, BLINDS, GATES** (shades or blinds for greenhouses [A01G 9/22](#); curtains [A47H](#) ; lids for car boots or bonnets [B62D 25/10](#); skylights [E04B 7/18](#); sunshades, awnings [E04F 10/00](#))

**NOTE**

This subclass does not cover combinations of wings or frames with operating, mounting, latching or locking means of the type found in class [E05](#) , which are covered by the relevant subclasses of class [E05](#) , except such as are covered by groups [E06B 7/086](#), [E06B 9/00](#), or [E06B 11/02](#) of this subclass.

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

- "wing" means a swingable, slidable or otherwise movable member such as a door or window, for closing an opening;
- "wing frame" means the peripheral edge or edges which define the outer border of the wing.

For vehicle door or window arrangements, attention is drawn to Note (1) following the title of subclass [B60J](#) .

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E06B 11/06](#) covered by [E05B 65/00B](#)

**E06C**

**LADDERS** ([E04F 11/00](#) takes precedence; step-stools [A47C 12/00](#); adaptation of ladders to use on ships [B63B](#) , to use on aircraft [B64](#) ; scaffolding [E04G](#) )

**SUBSECTION: Earth drilling; mining****E21****EARTH DRILLING; MINING****E21B**

**EARTH DRILLING, e.g. DEEP DRILLING** (mining, quarrying [E21C](#) ; making shafts, driving galleries or tunnels [E21D](#) ) ; **OBTAINING OIL, GAS, WATER, SOLUBLE OR MELTABLE MATERIALS OR A SLURRY OF MINERALS FROM WELLS**

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E21B 1/12](#) to [E21B 1/38](#) covered by [E21B 1/00](#)  
[E21B 7/08](#) covered by [E21B 7/06](#)  
[E21B 11/04](#) covered by [E21B 27/00](#)  
[E21B 23/12](#) covered by [E21B 23/00D](#)  
[E21B 31/08](#) covered by [E21B 27/00](#)  
[E21B 43/22](#) covered by [C09K 8/58](#)

**E21C****MINING OR QUARRYING**



**NOTE**

This subclass covers methods or apparatus specific to mining or quarrying

This subclass does not cover, even though they may be disclosed only for mining or quarrying, drill bits, bore reamers, core taking devices, drilling pipes or rods, handling, racking or connecting arrangements for drilling pipes or rods, counterboring or enlarging drilled holes, flame drilling, or other drilling apparatus, which are covered by subclass [E21B](#)

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

<a href="#">E21C 1/02</a>	covered by	<a href="#">E21B 3/02</a>
<a href="#">E21C 1/04</a>	" "	<a href="#">E21B 3/02S</a>
<a href="#">E21C 1/06</a>	" "	<a href="#">E21B 3/02B</a>
<a href="#">E21C 1/08</a>	" "	<a href="#">E21B 3/02D</a>
<a href="#">E21C 1/12</a>	" "	<a href="#">E21B 6/00</a>
<a href="#">E21C 3/08</a>	" "	<a href="#">B25D 9/06</a> , <a href="#">B25D 15/00</a>
<a href="#">E21C 3/10</a>	" "	<a href="#">B25D 15/02</a>
<a href="#">E21C 3/12</a>	" "	<a href="#">B25D 11/00</a>
<a href="#">E21C 3/14</a>	" "	<a href="#">B25D 11/00</a>
<a href="#">E21C 3/20</a>	" "	<a href="#">B25D 9/12</a>
<a href="#">E21C 3/22</a>	" "	<a href="#">B25D 9/125</a>
<a href="#">E21C 3/28</a>	" "	<a href="#">B25D 16/00B</a>
<a href="#">E21C 3/30</a>	" "	<a href="#">B25D 16/00B2</a>
<a href="#">E21C 3/32</a>	" "	<a href="#">B25D 9/265</a>
<a href="#">E21C 3/34</a>	" "	<a href="#">B25D 17/08</a>
<a href="#">E21C 5/02</a>	" "	<a href="#">E21B 19/08B</a>
<a href="#">E21C 5/04</a>	" "	<a href="#">E21B 19/08D</a>
<a href="#">E21C 5/06</a>	" "	<a href="#">E21B 19/08F</a>
<a href="#">E21C 5/11</a>	" "	<a href="#">E21B 19/08K</a> , <a href="#">E21B 19/08L</a>
<a href="#">E21C 5/12</a>	" "	<a href="#">E21B 19/08S</a>
<a href="#">E21C 5/14</a>	" "	<a href="#">E21B 44/00G2</a>
<a href="#">E21C 5/16</a>	" "	<a href="#">E21B 44/00</a>
<a href="#">E21C 7/02</a>	" "	<a href="#">E21B 21/00P</a>
<a href="#">E21C 7/06</a>	" "	<a href="#">E21B 21/14</a>
<a href="#">E21C 11/02</a>	" "	<a href="#">E21B 7/02</a>
<a href="#">E21C 37/24</a>	" "	<a href="#">B25D</a>
<a href="#">E21C 37/26</a>	" "	<a href="#">B25D</a>
<a href="#">E21C 41/18</a>	" "	<a href="#">E21C 41/16</a>
<a href="#">E21C 41/20</a>	" "	<a href="#">E21C 41/16</a>
<a href="#">E21C 41/22</a>	" "	<a href="#">E21C 41/16</a>
<a href="#">E21C 41/24</a>	" "	<a href="#">E21C 41/16</a>
<a href="#">E21C 41/28</a>	" "	<a href="#">E21C 41/26</a>
<a href="#">E21C 41/30</a>	" "	<a href="#">E21C 41/26</a>
<a href="#">E21C 45/02</a>	" "	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
<a href="#">E21C 45/04</a>	" "	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
<a href="#">E21C 45/06</a>	" "	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
<a href="#">E21C 45/08</a>	" "	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
<a href="#">E21C 50/00</a>	" "	<a href="#">E02F 3/88</a>
<a href="#">E21C 50/02</a>	" "	<a href="#">E02F 3/88</a> , <a href="#">E21C 7/00B</a>

**E21D****SHAFTS; TUNNELS; GALLERIES; LARGE UNDERGROUND**

**CHAMBERS** (soil-conditioning or soil-stabilising materials [C09K 17/00](#); drilling or cutting machines for mining or quarrying [E21C](#) ; safety devices, transport, rescue, ventilation or drainage [E21F](#) )

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[E21D 9/01](#) covered by [E21D 9/00](#)  
[E21D 9/087](#) covered by [E21D 9/00](#)  
[E21D 9/093](#) covered by [E21D 9/00](#)  
[E21D 13/02](#) covered by [E21D 13/00](#)  
[E21D 13/04](#) covered by [E21D 13/00](#)  
[E21D 15/582](#) covered by [E21D 15/58](#)  
[E21D 15/59](#) covered by [E21D 15/44](#), [E21D 15/58](#)  
[E21D 17/022](#) covered by [E21D 17/02](#)  
[E21D 17/05](#) covered by [E21D 17/02H](#), [E21D 17/04](#)  
[E21D 17/054](#) covered by [E21D 17/04](#)  
[E21D 19/06](#) covered by [E21D 19/02](#), [E21D 19/04](#)

**E21F**

**SAFETY DEVICES, TRANSPORT, FILLING-UP, RESCUE,  
VENTILATION, OR DRAINING IN OR OF MINES OR TUNNELS**