

# CPC COOPERATIVE PATENT CLASSIFICATION

## E FIXED CONSTRUCTIONS

### BUILDING

#### E04 BUILDING

#### 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

##### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E04H 4/02</a>	covered by	<a href="#">E04H 4/0018</a> , <a href="#">E04H 4/0075</a>
<a href="#">E04H 4/04</a>	covered by	<a href="#">E04H 4/0018</a> , <a href="#">E04H 4/0075</a>
2. 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.

<b>1/00</b>	<b>Buildings or groups of buildings for dwelling or office purposes; General layout, e.g. modular co-ordination, staggered storeys {small buildings}</b> ( <a href="#">E04H 3/00</a> takes precedence; buildings for two or more purposes, e.g. drive-in buildings <a href="#">E04H 14/00</a> ; building construction in general <a href="#">E04B 1/00</a> )	1/1244 . . . {Dressing or beach cabins}
		1/125 . . {Small buildings, arranged in other buildings ( <a href="#">E04H 1/1272</a> takes precedence)}
		1/1255 . . . {Voting booths}
		1/1261 . . . {Cubicles for fire-protection}
		1/1266 . . . {Cubicles for dressing; Toilets}
		1/1272 . . {Exhibition stands}
1/005	. {Modulation co-ordination}	1/1277 . . {Shelters for decontamination}
1/02	. Dwelling houses; Buildings for temporary habitation, {e.g. summer houses}(small erections for limited occupation <a href="#">E04H 1/12</a> ; collapsible, erectable or rotatable buildings <a href="#">E04B 1/343</a> )	2001/1283 . . {Small buildings of the ISO containers type}
		2001/1288 . . {Sauna cabins}
		2001/1294 . . {Booths for smoking}
1/04	. . Apartment houses arranged in two or more levels	1/14 . . Telephone cabinets
1/06	. Office buildings; Banks ( <a href="#">E04H 1/12</a> takes precedence; furniture or fittings for shops, storehouses or the like <a href="#">A47F</a> )	<b>3/00</b> <b>Buildings or groups of buildings for public or similar purposes; Institutions, e.g. infirmaries, prisons (portions of buildings for individual occupation, e.g. cubicles <a href="#">E04H 1/00</a>; structures covering a large free area <a href="#">E04B 1/342</a>)</b>
1/12	. 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, watchmen's huts, dressing cubicles (movable screens as household equipment <a href="#">A47G 5/00</a> )	3/02 . Hotels; Motels; Coffee houses; Restaurants; Shops; Department stores {(furnishing or fitting <a href="#">A47F</a> )}
1/1205	. . {Small buildings erected in the open air ( <a href="#">E04H 1/1272</a> takes precedence)}	3/04 . . Restaurants or shops having arrangements for self-service (paying counters <a href="#">A47F 9/02</a> ; furniture or installations specially adapted for supermarkets <a href="#">A47F 10/00</a> ; transport aspects <a href="#">B65G</a> ; coin-freeed apparatus <a href="#">G07F</a> )
1/1211	. . . {Waiting shelters for bus stops}	
1/1216	. . . {Public W.C.s}	3/06 . Museums; Library buildings
1/1222	. . . {Sales kiosks}	3/08 . Hospitals, infirmaries, or the like; Schools; Prisons
1/1227	. . . {Traffic control kiosks}	3/10 . for meetings, entertainments, or sports
1/1233	. . . {Shelters for filling stations}	3/12 . . Tribunals, grandstands or terraces for spectators {or amphitheatres}(auditoriums <a href="#">E04H 3/30</a> ; chairs, stools, benches <a href="#">A47C</a> )
1/1238	. . . {Shelters for engines, e.g. electrical meter housings}	

## E04H

- 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](#))
- 2003/142 . . . {with vertically movable or tiltable playing  
field or sections}
- 2003/145 . . . {with reconfigurable seating arrangement}
- 2003/147 . . . . {using horizontally movable sections of  
tribunes}
- 3/16 . . . for swimming (swimming or splash baths or  
pools [E04H 4/00](#))
- 3/165 . . . . {having movable parts}
- 3/22 . . Theatres; Concert halls; Studios for broadcasting,  
cinematography, television or similar purposes  
(drive-in buildings [E04H 14/00](#); equipment  
for theatres or concert halls [A63J](#) {; vehicles  
specially adapted to carry a theatre or stage  
[B60P 3/025](#))
- 3/24 . . . Constructional features of stages
- 3/26 . . . . Revolving stages; Stages able to be lowered  
(devices for raising or lowering persons  
[A63J 5/12](#))
- 3/28 . . . . Shiftable or portable platforms
- 3/30 . . . Constructional features of auditoriums (chairs,  
stools, benches [A47C](#); building details  
providing acoustical effects [E04B 1/99](#))
- 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](#))}
- WARNING**  
Group [E04H 4/0006](#) is incomplete pending  
reclassification of documents from groups  
[B63B 32/00](#), [B63B 32/20](#), [B63B 34/70](#) and  
[B63B 35/00](#).  
All groups listed in this Warning should be  
considered in order to perform a complete  
search.
- 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}
- 2004/0068 . . {made of plastic shells or plastic elements  
including at least parts of walls and floors}
- 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  
[F24S 10/17](#), [F24S 10/10](#); by solar radiation  
[F24S 20/02](#))}
- 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 waterflow 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](#))
- 5/04 . . Transformer houses; Substations or switchgear houses
- 5/06 . . Pits or building structures for inspection or services ([manhole shafts or other inspection chambers in general E02D 29/12](#))
- 5/08 . Buildings or groups of buildings for agricultural purposes ([silos E04H 7/22](#); [manure storage places A01C 3/02](#); [greenhouses A01G 9/14](#))
- 5/10 . Buildings forming part of cooling plants
- 5/12 . . Cooling towers ([towers in general E04H 12/00](#); [cooling equipment F28](#))
- 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 pallets ([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 27/38](#))
- 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
- 7/06 . . . with vertical axis
- 7/065 . . . . {roof constructions}
- 7/14 . . . ball-shaped
- 7/16 . . . with horizontal axis
- 7/18 . . mainly of concrete, e.g. reinforced concrete, or other stone-like material
- 7/20 . . . Prestressed constructions
- 7/22 . Containers for fluent solids, e.g. silos, bunkers; Supports therefor
- 2007/225 . . {Silos with retaining wall type wall elements, e.g. trench silos}
- 7/24 . . Constructions, with or without perforated walls, depending on the use of specified materials
- 7/26 . . . mainly of concrete, e.g. reinforced concrete or other stone-like materials
- 7/28 . . . . composed of special building elements
- 7/30 . . . mainly of metal
- 7/32 . . . mainly of wood
- 9/00 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 1/62](#); 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](#))
- WARNING**
- Group [E04H 9/02](#) is impacted by reclassification into groups [E04H 9/0235](#) and [E04H 9/0237](#).
- Groups [E04H 9/02](#), [E04H 9/0235](#) and [E04H 9/0237](#) should be considered in order to perform a complete search.
- 9/021 . . {Bearing, supporting or connecting constructions specially adapted for such buildings}
- WARNING**
- Group [E04H 9/021](#) is impacted by reclassification into groups [E04H 9/0215](#), [E04H 9/0235](#) and [E04H 9/0237](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 9/0215 . . . {involving active or passive dynamic mass damping systems}
- WARNING**
- Group [E04H 9/0215](#) is incomplete pending reclassification of documents from groups [E04H 9/021](#) and [E04H 9/04](#).
- Groups [E04H 9/04](#), [E04H 9/021](#) and [E04H 9/0215](#) should be considered in order to perform a complete search.
- 9/022 . . . {and comprising laminated structures of alternating elastomeric and rigid layers}
- WARNING**
- Group [E04H 9/022](#) is impacted by reclassification into groups [E04H 9/0235](#) and [E04H 9/0237](#).
- Groups [E04H 9/022](#), [E04H 9/0235](#) and [E04H 9/0237](#) should be considered in order to perform a complete search.
- 9/023 . . . {and comprising rolling elements, e.g. balls, pins}
- WARNING**
- Group [E04H 9/023](#) is impacted by reclassification into groups [E04H 9/0235](#) and [E04H 9/0237](#).
- Groups [E04H 9/023](#), [E04H 9/0235](#) and [E04H 9/0237](#) should be considered in order to perform a complete search.
- 9/0235 . . . {Anti-seismic devices with hydraulic or pneumatic damping}
- WARNING**
- Group [E04H 9/0235](#) is incomplete pending reclassification of documents from groups [E04H 9/02](#), [E04H 9/021](#), [E04H 9/022](#) and [E04H 9/023](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 9/0237 . . . {Structural braces with damping devices}
- WARNING**
- Group [E04H 9/0237](#) is incomplete pending reclassification of documents from groups [E04H 9/02](#), [E04H 9/021](#), [E04H 9/022](#) and [E04H 9/023](#).
- All groups listed in this Warning should be considered in order to perform a complete search.



- 9/024 . . {Structures with steel columns and beams}
- 9/025 . . {Structures with concrete columns}
- 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](#))
- WARNING**  
Group [E04H 9/04](#) is impacted by reclassification into group [E04H 9/0215](#).  
Groups [E04H 9/04](#) and [E04H 9/0215](#) should be considered in order to perform a complete search.
- 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 splinter-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 [E06B 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}
- 2012/006 . {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 9/631](#))}
- 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}
- 12/2292 . . {Holders used for protection, repair or reinforcement of the post or pole ([E04H 12/2276](#) takes precedence)}
- 12/24 . Cross arms
- 12/26 . Winding-towers for mines (elevators [B66B](#))
- 12/28 . Chimney stacks, e.g. free-standing, or similar ducts (foundations [E02D 27/42](#); chimneys as part of buildings [E04F 17/02](#); connections between furnace and smoke-stack, chimney equipment [F23](#))
- 12/30 . Water-towers (tanks [B65D 88/00](#); use of high-level tanks [E03B 11/12](#))
- 12/32 . Flagpoles (flags, banners, mountings therefor [G09F 17/00](#))
- 12/34 . Arrangements for erecting or lowering towers, masts, poles, chimney stacks, or the like
- 12/341 . . {Arrangements for casting *in situ* concrete towers or the like}
- 12/342 . . {Arrangements for stacking tower sections on top of each other ([E04H 12/344](#) takes precedence)}
- 12/344 . . {Arrangements for lifting tower sections for placing additional sections under them}
- 12/345 . . {Arrangements for tilting up whole structures or sections thereof ([E04H 12/347](#) takes precedence)}
- 12/347 . . {Arrangements for setting poles in the ground}
- 12/348 . . {Arrangements for demolition towers or the like}
- 13/00 Monuments; Tombs; Burial vaults; Columbaria,** ({coffins, urns [A61G 17/00](#)}; sculpture or other artistic features [B44](#))
- 13/001 . {Accessories for grave sites, e.g. liners, covers, vault lowering devices ([E04H 13/003](#) takes precedence)}
- 13/003 . {Funeral monuments, grave sites curbing or markers not making part of vaults ([E04H 13/008](#) takes precedence)}
- 13/005 . {Ventilation systems therefor}
- 13/006 . {Columbaria, mausoleum with frontal access to vaults}

- 13/008 . {Memorials for cremation ashes ([E04H 13/006](#) takes precedence)}
- 14/00 Buildings for combinations of different purposes not covered in a single previous group of this subclass, e.g. for double purpose ([E04H 3/02](#), [E04H 9/06](#) take precedence); Buildings of the drive-in type**
- 15/00 Tents or canopies, in general**
- 15/001 . {Hunting, fishing huts or the like}
- 15/003 . {Bathing or beach cabins}
- 15/005 . . {Wind breakers, i.e. fabric stretched between posts anchored in the ground}
- 15/006 . {Tents used as toys}
- 15/008 . {Tents or tent-like constructions composed partially of rigid panels ([E04H 15/06](#) takes precedence; trailer-type vehicles or caravans with foldable or readily disassembled living accommodation comprising flexible elements [B60P 3/341](#))}
- 15/02 . Tents combined or specially associated with other devices
- 15/04 . . suspended type, e.g. from trees, from cantilever supports ([supporting frames E04H 15/34](#))
- 15/06 . . Tents at least partially supported by vehicles
- 15/08 . . . Trailer awnings or the like
- 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](#))
- 2015/201 . . {with inflatable tubular framework, with or without tent cover}
- 2015/202 . . {with inflatable panels, without inflatable tubular framework}
- 2015/203 . . . {supported by a non-inflatable structure or framework}
- 2015/204 . . . {made from contiguous inflatable tubes}
- 2015/205 . . . {made from two sheets with intermediate spacer means}
- 2015/206 . . {Details of inflation devices, e.g. valves, connections to fluid pressure source}
- 2015/207 . . {Tents specially designed for insulation}
- 2015/208 . . {with inflatable mattresses}
- 2015/209 . . {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](#))}
- 2015/326 . . {Frame members connected by elastic cord}
- 2015/328 . . {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)
- 15/50 . . . . . lazy-tongs type
- 15/505 . . . . . {characterised by connecting arches with lazy-tongues}
- 15/52 . . . . . parallelogram type
- 15/54 . . Covers of tents or canopies ([ventilated tent roofs E04H 15/16](#))
- 15/56 . . Floors
- 15/58 . . Closures; Awnings; Sunshades
- 15/60 . . Poles
- 15/62 . . Pegs, stakes or the like
- 15/64 . . Tent or canopy cover fastenings
- 15/642 . . . {with covers held by elongated fixing members locking in longitudinal recesses of a frame}
- 15/644 . . . . {the fixing members being a beading}
- 15/646 . . . . {the fixing members being locked by an additional locking member}
- 15/648 . . . . {the longitudinal recesses being made from two clamping members}
- 17/00 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](#))**

**WARNING**

Group [E04H 17/00](#) is impacted by reclassification into groups [E04H 17/004](#), [E04H 17/006](#), [E04H 17/009](#), [E04H 17/013](#), and [E04H 17/017](#). All groups listed in this Warning should be considered in order to perform a complete search.

- 17/003 . {Anti-climbing devices, e.g. fixed spikes}

**WARNING**

Group [E04H 17/003](#) is impacted by reclassification into group [E04H 17/004](#).

Groups [E04H 17/003](#) and [E04H 17/004](#) should be considered in order to perform a complete search.

- 17/004 . . {Unstable, e.g. rotatory or resiliently mounted fence panels, spikes}

**WARNING**

Group [E04H 17/004](#) is incomplete pending reclassification of documents from groups [E04H 17/00](#) and [E04H 17/003](#).

Groups [E04H 17/00](#), [E04H 17/003](#), and [E04H 17/004](#) should be considered in order to perform a complete search.

- 17/006 . {Caps or covers for posts}

**WARNING**

Group [E04H 17/006](#) is incomplete pending reclassification of documents from group [E04H 17/00](#).

Groups [E04H 17/00](#) and [E04H 17/006](#) should be considered in order to perform a complete search.

- 17/009 . {Footing elements for fence posts or fence sections}

**WARNING**

Group [E04H 17/009](#) is incomplete pending reclassification of documents from groups [E04H 17/00](#) and [E04H 17/22](#).

Groups [E04H 17/00](#), [E04H 17/22](#), and [E04H 17/009](#) should be considered in order to perform a complete search.

- 17/013 . {in combination with gates}

**WARNING**

Group [E04H 17/013](#) is incomplete pending reclassification of documents from group [E04H 17/00](#).

Groups [E04H 17/00](#) and [E04H 17/013](#) should be considered in order to perform a complete search.

- 17/017 . {Fencing provided with electric elements or components, e.g. fencing member or component, such as fence strands, post, panel or rail, provided with electric elements or components}

**NOTE**

{When classifying in this group, aspects of electrified wire fencing for animal pasturing should also be classified in group [A01K 3/005](#)}

**WARNING**

Group [E04H 17/017](#) is incomplete pending reclassification of documents from group [E04H 17/00](#).

Groups [E04H 17/00](#) and [E04H 17/017](#) should be considered in order to perform a complete search.

- 17/02 . Wire fencing, e.g. made of wire mesh ([E04H 17/14](#) takes precedence; working or processing of wire [B21F](#), e.g. making wire nets [B21F 27/00](#))

**WARNING**

Group [E04H 17/02](#) is impacted by reclassification into groups [E04H 17/045](#), [E04H 17/05](#), and [E04H 17/055](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 17/04 . . characterised by the use of specially adapted wire, e.g. barbed wire {, wire mesh, toothed strip or the like; Coupling means therefor}

**WARNING**

Group [E04H 17/04](#) is impacted by reclassification into groups [E04H 17/045](#), [E04H 17/05](#), and [E04H 17/055](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 17/045 . . . {Barbed wire or toothed strip}

**WARNING**

Group [E04H 17/045](#) is incomplete pending reclassification of documents from groups [E04H 17/02](#) and [E04H 17/04](#).

Groups [E04H 17/02](#), [E04H 17/04](#), and [E04H 17/045](#) should be considered in order to perform a complete search.

- 17/05 . . . {Wire mesh or wire fabric}

**WARNING**

Group [E04H 17/05](#) is incomplete pending reclassification of documents from groups [E04H 17/02](#) and [E04H 17/04](#).

Groups [E04H 17/02](#), [E04H 17/04](#), and [E04H 17/05](#) should be considered in order to perform a complete search.

- 17/055 . . {Pickets for wire fencing}

**WARNING**

Group [E04H 17/055](#) is incomplete pending reclassification of documents from groups [E04H 17/02](#) and [E04H 17/04](#).

Groups [E04H 17/02](#), [E04H 17/04](#), and [E04H 17/055](#) should be considered in order to perform a complete search.

- 17/06 . . Parts for wire fences
- WARNING**
- Group [E04H 17/06](#) is impacted by reclassification into groups [E04H 17/127](#), [E04H 17/131](#), [E04H 17/133](#), [E04H 17/135](#), and [E04H 17/139](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 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
- WARNING**
- Group [E04H 17/10](#) is impacted by reclassification into groups [E04H 17/124](#), [E04H 17/127](#), [E04H 17/131](#), [E04H 17/133](#), [E04H 17/135](#), and [E04H 17/139](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 17/12 . . . the wire being placed in slots, grooves, or the like
- 17/124 . . . {connecting by one or more clamps, clips, screws, wedges or ties}
- WARNING**
- Group [E04H 17/124](#) is incomplete pending reclassification of documents from group [E04H 17/10](#).
- Groups [E04H 17/10](#) and [E04H 17/124](#) should be considered in order to perform a complete search.
- 17/127 . . {Stretcher-type wire fencing; Tensioning devices for wire fencing}
- WARNING**
- Group [E04H 17/127](#) is incomplete pending reclassification of documents from groups [E04H 17/06](#), [E04H 17/10](#), and [E04H 17/266](#).
- Groups [E04H 17/06](#), [E04H 17/266](#), and [E04H 17/127](#) should be considered in order to perform a complete search.
- 17/131 . . . {the wire being tensioned by one or more springs}
- WARNING**
- Group [E04H 17/131](#) is incomplete pending reclassification of documents from groups [E04H 17/06](#) and [E04H 17/10](#).
- Groups [E04H 17/06](#), [E04H 17/10](#), and [E04H 17/131](#) should be considered in order to perform a complete search.
- 17/133 . . . {the wire being tensioned by one or more winders}
- WARNING**
- Groups [E04H 17/133](#), [E04H 17/135](#), and [E04H 17/139](#) are incomplete pending reclassification of documents from groups [E04H 17/06](#) and [E04H 17/10](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 17/135 . . . . {winder fixed to post via a bracket}
- 17/139 . . . . {winder internal to post}
- 17/14 . . Fences constructed of rigid elements, e.g. with additional wire fillings or with posts
- WARNING**
- Group [E04H 17/14](#) is impacted by reclassification into groups [E04H 17/21](#) and [E04H 17/23](#).
- Groups [E04H 17/14](#), [E04H 17/21](#), and [E04H 17/23](#) should be considered in order to perform a complete search.
- 17/1404 . . {using building blocks, e.g. from concrete or stone}
- 17/1408 . . {using woven slats}
- 17/1413 . . {Post-and-rail fences, e.g. without vertical cross-members}
- 17/1417 . . . {with vertical cross-members}
- 17/1426 . . . . {Picket fences}
- 17/143 . . . . . {with separate pickets attached to the side of the horizontal members}
- 17/1439 . . . . . {with separate pickets going through the horizontal members}
- 17/1445 . . . {Fences with pivotable slats for reduced wind resistance or for adjusting visibility}
- 17/1447 . . . {Details of connections between rails and posts}
- WARNING**
- Group [E04H 17/1447](#) is impacted by reclassification into groups [E04H 17/1448](#), [E04H 17/145](#), and [E04H 17/1488](#).
- All groups listed in this Warning should be considered in order to perform a complete search.



- 17/1448 . . . . {Adjustable, angled or hinged connections}  
**WARNING**  
 Group [E04H 17/1448](#) is incomplete pending reclassification of documents from group [E04H 17/1447](#).  
 Groups [E04H 17/1447](#) and [E04H 17/1448](#) should be considered in order to perform a complete search.
- 17/145 . . . . {being welded, bonded or deformed in-situ}  
**WARNING**  
 Group [E04H 17/145](#) is incomplete pending reclassification of documents from group [E04H 17/1447](#).  
 Groups [E04H 17/1447](#) and [E04H 17/145](#) should be considered in order to perform a complete search.
- 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}
- 17/1488 . . . . {Brackets for connections between rails and posts ([E04H 17/1448](#)- [E04H 17/1486](#) take precedence)}  
**WARNING**  
 Group [E04H 17/1488](#) is incomplete pending reclassification of documents from group [E04H 17/1447](#).  
 Groups [E04H 17/1447](#) and [E04H 17/1488](#) should be considered in order to perform a complete search.
- 17/16 . . . using prefabricated panel-like elements, e.g. wired frames  
**WARNING**  
 Group [E04H 17/16](#) is impacted by reclassification into groups [E04H 17/1602](#), [E04H 17/17](#), and [E04H 17/185](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 17/1602 . . . . {Using wooden, plastic or composite-material panel-like elements}  
**WARNING**  
 Group [E04H 17/1602](#) is incomplete pending reclassification of documents from group [E04H 17/16](#).  
 Groups [E04H 17/16](#) and [E04H 17/1602](#) should be considered in order to perform a complete search.
- 17/161 . . . . {using wire panels}  
**WARNING**  
 Group [E04H 17/161](#) is impacted by reclassification into group [E04H 17/164](#).  
 Groups [E04H 17/161](#) and [E04H 17/164](#) should be considered in order to perform a complete search.
- 17/163 . . . . {using wired panels with frame}  
**WARNING**  
 Group [E04H 17/163](#) is impacted by reclassification into group [E04H 17/164](#).  
 Groups [E04H 17/163](#) and [E04H 17/164](#) should be considered in order to perform a complete search.
- 17/164 . . . . {occultation devices therefor, e.g. slats, fence liners or panels blocking view therethrough}  
**WARNING**  
 Group [E04H 17/164](#) is incomplete pending reclassification of documents from groups [E04H 17/161](#) and [E04H 17/163](#).  
 Groups [E04H 17/161](#), [E04H 17/163](#), and [E04H 17/164](#) should be considered in order to perform a complete search.
- 17/165 . . . . {using panels with rigid filling and frame}
- 17/166 . . . . {with cross-members}
- 17/168 . . . . {using panels fitted in grooves of posts}  
**WARNING**  
 Group [E04H 17/168](#) is incomplete pending reclassification of documents from groups [E04H 17/163](#), [E04H 17/165](#) and [E04H 17/166](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 17/17 . . . . {brackets for the connection between panels and posts}  
**WARNING**  
 Group [E04H 17/17](#) is incomplete pending reclassification of documents from group [E04H 17/16](#).  
 Groups [E04H 17/16](#) and [E04H 17/17](#) should be considered in order to perform a complete search.
- 17/18 . . . . Corrals, i.e. easily transportable or demountable enclosures

- 17/185 . . . . {hinged or tied prefabricated panel-like elements}  
**WARNING**  
 Group [E04H 17/185](#) is incomplete pending reclassification of documents from group [E04H 17/16](#).  
 Groups [E04H 17/16](#) and [E04H 17/185](#) should be considered in order to perform a complete search.
- 17/20 . . Posts therefor  
**WARNING**  
 Group [E04H 17/20](#) is impacted by reclassification into group [E04H 17/21](#).  
 Groups [E04H 17/20](#) and [E04H 17/21](#) should be considered in order to perform a complete search.
- 17/21 . . . {with hollow cross sections}  
**WARNING**  
 Group [E04H 17/21](#) is incomplete pending reclassification of documents from groups [E04H 17/14](#) and [E04H 17/20](#).  
 Groups [E04H 17/14](#), [E04H 17/20](#), and [E04H 17/21](#) should be considered in order to perform a complete search.
- 17/22 . . . anchoring means therefore, 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](#)  
**WARNING**  
 Group [E04H 17/22](#) is impacted by reclassification into group [E04H 17/009](#).  
 Groups [E04H 17/22](#) and [E04H 17/009](#) should be considered in order to perform a complete search.
- 17/23 . . . {lateral supporting elements, e.g. braces, tie downs, or cables}  
**WARNING**  
 Group [E04H 17/23](#) is incomplete pending reclassification of documents from group [E04H 17/14](#).  
 Groups [E04H 17/14](#) and [E04H 17/23](#) should be considered in order to perform a complete search.
- 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 (stretcher-type wire fencing or tensioning devices for wire fencing [E04H 17/127](#))}  
**WARNING**  
 Group [E04H 17/266](#) is impacted by reclassification into group [E04H 17/127](#).  
 Groups [E04H 17/266](#) and [E04H 17/127](#) should be considered in order to perform a complete search.
- 17/268 . . {Hand tools for wiring fences, e.g. tying or splicing tools ([E04H 17/266](#) takes precedence)}