

E06 DOORS, WINDOWS, SHUTTERS, OR ROLLER BLINDS, IN GENERAL; LADDERS

E06B FIXED OR MOVABLE CLOSURES FOR OPENINGS IN BUILDINGS, VEHICLES, FENCES, OR LIKE ENCLOSURES, IN GENERAL, E.G. DOORS, WINDOWS, BLINDS, GATES (shades or blinds for greenhouses A01G 9/22; curtains A47H; lids for car boots or bonnets B62D 25/10; sky-lights E04B 7/18; sunshades, awnings E04F 10/00)

Notes

- (1) This subclass does not cover combinations of wings or frames with operating, mounting, latching or locking means of the type found in class E05, which are covered by the relevant subclasses of class E05, except such as are covered by groups E06B 7/086, E06B 9/00, or E06B 11/02 of this subclass. [2]
- (2) In this subclass, the following terms or expressions are used with the meanings indicated:
 - “wing” means a swingable, slidable or otherwise movable member such as a door or window, for closing an opening;
 - “wing frame” means the peripheral edge or edges which define the outer border of the wing.
- (3) For vehicle door or window arrangements, attention is drawn to Note (1) following the title of subclass B60J. [3]

Subclass Index

BORDER CONSTRUCTIONS	1/00	SPECIAL ARRANGEMENTS	7/00, 9/00
ELEMENTS FOR CLOSING OPENINGS	3/00, 5/00	MEANS ALLOWING PASSAGE THROUGH	
		FENCES	11/00

1/00	Border constructions of openings in walls, floors, or ceilings; Frames to be rigidly mounted in such openings (E06B 5/00 takes precedence; features relating also to inner frames or wing frames, features relating solely to the mounting of inner frames E06B 3/00; corner joints or edge joints E06B 3/96) [4]	1/52	. . Frames specially adapted for doors
		1/56	. Fastening frames to the border of openings
		1/58	. . by filling-up the joints, e.g. by cementing
		1/60	. . by mechanical means, e.g. anchoring means
		1/62	. Tightening or covering joints between the border of openings and the frame (E06B 1/34 takes precedence)
1/02	. Base frames, i.e. template frames for openings in walls or the like, provided with means for securing a further rigidly-mounted frame; Special adaptations of frames to be fixed therein	1/64	. . by loosely-inserted means, e.g. strip, resilient tongue
1/04	. Frames for doors, windows, or the like to be fixed in openings (special adaptations for fixing in base frames E06B 1/02; features relating solely to the mounting of glass panes or other sheets E06B 3/00)	1/66	. . by labyrinth packings
		1/68	. . by profiled external parts
		1/70	. Sills; Thresholds
1/06	. . Wooden frames	3/00	Window sashes, door leaves, or like elements for closing openings; Layout of fixed or moving closures, e.g. windows; Features of rigidly-mounted outer frames relating to the mounting of wing frames (E06B 5/00 takes precedence; shutters or the like E06B 9/00; glass panes C03; uniting glass sheets by fusion C03B 23/203; joining glass to glass other than by fusing or to other inorganic material C03C 27/00)
1/08	. . . composed of several parts with respect to the cross-section of the frame itself	3/01	. Removable or disappearing walls for hangars or other halls, e.g. for aircraft (wall constructions E04B 2/00)
1/10	. . . . adjustable with respect to the thickness of walls	3/02	. Wings made completely of glass
1/12	. . Metal frames	3/04	. Wing frame not characterised by the manner of movement (features relating to the manner of movement E06B 3/32)
1/14	. . . of special cross-section (E06B 1/18, E06B 1/22 take precedence)	3/06	. . Single frames
1/16	. . . . Hollow frames	3/08	. . . Constructions depending on the use of specified materials (E06B 3/24 takes precedence)
1/18	. . . composed of several parts with respect to the cross-section of the frame itself	3/10	. . . . of wood
1/20	. . . . adjustable with respect to the thickness of walls	3/12	. . . . of metal
1/22	. . . with integral thresholds of special form	3/14	. . . . . of special cross-section
1/24	. . Frames of natural stone, concrete, or other stone-like material	3/16	. . . . . Hollow frames
1/26	. . Frames of plastics	3/18	. . . . . of concrete or other stone-like material
1/28	. . . Hollow frames (E06B 1/30 takes precedence)	3/20	. . . . . of plastics
1/30	. . . composed of several parts with respect to the cross-section of the frame itself	3/22	. . . . . Hollow frames
1/32	. . Frames composed of parts made of different materials	3/24	. . . specially adapted for double glazing (separable parts for securing panes E06B 3/64)
1/34	. . Coverings, e.g. protecting against weather, for decorative purposes	3/26	. . Compound frames, i.e. one frame within or behind another (E06B 3/263, E06B 3/28 take precedence; arrangements of movable frames E06B 3/32)
1/36	. . Frames uniquely adapted for windows		
1/38	. . . for shop-, show- or like large windows		
1/40	. . . Frames with parts removable to admit the glass (E06B 1/38 takes precedence)		

- 3/263 . . . Frames with special provision for insulation [6]
- 3/267 . . . with insulating elements formed in situ [6]
- 3/273 . . . with prefabricated insulating elements held in position by deformation of portions of the frame members [6]
- 3/277 . . . with prefabricated insulating elements held in position by expansion of the insulating elements [6]
- 3/28 . . with additional removable glass panes or the like, framed or unframed
- 3/30 . Coverings, e.g. protecting against weather, for decorative purposes
- 3/32 . Arrangements of wings characterised by the manner of movement; Arrangements of movable wings in openings; Features of wings or frames relating solely to the manner of movement of the wing [3]
- 3/34 . . with only one kind of movement (E06B 3/48 takes precedence)
- 3/36 . . . with a single vertical axis of rotation at one side of the opening, or swinging through the opening (wings requiring lifting before opening E06B 3/52)
- 3/38 . . . with a horizontal axis of rotation at the top or bottom of the opening
- 3/40 . . . with a vertical or horizontal axis of rotation not at one side of the opening, e.g. turnover wings
- 3/42 . . . Sliding wings; Details of frames with respect to guiding
- 3/44 Vertically-sliding wings
- 3/46 Horizontally-sliding wings
- 3/48 . . Wings connected at their edges, e.g. foldable wings
- 3/50 . . with more than one kind of movement (E06B 3/48 takes precedence)
- 3/52 . . . Wings requiring lifting before opening
- 3/54 . Fixing of glass panes or like plates
- 3/56 . . by means of putty, cement, or adhesives only (E06B 3/64 takes precedence)
- 3/58 . . by means of borders, cleats, or the like (E06B 3/64 takes precedence)
- 3/60 . . . of clamping cleats of metal
- 3/62 . . . of rubber-like elastic cleats
- 3/64 . . Fixing of more than one pane to a frame
- 3/66 . Units comprising two or more parallel glass or like panes in spaced relationship, the panes being permanently secured together, e.g. along the edges (layered products essentially comprising sheet glass B32B 17/00; coating of glass C03C 17/00)
- 3/663 . . Elements for spacing panes [6]
- 3/667 . . . Connectors therefor [6]
- 3/67 . . characterised by additional arrangements or devices for heat or sound insulation [6]
- 3/673 . . Assembling the units (E06B 3/677 takes precedence) [6]
- 3/677 . . Evacuating or filling the gap between the panes; Preventing condensation in the gap between the panes (by means of spacing elements E06B 3/663); Cleaning the gap between the panes [6]
- 3/68 . Window bars
- 3/70 . Door leaves (wing frames E06B 3/04)
- 3/72 . . consisting of frame and panels
- 3/74 . . . with wooden panels
- 3/76 . . . with metal panels
- 3/78 . . . with panels of plastics
- 3/80 . . flexible
- 3/82 . . Flush doors, i.e. with completely flat surface (E06B 3/02 takes precedence)
- 3/84 . . . of plywood
- 3/86 . . . of plastics
- 3/88 . . Edge-protecting devices for door leaves (finger guards for doors or windows E06B 7/36)
- 3/90 . Revolving doors; Cages or housings therefor (turnstiles E06B 11/08)
- 3/92 . Doors or windows extensible when set in position (sliding wings for windows E06B 3/42; foldable wings E06B 3/48; wall-closing devices which may be rolled up, e.g. shutters, E06B 9/08)
- 3/94 . . Doors of the bellows type
- 3/96 . Corner joints or edge joints for windows, doors, or the like frames or wings [4]
- 3/964 . . using separate connecting pieces, e.g. T-connecting pieces (E06B 3/984, E06B 3/988, E06B 3/99 take precedence) [5]
- 3/968 . . . characterised by the way the connecting pieces are fixed in or on the frame members [5]
- 3/972 by increasing the cross-section of the connecting pieces, e.g. by expanding the connecting pieces with wedges (E06B 3/976 takes precedence) [5]
- 3/976 by deformation of the frame members [5]
- 3/98 the connecting pieces being specially adapted for drawing the frame members towards each other (E06B 3/972, E06B 3/976 take precedence) [5]
- 3/984 . . specially adapted for frame members of wood or other material worked in a similar way (E06B 3/99 takes precedence) [5]
- 3/988 . . specially adapted for frame members of sheet metal, or similar sheet material, with an open generally U-shaped cross-section, e.g. for door frame members [5]
- 3/99 . . for continuous frame members crossing each other without interruption (window bars E06B 3/68) [5]
- 5/00 Doors, windows, or like closures for special purposes; Border constructions therefor**
- 5/01 . Trap-doors
- 5/02 . for out-buildings or cellars; Other simple closures not designed to be close-fitting
- 5/04 . . with fixed wooden frames
- 5/06 . . with fixed metal frames
- 5/08 . . with fixed frames made of concrete, stone-like material, or plastics
- 5/10 . for protection against air-raid or other war-like action; for other protective purposes
- 5/11 . . against burglary [6]
- 5/12 . . against air pressure, explosion, or gas
- 5/14 . . . Gasproof doors or similar closures; Adaptation of fixed constructions therefor
- 5/16 . . Fireproof doors or similar closures; Adaptations of fixed constructions therefor
- 5/18 . . against harmful radiation (against heat E06B 5/16)
- 5/20 . for insulation against noise
- 7/00 Special arrangements or measures in connection with doors or windows (screening or similar protective devices E06B 9/00)**
- 7/02 . for providing ventilation, e.g. through double windows; Arrangement of ventilation roses (airflow control members per se F24F 13/08)
- 7/03 . . Ventilating devices for inserting under upwardly-sliding windows (rain or draught deflectors E06B 7/26)

- 7/04 . . with ventilation wings (E06B 7/08 takes precedence)
- 7/06 . . . with one ventilation wing only
- 7/08 . . Louvre doors, windows, or grilles
- 7/082 . . . with rigid or slidable lamellae
- 7/084 . . . with rotatable lamellae
- 7/086 interconnected for concurrent movement [2]
- 7/088 with facing protective grille or safety guard [2]
- 7/09 mounted in movable wing, e.g. door [2]
- 7/092 operable in two or more distinct sets [2]
- 7/094 operable in sequence; characterised by additional independent movement [2]
- 7/096 operated or interconnected by gearing (wing operators with gearing in general E05F 11/00) [2]
- 7/098 with weather seal [2]
- 7/10 . . by special construction of the frame members
- 7/12 . Measures preventing the formation of condensed water (double glazing E06B 3/24 to E06B 3/28, E06B 3/64, E06B 3/66; heating arrangements specially adapted for transparent or reflecting areas H05B 3/84)
- 7/14 . Measures for draining-off condensed water or water leaking-in
- 7/16 . Sealing arrangements on wings or parts co-operating with the wings (E06B 7/098 takes precedence) [2]
- 7/18 . . by means of movable edgings, e.g. draught sealings additionally used for bolting
- 7/20 . . . automatically withdrawn when the wing is opened
- 7/205 with sealing strip mounted on sill [2]
- 7/21 with sealing strip movable in plane of wing [2]
- 7/215 with sealing strip being moved to a retracted position by elastic means, e.g. springs [2]
- 7/22 . . by means of elastic edgings, e.g. elastic rubber tubes; by means of resilient edgings, e.g. felt or plush strips, resilient metal strips (E06B 7/18 takes precedence)
- 7/23 . . . Plastic, sponge rubber, or like strips or tubes
- 7/232 . . . Resilient strips of hard material, e.g. metal
- 7/24 . . without separate sealing members, e.g. with labyrinth
- 7/26 . Rain or draught deflectors, e.g. under sliding wings
- 7/28 . Other arrangements on doors or windows, e.g. door-plates, windows adapted to carry plants, hooks for window cleaners
- 7/30 . . Peep-holes; Devices for speaking through; Doors having windows
- 7/32 . . Serving doors; Passing-through doors
- 7/34 . . Doors containing cupboards (cabinets in general A47B)
- 7/36 . . Finger guards [7]
- 9/00 **Screening or protective devices for openings, with or without operating or securing mechanisms; Closures of similar construction** (E06B 5/10 takes precedence; wings for doors or windows, connected at their edges, E06B 3/48; additional indoor equipment of doors or windows, not forming part of the proper finishing work of a building, e.g. curtains, A47H; gratings as building elements E04C 2/42; locks, accessories therefor E05B; bolts or fastening devices for wings E05C; operating mechanism for wings in general E05F)
- 9/01 . Grilles fixed to walls, doors, or windows; Grilles moving with doors or windows; Walls formed as grilles, e.g. claustra
- 9/02 . Shutters, movable grilles, or other safety closing devices, e.g. against burglary (louvre windows or grilles E06B 7/08; lamellar blinds E06B 9/26)
- 9/04 . . of wing type, e.g. revolving or sliding
- 9/06 . . collapsible or foldable, e.g. of the bellows or lazy-tongs type (bellows-type doors E06B 3/94; roll-type grilles E06B 9/18)
- 9/08 . . Roll-type closures (roller blinds E06B 9/40; operating, guiding or securing devices or arrangements for roll-type closures E06B 9/56; usable only as awnings E04F 10/06) [5]
- 9/11 . . . Roller shutters [5]
- 9/13 with closing members of one piece, e.g. of corrugated sheet metal [5]
- 9/15 with closing members formed of slats or the like [5]
- 9/165 with slats disappearing in each other; with slats the distance between which can be altered [5]
- 9/17 Parts or details of roller shutters, e.g. suspension devices, shutter boxes, wicket doors, ventilation openings [5]
- 9/171 Rollers therefor; Fastening roller shutters to rollers [5]
- 9/172 by clamping bars
- 9/173 by clasps or buttons
- 9/174 Bearings specially adapted therefor [5]
- 9/18 . . . Roll-type grilles [5]
- 9/24 . Screens or other constructions affording protection against light, especially against sunshine; Similar screens for privacy or appearance (operating, guiding or securing devices or arrangements for roll-type closures E06B 9/56; free-hanging flexible screens A47H 23/00)
- 9/26 . . Lamellar or like blinds, e.g. venetian blinds
- 9/262 . . . with flexibly-interconnected horizontal or vertical strips; Concertina blinds
- 9/264 . . . Combinations of lamellar blinds with roller shutters, screen windows, windows, or double panes; Lamellar blinds with special devices
- 9/266 . . . Devices or accessories for making or mounting lamellar blinds or parts thereof [3]
- 9/28 . . . with horizontal lamellae, e.g. non-liftable (louvre windows or gratings E06B 7/08)
- 9/30 liftable
- 9/302 without ladder-tape, e.g. with lazy-tongs, with screw spindle
- 9/303 with ladder-tape
- 9/304 with tilting bar and separate raising shaft
- 9/305 with tilting bar and raising cords guided along fixed bar
- 9/306 with tilting bar along which the raising cords are guided

9/307	. . . . .	Details of tilting bars or their operation	9/56	. . . . .	Operating, guiding or securing devices or arrangements for roll-type closures; Spring drums; Tape drums; Counterweighting arrangements therefor (devices of general interest specially adapted or mounted for storing and repeatedly paying-out and re-storing lengths of material B65H 75/34) [5]
9/308	. . . . .	with coaxial tilting bar and raising shaft	9/58	. . . . .	Guiding devices [5]
9/32	. . . . .	Operating, guiding, or securing devices therefor (operation of tilting bars E06B 9/307)	9/60	. . . . .	Spring drums operated only by closure members [5]
9/322	. . . . .	Details of operating devices, e.g. pulleys, brakes, spring drums, drives (devices of general interest specially adapted or mounted for storing and repeatedly paying-out and re-storing lengths of material B65H 75/34)	9/62	. . . . .	Counterweighting arrangements (E06B 9/60 takes precedence) [5]
9/323	. . . . .	Structure or support of upper box	9/64	. . . . .	with lowerable roller [5]
9/324	. . . . .	Cord-locks	9/66	. . . . .	with a roller situated at the bottom [5]
9/325	. . . . .	Immobilising devices preventing raising	9/68	. . . . .	Operating devices or mechanisms, e.g. with electric drive [5]
9/326	. . . . .	Details of cords, e.g. buckles, drawing knobs	9/70	. . . . .	comprising an electric motor positioned outside the roller [5]
9/327	. . . . .	Guides for raisable lamellar blinds with horizontal lamellae	9/72	. . . . .	comprising an electric motor positioned inside the roller [5]
9/34	. . . . .	roller type	9/74	. . . . .	adapted for selective electrical or manual operation [5]
9/36	. . . . .	with vertical lamellae	9/76	. . . . .	using crank handles [5]
9/38	. . . . .	Other details	9/78	. . . . .	for direct manual operation, e.g. by tassels, by handles [5]
9/382	. . . . .	Details of ladder-tapes or ladder-chains, e.g. buckles for local shortening of tapes	9/80	. . . . .	Safety measures against dropping or unauthorised opening; Braking or immobilising devices; Devices for limiting unrolling (securing devices or arrangements for direct manual operation E06B 9/78) [5]
9/384	. . . . .	Details of interconnection or interaction of tapes and lamellae	9/82	. . . . .	automatic [5]
9/386	. . . . .	Details of lamellae	9/84	. . . . .	against dropping [5]
9/388	. . . . .	Details of bottom or upper slats or their attachment	9/86	. . . . .	against unauthorised opening [5]
9/40	. . . . .	Roller blinds (usable only as awnings E04F 10/06) [5]	9/88	. . . . .	for limiting unrolling [5]
9/42	. . . . .	Parts or details of roller blinds, e.g. suspension devices, blind boxes (brackets or adjustable mountings for roller blinds and drawable curtains A47H 1/13) [5]	9/90	. . . . .	for immobilising the closure member in various chosen positions [5]
9/44	. . . . .	Rollers therefor; Fastening roller blinds to rollers [5]	9/92	. . . . .	Means allowing the closures to be shifted out of the plane of the opening [5]
9/46	. . . . .	by clamping bars [5]	11/00	Means for allowing passage through fences, barriers, or the like, e.g. stiles (general features of doors E06B 1/00 to E06B 9/00)	
9/48	. . . . .	by clasps or buttons [5]	11/02	. . . . .	Gates; Doors
9/50	. . . . .	Bearings specially adapted therefor [5]	11/04	. . . . .	characterised by the kind of suspension (suspensions <u>per se</u> E05D)
9/52	. . . . .	Devices affording protection against insects, e.g. fly screens; Mesh windows for other purposes	11/06	. . . . .	characterised by the kind of fastening (fastening devices for wings E05C)
9/54	. . . . .	Roller fly screens (operating, guiding or securing devices therefor E06B 9/56) [2,5]	11/08	. . . . .	Turnstiles (on vehicles B60N 5/00; with registering means G07C 9/02)

E06C **LADDERS** (E04F 11/00 takes precedence; step-stools A47C 12/00; adaptation of ladders to use on ships B63B, to use on aircraft B64; scaffolding E04G) [5,6]

1/00	Ladders in general (mounted on undercarriages or vehicles E06C 5/00; permanently attached to fixed structures E06C 9/00)				
1/02	. . . . .	with rigid longitudinal member or members	1/16	. . . . .	with struts which rest on the ground (with struts rigid with the ladder E06C 1/24; having platforms E06C 1/39)
1/04	. . . . .	Ladders for resting against objects, e.g. walls, poles, trees (supports for ladder heads E06C 7/48)	1/18	. . . . .	with supporting struts formed as ladders
1/06	. . . . .	in one piece	1/20	. . . . .	with supporting struts formed as poles
1/08	. . . . .	multi-part	1/22	. . . . .	with extensible, e.g. telescopic, ladder parts or struts
1/10	. . . . .	Sections fitted end to end	1/24	. . . . .	Free-standing ladders
1/12	. . . . .	extensible, e.g. telescopic	1/26	. . . . .	in one piece
1/14	. . . . .	Ladders capable of standing by themselves	1/28	. . . . .	multi-part (with movable supporting struts formed as ladders E06C 1/18)
			1/30	. . . . .	extensible, e.g. telescopic

1/32	. .	Ladders with a strut which is formed as a ladder and can be secured in line with the ladder	5/30	. .	formed of links which reinforce themselves against each other
1/34	. .	Ladders attachable to structures, such as windows, cornices, poles, or the like (ladders permanently fastened to buildings E06C 9/00)	5/32	. .	Accessories
1/36	. . .	Ladders suspendable by hooks or the like	5/34	. .	Indicating devices
1/38	. .	Special constructions of ladders, e.g. ladders with more or less than two longitudinal members, ladders with movable rungs or other treads, longitudinally-foldable ladders	5/36	. .	Safety devices against slipping or falling of ladders; Safety devices against overloading ladders
1/383	. . .	Foldable ladders in which the longitudinal members are brought together on folding	5/38	. .	Devices for blocking the springs of the vehicle; Devices for supporting the undercarriage directly from the ground
1/387	. . .	having tip-up steps	5/40	. .	Devices for canting ladders laterally
1/39	. . .	Ladders having platforms; Ladders changeable into platforms (platforms for use on ladders E06C 7/16)	5/42	. .	Devices for altering inclination; Latching devices therefor
1/393	. . . .	Ladders having platforms foldable with the ladder	5/44	. .	Other accessories on ladders, e.g. acoustical signalling devices, dismountable switchboards
1/397	. . .	characterised by having wheels, rollers, or runners	7/00	Component parts, supporting parts, or accessories	
1/52	. .	with non-rigid longitudinal members	7/02	. .	Extending means (for ladders mounted on undercarriages or vehicles E06C 5/00)
1/54	. .	of the lazy-tongs type	7/04	. .	Hand-operated extending means carried by the ladder
1/56	. .	Rope or chain ladders	7/06	. .	Securing devices or hooks for parts of extensible ladders
1/58	. .	with both rigid and non-rigid longitudinal members	7/08	. .	Special construction of longitudinal members, or rungs or other treads
5/00	Ladders characterised by being mounted on undercarriages or vehicles; Securing ladders on vehicles (ladders having wheels, rollers, or runners E06C 1/397)		7/10	. .	Reinforcements for ladders
5/02	. .	with rigid longitudinal members	7/12	. .	Lifts or other hoisting devices on ladders
5/04	. .	capable of being elevated or extended	7/14	. .	Holders for pails or other equipment on or for ladders
5/06	. . .	by piston and cylinder, or equivalent means, operated by a pressure medium	7/16	. .	Platforms on, or for use on, ladders, e.g. liftable or lowerable platforms (aspects relating to the lifting B66F)
5/08	. . . .	derived directly from a pressure reservoir	7/18	. .	Devices for preventing persons from falling (life-saving belts A62B 1/16)
5/10	. . . .	charged by a pump or compressor driven by the motor of the vehicle or another motor on the vehicle	7/42	. .	Ladder feet; Supports therefor (for scaffold elements E04G 5/02)
5/12	. . . .	derived directly from a pump or compressor	7/44	. .	Means for mounting ladders on uneven ground
5/14	. . . .	driven by the motor of the vehicle or another motor on the vehicle	7/46	. .	Non-skid equipment
5/16	. . .	using mechanical transmission only, with or without fluid or other non-mechanical couplings or clutches	7/48	. .	Ladder heads; Supports for heads of ladders for resting against objects
5/18	. . . .	using power from the motor of the vehicle or another motor	7/50	. .	Joints or other connecting parts
5/20	. . . .	using hand-power (hand-operated extending means carried by the ladder E06C 7/04)	9/00	Ladders characterised by being permanently attached to fixed structures, e.g. fire escapes (movable stairways E04F 11/04)	
5/22	. . .	by, or with the assistance of, springs (E06C 5/06, E06C 5/16 take precedence)	9/02	. .	rigidly mounted
5/24	. .	Dismounting ladders from vehicles	9/04	. .	in the form of climbing irons or the like
5/26	. .	with non-rigid longitudinal members	9/06	. .	movably mounted
5/28	. .	of the lazy-tongs type	9/08	. .	with rigid longitudinal members
			9/10	. . .	forming part of a building, such as a balcony grid, window grid, or other window part
			9/12	. . .	laterally displaceable
			9/14	. .	with non-rigid longitudinal members, e.g. rope or chain ladders, ladders of the lazy-tongs type