### CPC - COOPERATIVE PATENT CLASSIFICATION

#### E FIXED CONSTRUCTIONS

#### BUILDING

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

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

#### NOTES

1. 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.

2. 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.

3. 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 4/0018, E04H 4/0075 |
| E04H 4/04 | covered by | E04H 4/0018, E04H 4/0075 |

1/00 Buildings or groups of buildings for dwelling or office purposes; General layout, e.g. modular co-ordination, staggered storeys (small buildings) (E04H 3/00 takes precedence; buildings for two or more purposes, e.g. drive-in buildings E04H 14/00; building construction in general E04B 1/00)

1/005 . . . (Modulation co-ordination)

1/02 . . . Dwelling houses; Buildings for temporary habitation, e.g. summer houses; (small erections for limited occupation E04H 1/12 { collapsible, erectable or rotatable buildings E04B 1/343})

1/04 . . . Apartment houses arranged in two or more levels

1/06 . . . Office buildings; Banks (E04H 1/12 takes precedence; furniture or fittings for shops, storehouses or the like A47F)

1/10 . . . Small buildings or other erections for limited occupation, erected in the open air or arranged in buildings, e.g. kiosks, waiting shelters for bus stops or for filling stations, roofs for railway platforms, watchmens' huts, dressing cubicles (movable screens as household equipment A47G 5/00)

1/125 . . . (Small buildings erected in the open air (E04H 1/1272 takes precedence))

1/1211 . . . (Waiting shelters for bus stops)

1/1216 . . . (Public W.C.s)

1/1222 . . . (Sales kiosks)

1/1227 . . . (Traffic control kiosks)

1/1233 . . . (Shelters for filling stations)

1/1238 . . . (Shelters for engines, e.g. electrical meter housings)

1/1244 . . . (Dressing or beach cabins)

1/125 . . . (Small buildings, arranged in other buildings (E04H 1/1272 takes precedence))

1/1255 . . . (Voting booths)

1/1261 . . . (Cubicles for fire-protection)

1/1266 . . . (Cubicles for dressing; Toilets)

1/1272 . . . (Exhibition stands)

1/1277 . . . (Shelters for decontamination)

2001/1283 . . . (Small buildings of the ISO containers type)

2001/1288 . . . (Sauna cabins)

2001/1294 . . . (Booths for smoking)

1/14 . . . (Telephone cabinets)

3/00 Buildings or groups of buildings for public or similar purposes; Institutions, e.g. infirmaries, prisons (portions of buildings for individual occupation, e.g. cubicles E04H 1/00; structures covering a large free area E04B 1/342)

3/02 . . . Hotels; Motels; Coffee houses; Restaurants; Shops; Department stores { (furnishing or fitting A47F)

3/04 . . . Restaurants or shops having arrangements for self-service (paying counters A47F 9/02; furniture or installations specially adapted for supermarkets A47F 9/02; transport aspects B65G; coin-freed apparatus G07F)

3/06 . . . Museums; Library buildings

3/08 . . . Hospitals, infirmaries, or the like; Schools; Prisons

3/10 . . . for meetings, entertainments, or sports

3/12 . . . Tribunes, grandstands or terraces for spectators (or amphitheatres) { (auditoriums E04H 3/30; chairs, stools, benches A47C)

3/123 . . . (Telescopic grandstands)

3/126 . . . (Foldable, retractable or tiltable tribunes (E04H 3/123 takes precedence))

3/14 . . . Gymnasiums; Other sporting buildings (tribunes E04H 3/12)
4/00  Swimming or splash baths or pools (wave-producers for baths A47K 3/10; separation B01D; treatment of water C02F; wave-producing pumps F04D 35/00)

4/0006  . . . (Devices for producing waves in swimming pools (generating current of water in swimming pools A63B 69/125))

4/0012  . . . (Floating swimming pools)

4/0018  . . . (Easily movable or transportable swimming pools)

4/0025  . . . (with inflatable parts)

4/0031  . . . (with shell type elements)

4/0037  . . . (Mono-shell type)

4/0043  . . . (mainly made of panels (E04H 4/0031 takes precedence))

4/005  . . . [characterised by the framework for supporting the panels]

4/0056  . . . (with a framework combined with a water retaining bag)

4/0062  . . . [characterised by stacked planks or staves]

4/0075  . . . (made of concrete (E04H 4/0012 takes precedence))

4/0081  . . . (with walls and floor cast in situ)

4/0087  . . . (with walls prefabricated and floor cast in situ)

4/0093  . . . (with walls and floor prefabricated)

4/06  . . . Safety devices; Coverings for baths

4/065  . . . (Floors adjustable in height)

4/08  . . . Coverings consisting of rigid elements (e.g. coverings composed of separate or connected elements)

4/082  . . . [composed of flexibly or hingedly-connected slat-like elements, which may or may not be wound-up on a fixed axis (E04H 4/088 takes precedence)]

4/084  . . . (with lifting mechanism)

4/086  . . . (Sliding covers (E04H 4/084 and E04H 4/088 take precedence))

4/088  . . . (Covers made in concertina folds)

4/10  . . . Coverings of flexible material

4/101  . . . (wound-up on a fixed axis)

4/103  . . . (with inflatable chambers)

4/105  . . . (supported by air pressure under the cover)

4/106  . . . (supported by separate buoyant bodies)

4/108  . . . (supported by frames)

4/12  . . . Devices or arrangements for circulating water[, i.e. devices for removal of polluted water, cleaning baths or for water treatment]

4/1209  . . . (Treatment of water for swimming pools (filters B01D))

4/1218  . . . [Devices for removal of polluted water; Circumferential gutters]

4/1227  . . . [Circumferential gutters]

4/1236  . . . (Bottom drains)

4/1245  . . . (Recirculating pumps for swimming pool water)

4/1254  . . . (Arm-mounted debris traps or flow diverters)

4/1263  . . . [Floating skimmers]

4/1272  . . . (Skimmers integrated in the pool wall)

4/1281  . . . (Devices for distributing chemical products in the water of swimming pools)

4/129  . . . (Systems for heating the water content of swimming pools (solar collectors using pools F24J 2/0472; F24J 2/0461; by solar radiation F24J 2/423))

4/14  . . . (Parts, details or accessories not otherwise provided for)

4/141  . . . (Coping elements for swimming pools)

4/142  . . . (with fixing means for sealing foil)

4/143  . . . (Swimming lane markers with or without wave suppressors)

4/144  . . . (Means for facilitating access, e.g. step units or slides (invalid-lifting devices for swimming pools A61G 7/1005))

4/145  . . . (Dividing means for swimming pools, e.g. panels, bulkheads)

2004/146  . . . (Fixing of liners)

2004/147  . . . (the liner edge being held in a slot)

4/148  . . . (Lighting means)

4/16  . . . (specially adapted for cleaning (cleaning devices peculiar to vessels B63B 59/00))

4/1609  . . . (Hand-held strainers, non-powered brushes or scrubbers)

4/1618  . . . (Hand-held powered cleaners)

4/1627  . . . (Powered gutter cleaners)

4/1636  . . . (Suction cleaners)

4/1645  . . . (Connections to the pool water circulation system)

4/1654  . . . (Self-propelled cleaners)

4/1663  . . . (the propulsion resulting from an intermittent interruption of the waterfall through the cleaner)

4/1672  . . . (Connections to the pool water circulation system)

4/1681  . . . (Cleaning whips)

4/169  . . . (Pool nozzles)

5/00  Buildings or groups of buildings for industrial or agricultural purposes (building construction in general E04B 1/00)

2005/005  . . . (Buildings for data processing centers)

5/02  . . . Buildings or groups of buildings for industrial purposes, e.g. for power-plants, factories (buildings forming part of cooling plants E04H 5/10; building structures for parking vehicles E04H 6/00)
6/00 Buildings for parking cars, rolling stock, aircraft, vessels or like vehicles, e.g. garages (tents for use as garages E04H 15/00; bicycle stands B62H; storing of vessels on land B63C 15/00; construction of ground-supported surfaces E01C; marking of parking areas on the ground E01F 9/50; building construction in general E04B 1/00)

6/005 . . . [Garages for vehicles on two wheels]
6/02 . . . Small garages, e.g. for one or two cars (attached to, or supported by, the vehicle B62D; prefabricated and with undivided interior E04B 1/343)
6/025 . . . [in the form of an overhead canopy, e.g. carports]
6/04 . . . wheeled, hinged, foldable, telescopic, swinging or otherwise movable (E04H 6/025 takes precedence); transportable or collapsible buildings in general E04B 1/343)
6/06 . . . with means for shifting or lifting vehicles
6/065 . . . [using tiltable floors or ramps (in garages for many vehicles E04H 6/26)]
6/08 . . . Garages for many vehicles
6/10 . . . without mechanical means for shifting or lifting vehicles, e.g. with helically-arranged fixed ramps, with movable ramps (E04H 6/26 takes precedence)
6/12 . . . with mechanical means for shifting or lifting vehicles
6/14 . . . with endless conveyor chains having load-carrying parts moving vertically, e.g. paternoster lifts [also similar transport in which cells are continuously mechanically linked together]
6/16 . . . Garages shaped as a wheel or drum rotatable about a horizontal axis
6/18 . . . with means for transport in vertical direction only or independently in vertical and horizontal directions (E04H 6/14 takes precedence)
6/181 . . . [the cars rolling freely from the transfer means (E04H 6/282 takes precedence)]
6/182 . . . [using car-gripping transfer means (E04H 6/285 takes precedence)]
6/183 . . . [without transverse movement of the car after leaving the transfer means]
6/185 . . . [using comb-type transfer means (E04H 6/287 takes precedence)]
6/186 . . . [without transverse movement of the car after leaving the transfer means]
6/187 . . . [using vertical parking loops]
6/188 . . . [using only vertical transport means]
6/20 . . . characterised by the use of conveyor chains or rotatable rollers for horizontal transport

6/22 . . . characterised by the use of movable platforms for horizontal transport, [i.e. cars being permanently parked on palettes (E04H 6/20 takes precedence)]
6/225 . . . [without transverse movement of the parking palette after leaving the transfer means]
6/24 . . . characterised by the use of dollies for horizontal transport, [i.e. cars being permanently parked on wheeled platforms (E04H 6/20 takes precedence)]
6/245 . . . [without transverse movement of the wheeled parking platform after leaving the transfer means]
6/26 . . . characterised by the use of tiltable floors or floor sections; characterised by the use of movable ramps
6/28 . . . characterised by the use of turntables or rotary rings for horizontal transport (E04H 6/20 takes precedence)
6/282 . . . [turntables, rotary elevators or the like on which the cars are not permanently parked]
6/285 . . . . . . [using car-gripping transfer means]
6/287 . . . . . . [using comb-type transfer means]
6/30 . . . with means for transport in horizontal direction only
6/302 . . . . . . [the cars rolling freely from the transfer means]
6/305 . . . . . . [using car-gripping transfer means]
6/307 . . . . . . [using comb-type transfer means]
6/32 . . . characterised by use of conveyor chains or rotatable rollers
6/34 . . . characterised by use of movable platforms (E04H 6/32 takes precedence)
6/36 . . . characterised by use of freely-movable dollies
6/38 . . . characterised by use of tiltable floors or floor sections
6/40 . . . characterised by use of turntables or rotary rings (E04H 6/32 - E04H 6/38 take precedence)
6/42 . . . Devices or arrangements peculiar to garages, not covered elsewhere, e.g. securing devices, safety devices, monitoring and operating schemes; centering devices
6/422 . . . [Automatically operated car-parks]
6/424 . . . [Positioning devices]
6/426 . . . [Parking guides]
6/428 . . . [Devices for collecting oil or other fluids under parked cars (servicing, maintaining, repairing or refitting of vehicles B60S 5/00)]
6/44 . . . for storing aircraft (structures covering a large free area E04B 1/342)

7/00 Construction or assembling of bulk storage containers employing civil engineering techniques in situ or off the site (tower aspects E04H 12/00; storage aspects, e.g. floating roofs, sealing means, filling or discharging means B65D, B65G, F17B, F17C; foundations E02D 27/28)
7/02 . . . Containers for fluids or gases; Supports therefor (arrangements or adaptations of tanks for water supply E03B 11/00)
7/04 . . . mainly of metal
Buildings, or groups of buildings, or shelters adapted to withstand or provide protection against abnormal external influences, e.g. war-like action, earthquake, extreme climate (floatable buildings B63B; foundation aspects E02D; building constructions in general E04B; bearings or like supports allowing movement E04B 1/36; special details in regard to insulation or other protection E04B 1/96; supporting structures for endangered or damaged existing buildings or parts thereof E04G 23/04; doors, windows E06B 5/00; air-conditioning, ventilation F24F; camouflage F41H 3/00; cells or rooms shielded against dangerous radiation G21F 7/00)

9/02 . . . withstanding earthquake or sinking of ground (foundations E02D 27/34; making use of active or passive dynamic mass damping systems E04B 1/985)

9/021 . . . [Bearing, supporting or connecting constructions specially adapted for such buildings]

9/022 . . . [and comprising laminated structures of alternating elastomeric and rigid layers]

9/023 . . . [and comprising rolling elements, e.g. balls, pins]

9/024 . . . [Structures with steel columns and beams]

9/025 . . . [Structures with concrete columns]

2009/026 . . . [Anti-seismic devices with hydraulic or pneumatic damping]

9/027 . . . [Preventive constructional measures against earthquake damage in existing buildings]

9/028 . . . [Earthquake withstanding shelters]

9/029 . . . [arranged inside of buildings E04H 9/06 takes precedence]

9/04 . . . against air-raid or other warlike actions (respiratory apparatus A62B)

9/06 . . . Structures arranged in or forming part of buildings

9/08 . . . Structures arranged underneath buildings, e.g. air-raid shelters

9/10 . . . Independent shelters; Arrangement of independent splitter-proof walls

9/12 . . . entirely underneath the level of the ground, e.g. air-raid galleries (tunnels, mine galleries E21D)

9/14 . . . against other dangerous influences, e.g. tornadoes, floods

9/145 . . . [Floods (protecting building openings E04B 9/00)]

9/16 . . . against adverse conditions, e.g. extreme climate, pests

12/00 Towers; Masts or poles; Chimney stacks; Water-towers; Methods of erecting such structures (cooling-towers E04H 5/12; supports for road signs E01F 9/60; foundation piles E02D 5/22; foundations for masts, poles or chimneys E02D 27/42; structural elongated members in general E04C 3/00; fixed climbing irons E06C 9/04; derricks for oil drilling E21B 15/00)

12/003 . . . [Access covers or locks therefor]

12/006 . . . [Structures with truss-like sections combined with tubular-like sections]

12/02 . . . Structures made of specified materials (E04H 12/16, E04H 12/18 take precedence)

12/04 . . . of wood

12/06 . . . Truss-like structures

12/08 . . . of metal

12/085 . . . [Details of flanges for tubular masts]

12/10 . . . Truss-like structures

12/12 . . . of concrete or other stone-like material, with or without internal or external reinforcements, e.g. with metal coverings, with permanent form elements

12/14 . . . Truss-like structures

12/16 . . . Prestressed structures

12/18 . . . movable or with movable sections, e.g. rotatable, telescopic ([flexible slalom gate poles A63C 19/062; flexible road sign supports E01F 9/627; rotary buildings E04B 1/346]

12/182 . . . [telescopic (locking of telescopic systems in general F16B 7/10)]

12/185 . . . [with identical elements]

12/187 . . . [with hinged sections]

12/20 . . . Side supporting means therefor, e.g. using guy ropes, struts (ground anchors E02D 5/80; fastening means for cables or ropes F16G 11/00)

12/22 . . . Sockets or holders for poles or posts ([for sports articles, e.g. floor sockets A63B 71/023; for road signs E01F 9/673; foundations for poles, masts or chimneys E02D 27/42)]

12/2207 . . . [not used]

12/2215 . . . [driven into the ground (ground anchors E02D 5/80)]

12/2223 . . . . . . [by screwing]

12/223 . . . . . . [with movable anchoring elements; with separately driven anchor rods]

12/2238 . . . . . . [to be placed on the ground (Christmas tree stands A47G 33/12)]

12/2246 . . . . . . [filled with water, sand or the like]

12/2253 . . . . . . [Mounting poles or posts to the holder (E04H 12/2284 takes precedence; break-away mountings E01F 9/653)]

12/2261 . . . . . . [on a flat base (E04H 12/08, E04H 12/10 take precedence)]

12/2269 . . . . . . [in a socket]

12/2276 . . . . . . [Clamping poles or posts on a stub (E04H 12/2269 takes precedence)]

12/2284 . . . . . . [Means for adjusting the orientation of the post or pole]
Tents or canopies, in general

15/10 . . . Heating, lighting or ventilating (for heating, lighting or ventilating devices per se, see the relevant classes, e.g. F21, F24)

15/12 . . . Heating

15/14 . . . Ventilating

15/16 . . . of tent roofs

15/18 . Tents having plural sectional covers, e.g. pavilions, vaulted tents, marquees, circus tents (inflatable E04H 15/20); Plural tents, e.g. modular

15/20 . . . inflatable, e.g. shaped, strengthened, or supported by fluid pressure (connection of valves to inflatable elastic bodies B60C 29/00; inflatable forms for making walls or the like E04G 11/04)

15/201 . . . (with inflatable tubular framework, with or without tent cover)

15/202 . . . (with inflatable panels, without inflatable tubular framework)

15/203 . . . [supported by a non-inflatable structure or framework]

15/204 . . . [made from contiguous inflatable tubes]

15/205 . . . [made from two sheets with intermediate spacer means]

15/206 . . . [Details of inflation devices, e.g. valves, connections to fluid pressure source]

15/207 . . . (Tents specially designed for insulation)

15/208 . . . [with inflatable mattresses]

15/209 . . . [Structures with a netting or similar for anchorage]

15/22 . . . supported by air pressure inside the tent

15/24 . . . cone shaped, e.g. teepees

15/26 . . . Centre-pole supported tents (umbrella-type E04H 15/28)

15/28 . . . Umbrella type tents

15/30 . . . convertible, e.g. from one type to another type tent, from tent to canopy, from tent cover into diverse articles (sacks or packs convertible into tents A45F 4/04; coats or capes convertible into tent coverings A45F 4/14)

15/32 . . . Parts, components, construction details, accessories, interior equipment, specially adapted for tents, e.g. guy-line equipment, skirts, thresholds

15/322 . . . [Stretching devices]

15/324 . . . [Beds constituted by the tent supporting means (beds per se, A47C)]

15/326 . . . (Frame members connected by elastic cord)

15/328 . . . [Frames kept erected solely by guy lines]

15/34 . . . Supporting means, e.g. frames

15/36 . . . arch-shaped type (E04H 15/42 takes precedence; arches connected with lazy-tongues E04H 15/505])

15/38 . . . expansible, e.g. extensible [in a fan type manner]

15/40 . . . flexible

15/405 . . . [Flexible and foldable]

15/42 . . . external type, e.g. frame outside cover

15/425 . . . [Flexible supporting means]

15/44 . . . collapsible, e.g. breakdown type [having connecting nodes] (E04H 15/42 takes precedence; building structures having collapsible parts in general E04B 1/343)

15/46 . . . telescoping and foldable

15/48 . . . foldable, i.e. having pivoted or hinged means (E04H 15/405 and) E04H 15/46 takes precedence)
Fencing, e.g. fences, enclosures, corrals (features peculiar to electrified fences A01K 3/00; H05C; means for allowing passage through fences, barriers, or the like E06B 11/00)

17/00

17/003 [Anti-climbing devices, e.g. fixed or rotary spikes]

17/006 [Caps for posts]

17/02 Wire fencing (E04H 17/14 takes precedence)

17/04 using wire, barbed wire, wire mesh, toothed strips, or the like; Coupling means therefor (wire netting B21F 27/00; other metallic fabrics see the relevant classes; [turnbuckles F16G 11/12])

17/06 Parts for wire fences

17/063 [Fence liners; Vegetation prevention barriers]

17/066 [Slats for chain link fences]

17/08 Anchoring means therefor, e.g. specially-shaped parts entering the ground; Struts or the like (for towers or masts E04H 12/20; sockets for posts E04H 12/22)

NOTE Parts entering the ground are classified in E04H 12/22

17/10 characterised by the way of connecting wire to posts; Droppers

17/12 the wire being placed in slots, grooves, or the like

17/14 Fences constructed of rigid elements, e.g. with posts, with additional wire fillings

17/1404 [using building blocks]

17/1408 [using woven slats]

17/1413 [Post-and-rail fences without vertical cross-members]

17/1417 [Post-and-rail fences with vertical cross-members]

17/1421 [Connections between rail and post]

17/1426 [Picket fences]

17/143 [with separate pickets attached to the side of the horizontal members]

17/1434 [Connections between horizontal members and post]

17/1439 [with separate pickets going through the horizontal members]

17/1443 [Connections between horizontal members and post]

17/1447 [Details of connections between rails and posts]

17/1452 [the ends of the rails are fixed on the lateral sides of the posts]

17/1456 [the ends of the rails being located in vertical channels extending along a substantial portion of the length of the post]

17/146 [the rails being attached to the front faces of the posts]

17/1465 [the rails being supported within blind or through holes of the posts]

17/1469 [Snap connections]

17/1473 [using fixing devices encircling, partially or fully, the post]

17/1478 [the posts extending through apertures or cut-outs in the rails]

17/1482 [the rails being attached to the tops of the posts]

17/1486 [the rails being positioned between the uprights of double posts]

17/1491 [Hinged connections between rails and posts]

17/1495 [Fences with pivotal slats for reduced wind resistance or for adjusting visibility]

17/16 using prefabricated panel-like elements, e.g. wired frames

17/161 [using wired panels without frame]

17/163 [using wired panels with frame]

17/165 [using panels with frame (E04H 17/163 takes precedence)]

17/166 [with cross-members]

17/168 [using panels without frames and fitted in grooves of posts]

17/18 Corrals, i.e. easily transportable or demountable enclosures

17/20 Posts therefor

17/22 Anchoring means therefor, e.g. specially-shaped parts entering the ground; Struts or the like (for towers or masts E04H 12/20; sockets for posts E04H 12/22)

NOTE Parts entering the ground are classified in E04H 12/22

17/24 Connections for attaching additional wire to frames, posts or railings

17/26 Devices for erecting or removing fences { (hand-operated hammers having the impact head in form of a sleeve slidable on a shaft B25D 1/16) }

17/261 [for post and wire handling]

17/263 [for erecting posts (pile driving E02D 7/00)]

17/265 [for removing posts]

17/266 [for stretching or winding wire or wire mesh]

17/268 [Hand tools for wiring fences, e.g. tying or splicing tools (E04H 17/266 takes precedence)]