## CPC COOPERATIVE PATENT CLASSIFICATION

## E FIXED CONSTRUCTIONS

## BUILDING

## E04 BUILDING

E04F

FINISHING WORK ON BUILDINGS, e.g. STAIRS, FLOORS (windows, doors E06B) WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

| 0/00 | Sunshades, \{e.g. Florentine blinds or jalousies; Outside screens (E06B 9/26 takes precedence)\}; Awnings \{or baldachins (for caravans B60P 3/343)\}; (trailer awnings E04H 15/08; for tents E04H 15/58) |
| :---: | :---: |
| 10/005 | - \{Rigidly-arranged sunshade roofs with coherent surfaces $\}$ |
| 10/02 | . of flexible canopy materials, e.g. canvas \{; Baldachins \} |
| 10/04 | . . with material fixed on sections of a collapsible frame \{especially Florentine blinds\} |
| 10/06 | . . comprising a roller-blind with means for holding the end away from a building |
| 10/0603 | \{with telescopic arms \} |
| 10/0607 | - \{with guiding-sections for supporting the movable end of the blind $\}$ |
| 10/0611 | . . . \{ with articulated arms supporting the movable end of the blind for deployment of the blind\} |
| 10/0614 | . . . . \{whereby the pivot axis of the articulation is parallel to the roller $\}$ |
| 10/0618 | . . . . \{whereby the pivot axis of the articulation is perpendicular to the roller\} |
| 10/0622 | . . . . . \{whereby the plane defined by three consecutive articulation points of an articulated arm is not parallel to the rotation axis of the roller, e.g. to create a saddle type roof construction or to prevent contact between the cloth and the arm sections\} |
| 10/0625 | . . \{whereby the roller is installed on the articulated arms\} |
| 10/0629 | - \{whereby the arm is of the lazy tong type\} |
| 10/0633 | . . . \{Arrangements for fastening the flexible canopy material to the supporting structure (fastening roller shutters to rollers E06B 9/171) \} |
| 10/0637 | . . . \{with mechanisms for adjusting the inclination of the blind \} |
| 10/064 | . . . . \{whereby the mechanism changes the inclination of the blind during unrolling\} |
| 10/0644 | . . . \{ with mechanisms for unrolling or balancing the blind\} |
| 10/0648 | . \{acting on the roller tube\} |
| 10/0651 | - \{acting on the arms\} |
| 10/0655 | - \{acting on the movable end, e.g. front bar\} |
| 10/0659 | \{Control systems therefor\} |

10/0662
10/0666
10/067
10/0674
10/0677
10/0681
10/0685
10/0688

10/0692
10/0696
10/08

10/10

2011/0205

2011/0207
2011/0209
2011/021

2011/0212
2011/0214
. . . \{ with arrangements for fastening the blind to the building
. . . $\{$ Accessories $\}$
. . . . \{acting as intermediate support of the flexible canopy
. . . . \{acting as separate supporting bar\}
. . . . \{acting as centre bearing\}
. . . . \{Support posts for the movable end of the blind\}
. . . \{Covers or housings for the rolled-up blind\}
. . . . \{with the housing taking up the articulated arms $\}$
. . . \{Front bars\}
. . . . \{with means to attach an auxiliary screen\}
. of a plurality of similar rigid parts, e.g. slabs, lamellae $\{(\mathrm{E} 04 \mathrm{~F}$ 10/005 takes precedence $)\}$
. . collapsible \{or extensible; metallic Florentine blinds; awnings with movable parts such as louvres; (shutters E06B 9/04; louvre windows E06B 7/08) \}

Stairways, ramps, or like structures (mounting or marking-off stairways E04F 21/26; of temporary \{use during building\} construction E04G 27/00; means for facilitating access to swimming pools E04H 4/144; \{means for facilitating access to swimming pools E04H 4/144; appliances for aiding patients or disabled persons to walk A61H 3/00\}); Balustrades;
Handrails (ladders permanently attached to fixed structures E06C 9/00)

- \{Ramps\}
. . \{collapsible, e.g. folding, telescopic\}
. . \{characterised by the supporting structure\}
- Stairways; Layouts thereof
. . \{Space-saving stairways, e.g. having half steps \}
. . \{Miscellaneous features of stairways not otherwise provided for \}
. . . \{Stairways characterised by the use of specific materials for the supporting structure of the treads $\}$
. . . $\{$ mainly of wood $\}$
. . . . $\{$ mainly of metal $\}$
. . . . \{mainly of stone or stone like materials, e.g. concrete; mainly of glass $\}$
. . . . . \{mainly of concrete\}
. . . . . . $\{$ cast in situ $\}$

| 2011/0216 | \{mainly of glass\} |
| :---: | :---: |
| 2011/0218 | . . . . \{mainly of organic plastics with or without reinforcements or filling materials\} |
| 11/022 | . . characterised by the supporting structure |
| 11/0223 | . . . \{Cantilevered stairways (E04F 11/032 takes precedence) \} |
| 11/0226 | . . . \{Stairways having treads supported by balusters $\}$ |
| 11/025 | . . . Stairways having stringers $\{($ E04F 11/035 takes precedence) \} |
| 11/0255 | . . . . \{having adjustable gradient (E04F 11/1041 takes precedence) $\}$ |
| 11/028 | . having a central stringer |
| 11/032 | . Spiral stairways supported by a central column |
| 11/035 | . . . Stairways consisting of a plurality of assembled modular parts without further support \{(E04F 11/032 takes precedence) $\}$ |
| 11/038 | . . . . each modular part having a load-bearing balustrade part |
| 11/04 | . . Movable stairways, e.g. of loft ladders which may or may not be concealable or extensible (ship ladders B63B; stairs for aircraft B64F; escalators or moving walkways B66B) |
| 11/06 | . . collapsible, e.g. folding, telescopic |
| 11/062 | . . . . \{folding $\}$ |
| 11/064 | . $\{$ with stringers overlapping when folded \} |
| 11/066 | \{folding like scissors or accordions \} |
| 11/068 | . . \{telescopic\} |
| 11/09 | Tread-and-riser units |
| 11/104 | Treads |
| 11/1041 | . . . \{having means to adjust the height, the depth and/or the slope of the stair steps (E04F 11/1042-E04F 11/116 take precedence) $\}$ |
| 11/1042 | . . . \{ with an upper layer of fibres or chips, e.g. bonded with synthetic resins $\}$ |
| 11/1043 | . . . \{with an upper layer of organic plastics with or without reinforcements or filling materials\} |
| 11/1045 | . . . \{composed of several layers, e.g. sandwich panels (layered products in general B32B; producing decorative panels or veneers B44C 5/04) |
| 2011/1046 | . . . \{Miscellaneous features of treads not otherwise provided for $\}$ |
| 2011/1047 | - \{with means for eliminating squeak\} |
| 2011/1048 | . \{with lighting means\} |
| 11/108 | . of wood \{or with an upper layer of wood\} |
| 11/112 | . . of metal \{or with an upper layer of metal\} |
| 11/116 | . . . of stone, concrete or like material \{or with an upper layer of stone or stone like material, e.g. ceramics, concrete; of glass or with an upper layer of glass $\}$ |
| 11/16 | . . . Surfaces thereof; Protecting means for edges or corners thereof ( $\{$ loosely laid coverings, \} floor fabrics, fastenings therefor A47G 27/00) |
| 11/163 | . . . . $\{$ Protecting means for edges or corners\} |
| 11/166 | . . . . . $\{$ with means for fixing a separate edging strip $\}$ |
| 11/17 | . . . . Surfaces $\{($ guard covers of stairs E04G 21/30) \} |
| 11/175 | Covering panels for tread restoration\} |


| 11/18 | . Balustrades; Handrails (guard-rails on ships B63B; for bridges E01D 19/10; for roads E01F 13/00, E01F 15/00; fences E04H 17/00 \{; safety measures for persons during the construction of buildings E04G 21/32\}) |
| :---: | :---: |
| 11/1802 | . . \{Handrails mounted on walls, e.g. on the wall side of stairs \} |
| 11/1804 | \{Details of anchoring to the wall\} |
| 2011/1806 | . . . \{Balcony guard with additional child safety means $\}$ |
| 11/1808 | . . . \{Handrail members; Connections between handrail members \} |
| 11/181 | \{Balustrades \} |
| 11/1812 | . . \{Details of anchoring to the wall or floor\} |
| 11/1814 | . . . . \{Covers for the base portions of the balustrade posts\} |
| 11/1817 | . . . \{Connections therefor (E04F 11/1812 and E04F 11/1836 take precedence) \} |
| 2011/1819 | . . . \{between balustrade posts and horizontal or sloping balustrade members $\}$ |
| 2011/1821 | - \{between balustrade posts and handrails\} |
| 2011/1823 | . . . . \{between balustrade filling members, e.g. balusters or panels, and horizontal or sloping balustrade members\} |
| 2011/1825 | . . . . . \{between balustrade filling members, e.g. balusters or panels, and handrails\} |
| 2011/1827 | . \{between balusters and handrails\} |
| 2011/1829 | . \{between filling panels and handrails\} |
| 2011/1831 | . . . . \{between balustrade filling members, e.g. panels, and balustrade posts\} |
| 11/1834 | . . . . \{with adjustable angle, e.g. pivotal connections \} |
| 11/1836 | . . . \{Handrails of balustrades; Connections between handrail members $\}$ |
| 11/1838 | . . . . \{Laterally displaced handrail\} |
| 11/184 | . . . . \{of variable curvature; flexible\} |
| 11/1842 | . . \{Balusters; Grille-type elements\} |
| 11/1844 | . \{Grille-type elements\} |
| 11/1846 | . \{Balusters with means for fixing to the floor\} |
| 11/1848 | . . . . \{Separate means for spacing balusters apart\} |
| 11/1851 | . . . \{Filling panels, e.g. concrete, sheet metal panels $\}$ |
| 11/1853 | . . . . \{Glass panels\} |
| 11/1855 | . \{Wire mesh panels |
| 11/1857 | - \{Flexible panels or nets\} |
| 11/1859 | . \{Wire cables or the like filling elements\} |
| 11/1861 | . . . \{with additional safety means for children, e.g. nets or fillings between balusters \} |
| 11/1863 | . . \{Built-in aids for ascending or descending stairs (lifts associated with stairs B66B 9/08) \} |
| 11/1865 | . . \{Collapsible or portable balustrades \} |
| 2011/1868 | . . \{Miscellaneous features of handrails not otherwise provided for \} |
| 2011/187 | - \{lengthwise adjustable, e.g. telescopic\} |
| 2011/1872 | \{illuminated\} |
| 2011/1874 | . . . \{Noise reduction\} |
| 2011/1876 | - \{Movable elements, e.g. against sunlight \} |
| 2011/1878 | - \{Heat exchanger\} |
| 2011/188 | . \{with flower pots\} |
| 2011/1882 | - \{with traction cable inside post or rail\} |
| 2011/1885 | . . \{Handrails or balusters characterized by the use of specific materials $\}$ |
| 2011/1887 | . . . \{mainly of wood\} |


| 2011/1889 | \{mainly of metal \} |
| :---: | :---: |
| 2011/1891 | . . . \{mainly of stone or stone like materials, e.g. concrete; mainly of glass\} |
| 2011/1893 | - \{mainly of concrete\} |
| 2011/1895 | \{mainly of glass\} |
| 2011/1897 | . . . \{mainly of organic plastics with or without reinforcements or filling materials $\}$ |
| 13/00 | Coverings or linings, e.g. for walls or ceilings (flooring E04F 15/00; decoration of surfaces, mosaic work B44, e.g. paper-hanging B44C 7/00; made of webs, e.g. of fabrics or wallpaper $\{$, as such, or their manufacturing $\}$ D03D, D04G, D04H, D06N, D21H; construction of \{false\} ceilings E04B 9/00; roofings or similar water-tight coverings against precipitation E04D) |
| 13/002 | - \{made of webs, e.g. of fabrics, or wallpaper, used as coverings or linings (of a number of similar elements carried by a common web E04F 13/0862; paperhanging, tapestry work B44C 7/00) \} |
| 13/005 | . . \{Stretched foil- or web-like elements attached with edge gripping devices\} |
| 13/007 | . \{Outer coverings for walls with ventilating means\} |
| 13/02 | - of plastic materials hardening after applying, e.g. plaster (surface treatment in painting technique B44D; inorganic or bituminous masses C04B; organic plastics C08L \{; implements for applying plasticised materials E04F 21/02\}) |
| 13/04 | . . Bases for plaster (sub-ceilings with plastercarrying means E04B 9/06) |
| 13/042 | - \{Joint tapes\} |
| 13/045 | . . . \{Means for fastening plaster-bases to a supporting structure\} |
| 13/047 | . \{Plaster carrying meshes\} |
| 13/06 | . . . Edge-protecting borders \{(borders for joints between plaster layers and window or door frames or like E06B 1/62) \} |
| 2013/061 | \{for arched or curved edges\} |
| 2013/063 | . \{for corners\} |
| 2013/065 | . . . \{for lower edges of outer insulation layers\} |
| 2013/066 | . . . . \{for expansion joints between two plaster layers $\}$ |
| 13/068 | . . . . \{combined with mesh material or the like to allow plaster to bond therewith\} |
| 13/07 | . composed of covering or lining elements; Substructures therefor; Fastening means therefor |
| 13/072 | . . composed of specially adapted, structured or shaped covering or lining elements |
| 13/073 | . . . for particular building parts, e.g. corners or columns |
| 13/0733 | . \{for corners\} |
| 13/0736 | . . . \{for columns\} |
| 13/074 | . . . for accommodating service installations or utility lines, e.g. heating conduits, electrical lines, lighting devices or service outlets $\{$ (not used; accommodating heating conduits F24D; accommodating electrical cables or lines H02G 3/00; accommodating lighting devices F21V 33/006) \} |
| 13/075 | . . . for insulation or surface protection, e.g. against noise or impact $\{$ (not used; for insulation, e.g. against noise E04B 1/00) \} |


| 13/076 | . . . characterised by the joints between neighbouring elements, e.g. with joint fillings or with tongue and groove connections \{(not used, see E04F 13/0889) \} |
| :---: | :---: |
| 13/077 | . . . composed of several layers, e.g. sandwich panels (E04F 13/075 takes precedence) $\{$ (not used, see E04F 13/0866) \} |
| 13/078 | . . . Stretched foil- or web-like elements attached with edge gripping devices $\{$ (not used, see E04F 13/005) \} |
| 13/08 | . . composed of a plurality of similar covering or lining elements, (E04F 13/072 takes precedence; borders, skirtings E04F 19/02; \{of webs or fabrics E04F 13/002; fixing strips E04F 19/06; separate provisional spacers between adjacent tiles E04F 21/0092; implements or means for setting tiles E04F 21/18\}) |
| 13/0801 | . . . \{Separate fastening elements (E04F 13/088, E04F 13/0885 take precedence) $\}$ |
| 13/0803 | . . . . \{with load-supporting elongated furring elements between wall and covering elements $\}$ |
| 13/0805 | . . . . . \{with additional fastening elements between furring elements and the wall\} |
| 13/0807 | . . . . . \{adjustable perpendicular to the wall\} |
| 13/0808 | . . . . . . \{adjustable in several directions one of which is perpendicular to the wall\} |
| 13/081 | . . . . . \{with additional fastening elements between furring elements and covering elements $\}$ |
| 13/0812 | . \{fixed by means of spring action\} |
| 13/0814 | \{fixed by means of clamping action\} |
| 13/0816 | . . . . . . \{the additional fastening elements extending into the back side of the covering elements (E04F 13/083 takes precedence) $\}$ |
| 13/0817 | . . . . . . . \{extending completely through the covering elements\} |
| 13/0819 | . . . . . \{inserted into grooves in the back side of the covering elements\} |
| 13/0821 | . . \{the additional fastening elements located in-between two adjacent covering elements\} |
| 13/0823 | . . . \{piercing the side faces of the covering elements $\}$ |
| 13/0825 | . . . . . \{engaging side holes preformed into the covering elements\} |
| 13/0826 | . . . . . . \{engaging side grooves running along the whole length of the covering elements $\}$ |
| 13/0828 | . . \{engaging the outer surface of the covering elements, e.g. at the corners \} |
| 13/083 | . . . . . . \{Hooking means on the back side of the covering elements\} |
| 13/0832 | . . . . \{without load-supporting elongated furring elements between wall and covering elements\} |
| 13/0833 | . . . . . \{not adjustable (E04F 13/0857 takes precedence) $\}$ |
| 13/0835 | . . \{the fastening elements extending into the back side of the covering elements (E04F 13/0851 takes precedence) \} |
| 13/0837 | . . . . . . . \{extending completely through the covering elements $\}$ |



| 13/185 | . . . . $\{$ with an outer layer imitating natural stone, brick work, tiled surface or the like |
| :---: | :---: |
| 13/21 | . . Fastening means specially adapted for covering or lining elements \{(not used, see E04F 13/0801) \} |
| 13/22 | . . . Anchors, support angles or consoles $\{($ not used, see E04F 13/0801) \} |
| 13/23 | . . . adjustable \{(not used, see E04F 13/0801) \} |
| 13/24 | . . . Hidden fastening means on the rear of the covering or lining elements (E04F 13/30 takes precedence) $\{$ (not used, see E04F 13/0801) $\}$ |
| 13/25 | . . . . adjustable \{(not used, see E04F 13/0801) \} |
| 13/26 | . . . Edge engaging fastening means, e.g. clamps, clips or border profiles \{(not used, see E04F 13/0801) |
| 13/28 | . . . . adjustable \{(not used, see E04F 13/0801) \} |
| 13/30 | . . . Magnetic fastening means $\{($ not used, see E04F 13/0883) \} |
| 15/00 | Flooring (stair treads E04F 11/104; coverings not specially adapted for floors E04F 13/00; borders, skirtings E04F 19/02; \{implements for laying flooring E04F 21/20; \} gratings for cleaning soles of footwear A47L 23/24; \{built-in gratings E04F 19/10; removing floor coverings E04G 23/00; carpets A47G 27/00; \} of similar materials to roads E01C; basic or rough floors \{, structural floors \} E04B 5/00) |
| 15/02 | . Flooring or floor layers composed of a number of similar elements (of webs E04F 15/16) |
| 15/02005 | . . \{Construction of joints, e.g. dividing strips (E04F 15/024, E04F 15/04, E04F 15/06, E04F 15/10 and E04F 15/14 take precedence; separate provisional spacers E04F 21/0092) \} |
| 15/02011 | . . . \{with joint fillings integrated in the flooring elements $\}$ |
| 15/02016 | . . . \{with sealing elements between flooring elements (sealings of joints between building constructions in general E04B 1/68) \} |
| 15/02022 | . . . \{ with means for aligning the outer surfaces of the flooring elements (E04F 15/02038 takes precedence) $\}$ |
| 15/02027 | . . . \{Means for spacing the flooring from an adjoining wall\} |
| 15/02033 | . . \{Joints with beveled or recessed upper edges\} |
| 15/02038 | . . \{characterised by tongue and groove connections between neighbouring flooring elements \} |
| 15/02044 | . . \{Separate elements for fastening to an underlayer (E04F 15/02133, E04F 15/0215 take precedence) $\}$ |
| 2015/0205 | . . . \{with load-supporting elongated furring elements between the flooring elements and the underlayer\} |
| 2015/02055 | . . \{with additional supporting elements between furring elements and underlayer\} |
| 2015/02061 | - \{adjustable perpendicular to the underlayer $\}$ |
| 2015/02066 | . . . . \{with additional fastening elements between furring elements and flooring elements $\}$ |
| 2015/02072 | . . \{the additional fastening elements extending into the back side of the flooring elements (E04F 2015/021 takes precedence) $\}$ |
| 2015/02077 | - \{the additional fastening elements located in-between two adjacent flooring elements\} |


| 2015/02083 | - $\{$ Piercing the side faces of the flooring elements $\}$ |
| :---: | :---: |
| 2015/02088 | . . . . . \{Engaging side holes preformed into the flooring elements\} |
| 2015/02094 | . . \{Engaging side grooves running along the whole length of the flooring elements\} |
| 2015/021 | . . . . . \{fixed by means of hooking means on the back side of the flooring elements $\}$ |
| 2015/02105 | . . . \{without load-supporting elongated furring elements between the flooring elements and the underlayer $\}$ |
| 2015/02111 | . . . \{not adjustable\} |
| 2015/02116 | - \{with fastening elements extending into the back side of the flooring elements $\}$ |
| 2015/02122 | . . . . \{with fastening elements engaging holes or grooves in the side faces of the flooring elements (E04F 2015/02116 takes precedence) $\}$ |
| 2015/02127 | . . . \{adjustable perpendicular to the underlayer (E04F 15/02464 takes precedence) \} |
| 15/02133 | - \{fixed directly to an underlayer by means of magnets, hook and loop-type or similar fasteners, not necessarily involving the side faces of the flooring elements\} |
| 15/02138 | . . \{by hook and loop-type fasteners \} |
| 15/02144 | . \{by magnets\} |
| 15/0215 | . . \{specially adapted for being adhesively fixed to an underlayer; Fastening means therefor; Fixing by means of plastics materials hardening after application\} |
| 15/02155 | . . \{Adhesive means specially adapted therefor, e.g. adhesive foils or strips \} |
| 15/02161 | \{Floor elements with grooved main surface\} |
| 15/02166 | - \{wherein the grooves are filled with inserts \} |
| 15/02172 | \{Floor elements with an anti-skid main surface, other than with grooves\} |
| 15/02177 | . . \{Floor elements for use at a specific location (not used, see subgroups) $\}$ |
| 15/02183 | . . . \{for outdoor use, e.g. in decks, patios, terraces, verandas or the like\} |
| 15/02188 | \{for use in wet rooms\} |
| 15/02194 | - \{Flooring consisting of a number of elements carried by a non-rollable common support plate or grid (E04F 15/022 takes precedence) \} |
| 15/022 | - Flooring consisting of parquetry tiles on a nonrollable sub-layer of other material, e.g. board, concrete, cork |
| 15/024 | . . Sectional false floors, e.g. computer floors \{(height-adjustable supports for terrace roof coverings E04D 11/00; underfloor heating using water F24D 3/142, using air F24D 5/10; installation of cables, lines or protective tubing in floors H02G 3/28) \} |
| 15/02405 | - \{Floor panels\} |
| 15/02411 | . . . . \{with integrated feet (E04F 15/02417 takes precedence) $\}$ |
| 15/02417 | . \{made of box-like elements \} |
| 15/02423 | . \{filled with core material\} |
| 15/02429 | . . . . . . \{the core material hardening after application \} |
| 15/02435 | . \{Sealing joints $\}$ |
| 15/02441 | . . . . . \{Sealing strips integrated with the floor panels $\}$ |


| /02447 | \{Supporting structures\} |
| :---: | :---: |
| 15/02452 | . . . . \{Details of junctions between the supporting structures and the panels or a panelsupporting framework\} |
| 15/02458 | \{Framework supporting the panels\} |
| 15/02464 | . . . . \{Height adjustable elements for supporting the panels or a panel-supporting framework \} |
| 15/0247 | \{Screw jacks\} |
| 15/02476 | . . . . . . $\{$ height-adjustable from the upper side of the floor\} |
| 15/02482 | - \{with a variable angle between panel and support $\}$ |
| 15/02488 | . . \{filled with material hardening after application\} |
| 15/02494 | . . . \{with a plurality of base plates or like, each base plate having a plurality of pedestals upstanding therefrom to receive the floor panels $\}$ |
| 15/04 | . . only of wood \{or with a top layer of wood\}, e.g. with wooden $\{$ or metal $\}$ connecting members (rollable parquet E04F 15/16) |
| 15/041 | . . . \{with a top layer of wood in combination with a lower layer of other material\} |
| 15/042 | . . . . \{the lower layer being of fibrous or chipped material, e.g. bonded with synthetic resins\} |
| 15/043 | . . . . \{the lower layer being of organic plastic with or without reinforcements or filling materials $\}$ |
| 15/045 | \{Layered panels only of wood\} |
| 15/046 | . \{Plywood panels\} |
| 15/047 | - \{with a butcher-block like top surface \} |
| 15/048 | . . . \{with a top surface of assembled elongated wooden strip type\} |
| 15/06 | . . of metal, whether or not in combination with other material (gratings as building elements E04C $2 / 42$ \{; of elements with a metal upper layer; E04F 15/02405 takes precedence; metal treads E04F 11/112\}) |
| 15/08 | . . only of stone or stone-like material, e.g. \{ceramics\}, concrete; of glass \{or with a top layer of stone or stone-like material, e.g. ceramics, concrete or glass (E04F 15/02005 takes precedence) $\}$ |
| 15/082 | . . . \{ with a top layer of stone or stone-like material, e.g. ceramics, concrete or glass in combination with a lower layer of other material $\}$ |
| 15/085 | . . . . \{The lower layer being of fibrous or chipped material, e.g. bonded with synthetic resins\} |
| 15/087 | . . . . \{The lower layer being of organic plastic with or without reinforcements or filling materials $\}$ |
| 15/10 | of other materials, e.g. fibrous or chipped materials, organic plastics, magnesite \{tiles \}, hardboard $\{$, or with a top layer of other materials $\}$ |
| 15/102 | - . . \{of fibrous or chipped materials, e.g. bonded with synthetic resins \} |
| 15/105 | . . . \{of organic plastics with or without reinforcements or filling materials $\}$ |
| 15/107 | . . . \{composed of several layers, e.g. sandwich panels (layered products in general B32B; producing decorative panels or veneers B44C 5/04)\} |

17/005
. Flooring or floor layers made of masses in situ, e.g. seamless magnesite floors, terrazzo \{gypsum floors\}(inorganic or bituminous masses C04B; organic plastic masses C08L)
. . \{Lost formworks for producing hollow floor screed layers, e.g. for receiving installations, ducts, cables (structural floors E04B 5/00; filling elements for building-up floors E04B 5/26; installation of cables, lines or protective tubing in floors H02G 3/28) \}
. . \{Terrazzo floors \}
. . Construction of joints, e.g. dividing strips (\{E04F 15/02005 takes precedence; $\}$ sealing joints not restricted to flooring E04B 1/68
$\{$, construction of joints in roads or airfields E01C 11/02\})
. . . \{Dividing strips or boundary strips\}
. . . . \{adjustable in height\}
. . . . \{interconnected to form a grid-like structure\}

- Flooring, e.g. parquet on flexible web, laid as flexible webs; Webs specially adapted for use as flooring; \{Parquet on flexible web\}(resilientlymounted floors, e.g. sprung floors, E04F 15/22; linoleum D06N; \{carpets A47G 27/00 \})
. . \{Webs specially adapted for use as finishing layers $\}$
. . \{Flooring consisting of a number of elements carried by a common flexible web, e.g. rollable parquet\}
. Separately-laid insulating layers; Other additional insulating measures; Floating floors (insulating of buildings in general E04B 1/62)
- . \{Insulating layers integrally formed with the flooring or the flooring elements\}
. . \{Underlayers coated with adhesive or mortar to receive the flooring \}
. . \{for areas prone to frost damage, e.g. for balconies or terraces\}
. . \{Underlayers in the form of studded or ribbed plates $\}$
. . \{Underlayers covered with a mesh or the like\}
. . \{Underlayers specially adapted to be laid with overlapping edges $\}$
- . \{Edge insulation strips, e.g. for floor screed layers (boundary strips in layers made of masses in situ E04F 15/142) \}
. . for sound insulation
. . . \{Separately-laid layers for sound insulation\}
. . . \{Layered panels for sound insulation\}
. Resiliently-mounted floors, e.g. sprung floors (laid as webs E04F 15/16)
. . \{Shock absorber members therefor\}


## Vertical ducts; Channels, e.g. for drainage

(pipes in general F16L; pipe-line systems F17D \{; drainage devices in floors E03F 5/04; roof drainage E04D 13/04\})

- \{Lift shafts\}

| 17/02 | - for carrying away waste gases, e.g. flue gases (free-standing chimneys E04H 12/28; connections between fireplace and chimney, chimney fittings, covers for cleaning holes of chimneys F23J; chimney tops F23L); Building elements specially designed therefor, e.g. shaped bricks or sets thereof \{ (coke-ovens C10B; working measures on existing vertical ducts E04G 23/02; apparatus for inserting new lining elements in existing ducts E04G 21/16; metallic chimneys, linings, joints and spacers therefor F23J 11/00, F23J 13/00) \} |
| :---: | :---: |
| 17/023 | . . \{made of masonry, concrete or other stone-like material; Insulating measures and joints therefor |
| 17/026 | . . \{Exterior cladding, e.g. of chimney parts extending above the roof; Rain covers for chimney tops without draught-inducing aspects (inducing draught in chimneys F23L 17/00) \} |
| 17/04 | . Air-ducts or air channels $\{$ (heating in general F24; ventilating rooms in general F 24 F ) $\}$ |
| 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 E04F 19/08) |
| 17/10 | - Arrangements in buildings for the disposal of refuse (refuse bins, gathering or removal of refuse B65F) |
| 17/12 | . Chutes |
| 17/123 | . . \{Cleaning or disinfecting thereof\} |
| 17/126 | . . \{with water flushing\} |
| 19/00 | Other details of constructional parts for finishing work on buildings (ladders, e.g. climbing irons, E06C 9/04) |
| 19/005 | - \{Chimney mantel pieces\} |
| 19/02 | . Borders; Finishing strips, e.g. beadings; Light cove (for protecting edges of plaster E04F 13/06) |
| 19/022 | . . \{for use at vertical intersections of walls (E04F 19/028 takes precedence) \} |
| 19/024 | . . . \{for outside use, e.g. imitating brickwork\} |
| 19/026 | \{specially adapted for cushioning impacts |
| 19/028 | - \{used at protruding corners\} |
| 19/04 | . . for use between floor or ceiling and wall, e.g. skirtings |
| 2019/0404 | . \{characterised by the material\} |
| 2019/0409 | . . \{of wood\} |
| 2019/0413 | - \{of metal\} |
| 2019/0418 | . . . . \{of stone or stone like material, e.g. ceramics, concrete; of glass\} |
| 2019/0422 | . . . . \{of organic plastics with or without reinforcements or filling materials $\}$ |
| 2019/0427 | . . \{with a integrally formed hinge\} |
| 2019/0431 | - \{of two or more materials\} |
| 19/0436 | - \{between ceiling and wall\} |
| 2019/044 | - \{with conduits\} |
| 2019/0445 | - \{Ventilating plinths\} |
| 19/045 | - \{Hygienic or watertight plinths\} |
| 2019/0454 | . \{with decorative effects\} |
| 19/0459 | - \{characterised by the fixing method\} |
| 19/0463 | . . . . \{Plinths fixed by snap-action in a direction perpendicular to the wall\} |
| 19/0468 | . . . . \{Plinths fixed by hooking in a direction parallel to the wall\} |
| 19/0472 | . . . . \{Plinths fixed by means of magnets, hook and loop-type or similar fasteners $\}$ |
| 19/0477 | . . . \{Plinths fixed by means of adhesive \} |

19/0481

19/0486
19/049

19/0495

19/06
. . . \{Skirtings or crown mouldings with a separate cladding strip\}
. . . \{Corner filling pieces\}
. . . \{Plinths specially adapted for joining wall coverings to floor surfaces \}
. . . \{Plinths fixed around wall openings or around corners of walls $\}$
. . specially designed for securing panels \{or masking the edges of wall- or floor-covering elements (E04F 19/022, E04F 19/026 and E04F 19/04 take precedence) $\}$
. . . \{used to finish off an edge or corner of a wall or floor covering area (in connection with floor fabrics A47G 27/045; sealings between walls and baths A $47 \mathrm{~K} 3 / 008$ ) \}

- . . \{used between similar elements (separate provisional spacers E04F 21/0092) \}
. . . . \{for simultaneously securing panels having different thicknesses \}
. . . . $\{$ in corners $\}$
. . . \{Finishing profiles with a T-shaped crosssection or the like\}
. . . . \{fixed onto a base profile by means of a separate connector $\}$
- . . . \{with means preventing a tipping movement \}
. . . . \{with means allowing a tipping movement \}
- Built-in cupboards; Masks of niches; Covers of holes enabling access to installations (\{inspection openings in bathtub aprons A $47 \mathrm{~K} 3 / 1615$; covers for electrical distribution boxes H02G 3/14; movable ceiling parts E04B 9/003; removable wall partitions E04B 2/74; \} clean-out doors of chimneys F23J)
- . \{Covers with fixing means providing for snap locking\}
. . \{Covers with magnetic fixing means\}
- Built-in gratings, e.g. foot-scrapers

Implements for finishing work on buildings (for working or treating building elements of stone or stone-like material B28D)

- \{for mounting doors, windows or frames; their fitting (door-lifters B66F 15/00) \}
. . \{for mounting frames \}
. . \{for mounting door leaves, window sashes or the like\}
- \{for marking doors, windows or frames (templates for marking the position of hinges E05D 11/0009; templates for marking the position of doorlocks E05B 17/06) \}
- \{for fitting sealing strips or like\}
- \{for reshaping butt joints between adjacent panels, e.g. drywall panels (E04F 21/165 takes precedence) $\}$
- \{for installing edge-protecting borders $\}$
. . \{with crimping means\}
- \{for cutting or mounting plinths\}
- \{for marking and cutting tiles\}
- \{Implements for removing filling material from joints $\}$
- \{Separate provisional spacers used between adjacent floor or wall tiles (E04F 13/0889, E04F 15/02005 takes precedence) \}

| 21/02 | for applying plasticised masses to surfaces, e.g. plastering walls ( $\{$ wall covering made of hardening materials E04F 13/02\}; specially for flooring E04F 21/20; implements for painting or decorating B44; applying liquids or other fluent materials to surfaces, in general B05) |
| :---: | :---: |
| 21/023 | . . \{for applying adhesive, e.g. glue or mortar, on the covering elements, in particular tiles\} |
| 21/026 | - . \{for applying adhesive or joint compound to joint tapes, in particular drywall tapes (joint tapes E04F 13/042; drywall taper tools E04F 21/1657) |
| 21/04 | . . Patterns or templates; Jointing rulers $\{$ (profile trowels E04F 21/16) \} |
| 21/05 | Supports for jointing rulers |
| 21/06 | . . Implements for applying plaster, insulating material, or the like $\{($ finishing E04F 21/16) $\}$ |
| 21/08 | . . . Mechanical implements (E04F 21/14 takes precedence; spraying in general B05B; sandblasting B24C) |
| 21/085 | . . . . \{for filling building cavity walls with insulating materials $\}$ |
| 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 \{before it has hardened or dried\}, e.g. smoothing-tools, profile trowels $\{$ (E04F 21/04, E04F 21/165 take precedence) \} |
| 21/161 | . \{Trowels |
| 21/162 | . . . \{ with a blade having a notched or toothed edge $\}$ |
| 21/163 | \{with exchangeable blades |
| 21/165 | - for finishing joints, e.g. implements for raking or filling joints, jointers (bricklayers' tools E04G 21/16; repairing, e.g. filling cracks, E04G 23/02 \{; wallpaper scrapers or the like B44C 7/02; implements for cleaning joints A47L 13/10\}) |
| 21/1652 | . . \{for smoothing and shaping joint compound to a desired contour\} |
| 21/1655 | - \{for finishing corner joints\} |
| 21/1657 | . . \{for applying tape to joints, e.g. drywall taper tools\} |
| 21/18 | - for setting wall or ceiling slabs or plates (tools for mosaic work B44C) |
| 21/1805 | - \{Ceiling panel lifting devices\} |
| 21/1811 | . . . $\{$ with hand-driven crank systems, e.g. rope, cable or chain winding or rack-and-pinion mechanisms (E04F 21/1816, E04F 21/1822 and E04F 21/1827 take precedence) \} |
| 21/1816 | . . . \{fluid pressure-operated (E04F 21/1822 and E04F 21/1827 take precedence) \} |
| 21/1822 | . \{with pivotally mounted arms\} |
| 21/1827 | . \{Lazy-tongs mechanisms \} |
| 21/1833 | . $\{$ spring-force actuated $\}$ |
| 21/1838 | . . \{for setting a plurality of similar elements (E04F 21/1805 and E04F 21/1894 take precedence; separate provisional spacers E04F 21/0092) \} |
| 21/1844 | . . . $\{$ by applying them one by one \} |
| 21/185 | . . \{Temporary edge support brackets\} |
| 21/1855 | - \{of elongated elements, e.g. sidings \} |
| 21/1861 | . \{for setting insulating panels\} |

21/1866

21/1872
21/1877
21/1883

21/1888
21/1894

21/20

21/22

21/24

21/241
21/242

21/244

21/245
21/247

21/248

21/26
21/28
21/30

21/32
2201/00
2201/01

2201/0107

2201/0115
2201/0123
2201/013
2201/0138

2201/0146
2201/0153

2201/0161
2201/0169

2201/0176
2201/0184
. . . . \{using magnets, hook and loop-type fastener or similar means \}
. . . . \{using suction-cups \}
. . . \{Leveling devices\}
. . . \{by simultaneously applying several elements, e.g. templates \}
. . . . \{using suction-cups \}

- . \{Lever-type lifters gripping the bottom edge of wall panels (door lifters B66F 15/00) \}
- for laying flooring (made of similar material to roads or pavements E01C $\{$; arrangements for removing of previously fixed floor covering E04G 23/00\})
- . of single elements, e.g. flooring cramps \{; flexible webs (cutting tiles B28D $1 / 225$ ) $\}$
. . of masses made in situ, e.g. smoothing tools \{(E04F 21/04 takes precedence; finishing of concrete roads or pavings E01C 19/40; devices for levelling concrete floors E04G 21/10; devices for solidifying concrete floors by vibrating E04G 21/066) \}
. . . \{Elongated smoothing blades or plates, e.g. screed apparatus\}
- . . $\{$ with vibrating means, e.g. vibrating screeds $\}$
. . . . \{with means to adjust the working angle of the leveling blade or plate\}
. . . \{Rotary power trowels, i.e. helicopter trowels\}
. . . . \{used by an operator sitting on the trowel, i.e. ride-on power trowels\}
. . . . \{used by an operator walking behind the trowel, i.e. walk-behind power trowels\}
- for mounting staircases, e.g. tools for marking steps
- for glazing (glass cutters C03B 33/10)
- . Putty squeezers or guns $\{$ (not used, see B05C 17/002) \}
. . Putty knives; Putty removers


## Joining sheets or plates or panels

- Joining sheets, plates or panels with edges in abutting relationship
. . by moving the sheets, plates or panels substantially in their own plane, perpendicular to the abutting edges
. . . with snap action of the edge connectors
. . by moving the sheets, plates or panels parallel to the abutting edges
. . . with snap action of the edge connectors
. . by moving the sheets, plates or panels perpendicular to the main plane
. . . with snap action of the edge connectors
. . by rotating the sheets, plates or panels around an axis which is parallel to the abutting edges, possibly combined with a sliding movement
. . . with snap action of the edge connectors
- . by rotating the sheets, plates or panels around an axis which is perpendicular to the abutting edges and parallel to the main plane, possibly combined with a sliding movement
. . . with snap action of the edge connectors
. . by rotating the sheets, plates or panels around an axis which is perpendicular to the abutting edges and perpendicular to the main plane, possibly combined with a sliding movement

| 2201/0192 | h snap action of the edge connectors | 2201/0588 | of organic plastics with or without |
| :---: | :---: | :---: | :---: |
| 2201/02 | - Non-undercut connections, e.g. tongue and groove connections | 2201/0594 | reinforcements or filling materials <br> . . Hinge-like connectors |
| 2201/021 | - . with separate protrusions | 2201/06 | - Magnets |
| 2201/022 | . . . with tongue or grooves alternating longitudinally along the edge | $\begin{aligned} & 2201 / 07 \\ & 2201 / 08 \end{aligned}$ | - with connections using a special adhesive material <br> - hook and loop-type fastener or similar fixing means |
| 2201/023 | - . with a continuous tongue or groove | 2201/09 | - Puzzle-type connections for interlocking male and |
| 2201/025 | - . with tongue and grooves alternating transversally in the direction of the thickness of the panel, e.g. multiple tongue and grooves oriented parallel to each other | $2201 / 091$ $2201 / 093$ | female panel edge-parts <br> . . with the edge-parts forming part of the panel body <br> . . with the edge-parts being separate elements not |
| 2201/026 | - . with rabbets, e.g. being stepped |  | being part of the panel body |
| 2201/027 | . . connected by tongues and grooves, the centerline of the connection being inclined to the top surface | 2201/095 | . . with both connection parts, i.e. male and female connection parts alternating on one edge |
| 2201/028 | - . connected by tongues and grooves with triangular shape | 2201/096 | . . with only one type of connection parts, i.e. with male or female on one edge |
| 2201/03 | - Undercut connections, e.g. using undercut tongues or grooves | 2201/098 | . . wherein the interlocking male and female edgeparts have a dovetail, mushroom or similar shape |
| 2201/035 | - Dovetail connections |  |  |
| 2201/04 | - Other details of tongues or grooves | 2203/00 | Specially structured or shaped covering, lining or flooring elements not otherwise provided for |
| 2201/041 | . . Tongues or grooves with slits or cuts for expansion or flexibility | 2203/02 | - having particular shapes, other than square or |
| 2201/042 | . . with grooves positioned on the rear-side of the panel |  | rectangular, e.g. triangular, hexagonal, circular, irregular |
| 2201/043 | . . with tongues and grooves being formed by projecting or recessed parts of the panel layer | $\begin{aligned} & 2203 / 023 \\ & 2203 / 026 \end{aligned}$ | - . having triangular shapes - . having hexagonal shapes |
| 2201/044 | . . with tongues or grooves comprising elements | 2203/04 | - comprising a plurality of internal elongated cavities arranged in substantially parallel rows |
|  | the sheets, plates or panels but which are permanently fixedly connected to the sheets, plates or panels, e.g. at the factory (for separate tongues E04F 2201/0523) | $2203 / 06$ $2203 / 065$ | - comprising two layers fixedly secured to one another, in offset relationship in order to form a rebate <br> . . in offset relationship longitudinally as well as |
| 2201/045 | . . . wherein the elements are made of wood |  |  |
| 2201/046 | wherein the elements are made of metal | 2203/08 | - with a plurality of grooves or slits in the back side, |
| 2201/047 | . . . wherein the elements are made of stone or stone like material, e.g. ceramics, concrete; of |  | to increase the flexibility or bendability of the elements |
|  | glass | 2290/00 | Specially adapted covering, lining or flooring |
| 2201/048 | . . . wherein the elements are made of fibres or chips, e.g. bonded with synthetic resins | 2290/02 | elements not otherwise provided for <br> - for accommodating service installations or utility |
| 2201/049 | . . . wherein the elements are made of organic plastics with or without reinforcements or filling materials | 2290/023 | lines, e.g. heating conduits, electrical lines, lighting devices or service outlets <br> . for heating |
| 2201/05 | - Separate connectors or inserts, e.g. pegs, pins, keys or strips | $\begin{aligned} & 2290 / 026 \\ & 2290 / 04 \end{aligned}$ | . . for lighting <br> - for insulation or surface protection, e.g. against |
| 2201/0505 | . . Pegs or pins |  | noise, impact or fire |
| 2201/0511 | - . Strips or bars, e.g. nailing strips | 2290/041 | - against noise |
| 2201/0517 | . . U- or C-shaped brackets and clamps | 2290/042 | . . . with a facing or top layer for sound insulation |
| 2201/0523 | . . Separate tongues; Interlocking keys, e.g. joining mouldings of circular, square or rectangular shape | $\begin{aligned} & 2290 / 043 \\ & 2290 / 044 \end{aligned}$ | . . . with a bottom layer for sound insulation <br> . . against impact |
| 2201/0529 | . . . the interlocking key acting as a dovetail-type key | $\begin{aligned} & 2290 / 045 \\ & 2290 / 046 \end{aligned}$ | - . against fire <br> . . . with a facing or top layer for fire insulation |
| 2201/0535 | . . . adapted for snap locking | 2290/047 | with a bottom layer for fire insulation |
| 2201/0541 | . . . adapted to be moved along the joint edge | 2290/048 |  |
| 2201/0547 | . . . adapted to be moved perpendicular to the joint edge |  |  |
| 2201/0552 | . . . adapted to be rotated around an axis parallel to the joint edge |  |  |
| 2201/0558 | . . . adapted to be rotated around an axis perpendicular to the joint edge |  |  |
| 2201/0564 | . . . depending on the use of specific materials |  |  |
| 2201/057 | . of wood |  |  |
| 2201/0576 | of metal |  |  |
| 2201/0582 | . . . . of fibres or chips, e.g. bonded with synthetic resins |  |  |

