

E 04 BUILDING (layered materials, layered products in general B 32 B)

E 04 B GENERAL BUILDING CONSTRUCTIONS; WALLS, e.g. PARTITIONS; ROOFS; FLOORS; CEILINGS; INSULATION OR OTHER PROTECTION OF BUILDINGS (border constructions of openings in walls, floors, or ceilings E 06 B 1/00)

Notes

- (1) This subclass covers working methods used in constructing new buildings and analogous working methods on existing buildings. Other working methods on existing buildings, except those for insulating, are classified in group E 04 G 23/00. [5]
- (2) In this subclass, the following term is used with the meaning indicated:
– “ceiling” includes all the finishing material concealing the underside of the load-carrying ceiling structure or roof structure. [4]
- (3) In this subclass, it is desirable to add the indexing code of group 101:00. The indexing code should be unlinked. [5]

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- 1/00 **Constructions in general; Structures which are not restricted either to walls, e.g. partitions, or floors or ceilings or roofs** (scaffolds, shutterings E 04 G; structures specially adapted for buildings for special purposes, general layout of buildings, e.g. modular co-ordination, E 04 H; the particular parts of buildings, see the relevant groups for those parts)
- 1/02 . Structures consisting primarily of load-supporting, block-shaped or slab-shaped elements (1/32 to 1/36 take precedence)
- 1/04 . . the elements consisting of concrete, e.g. reinforced concrete, or other stone-like material
- 1/06 . . . the elements being prestressed
- 1/08 . . the elements consisting of metal
- 1/10 . . the elements consisting of wood
- 1/12 . . the elements consisting of other material
- 1/14 . . the elements being composed of two or more materials (of reinforced concrete 1/04)
- 1/16 . Structures made from masses, e.g. concrete, cast or similarly formed in situ with or without making use of additional elements, such as permanent forms, sub-structures to be coated with load-bearing material (1/32 to 1/36 take precedence)
- 1/18 . Structures comprising elongated load-supporting parts, e.g. columns, girders, skeletons (1/32 to 1/36 take precedence; elongated load-supporting parts as elements, trusses, truss-like structures E 04 C 3/00)
- 1/19 . . Three-dimensional framework structures [2]
- 1/28 . . the supporting parts consisting of other material
- 1/30 . . the supporting parts being composed of two or more materials; Composite steel and concrete constructions (of reinforced concrete 1/20)
- 1/32 . Arched structures; Vaulted structures; Folded structures (vaulted roofs 7/08)
- 1/34 . Extraordinary structures, e.g. with suspended or cantilever parts supported by masts or tower-like structures enclosing elevators or stairs; Features relating to the elastic stability (1/342, 1/343, 1/348 take precedence; for floors 5/43; buildings for special purposes, e.g. withstanding earthquake, E 04 H)
- 1/342 . Structures covering a large free area, whether open-sided or not, e.g. hangars, halls (roof trusses E 04 C 3/00; non-structural features for specified purposes, see the relevant groups of E 04 H)
- 1/343 . Structures characterised by movable, separable, or collapsible parts, e.g. for transport (movable roof parts 7/16; floatable buildings B 63 B; small prefabricated buildings, transportable as a whole, E 04 H 1/12; small garages E 04 H 6/02; tents or canopies, in general E 04 H 15/00)
- 1/344 . . with hinged parts
- 1/346 . . Rotary buildings; Buildings with rotary units, e.g. rooms
- 1/348 . Structures composed of units comprising at least considerable parts of two sides of a room, e.g. box-like or cell-like units closed or in skeleton form (wall units locating conduits or the like E 04 C 2/52)
- 1/35 . Extraordinary methods of construction, e.g. lift-slab, jack-block (1/34 takes precedence; falsework, shuttering for shaping walls, floors, ceilings or roofs for structures of particular shape in situ E 04 G 11/04; conveying or assembling of building materials E 04 G 21/00; working measures on existing buildings E 04 G 23/00)
- 1/36 . Bearings or like supports allowing movement (for bridges E 01 D 19/04; buildings withstanding earthquake E 04 H 9/02)
- 1/38 . Connections for building structures in general
- Note**
- Group 1/19 takes precedence over groups 1/20 to 1/30. [2]
- 1/20 . . the supporting parts consisting of concrete, e.g. reinforced concrete, or other stone-like material
- 1/21 . . . Connections specially adapted therefor [2]
- 1/22 . . . with parts being prestressed
- 1/24 . . the supporting parts consisting of metal
- 1/26 . . the supporting parts consisting of wood

Note

- Connections specially adapted for particular building parts or for particular building structures are classified in the groups for those parts or structures, e.g. in groups 1/21, 2/00, 5/00, 7/00 or 9/00. Joints not specially adapted for building construction, or of more general application, are classified in the appropriate subclasses, e.g. F 16 B. [5]
- 1/41 . . . Connecting devices specially adapted for embedding in concrete or masonry (spacers for cavity walls 2/30, 2/44; connectors for reinforcing elements E 04 C 5/16; fastening frames to the border of openings E 06 B 1/56)
- 1/48 . . . Dowels, i.e. members adapted to penetrate the surfaces of two parts and to take the shear stresses
- 1/49 . . . with self-penetrating parts, e.g. claw dowels
- 1/58 . . . of bar-shaped building elements
- 1/61 . . . of slab-shaped building elements with each other [5]
- 1/62 . . . Insulation or other protection; Elements or use of specified material therefor (chemical compositions C 01 to C 11; implements for applying insulation or sealings E 04 F 21/00; buildings to withstand, or to provide protection against, external undesired influences E 04 H 9/00; sealing pipes in walls or partitions F 16 L 5/02; shielding against dangerous radiation G 21 F; constructions of particular parts of buildings, see the relevant groups for those parts)
- 1/64 . . . for making damp-proof; Protection against corrosion (sealings 1/66)
- 1/66 . . . Sealings (additions of anti-leak properties to plaster C 04 B; bituminous sealing masses C 08 L 95/00; sealings for hydraulic engineering work in general E 02 B 3/16; against ground humidity or ground water E 02 D 31/02; coverings against rain or other precipitations of the atmosphere E 04 D; composition of material or manufacture of sealing foils, see the relevant classes for these foils)
- 1/68 . . . of joints, e.g. expansion joints (packing for joints in roads or airfields E 01 C 11/02; expansion joints for bridges E 01 D 19/06; sealing joints between foundation piles E 02 D 5/14; joints in foundation structures E 02 D 29/16; devices for sealing the spaces or joints between roof-covering elements E 04 D 1/36; sealing joints between roof-covering elements E 04 D 3/38; construction of joints for flooring or floor layers made of masses in situ E 04 F 15/14)
- 1/682 formed in situ [5]
- 1/684 using preformed elastomeric elements [5]
- 1/686 comprising a plurality of hollow, deformable internal cells [5]
- 1/70 . . . Drying or keeping dry, e.g. by air vents (by sealings 1/66; during erection E 04 G 21/28)
- 1/72 . . . Pest control (by keeping dry 1/70; impregnation of wood or like materials B 27 K)
- 1/74 . . . Heat, sound or noise insulation, absorption, or reflection (forms of, or arrangements in, rooms for influencing or directing sound 1/99); Other building methods affording favourable thermal or acoustical conditions, e.g. accumulating of heat within walls (fire protection 1/94; elements chiefly adapted for structural purposes E 04 C 1/00 to 3/00; chiefly adapted for surface coverings E 04 F 13/00; as underlayers for floor coverings E 04 F 15/18; closures for wall or like openings E 06 B)
- 1/76 . . . specifically with respect to heat only (heat insulation in general F 16 L 59/00)
- 1/78 Heat insulating elements
- 1/80 slab-shaped
- 1/82 . . . specifically with respect to sound only (noise damping in ducts or channels E 04 F 17/00; noise damping in general G 10 K 11/16)
- 1/84 Sound-absorbing elements
- 1/86 slab-shaped
- 1/88 . . . Insulating elements for both heat and sound
- 1/90 slab-shaped
- 1/92 . . . Protection against other undesired influences or dangers (buildings providing protection against external dangers E 04 H 9/00; shielding against dangerous radiation G 21 F)
- 1/94 against fire (fire-fighting A 62 C; impregnation of wood or similar materials B 27 K; fireproof doors E 06 B 5/16)
- 1/98 against vibrations or shocks (on foundations E 02 D 31/08); against mechanical destruction, e.g. by air-raids (against incendiary damage only 1/94; finishing work therefor E 04 F; buildings withstanding earthquake or the like, shelters, arrangements of splinter-catching walls E 04 H 9/00)
- 1/99 . . . Room acoustics, i.e. forms of, or arrangements in, rooms for influencing or directing sound (1/82 takes precedence; acoustics in general G 10 K 11/00; electric signal processing for producing a reverberation or echo sound G 10 K 15/08)
- 2/00 Walls, e.g. partitions, for buildings; Wall construction with regard to insulation; Connections specially adapted to walls** (connections for building structures in general 1/38; insulation for building in general 1/62; building elements of relatively thin form for parts of buildings E 04 C 2/00)
- 2/02 . . . built-up from layers of building elements
- 2/04 . . . Walls having neither cavities between, nor in, the solid elements
- 2/06 . . . using elements having specially-designed means for stabilising the position

- 2/08 by interlocking of projections or inserts with indentations, e.g. of tongues, grooves, dovetails
- 2/10 by filling material with or without reinforcements in small channels in, or in grooves between, the elements
- 2/12 . . . using elements having a general shape differing from that of a parallelepiped
- 2/14 . . Walls having cavities in, but not between, the elements, i.e. each cavity being enclosed by at least four sides forming part of one single element
- 2/16 . . . using elements having specially designed means for stabilising the position
- 2/18 by interlocking of projections or inserts with indentations, e.g. of tongues, grooves, dovetails
- 2/20 by filling material with or without reinforcements in small channels in, or in grooves between, the elements
- 2/22 . . . using elements having a general shape differing from that of a parallelepiped
- 2/24 . . . the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams
- 2/26 . . . the walls being characterised by fillings in all cavities in order to form a wall construction
- 2/28 . . Walls having cavities between, but not in, the elements; Walls of elements each consisting of two or more parts kept in distance by means of spacers, all parts being solid
- 2/30 . . . using elements having specially designed means for stabilising the position; Spacers for cavity walls
- 2/32 by interlocking of projections or inserts with indentations, e.g. of tongues, grooves, dovetails
- 2/34 by filling material with or without reinforcements in small channels in, or in grooves between, the elements
- 2/36 . . . using elements having a general shape differing from that of a parallelepiped
- 2/38 . . . the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams
- 2/40 . . . the walls being characterised by fillings in all cavities in order to form a wall construction
- 2/42 . . Walls having cavities between, as well as in, the elements; Walls of elements each consisting of two or more parts, kept in distance by means of spacers, at least one of the parts having cavities
- 2/44 . . . using elements having specially designed means for stabilising the position; Spacers for cavity walls
- 2/46 by interlocking of projections or inserts with indentations, e.g. of tongues, grooves, dovetails
- 2/48 by filling material with or without reinforcements in small channels in, or in grooves between, the elements
- 2/50 . . . using elements having a general shape differing from that of a parallelepiped
- 2/52 . . . the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams
- 2/54 . . . the walls being characterised by fillings in all cavities in order to form a wall construction
- 2/56 . Walls of framework or pillarwork; Walls incorporating load-bearing elongated members (2/74, 2/88 take precedence; pillars E 04 C 3/30)
- 2/58 . . with elongated members of metal
- 2/60 . . . characterised by special cross-section of the elongated members
- 2/62 the members being formed of two or more elements in side-by-side relationship
- 2/64 . . with elongated members of concrete
- 2/66 . . . characterised by special cross-section of the elongated members
- 2/68 . . . made by filling-up wall cavities (2/24, 2/38, 2/52 take precedence)
- 2/70 . . with elongated members of wood
- 2/72 . Walls of elements of relatively thin form (2/56, 2/74, 2/88 take precedence; with joint fillings acting as framework or pillars 2/68; elements E 04 C 2/00)
- 2/74 . Removable non-load-bearing partitions; Partitions with a free upper edge (framed panels E 04 C 2/38)
- 2/76 . . with framework or posts of metal
- 2/78 . . . characterised by special cross-section of the frame members
- 2/80 . . with framework or posts of wood
- 2/82 . . characterised by the manner in which edges are connected to the building; Means therefor; Special details of easily-removable partitions
- 2/84 . Walls made by casting, pouring, or tamping in situ (2/02, 2/56 take precedence; forms therefor E 04 G 11/06; working of concrete or similar masses able to be cast or poured in situ E 04 G 21/02)
- 2/86 . . made in permanent forms
- 2/88 . Curtain walls
- 2/90 . . comprising panels directly attached to the structure [4]
- 2/92 . . . Sandwich-type panels [4]
- 2/94 . . . Concrete panels (2/92 takes precedence) [4]
- 2/96 . . comprising panels attached to the structure through mullions or transoms [4]
- 5/00 Floors; Floor construction with regard to insulation; Connections specially adapted therefor** (elements for floors, e.g. bricks, stones, filling bodies, girders, E 04 C; flooring as finishing work, insulation of flooring, sectional false floors, e.g. for computers, E 04 F 15/00) [5]
- 5/02 . Load-carrying floor structures formed substantially of prefabricated units (5/43 to 5/48 take precedence)
- 5/04 . . with beams of concrete or other stone-like material, e.g. asbestos cement (5/08, 5/14 take precedence)
- 5/06 . . . placed against one another
- 5/08 . . assembled of block-shaped elements, e.g. hollow stones (5/14 takes precedence; floors composed of reinforced brickwork 5/44)

- 5/10 . . . with metal beams or girders, e.g. with steel lattice girders (5/14 takes precedence)
- 5/12 . . . with wooden beams (5/14 takes precedence)
- 5/14 . . . with beams or girders laid in two directions
- 5/16 . . . Load-carrying floor structures wholly or partly cast or similarly formed in situ (5/43 to 5/48 take precedence; floors merely characterised by the prefabricated elements E 04 C)
- 5/17 . . . Floor structures partly formed in situ
- 5/18 with stiffening ribs or other beam-like formations wholly cast between filling members
- 5/19 the filling members acting as self-supporting permanent forms (5/21 takes precedence)
- 5/21 Cross-ribbed floors
- 5/23 with stiffening ribs or other beam-like formations wholly or partly prefabricated (with all load-carrying parts substantially consisting of prefabricated units 5/02)
- 5/26 with filling members between the beams (5/28 takes precedence)
- 5/28 Cross-ribbed floors
- 5/29 the prefabricated parts of the beams consisting wholly of metal (5/28 takes precedence)
- 5/32 . . . Floor structures wholly cast in situ with or without form units or reinforcements
- 5/36 with form units as part of the floor
- 5/38 with slab-shaped form units acting simultaneously as reinforcement; Form slabs with reinforcements extending laterally outside the element
- 5/40 with metal form slabs
- 5/43 . . . Floor structures of extraordinary design; Features relating to the elastic stability; Floor structures specially designed for resting on columns only, e.g. mushroom floors (extraordinary constructions in general 1/34)
- 5/44 . . . Floors composed of stones, mortar, and reinforcing elements (with inserts of glass 5/46)
- 5/46 . . . Special adaptation of floors for transmission of light, e.g. by inserts of glass (of ceilings 9/32; block-shaped elements E 04 C 1/42; slab- or sheet-shaped elements E 04 C 2/54; for roof covering E 04 D 3/06) [5]
- 5/48 . . . Special adaptations of floors for incorporating ducts, e.g. for heating or ventilating (in block-shaped elements E 04 C 1/39; in slab- or sheet-shaped elements E 04 C 2/52)
- 7/00 Roofs; Roof construction with regard to insulation** (structures for roofs as well as for floors 5/00; ceilings 9/00; greenhouses A 01 G 9/14; large containers having floating covers B 65 D 88/34; roof trusses, truss-like structures, joists E 04 C 3/02; roof coverings E 04 D) [5]
- 7/02 . . . with plane sloping surfaces, e.g. saddle roofs (7/12 takes precedence)
- 7/04 . . . supported by horizontal beams or the equivalent resting on the walls (7/06 takes precedence)
- 7/06 . . . Constructions of roof intersections or hopped ends
- 7/08 . . . Vaulted roofs (7/14 takes precedence; vaulted structures in general 1/32; inflatable tents or canopies, in general E 04 H 15/20; inflatable forms for shaping in situ E 04 G 11/04)
- 7/10 . . . Shell structures, e.g. of hyperbolic-parabolic shape; Grid-like formations acting as shell structures; Folded structures
- 7/12 . . . formed in bays, e.g. sawtooth roofs (7/10 takes precedence)
- 7/14 . . . Suspended roofs (suspended tents or canopies, in general E 04 H 15/04)
- 7/16 . . . Roof structures with movable roof parts (buildings for special purposes E 04 H)
- 7/18 . . . Special structures in or on roofs, e.g. dormer windows (in connection with roof coverings E 04 D 13/00, especially domes 13/03)
- 7/20 . . . Roofs consisting of self-supporting slabs, e.g. able to be loaded [5]
- 7/22 . . . the slabs having insulating properties, e.g. being laminated with layers of insulating material (7/24 takes precedence) [6]
- 7/24 . . . the slabs being collapsible, e.g. for transport [6]
- 9/00 Ceilings; Construction of ceilings, e.g. false ceilings; Ceiling construction with regard to insulation** (ceilings used as forms for making floors 5/00; coverings or linings for ceilings E 04 F 13/00) [5]
- 9/02 . . . having means for ventilation or vapour discharge [5]
- 9/04 . . . comprising slabs, sheets or the like (9/06 to 9/34 take precedence; slabs, sheets or the like per se E 04 C 2/00) [5]

Note

In this group, it is desirable to add the indexing codes of group 103:00. The indexing codes should be unlinked. [5]

- 9/06 . . . characterised by constructional features of the supporting construction [5]
- 9/08 . . . having the capability of expansion [5]
- 9/10 . . . Connections between parallel members of the supporting construction (9/08 takes precedence) [5]
- 9/12 . . . Connections between non-parallel members of the supporting construction (9/08 takes precedence) [5]
- 9/14 all the members being discontinuous and lying at least partly in the same plane [5]
- 9/16 the members lying in different planes [5]
- 9/18 . . . Means for suspending the supporting construction [5]
- 9/20 . . . adjustable [5]
- 9/22 . . . Connection of slabs, sheets or the like to the supporting construction [5]
- 9/24 . . . with the slabs, sheets or the like positioned on, or held against, horizontal flanges of the supporting construction [5]
- 9/26 by means of snap action of elastically deformable elements [5]

E 04 B, C

- 9/28 . . with the slabs, sheets or the like having grooves engaging with horizontal flanges of the supporting construction or accessory means connected thereto [5]
- 9/30 . characterised by edge details of the ceiling, e.g. securing to an adjacent wall [5]
- 9/32 . Translucent ceilings, i.e. permitting both the transmission and diffusion of light (9/34 takes precedence; lighting F 21) [5]
- 9/34 . Open-work ceilings, e.g. lattice type (9/30 takes precedence) [5]
- 9/36 . . consisting of parallel slats [5]

Indexing scheme associated with groups 1/00 to 9/00, relating to fire protection. The indexing code should be unlinked. [5]

Note

Attention is drawn to Chapter IV of the Guide which sets forth the rules concerning the application and presentation of the different types of indexing code. [6]

101:00 Fire protection [5]

Indexing scheme associated with subgroup 9/04, relating to the material of the slabs, sheets or the like. The indexing codes should be unlinked. [5]

Note

Attention is drawn to Chapter IV of the Guide which sets forth the rules concerning the application and presentation of the different types of indexing code. [6]

- 103:00 Material constitution of slabs, sheets or the like** [5]
- 103:02 . of ceramics, concrete or other stone-like material [5]
 - 103:04 . of plastics, fibrous material or wood [5]
 - 103:06 . of metal [5]

E 04 C STRUCTURAL ELEMENTS; BUILDING MATERIALS (for bridges E 01 D; specially designed for insulation or other protection E 04 B; elements used as building aids E 04 G; for mining E 21; for tunnels E 21 D; structural elements with broader range of application than for building engineering F 16, particularly F 16 S)

- 1/00 Building elements of block or other shape for the construction of parts of buildings** (of relatively thin form 2/00; structural elongated elements designed for load-supporting 3/00, e.g. columns or pillars 3/30; manufacture or material of building bricks, stones, or the like B 28, C 03, C 04; paving elements E 01 C; general building constructions E 04 B, e.g. walls 2/00, floors 5/00, roofs 7/00, ceilings 9/00; structural elements specially designed for built-in conduit shafts E 04 F; special elements for building ovens or furnaces F 24 B, F 27 D) [5]
- 1/39 . characterised by special adaptations, e.g. serving for locating conduits, for forming soffits, cornices, or shelves, for fixing wall-plates or door-frames, for claustra
 - 1/40 . built-up from parts of different materials, e.g. composed of layers of different materials or stones with filling material or with insulating inserts
 - 1/41 . . composed of insulating material and load-bearing concrete, stone or stone-like material [6]
 - 1/42 . of glass or other transparent material

- 2/00 Building elements of relatively thin form for the construction of parts of buildings, e.g. sheet materials, slabs, or panels** (materials or manufacture, see the relevant places, e.g. B 27 N, B 29, D 21 J; made in situ E 04 B; specially designed for insulation or other protection E 04 B 1/62; load-carrying floor structures E 04 B 5/02, 5/16; roofs consisting of self-supporting slabs E 04 B 7/20; roof- or like covering elements E 04 D 3/00; for lining or finishing E 04 F 13/00)
- 2/02 . characterised by specified materials (translucent 2/54)
 - 2/04 . . of concrete or other stone-like material; of asbestos cement (2/26 takes precedence; material or manufacture B 28, C 04)
 - 2/06 . . . reinforced
 - 2/08 . . of metal, e.g. sheet metal (2/26 takes precedence)
 - 2/10 . . of wood, fibres, chips, vegetable stems, or the like; of plastics; of foamed products (2/26 takes precedence)
 - 2/12 . . . of solid wood
 - 2/14 reinforced
 - 2/16 . . . of fibres, chips, vegetable stems, or the like
 - 2/18 with binding wires, reinforcing bars, or the like
 - 2/20 . . . of plastics
 - 2/22 reinforced
 - 2/24 . . . laminated and composed of materials covered by two or more of groups 2/12, 2/16, 2/20

- 2/26 . . . composed of materials covered by two or more of groups 2/04, 2/08, 2/10, or of materials covered by one of these groups with a material not specified in one of these groups
- 2/28 . . . combinations of materials fully covered by groups 2/04 and 2/08
- 2/284 . . . at least one of the materials being insulating [6]
- 2/288 . . . composed of insulating material and concrete, stone or stone-like material [6]
- 2/292 . . . composed of insulating material and sheet metal [6]
- 2/296 . . . composed of insulating material and non-metallic or unspecified sheet-material (2/288 takes precedence) [6]
- 2/30 . . . characterised by the shape or structure (translucent 2/54)
- 2/32 . . . formed of corrugated or otherwise indented sheet-like material; composed of such layers with or without layers of flat sheet-like material
- 2/34 . . . composed of two or more spaced sheet-like parts (2/32 takes precedence; spacers for cavity walls E 04 B 2/44)
- 2/36 . . . spaced apart by transversely-placed strip material, e.g. honeycomb panels (honeycomb or other core members for layered products B 32 B)
- 2/38 . . . with attached ribs, flanges, or the like, e.g. framed panels (concerned with attaching to other panels or elements to form a structure, see the places for the relevant structure, e.g. E 04 B 2/00)
- 2/40 . . . composed of a number of smaller components rigidly or movably connected together, e.g. interlocking, hingedly connected
- 2/42 . . . Gratings; Grid-like panels (reinforcing elements 5/00; built-in gratings E 04 F 19/10; gratings in general F 16 S 3/00)
- 2/52 . . . with special adaptations for auxiliary purposes, e.g. serving for locating conduits (2/54 takes precedence; block-shaped elements therefor 1/39; floor structures incorporating ducts E 04 B 5/48)
- 2/54 . . . Slab-like translucent elements (floors for transmitting light E 04 B 5/46; translucent or open-work ceilings E 04 B 9/32, 9/34; translucent roof coverings E 04 D 3/06, 3/28)
- 3/00 Structural elongated elements designed for load-supporting** (as building aids E 04 G)
- 3/02 . . . Joists; Girders, trusses, or truss-like structures, e.g. prefabricated; Lintels; Transoms (3/38 takes precedence; for structures characterised by movable, separable, or collapsible parts E 04 B 1/343)
- 3/04 . . . of metal (3/29 takes precedence; as reinforcing elements 5/06; manufacture B 21)
- 3/06 . . . with substantially solid, i.e. unapertured, web (3/10, 3/11 take precedence)
- 3/07 . . . at least partly of bent or otherwise deformed strip- or sheet-like material
- 3/08 . . . with apertured web, e.g. with a web consisting of bar-like components; Honeycomb girders (3/10, 3/11 take precedence)
- 3/09 . . . at least partly of bent or otherwise deformed strip- or sheet-like material
- 3/10 . . . prestressed
- 3/11 . . . with non-parallel upper and lower edges, e.g. roof trusses (arched girders, portal frames 3/38)
- 3/12 . . . of wood, e.g. with reinforcements, with tensioning members (3/292 takes precedence)
- 3/14 . . . with substantially solid, i.e. unapertured, web (3/17, 3/18 take precedence)
- 3/16 . . . with apertured web, e.g. trusses (3/17, 3/18 take precedence)
- 3/17 . . . with non-parallel upper and lower edges, e.g. roof trusses
- 3/18 . . . with metal reinforcements or tensioning members
- 3/20 . . . of concrete or other stone-like material, e.g. with reinforcements or tensioning members (reinforcing elements 5/00)
- 3/22 . . . built-up by elements joined in line
- 3/26 . . . prestressed (3/22, 3/29 take precedence; prestressing members 5/08)
- 3/28 . . . of other materials
- 3/29 . . . built-up from parts of different materials
- 3/292 . . . the materials being wood and metal
- 3/293 . . . the materials being steel and concrete (concrete with internal reinforcements or tensioning members 3/20)
- 3/294 . . . of concrete combined with a girder-like structure extending laterally outside the element (light-weight girders used as reinforcement 5/065; as part of a floor structure E 04 B 5/23)
- 3/30 . . . Columns; Pillars; Struts (not designed for end loading 3/02; posts, masts, as independent structures E 04 H 12/00)
- 3/32 . . . of metal (3/36 takes precedence)
- 3/34 . . . of concrete or other stone-like material, with or without permanent form elements, with or without internal or external reinforcement, e.g. metal coverings (3/36 takes precedence)
- 3/36 . . . of other materials
- 3/38 . . . Arched girders or portal frames (straight girders able to be bent 3/02; inflatable tents or canopies, in general E 04 H 15/20)
- 3/40 . . . of metal (3/46 takes precedence)
- 3/42 . . . of wood, e.g. units for rafter roofs (3/46 takes precedence)
- 3/44 . . . of concrete or other stone-like material, e.g. with reinforcements or tensioning members (3/46 takes precedence)
- 3/46 . . . of other materials
- 5/00 Reinforcing elements, e.g. for concrete; Auxiliary elements therefor** (material composition C 21, C 22; arrangements of reinforcing elements, see the relevant classes)
- 5/01 . . . Reinforcing elements of metal, e.g. with non-structural coatings [5]
- 5/02 . . . of low bending resistance, i.e. of essentially one- or two-dimensional extent
- 5/03 . . . with indentations, projections, ribs, or the like, for augmenting the adherence to the concrete
- 5/04 . . . Mats (bases for plaster E 04 F 13/04)
- 5/06 . . . of high bending resistance, i.e. of essentially three-dimensional extent, e.g. lattice girders
- 5/065 . . . Light-weight girders, e.g. with precast parts (light-weight girders in general 3/08, 3/294)

E 04 C, D

- 5/07 . Reinforcing elements of material other than metal, e.g. of glass, of plastics, or not exclusively made of metal (metal elements with non-structural coatings [5/01](#)) [5]
- 5/08 . Members specially adapted to be used in prestressed constructions
- 5/10 . . Ducts
- 5/12 . Anchoring devices (tools or methods for tensioning [E 04 G 21/12](#)) [5]
- 5/16 . Auxiliary parts for reinforcements, e.g. connectors, spacers, stirrups (tools for connecting reinforcing elements [E 04 G 21/12](#))
- 5/18 . . of metal or substantially of metal
- 5/20 . . of other material than metal or with only additional metal parts, e.g. concrete or plastics spacers with metal binding wires

E 04 D ROOF COVERINGS; SKY-LIGHTS; GUTTERS; ROOF-WORKING TOOLS (coverings of outer walls by plaster or other porous material [E 04 F 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.

Subclass Index

ROOF COVERINGS

- Tiles or slates; slabs or stiff sheets; flexible materials [1/00](#); [3/00](#); [5/00](#), [11/00](#)
- Bulk materials, straw or thatch [7/00](#), [9/00](#), [11/00](#)

Other materials [11/00](#)

- SPECIAL ARRANGEMENTS IN CONNECTION WITH ROOF COVERINGS [12/00](#), [13/00](#)
- APPARATUS OR TOOLS FOR ROOF WORKING [15/00](#)

1/00 Roof covering by making use of tiles, slates, shingles, or other small roofing elements (roofing supports [12/00](#))

- 1/02 . Grooved or vaulted roofing elements ([1/28](#), [1/30](#) take precedence)
- 1/04 . . of ceramics, glass or concrete, with or without reinforcement
- 1/06 . . of metal
- 1/08 . . of plastics; of fibrous materials
- 1/10 . . of specified materials, or of combinations of materials, not covered by any one of groups [1/04](#) to [1/08](#)
- 1/12 . Roofing elements shaped as plain tiles or shingles, i.e. with flat outer surface ([1/28](#), [1/30](#) take precedence)
- 1/14 . . of slate material, with or without fastening means
- 1/16 . . of ceramics, glass or concrete, with or without reinforcement
- 1/18 . . of metal
- 1/20 . . of plastics, fibrous materials, or wood
- 1/22 . . of specified materials, or of combinations of materials, not covered by any one of groups [1/14](#) to [1/20](#)
- 1/24 . Roofing elements with cavities, e.g. hollow tiles ([1/28](#) takes precedence)
- 1/26 . Strip-shaped roofing elements appearing as a row of shingles
- 1/28 . Roofing elements comprising two or more layers, e.g. for insulation
- 1/30 . Special roof-covering elements, e.g. ridge tiles, gutter tiles, gable tiles, ventilation tiles ([3/40](#) takes precedence; roof covering aspects of energy collecting devices [13/18](#))

- 1/34 . Fastenings for attaching roof-covering elements to the supporting elements
- 1/36 . Devices for sealing the spaces or joints between roof-covering elements (sealing joints not restricted to roof covering elements [E 04 B 1/68](#))
- 3/00 **Roof covering by making use of flat or curved slabs or stiff sheets** ([1/00](#) takes precedence; built-up roofs [11/02](#))
- 3/02 . of plane slabs, slates, or sheets, or in which the cross-section is unimportant ([3/35](#) takes precedence)
- 3/04 . . of concrete or ceramics (of asbestos cement [3/18](#))
- 3/06 . . of glass or other translucent material; Fixing means therefor (fixing glass panes by means applicable to windows [E 06 B 3/54](#))
- 3/08 . . . with metal glazing bars
- 3/14 . . . with glazing bars of other material, e.g. of glass
- 3/16 . . of metal
- 3/18 . . of specified materials, or of combinations of materials, not covered by any of groups [3/04](#), [3/06](#) or [3/16](#)
- 3/24 . with special cross-section, e.g. with corrugations on both sides, with ribs, flanges, or the like ([3/35](#) takes precedence)
- 3/26 . . of concrete or ceramics
- 3/28 . . of glass
- 3/30 . . of metal
- 3/32 . . of plastics, fibrous materials, or asbestos cement

- 3/34 . . of specified materials, or of combinations of materials, not covered by any one of groups 3/26 to 3/32
- 3/35 . Roofing slabs or stiff sheets comprising two or more layers, e.g. for insulation
- 3/36 . Connecting; Fastening

Note

In groups 3/361 to 3/368, additional small fastening elements, e.g. nails, screws, are not to be considered to be separate connecting elements.

- 3/361 . . by specially-profiled marginal portions of the slabs or sheets
 - 3/362 . . . by locking the edge of one slab or sheet within the profiled marginal portion of the adjacent slab or sheet, e.g. using separate connecting elements
 - 3/363 . . . with snap action [4]
 - 3/3645 . . . by interference fitting [4]
 - 3/365 . . by simple overlapping of the marginal portions with use of separate connecting elements, e.g. hooks or bolts for corrugated sheets
 - 3/366 . . by closing the space between the slabs or sheets by gutters, bulges, or bridging elements, e.g. strips
 - 3/367 . . by permanent deformation of the marginal portions of adjacent slabs or sheets, e.g. by folding the edges [4]
 - 3/368 . . by forcing together the marginal portions of adjacent slabs or sheets
 - 3/369 . . by welding of the marginal portions of adjacent slabs or sheets
 - 3/38 . Devices for sealing spaces or joints between roof-covering elements (3/36 takes precedence; sealing joints not restricted to roof covering elements E 04 B 1/68)
 - 3/40 . Slabs or sheets locally modified for auxiliary purposes, e.g. for resting on walls, for serving as guttering; Elements for particular purposes, e.g. ridge elements, specially designed for use in conjunction with slabs or sheets (roof covering aspects of energy collecting devices 13/18)
- 5/00 Roof covering by making use of flexible material, e.g. supplied in roll form** (using stiff sheets 3/00; gravelling of flat roofs 7/00; built-up roofs 11/02)

Note

Group 5/12 takes precedence over groups 5/02 to 5/08.

- 5/02 . of materials impregnated with sealing substances, e.g. roofing felt
- 5/04 . by making use of metal foils
- 5/06 . by making use of plastics
- 5/08 . by making use of other materials
- 5/10 . by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen (5/12 takes precedence)
- 5/12 . specially modified, e.g. perforated, with granulated surface, with attached pads

- 5/14 . Fastening means therefor

- 7/00 Roof covering by sealing masses applied in situ; Gravelling of flat roofs**
- 9/00 Roof covering by using straw, thatch, or like materials** (impregnation against incendiary damage B 27 K)
- 11/00 Roof covering, as far as not restricted to features covered by only one of groups 1/00 to 9/00; Roof covering in ways not provided for by groups 1/00 to 9/00**
- 11/02 . Built-up roofs, i.e. consisting of two or more layers bonded together in situ, at least one of the layers being of watertight composition (gravelling of flat roofs 7/00; venting or ventilation 13/17)
- 12/00 Non-structural supports for roofing materials, e.g. battens, boards** (11/02 takes precedence)
- 13/00 Special arrangements or devices in connection with roof coverings; Roof drainage** (ventilation tiles 1/30; ventilation slabs 3/40; internal channels E 04 F 17/00; roofing elements therefor, see the relevant groups)
- 13/02 . Roof-covering aspects of dormer windows (13/14 takes precedence; structures therefor E 04 B 7/18)
- 13/03 . Sky-lights; Domes; Ventilating sky-lights (13/14 takes precedence; structures therefor E 04 B 7/18)
- 13/035 . . characterised by having movable parts
- 13/04 . Roof drainage; Drainage fittings in flat roofs (gutter tiles 1/30; gutter slabs 3/40; street gullies E 03 F 5/04)
- 13/064 . . Gutters [6]
- 13/068 . . . Means for fastening gutter parts together [6]
- 13/072 . . . Hanging means (in combination with means for fastening gutter parts together 13/068) [6]
- 13/076 . . Devices or arrangements for removing snow, ice or debris from gutters or for preventing accumulation thereof [6]
- 13/08 . . Down pipes; Special clamping means therefor (clamping pipes in general F 16 B, L)
- 13/10 . Snow traps
- 13/12 . Devices or arrangements allowing walking on the roof or in the gutter
- 13/14 . Junctions of roof sheathings to chimneys or other parts extending above the roof
- 13/143 . . with ventilating means [6]
- 13/147 . . specially adapted for inclined roofs [6]
- 13/15 . Trimming strips; Edge strips; Fascias (13/14 takes precedence) [6]
- 13/152 . . with ventilating means [6]
- 13/155 . . retaining the roof sheathing [6]
- 13/158 . . covering the overhang at the eave side, e.g. soffits, or the verge of saddle roofs [6]
- 13/16 . Insulating devices or arrangements in so far as the roof covering is concerned (methods for keeping dry building structures in general E 04 B 1/70; buildings for extreme climates E 04 H 9/16) [6]
- 13/17 . Ventilation of roof coverings not otherwise provided for (ventilation of rooms or spaces F 24 F) [6]

E 04 D, F

- 13/18 . Roof covering aspects of energy collecting devices, e.g. including solar panels (heat collectors [per se F 24 J](#), e.g. solar heat collectors [2/02](#); semiconductor devices for converting solar energy into electrical energy [H 01 L 25/00, 31/00](#)) [4]

- 15/00 Apparatus or tools for roof working**
 15/02 . for roof coverings comprising tiles, shingles, or like roofing elements
 15/04 . for roof coverings comprising slabs, sheets or flexible material
 15/06 . for handling roofing or sealing material in roll form
 15/07 . for handling roofing or sealing material in bulk form

E 04 F FINISHING WORK ON BUILDINGS, e.g. STAIRS, FLOORS (windows, doors [E 06 B](#))**Subclass Index**

SUNSHADES, AWNINGS 10/00
 STAIRWAYS 11/00
 COVERING OR FINISHING WALLS,
 CEILINGS, OR FLOORS 13/00, 15/00, 19/00

DUCTS OR CHANNELS 17/00
 IMPLEMENTS 21/00
 OTHER FINISHING DETAILS 19/00

- 10/00 Sunshades; Awnings** (baldachins [A 45 B, F, E 04 H](#); trailer awnings [E 04 H 15/08](#); for tents [E 04 H 15/58](#))
 10/02 . of flexible canopy materials, e.g. canvas
 10/04 . . with material fixed on sections of a collapsible frame
 10/06 . . comprising a roller-blind with means for holding the end away from a building
 10/08 . of a plurality of similar rigid parts, e.g. slabs, lamellae (rigidly-arranged sunshade roofs with coherent surfaces [E 04 B 7/00](#))
 10/10 . . collapsible

11/00 Stairways, ramps, or like structures (mounting or marking-off stairways [21/26](#); of temporary construction [E 04 G 27/00](#)); **Balustrades; Handrails** (ladders permanently attached to fixed structures [E 06 C 9/00](#))
 11/02 . Stairways; Layouts thereof
 11/022 . . characterised by the supporting structure [6]
 11/025 . . . Stairways having stringers [6]
 11/028 having a central stringer [6]
 11/032 . . . Spiral stairways supported by a central column [6]
 11/035 . . . Stairways consisting of a plurality of assembled modular parts without further support [6]
 11/038 each modular part having a load-bearing balustrade part [6]
 11/04 . . Movable stairways, e.g. of loft ladders which may or may not be concealable or extensible (ship ladders [B 63 B](#); stairs for aircraft [B 64 F](#); escalators or moving walkways [B 66 B](#))
 11/06 . . . collapsible, e.g. folding, telescopic
 11/09 . . Tread-and-riser units [6]
 11/104 . . Treads (11/09 takes precedence) [6]
 11/108 . . . of wood [6]
 11/112 . . . of metal [6]
 11/116 . . . of stone, concrete or like material [6]

- 11/16 . . . Surfaces thereof; Protecting means for the edges or corners thereof (floor fabrics, fastenings therefor [A 47 G 27/00](#))
 11/17 Surfaces [6]
 11/18 . Balustrades; Handrails (guard-rails on ships [B 63 B](#); for bridges [E 01 D 19/10](#); for roads [E 01 F 13/00, 15/00](#); fences [E 04 H 17/00](#))

13/00 Coverings or linings, e.g. for walls or ceilings (flooring [15/00](#); decoration of surfaces, mosaic work [B 44](#), e.g. paper-hanging [B 44 C 7/00](#); made of webs, e.g. of fabrics or wallpaper, [D 03 D, D 04 G, H, D 06 N, D 21 H](#); construction of ceilings [E 04 B 9/00](#); roofings or similar water-tight coverings against precipitation [E 04 D](#)) [3]
 13/02 . of plastic materials hardening after applying, e.g. plaster (surface treatment in painting technique [B 44 D](#); inorganic or bituminous masses [C 04 B](#); organic plastics [C 08 L](#))
 13/04 . . Bases for plaster (sub-ceilings with plaster-carrying means [E 04 B 9/06](#))
 13/06 . . . Edge-protecting borders
 13/08 . composed of a number of similar elements, e.g. carried by webs (borders, skirtings [19/02](#))
 13/10 . . of wood
 13/12 . . of metal
 13/14 . . of stone or stone-like material; of glass
 13/16 . . of fibres or chips
 13/18 . . of organic plastics with or without reinforcements or filling materials (of plastic-bound fibres or chips [13/16](#))

15/00 Flooring (stair treads [11/104](#); coverings not specially adapted for floors [13/00](#); borders, skirtings [19/02](#); gratings for cleaning soles of footwear [A 47 L 23/24](#); of similar materials to roads [E 01 C](#); basic or rough floors [E 04 B 5/00](#)) [6]
 15/02 . Flooring or floor layers composed of a number of similar elements (of webs [15/16](#))

- 15/022 . . Flooring consisting of parquetry tiles on a non-rollable sub-layer of other material, e.g. board, concrete, cork [2]
- 15/024 . . Sectional false floors, e.g. computer floors
- 15/04 . . only of wood, e.g. with wooden connecting members (rollable parquet 15/16)
- 15/06 . . of metal, whether or not in combination with other material (gratings as building elements E 04 C 2/42)
- 15/08 . . only of stone or stone-like material, e.g. concrete; of glass
- 15/10 . . of other materials, e.g. fibrous or chipped materials, organic plastics, magnesite, hardboard
- 15/12 . Flooring or floor layers made of masses in situ, e.g. seamless magnesite floors, terrazzo (inorganic or bituminous masses C 04 B; organic plastic masses C 08 L)
- 15/14 . . Construction of joints, e.g. dividing strips (sealing joints not restricted to flooring E 04 B 1/68)
- 15/16 . Flooring, e.g. parquet on flexible web, laid as flexible webs; Webs specially adapted for use as flooring (resiliently-mounted floors, e.g. sprung floors, 15/22; linoleum D 06 N; webs in general, manufacturing of webs, see the relevant classes)
- 15/18 . Separately-laid insulating layers; Other additional insulating measures; Floating floors (insulating of buildings in general E 04 B 1/62)
- 15/20 . . for sound insulation
- 15/22 . Resiliently-mounted floors, e.g. sprung floors (laid as webs 15/16) [2]
- 17/00 Vertical ducts; Channels, e.g. for drainage** (pipes in general F 16 L; pipe-line systems F 17 D)
- 17/02 . for carrying away waste gases, e.g. flue gases (free-standing chimneys E 04 H 12/28; connections between fireplace and chimney, chimney fittings, covers for cleaning holes of chimneys F 23 J; chimney tops F 23 L); Building elements specially designed therefor, e.g. shaped bricks or sets thereof
- 17/04 . Air-ducts or air channels
- 17/06 . Light shafts, e.g. for cellars
- 17/08 . for receiving utility lines, e.g. cables, pipes (covers giving access to the ducts or channels, covers of inspection holes 19/08) [6]
- 17/10 . Arrangements in buildings for the disposal of refuse (refuse bins, gathering or removal of refuse B 65 F)
- 17/12 . . Chutes
- 19/00 Other details or constructional parts for finishing work on buildings** (ladders, e.g. climbing irons, E 06 C 9/04)
- 19/02 . Borders; Finishing strips, e.g. beadings; Light coves (for protecting edges of plaster 13/06)
- 19/04 . . for use between floor or ceiling and wall, e.g. skirtings
- 19/06 . . specially designed for securing panels
- 19/08 . Built-in cupboards; Masks of niches; Covers of holes enabling access to installations (clean-out doors of chimneys F 23 J)
- 19/10 . Built-in gratings, e.g. foot-scrapers
- 21/00 Implements for finishing work on buildings** (for working or treating building elements of stone or stone-like material B 28 D; designed specifically for special details provided for in the preceding groups, see the relevant groups for the details)
- 21/02 . for applying plasticised masses to surfaces, e.g. plastering walls (specially for laying flooring 21/20; applying liquids or other fluent materials to surfaces, in general B 05; decorative arts B 44)
- 21/04 . . Patterns or templates; Jointing rulers
- 21/05 . . . Supports for jointing rulers
- 21/06 . . Implements for applying plaster, insulating material, or the like
- 21/08 . . . Mechanical implements (21/14 takes precedence; spraying apparatus in general B 05 B; sand-blasting B 24 C)
- 21/10 centrifugally acting
- 21/12 acting by gas pressure, e.g. steam pressure
- 21/14 . . . in shafts, e.g. chimneys
- 21/16 . . Implements for after-treatment of plaster or the like, e.g. smoothing tools, profile trowels
- 21/165 . for finishing joints, e.g. implements for raking or filling joints, jointers (bricklayers' tools E 04 G 21/16; repairing, e.g. filling cracks, E 04 G 23/02) [3]
- 21/18 . for setting wall or ceiling slabs or plates (tools for mosaic work B 44 C)
- 21/20 . for laying flooring (made of similar material to roads or pavements E 01 C)
- 21/22 . . of single elements, e.g. flooring cramps
- 21/24 . . of masses made in situ, e.g. smoothing tools
- 21/26 . for mounting staircases, e.g. tools for marking steps
- 21/28 . for glazing (glass cutters C 03 B 33/10)
- 21/30 . . Putty squeezers or guns
- 21/32 . . Putty knives; Putty removers

E 04 G 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 following term is used with the meaning indicated:
– “scaffolding” includes other supports for like purposes.

Subclass Index

SCAFFOLDING	Connecting members, auxiliary members.....	17/00
Resting on the ground; supported by the building.....	Auxiliary treatment	19/00
Component parts; coupling elements.....	OTHER IMPLEMENTS OR ACCESSORIES	
FALSEWORK, FORMS OR SHUTTERINGS	Temporary arrangements for access	27/00
For general use	Preparing or conveying materials.....	21/00
For particular use.....	Shores	25/00
	WORKING MEASURES ON EXISTING BUILDINGS	23/00

Workmen’s or safety scaffolds

1/00 Scaffolding primarily resting on the ground

- 1/02 . composed essentially of members elongated in one dimension only, e.g. poles, lattice masts, with or without end portions of special form, connected together by any means
- 1/04 . . the members being exclusively poles, rods, beams, or other members of similar form and simple cross-section
- 1/06 . . . comprising members with rod-like or tubular portions fitting together end to end, with or without separate connecting pieces
- 1/08 . . . secured together by bolts or the like penetrating the members
- 1/10 Timber-work constructions
- 1/12 . . comprising members of special, e.g. composite, cross-section, or with lugs or the like or lateral apertures for supporting or attaching other members
- 1/14 . comprising essentially pre-assembled frame-like or related elements, e.g. of rods in L-, H-, or box-shape, with or without bracing (1/15 takes precedence)
- 1/15 . essentially comprising special means for supporting or forming platforms (1/20 takes precedence); Platforms
- 1/16 . essentially comprising simple members and members formed so as to give rigidity to the structure
- 1/18 . adjustable in height
- 1/20 . . Scaffolding comprising upright members and provision for supporting cross-members or platforms at different positions therealong
- 1/22 . . Scaffolding having a platform on an extensible sub-structure, e.g. of telescopic type or with lazy-tongs mechanism

- 1/24 . comprising essentially special base constructions; comprising essentially special ground-engaging parts, e.g. inclined struts, wheels (component parts 5/00)
- 1/26 . Auxiliary structures for scaffolding, e.g. steps, canopies, railings
- 1/28 . designed to provide support only at a low height
- 1/30 . . Ladder scaffolding
- 1/32 . . Other free-standing supports, e.g. using trestles (stands or trestles in general F 16 M 11/00)
- 1/34 . Scaffold constructions able to be folded in prismatic or flat parts or able to be turned down
- 1/36 . Scaffolds for particular parts of buildings or buildings of particular shape, e.g. for stairs, cupolas, domes
- 3/00 Scaffolds essentially supported by building constructions, e.g. adjustable in height (1/00 takes precedence)**
- 3/02 . for use without permanent provision on the building
- 3/04 . . attached to the side of a building (3/10 takes precedence)
- 3/06 . . . comprising cantilevers which are detachably mounted on the building, e.g. in window openings
- 3/08 . . . adapted to be attached to walls by hooks or the like, e.g. bracket scaffolds
- 3/10 . . Hanging scaffolds, e.g. which can be shifted or have vertically-displaceable platforms
- 3/12 . . Scaffolds specially adapted for working on roofs
- 3/14 . requiring permanent provision, e.g. rails, on the building; Permanent scaffold-like arrangements for inspection or repair work
- 3/16 . . Movable platforms or cradles; Movable supports therefor (3/10 takes precedence)

- 5/00 Component parts for workmen's scaffolds**
(connections 7/00)
- 5/02 . Scaffold feet, e.g. with arrangements for adjustment
- 5/04 . Means for fastening, supporting, or bracing scaffolds on or against building constructions (fastenings in general F 16 B)
- 5/06 . Consoles; Brackets
- 5/08 . Scaffold boards or planks (platforms 1/15)
- 7/00 Connections between parts of the scaffold** (for building structures in general E 04 B 1/38; connections in general F 16 B)
- 7/02 . with separate coupling elements
- 7/04 . . Flexible elements, with or without brackets, e.g. ropes, cables, chains (in general F 16 G)
- 7/06 . . Stiff scaffolding clamps for connecting scaffold members of common shape
- 7/08 . . . Clamps for parallelly-arranged members
- 7/10 Self-tightening clamps, e.g. stirrups
- 7/12 . . . Clamps or clips for crossing members (7/22 takes precedence)
- 7/14 for clamping the members independently
- 7/16 of which the clamping parts for the different members are rotatable with respect to one another
- 7/18 for clamping the members against one another or against a separate cushioning piece between them
- 7/20 . . . for ends of members only, e.g. for connecting members in end-to-end relation
- 7/22 . . . for scaffold members in end-to-side relation
- 7/24 . . . Couplings involving arrangements covered by more than one of the groups 7/08, 7/12, 7/20, 7/22
- 7/26 . . for use with specially-shaped scaffold members
- 7/28 . . Clips or connections for securing boards (brackets 5/06)
- 7/30 . Scaffolding bars or members with non-detachably fixed coupling elements
- Falsework, forms, or shutterings for shaping of building parts in situ** (scaffolding in general 1/00; moulds for making units for prefabricated buildings or prefabricated stair units B 28 B 7/22; forms or shutterings forming part of the construction E 04 B, C) [5]
- 9/00 Forming or shuttering elements for general use**
- 9/02 . Forming boards or similar elements (9/08, 9/10 take precedence)
- 9/04 . . the form surface being of wood [2]
- 9/05 . . the form surface being of plastics [2]
- 9/06 . . the form surface being of metal [2]
- 9/08 . Forming boards or similar elements, which are collapsible, foldable, or able to be rolled up
- 9/10 . with additional peculiarities such as surface shaping, insulating or heating, permeability to water or air
- 11/00 Forms, shutterings, or falsework for making walls, floors, ceilings, or roofs**
- 11/02 . for rooms as a whole, whole storeys, or whole buildings
- 11/04 . for structures of spherical, spheroid or similar shape, or for cupola structures of circular or polygonal horizontal or vertical section; Inflatable forms (connection of valves to inflatable elastic bodies B 60 C 29/00)
- 11/06 . for walls, e.g. curved (11/04 takes precedence)
- 11/08 . . Forms which are completely dismantled after setting of the concrete and re-built for the next pouring (connecting or supporting means for forms 17/00)
- 11/10 . . . of elements without beams (11/18 takes precedence)
- 11/12 . . . of elements and beams (11/18 takes precedence)
- 11/14 with beams arranged in alignment with, and between the, elements
- 11/16 with beams placed within the wall
- 11/18 . . . for double walls
- 11/20 . . Movable forms; Movable forms for moulding cylindrical, conical, or hyperbolic structures; Templates serving as forms for positioning blocks or the like (11/04 takes precedence)
- 11/22 . . . Sliding forms raised continuously or step-by-step and being in contact with the poured concrete during raising; Arrangements of lifting means therefor
- 11/24 Construction of lifting jacks or climbing rods for sliding forms (climbing-type hoisting units in general B 66 F)
- 11/26 . . . the sheathing of which consists of ribbons, endless aprons, or the like, guided by driven rollers
- 11/28 . . . Climbing forms, i.e. forms which are not in contact with the poured concrete during lifting from layer to layer
- 11/30 which are lifted from layer to layer by turning, tilting, or similar moving upwards about a horizontal axis
- 11/32 . . . Tiltable forms or tilting tables for making walls as a whole or in parts in situ
- 11/34 . . . Horizontally-travelling moulds for making walls blockwise or sectionwise (11/26 takes precedence)
- 11/36 . for floors, ceilings, or roofs of plane or curved surfaces
- 11/38 . . for plane ceilings of concrete
- 11/40 . . for coffered or ribbed ceilings
- 11/42 . . . with beams of metal or prefabricated concrete
- 11/44 . . . with supporting beams for the shuttering used simultaneously as permanent reinforcement of the ribs
- 11/46 . . . of hat-like or trough-like shape encasing a rib or the section between two ribs or encasing one rib and its adjacent flat floor or ceiling section
- 11/48 . . Supporting structures for shutterings or frames for floors or roofs (struts 25/00)
- 11/50 . . . Girders, beams, or the like as supporting members for forms (members, e.g. consoles, for attachment to the wall 17/16; girders intended to form part of the construction E 04 C 3/02)
- 11/52 of several units arranged one after another

E 04 G

11/54 of extensible type, with or without adjustable supporting shoes, fishplates, or the like

11/56 of telescopic type

13/00 Falsework, forms, or shutterings for particular parts of buildings, e.g. stairs, steps, cornices, balconies

13/02 . for columns or like pillars; Special tying or clamping means therefor

13/04 . for lintels, beams, or transoms to be encased separately; Special tying or clamping means therefor (members, e.g. consoles, for attachment to the wall 17/16)

13/06 . for stairs, steps, cornices, balconies, or other parts corbelled out of the wall

15/00 Forms or shutterings for making openings, cavities, slits, or channels (forming part of shuttering for walls 11/06)

15/02 . for windows, doors, or the like

15/04 . Cores for anchor holes or the like

15/06 . for cavities or channels in walls or floors, e.g. for making chimneys

17/00 Connecting or other auxiliary members for forms, falsework structures, or shutterings

17/02 . Connecting or fastening means for non-metallic forming or stiffening elements

17/04 . Connecting or fastening means for metallic forming or stiffening elements

17/06 . Tying means; Spacers

17/065 . . Tying means, the tensional elements of which are threaded to enable their fastening or tensioning [5]

17/07 . . Tying means, the tensional elements of which are fastened or tensioned by means of wedge-shaped members [5]

17/075 . . Tying means, the tensional elements of which are fastened or tensioned by other means [5]

17/12 . . with arms engaging the forms

17/14 . Bracing or strutting arrangements for formwalls; Devices for aligning forms (25/00 takes precedence)

17/16 . Members, e.g. consoles, for attachment to the wall to support girders, beams, or the like carrying forms or moulds for floors, lintels, or transoms

17/18 . Devices for suspending or anchoring form elements to girders placed in ceilings, e.g. hangers

19/00 Auxiliary treatment of forms, e.g. dismantling; Cleaning devices (lubricating compositions C 10 M)**21/00 Preparing, conveying, or working-up building materials or building elements *in situ*; Other devices or measures for constructional work (working stone-like materials B 28 D; conveying in general B 65 G; lifting devices B 66; measuring instruments G 01)**

21/02 . Conveying or working-up concrete or similar masses able to be heaped or cast (working concrete in general, e.g. mixing machines, B 28 C; composition of concrete C 04 B; construction and surfacing of floorings made of similar material to roads or pavements E 01 C; in connection with barrages E 02 B 7/00; in connection with foundations E 02 D 15/00; in connection with finishing work E 04 F)

21/04 . . Devices for both conveying and distributing (concrete pumps F 04)

21/06 . . Compacting concrete, e.g. by application of vacuum before hardening (for road building E 01 C 19/00; devices for compacting also soil E 02 D 3/02)

21/08 . . . Internal vibrators

21/10 . . Devices for levelling, e.g. templates or boards (smoothing tools E 04 F 21/16, 21/24)

21/12 . Mounting of reinforcing inserts; Prestressing (shell tubes for prestressing members E 04 C 5/10; anchoring means E 04 C 5/12; connections of reinforcing elements and spacers E 04 C 5/16)

21/14 . Conveying or assembling building elements (roofing E 04 D; finishing work E 04 F)

21/16 . . Tools or apparatus (devices for erecting fences E 04 H 17/26)

21/18 . . . Adjusting tools; Templates

21/20 . . . for applying mortar

21/22 . . . for setting building elements with mortar, e.g. brick-laying machines

21/24 . Safety or protective measures preventing damage to building parts or finishing work during construction (as auxiliary structures for scaffolding 1/26)

21/26 . . Strutting means for wall parts; Supports or the like, e.g. for holding in position prefabricated walls (25/00 takes precedence; on existing buildings 23/04)

21/28 . . against unfavourable weather influence

21/30 . . against mechanical damage or dirt, e.g. guard covers of stairs

21/32 . Safety or protective measures for persons during the construction of buildings (relating to scaffolding 1/00, 3/00; ropes or belts for life-saving A 62 B 1/16, 35/00; climbing tools, e.g. climbing irons for masts, A 63 B 27/00)

23/00 Working measures on existing buildings (on foundations E 02 D 35/00, 37/00; in connection with insulations E 04 B; subsequent or finishing work E 04 F)

Note

In addition to the subject matter referred out in this group, subject matter relating to working measures on existing buildings which are analogous to those used in constructing new buildings, is classified in the appropriate construction groups. [5]

- 23/02 . Repairing, e.g. filling cracks; Restoring; Altering; Enlarging
- 23/03 . . specially adapted for roofs, e.g. to fit out attics [5]
- 23/04 . Propping of endangered or damaged buildings or building parts, e.g. with respect to air-raid action (struts 25/00)
- 23/06 . Separating, lifting, removing of buildings; Making a new sub-structure

- 23/08 . Wrecking of buildings (of fences E 04 H 17/26)
- 25/00 **Shores or struts** (specially designed for use in mines E 21 D 15/00); **Chocks**
- 25/02 . non-telescopic
- 25/04 . telescopic
- 25/06 . . with parts held together by positive means
- 25/08 . . with parts held relatively to each other by friction or gripping
- 27/00 **Temporary arrangements for giving access from one level to another for men or vehicles, e.g. steps, ramps** (for scaffolding 1/26; gangways B 63; lifts B 66; landing bridges E 01 D 15/24; permanent stairways or ramps E 04 F 11/00; ladders E 06 C)

E 04 H BUILDINGS OR LIKE STRUCTURES FOR PARTICULAR PURPOSES; SWIMMING OR SPLASH BATHS OR POOLS; MASTS; FENCING; TENTS OR CANOPIES, IN GENERAL (foundations E 02 D) [4]
Notes

- (1) This subclass covers
 - primarily the layout of buildings as a whole;
 - details which are peculiar to types of buildings, or buildings for special purposes, specified in the groups;
 - canopies in general and canopies similar in construction to tents. [4]
- (2) This subclass does not cover canopies having special application, which are covered by the relevant place, e.g. protecting chairs against the weather A 47 C 7/66, bed canopies 29/00, sun shades or awnings for buildings E 04 F 10/00. [4]
- (3) In this subclass, the following terms are used with the meanings indicated:
 - “buildings” does not exclude engineering structures and other constructions;
 - “tent” means a tent or canopy having a supporting means, e.g. frame and a flexible cover. [4]

Subclass Index

BUILDINGS

For dwelling or office purposes.....	1/00
For public purposes.....	3/00
For industrial or agricultural purposes; for parking	5/00; 6/00

SWIMMING OR SPLASH BATHS OR POOLS.....

4/00

CONTAINERS.....7/00

BUILDINGS AFFORDING SPECIAL

PROTECTION	9/00
TOWERS, MASTS, CHIMNEY STACKS.....	12/00
MONUMENTS, TOMBS	13/00
BUILDINGS FOR COMBINATIONS OF DIFFERENT PURPOSES, DRIVE-IN BUILDINGS.....	14/00
TENTS, CANOPIES	15/00
FENCING, ENCLOSURES, CORRALS.....	17/00

- 1/00 **Buildings or groups of buildings for dwelling or office purposes; General layout, e.g. modular co-ordination, staggered storeys** (3/00 takes precedence; buildings for two or more purposes, drive-in buildings 14/00; building construction in general E 04 B 1/00)

- 1/02 . Dwelling houses; Buildings for temporary habitation (small erections for limited occupation 1/12)

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

- 1/06 . Office buildings; Banks (1/12 takes precedence; furniture or fittings for shops, storehouses, or the like A 47 F)

- 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 47 G 5/00)

- 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, 1/00; structures covering a large free area E 04 B 1/342)
- 3/02 . Hotels; Motels; Coffee-houses; Restaurants; Shops; Department stores
- 3/04 . . Restaurants or shops having arrangements for self-service (paying counters A 47 F 9/02; furniture or installations specially adapted for supermarkets A 47 F 10/00; transport aspects B 65 G; coin-freed apparatus G 07 F)
- 3/06 . Museums; Library buildings
- 3/08 . Hospitals, infirmaries, or the like; Schools; Prisons
- 3/10 . for meetings, entertainments, or sports
- 3/12 . . Tribunals, grandstands or terraces for spectators (auditoriums 3/30; chairs, stools, benches A 47 C) [2]
- 3/14 . . Gymnasiums; Other sporting buildings (tribunes 3/12)
- 3/16 . . . for swimming (swimming or splash baths or pools 4/00) [5]
- 3/22 . . Theatres; Concert halls; Studios for broadcasting, cinematography, television or similar purposes (drive-in buildings 14/00; equipment for theatres or concert halls A 63 J) [2]
- 3/24 . . . Constructional features of stages
- 3/26 Revolving stages; Stages able to be lowered (devices for raising or lowering persons A 63 J 5/12)
- 3/28 Shiftable or portable platforms
- 3/30 . . . Constructional features of auditoriums (chairs, stools, benches A 47 C; building details providing acoustical effects E 04 B 1/99)
- 4/00 Swimming or splash baths or pools** (wave-producers for baths A 47 K 3/10; separation B 01 D; treatment of water C 02 F; wave-producing pumps F 04 D 35/00) [5]
- 4/02 . formed *in situ* [5]
- 4/04 . prefabricated or composed of prefabricated elements [5]
- 4/06 . Safety devices; Coverings for baths [5]
- 4/08 . . Coverings consisting of rigid elements [5]
- 4/10 . . Coverings of flexible material [5]
- 4/12 . Devices or arrangements for circulating water [5]
- 4/14 . Parts, details or accessories not otherwise provided for [5]
- 4/16 . . specially adapted for cleaning (cleaning devices peculiar to vessels B 63 B 59/00) [5]
- 5/00 Buildings or groups of buildings for industrial or agricultural purposes** (building construction in general E 04 B 1/00)
- 5/02 . Buildings or groups of buildings for industrial purposes, e.g. for power-plants, factories (buildings forming part of cooling plants 5/10; building structures for parking vehicles 6/00)
- 5/04 . . Transformer houses; Substations or switchgear houses [5]
- 5/06 . . Pits or building structures for inspection or services (manhole shafts or other inspection chambers in general E 02 D 29/12)
- 5/08 . Buildings or groups of buildings for agricultural purposes (silos 7/22; manure storage places A 01 C 3/02; greenhouses A 01 G 9/14)
- 5/10 . Buildings forming part of cooling plants
- 5/12 . . Cooling towers (towers in general 12/00; cooling equipment F 28)
- 6/00 Buildings for parking cars, rolling-stock, aircraft, vessels, or like vehicles, e.g. garages** (tents for use as garages 15/00; bicycle stands B 62 H; storing of vessels on land B 63 C 15/00; construction of ground-supported surfaces E 01 C; marking of parking areas on the ground E 01 F 9/00; building construction in general E 04 B 1/00)
- 6/02 . Small garages, e.g. for one or two cars (attached to, or supported by, the vehicle B 62 D; prefabricated and with undivided interior E 04 B 1/343)
- 6/04 . . wheeled, hinged, foldable, telescopic, swinging, or otherwise movable (transportable or collapsible buildings in general E 04 B 1/343)
- 6/06 . . with means for shifting or lifting vehicles
- 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
- 6/12 . . with mechanical means for shifting or lifting vehicles
- 6/14 . . . with endless conveyer chains having load-carrying parts moving vertically, e.g. paternoster lifts
- 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 (6/14 takes precedence)
- 6/20 characterised by use of conveyer chains or rotatable rollers for horizontal transport
- 6/22 characterised by use of movable platforms for horizontal transport
- 6/24 characterised by use of dollies for horizontal transport
- 6/26 characterised by use of tiltable floors or floor sections; characterised by use of movable ramps
- 6/28 characterised by use of turntables or rotary rings for horizontal transport
- 6/30 . . . with means for transport in horizontal direction only
- 6/32 characterised by use of conveyer chains or rotatable rollers
- 6/34 characterised by use of movable platforms
- 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
- 6/42 . Devices or arrangements peculiar to garages, not covered elsewhere, e.g. securing devices, safety devices

- 6/44 . for storing aircraft (structures covering a large free area [E 04 B 1/342](#))
- 7/00 Construction or assembling of bulk storage containers employing civil engineering techniques in situ or off the site** (tower aspects [12/00](#); storage aspects, e.g. floating roofs, sealing means, filling or discharging means [B 65 D](#), [G](#), [F 17 B](#), [C](#); foundations [E 02 D 27/38](#)) [**2**]
- 7/02 . Containers for fluids or gases; Supports therefor (arrangements or adaptations of tanks for water supply [E 03 B 11/00](#)) [**2**]
- 7/04 . . mainly of metal
- 7/06 . . . with vertical axis
- 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 [**2**]
- 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 material
- 7/28 composed of special building elements
- 7/30 . . . mainly of metal
- 7/32 . . . mainly of wood
- 9/00 Buildings, groups of buildings, or shelters, adapted to withstand or provide protection against, abnormal external influences, e.g. war-like action, earthquake, extreme climate** (floating buildings [B 63 B](#); foundation aspects [E 02 D](#); building constructions in general [E 04 B](#); bearings or like supports allowing movement [E 04 B 1/36](#); special details regarding insulation or other protection [E 04 B 1/62](#); supporting structures for endangered or damaged existing buildings or parts thereof [E 04 G 23/04](#); doors, windows [E 06 B 5/00](#); air-conditioning, ventilation [F 24 F](#); camouflage [F 41 H 3/00](#); cells or rooms shielded against dangerous radiation [G 21 F 7/00](#))
- 9/02 . withstanding earthquake or sinking of ground (foundations [E 02 D 27/34](#))
- 9/04 . against air-raid or other war-like actions (respiratory apparatus [A 62 B](#))
- 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, galleries [E 21 D](#))
- 9/14 . against other dangerous influences, e.g. tornadoes, floods
- 9/16 . against adverse conditions, e.g. extreme climate, pests
- 12/00 Towers; Masts, poles; Chimney stacks; Water-towers; Methods of erecting such structures** (cooling towers [5/12](#); supports for road signs [E 01 F 9/011](#); foundation piles [E 02 D 5/22](#); foundations for masts, poles, or chimneys [E 02 D 27/42](#); structural elongated members in general [E 04 C 3/00](#); fixed climbing irons [E 06 C 9/04](#); derricks for oil drilling [E 21 B 15/00](#)) [**6**]
- 12/02 . Structures made of specified materials ([12/16](#), [12/18](#) take precedence)
- 12/04 . . of wood
- 12/06 . . . Truss-like structures
- 12/08 . . of metal
- 12/10 . . . Truss-like structures
- 12/12 . . of concrete or other stone-like material, with or without internal or external reinforcement, 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 (rotary buildings [E 04 B 1/346](#))
- 12/20 . Side-supporting means therefor, e.g. using guy ropes, struts (ground anchors [E 02 D 5/80](#); fastening means for cables or ropes [F 16 G 11/00](#))
- 12/22 . Sockets or holders for poles or posts
- 12/24 . Cross-arms
- 12/26 . Winding towers for mines (elevators [B 66 B](#))
- 12/28 . Chimney stacks, e.g. free-standing, or similar ducts (foundations [E 02 D 27/42](#); chimneys as part of buildings [E 04 F 17/02](#); connections between furnace and smoke stack, chimney equipment [F 23](#))
- 12/30 . Water-towers (tanks [B 65 D 88/00](#); use of high-level tanks [E 03 B 11/12](#))
- 12/32 . Flagpoles (flags, banners, mountings therefor [G 09 F 17/00](#))
- 12/34 . Arrangements for erecting or lowering towers, masts, poles, chimney stacks, or the like [**6**]
- 13/00 Monuments; Tombs; Burial vaults; Columbaria** (sculpture or other artistic features [B 44](#))
- 14/00 Buildings for combinations of different purposes not covered in a single preceding group of this subclass, e.g. for double purpose** ([3/02](#), [9/06](#) take precedence); **Buildings of the drive-in type**
- 15/00 Tents or canopies, in general** [**4**]
- 15/02 . Tents combined or specially associated with other devices [**4**]
- 15/04 . . suspended type, e.g. from trees, from cantilever supports (supporting frames [15/34](#)) [**4**]
- 15/06 . . Tents at least partially supported by vehicles [**4**]
- 15/08 . . . Trailer awnings or the like [**4**]
- 15/10 . . Heating, lighting, or ventilating (for heating, lighting, or ventilating devices *per se*, *see* the relevant classes, e.g. [F 21](#), [F 24](#)) [**4**]
- 15/12 . . . Heating [**4**]
- 15/14 . . . Ventilating [**4**]
- 15/16 of tent roofs [**4**]

E 04 H

- 15/18 . Tents having plural sectional covers, e.g. pavilions, vaulted tents, marquees, circus tents (inflatable 15/20); Plural tents, e.g. modular [4]
- 15/20 . inflatable, e.g. shaped, strengthened, or supported by fluid pressure (connection of valves to inflatable elastic bodies B 60 C 29/00; inflatable forms for making walls, floors, ceilings or roofs in situ E 04 G 11/04) [4]
- 15/22 . . supported by air pressure inside the tent [4]
- 15/24 . cone shaped, e.g. teepees [4]
- 15/26 . Center-pole supported tents (umbrella type 15/28) [4]
- 15/28 . Umbrella type tents [4]
- 15/30 . convertible, e.g. from one type tent to another type tent, from tent to canopy, from tent cover into diverse article (sacks or packs convertible into tents A 45 F 4/04; coats or capes convertible into tent coverings A 45 F 4/14) [4]
- 15/32 . Parts, components, construction details, accessories, interior equipment, specially adapted for tents, e.g. guy-line equipment, skirts, thresholds [4]
- 15/34 . . Supporting means, e.g. frames [4]
- 15/36 . . . arch-shaped type (15/42 takes precedence) [4]
- 15/38 expansible, e.g. extensible [4]
- 15/40 flexible [4]
- 15/42 . . . external type, e.g. frame outside of cover [4]
- 15/44 . . . collapsible, e.g. breakdown type (15/42 takes precedence; building structures having collapsible parts in general E 04 B 1/343) [4]
- 15/46 telescoping and foldable [4]
- 15/48 foldable, i.e. having pivoted or hinged means (15/46 takes precedence) [4]
- 15/50 lazy-tongs type [4]
- 15/52 parallelogram type [4]
- 15/54 . . Covers of tents or canopies (ventilated tent roofs 15/16) [4]
- 15/56 . . Floors [4]
- 15/58 . . Closures; Awnings; Sunshades [4]
- 15/60 . . Poles [4]
- 15/62 . . Pegs, stakes or the like [4]
- 15/64 . . Tent or canopy cover fastenings [4]
- 17/00 Fencing, e.g. fences, enclosures, corrals** (features peculiar to electrified fences A 01 K 3/00, H 05 C; means for allowing passage through fences, barriers, or the like E 06 B 11/00)
- 17/02 . Wire fencing, e.g. made of wire mesh (17/14 takes precedence; working or processing of wire B 21 F, e.g. making wire nets 27/00)
- 17/04 . . *characterised by the use of specially adapted wire, e.g. barbed wire* [1,7]
- 17/06 . . Parts for wire fences
- 17/08 . . . Anchoring means therefor, e.g. specially-shaped parts entering the ground; Struts or the like (for towers or masts 12/20; sockets for posts 12/22)
- 17/10 . . characterised by the way of connecting wire to the posts; Droppers
- 17/12 . . . the wire being placed in slots, grooves, or the like
- 17/14 . Fences constructed of rigid elements, e.g. with additional wire fillings or with posts
- 17/16 . . using prefabricated panel-like elements, e.g. wired frames
- 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 12/20; sockets for posts 12/22)
- 17/24 . . Connections for attaching additional wire to frames, posts or railings
- 17/26 . Devices for erecting or removing fences