

## SECTION E — FIXED CONSTRUCTIONS

### E05 LOCKS; KEYS; WINDOW OR DOOR FITTINGS; SAFES

#### E05B LOCKS; ACCESSORIES THEREFOR; HANDCUFFS

##### Subclass index

##### LOCKS WITH TUMBLERS

Moved by rotation of the key.....21/00, 23/00, 25/00

Set by pushing the key in.....27/00-33/00

LOCKS FOR USE WITH SPECIAL KEYS OR KEY SETS.....35/00

PERMUTATION OR PUZZLE LOCKS.....37/00, 49/00

PADLOCKS.....67/00, 37/00

LOCKS WITH INDICATING OR TIMING DEVICES.....39/00-45/00

LOCKS WITH PROVISION FOR LATCHING.....55/00-61/00, 65/20

LOCKS WITH OTHER SPECIAL STRUCTURAL FEATURES.....63/00

LOCKS FOR SPECIAL USE.....65/00, 69/00-75/00

OPERATION OR CONTROL OF LOCKS.....47/00-53/00

##### DETAILS OR ACCESSORIES OF LOCKS OR THE LIKE, KEYS

Knobs or handles.....1/00-7/00

Other details or accessories of locks or latches.....9/00-17/00

Keys.....19/00

HANDCUFFS.....75/00

##### Details or accessories of locks or the like; keys

**1/00 Knobs or handles for wings** (for furniture A47B 95/02); **Knobs, handles, or press buttons for locks or latches on wings** (E05B 5/00, E05B 7/00 take precedence)

1/02 • of solid material

1/04 • with inner rigid member and outer cover or covers

1/06 • of sheet material

**3/00 Fastening handles to lock or latch parts**

3/02 • Fastening handles to the spindle by pinning or riveting

3/04 • Fastening the handle shank to the spindle by screws, springs, or snap bolts

3/06 • by means arranged in or on the rose

3/08 • Fastening the spindle to the follower

3/10 • by a bipartite or cleft spindle in the follower or in the handle shank

**5/00 Handles completely let into the surface of the wing**

5/02 • able to be turned outwards before operation

5/04 • able to be shifted parallel to the wing after being pulled out

**7/00 Handles pivoted about an axis parallel to the wing** (E05B 5/00 takes precedence)

**9/00 Lock or latch-mechanism casings mountable on or in wings** (padlock casings E05B 67/02)

9/02 • of latch-bolt locks

9/04 • of cylinder locks

9/06 • Fastening together the parts of casings

9/08 • Fastening the casings of latch-bolt locks or cylinder locks to the wing

9/10 • Coupling devices for the two halves of double cylinder locks

**11/00 Devices preventing keys from being removed from the lock**

11/02 • before the wing is locked

11/04 • before the wing is closed

11/06 • for catching skeleton or incorrect keys

**13/00 Devices preventing the key or the handle or both from being used**

13/02 • shaped as sectors of escutcheons, arranged in the keyhole

13/04 • shaped as fork-like implements grasping and fixing the key

13/06 • shaped as bolt detents arranged in the path of motion of the key bit

13/08 • formed by longitudinal bolt or cross-bar connecting the handle with a stationary lock part or fitting

13/10 • formed by a lock arranged in the handle

**15/00 Other details of locks; Parts for engagement by bolts of fastening devices** (fastening devices for wings other than locks or associated with locks E05C)

15/02 • Striking-plates; Keepers; Bolt staples; Escutcheons

15/04 • Spring arrangements in locks

15/06 • Lock wards

15/08 • Key guides; Key pins

15/10 • Bolts of locks or night latches

15/12 • Pins or detents for locking bolts

## E05B

- 15/14 • Tumblers
- 15/16 • Use of special materials for parts of locks (for handles E05B 1/00)
- 17/00 Accessories in connection with locks** (locks with indicating or timing devices E05B 39/00-E05B 45/00; buffers E05F 5/00; means for preventing rattling of wings E05F 7/04; means for taking the weight of the wing E05F 7/06) **[4]**
- 17/02 • Coupling devices for double doors, i.e. two doors one behind the other and hinged on the same side
- 17/04 • Devices for coupling the turning cylinder of a single or double cylinder lock with the bolt-operating member
- 17/06 • Templates for marking the position of apertures in fittings of wings
- 17/08 • Lubricating devices
- 17/10 • Illuminating devices on, or for, locks or keys
- 17/12 • Devices for removing keys stuck in the lock
- 17/14 • Closures or guards for keyholes
- 17/16 • • shaped as pins or key bits
- 17/18 • • shaped as lids or slides
- 17/20 • Means independent of the locking mechanism for preventing unauthorised opening, e.g. for securing the bolt in the fastening position (pins or detents E05B 15/12) **[4]**
- 17/22 • Means for operating or controlling lock or fastening device accessories, i.e. other than the fastening members, e.g. switches, indicators **[4]**
- 19/00 Keys; Accessories therefor** (making keys, see the relevant places, e.g. B21D 53/42; milling grooves in keys B23C 3/35)
- 19/02 • Construction of the shank of the key
- 19/04 • Construction of the bow of the key; Construction of flat keys
- 19/06 • Key bits; Flat key bits
- 19/08 • • Special forms of key bits, e.g. double key bits, folding key bits
- 19/10 • Fastening the key bit and bow on the shank of the key
- 19/12 • Keys with several bits moving relatively to each other when in use
- 19/14 • Double keys
- 19/16 • Extremely thin keys acting without rotation
- 19/18 • Keys adjustable before use
- 19/20 • Skeleton keys; Devices for picking locks; Other devices for similar purposes
- 19/22 • Keys with devices for indicating whether the last operation was locking or unlocking
- 19/24 • Key-distinguishing marks
- 19/26 • Use of special materials for keys

### **Locks with rotary keys moving lamelliform tumblers perpendicular to the key**

- 21/00 Locks with rotary keys moving lamelliform tumblers perpendicular to the key, in which the tumblers do not follow the movement of the bolt**
- 21/02 • with identical tumblers
- 21/04 • with stop pins on the tumbler (E05B 21/02 takes precedence)
- 21/06 • Cylinder locks, e.g. protector locks
- 23/00 Locks with rotary keys moving lamelliform tumblers perpendicular to the key, in which the tumblers follow the movement of the bolt**

## **25/00 Locks with rotary keys moving lamelliform tumblers perpendicular to the key, characterised by the tumblers**

- 25/02 • with tumblers in the cut-out of which the key bit is moved
- 25/04 • with tumblers in which the stop pin is guided from one locked position to the other in an inclined direction
- 25/06 • with tumblers in which the stop pin is guided from one locked position to the other along a curved path
- 25/08 • with tumblers with movable pawls engaging the key
- 25/10 • with tumblers formed to engage one another to determine their unlocked position

### **Locks of which the tumblers are set by pushing the key in**

#### **27/00 Cylinder locks with tumbler pins or balls that are set by pushing the key in**

- 27/02 • operated by the edge of the key
- 27/04 • • arranged radially in one row
- 27/06 • • arranged radially in more than one row
- 27/08 • • arranged axially
- 27/10 • operated by other surfaces of the key, e.g. openings receiving projections on the tumblers

#### **29/00 Cylinder locks with plate tumblers that are set by pushing the key in**

- 29/02 • operated by the edge of the key
- 29/04 • • arranged singly
- 29/06 • • arranged in pairs
- 29/08 • operated by other surfaces of the key
- 29/10 • • operated by a curved groove or slot
- 29/12 • • operated by a curved rib
- 29/14 • with both axially and radially arranged plate tumblers

#### **31/00 Cylinder locks with both tumbler pins or balls and plate tumblers that are set by pushing the key in**

#### **33/00 Cylinder lock with tumblers that are set by pushing the key in, in which the bolt is moved by means other than the key**

## **35/00 Locks for use with special keys or a plurality of keys**

- 35/02 • which can be shifted laterally
- 35/04 • for pull keys
- 35/06 • for screw keys
- 35/08 • operable by a plurality of keys
- 35/10 • • with master and pass keys
- 35/12 • • requiring the use of two keys, e.g. safe-deposit locks
- 35/14 • with keys of which different parts operate separate mechanisms

#### **37/00 Permutation locks** (electric permutation locks E05B 49/00; for bicycles E05B 71/02); **Puzzle locks**

- 37/02 • with tumbler discs or rings arranged on a single axis, each disc being adjustable independently of the others
- 37/04 • with tumbler discs on a single axis, all the discs being adjustable by rotating a shiftable knob
- 37/06 • • in padlocks
- 37/08 • with tumbler discs on a single axis, all the discs being adjustable by a rotary knob which is not shifted
- 37/10 • • in padlocks

- 37/12 • with tumbler discs on several axes
- 37/14 • • in padlocks
- 37/16 • with two or more push or pull knobs, slides, or the like
- 37/18 • • in padlocks
- 37/20 • Puzzle locks
- 37/22 • • in padlocks

#### **Locks with indicating or timing devices**

- 39/00 Locks giving indication of unauthorised unlocking**
- 39/02 • with destructible seal closures or paper closures (seals *per se* G09F 3/00) [4]
- 39/04 • with counting or registering devices
- 41/00 Locks with visible indication as to whether the lock is locked or unlocked**
- 43/00 Time locks** (clocks or clock mechanisms with attached or built-in means operating any device at preselected times or after a predetermined time interval G04C 23/00)
- 45/00 Alarm locks** (alarm devices actuated by tampering with fastenings in general G08B)
- 45/02 • with mechanically-operated bells
- 45/04 • with detonating alarm devices
- 45/06 • Electric alarm locks
- 45/08 • • with contact making inside the lock or in the striking plate
- 45/10 • • • by introducing the key
- 45/12 • • • by movement of the bolt
- 45/14 • • with contact making outside the lock

#### **Operation or control of locks by non-mechanical means, e.g. from a distance**

- 47/00 Operating or controlling locks or other fastening devices by electric or magnetic means** (electric permutation locks E05B 49/00; holding in open position or limiting movement of wings by magnetic or electromagnetic attraction E05C 17/56; key switches H01H 27/00) [2]
- 47/02 • Adaptation of locks, latches, or parts thereof, for movement of the bolt by electromagnetic means
- 47/04 • • for unlocking only
- 47/06 • Controlling mechanically-operated bolts by electromagnetically-operated detents
- 47/08 • • the bolt being withdrawn by a spring which is stressed by closing the wing
- 49/00 Electric permutation locks; Circuits therefor**
- 49/02 • with electrical arrangements inside the lock
- 49/04 • with electrical arrangements outside the lock
- 51/00 Operating or controlling locks or other fastening devices by other non-mechanical means**
- 51/02 • by pneumatic or hydraulic means

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- 53/00 Operation or control of locks by mechanical transmissions, e.g. from a distance** (for passenger doors E05B 65/20)

#### **Locks with provision for latching**

- 55/00 Locks in which a sliding latch is used also as a locking bolt**
- 55/02 • the bolt being secured by the tumbler
- 55/04 • the bolt being secured by the cross-bar or the turnbuckle and the handle being locked
- 55/06 • the handle being disconnected
- 55/08 • • the bolt being secured by transverse bolts
- 55/10 • • without securing the bolt
- 55/12 • the bolt being secured by the operation of a hidden parallel member
- 55/14 • the bolt being secured by the operation of a wing handle, or by means in the wing handle or knob
- 55/16 • • merely by normal use of the handle on one side of the wing
- 57/00 Locks in which a pivoted latch is used also as locking means**
- 59/00 Locks with latches separate from the lock-bolts, or with a plurality of latches or lock-bolts**
- 59/02 • with arrangements for securing the latch while shooting the lock-bolt
- 59/04 • Locks in which the latch is moved by a lock-bolt, or the lock-bolt by a latch, or one latch by another, or the like
- 59/06 • with a lock-bolt slidable in the latch
- 61/00 Other locks with provision for latching**

#### **Locks with special structural characteristics or for special use**

- 63/00 Locks with special structural characteristics**
- 63/02 • without springs
- 63/04 • for alternative use on the right-hand or left-hand side of wings
- 63/06 • with lengthwise-adjustable bolts
- 63/08 • Mortise locks
- 63/10 • • requiring only two cylindrical holes in the wing
- 63/12 • with means carried by the bolt for interlocking with the keeper (for passenger doors E05B 65/28)
- 63/14 • Arrangement of several locks or locks with several bolts, e.g. arranged one behind the other (locks for keys with several bits E05B 35/14; with provision for latching E05B 59/00, E05B 61/00; arrangements of simultaneously-actuated bolts or other securing devices at well-separated positions on the same wing E05C 9/00) [4]
- 63/16 • with the handles on opposite sides moving independently (the latch being secured by the operation of a wing handle E05B 55/14)
- 63/18 • with arrangements independent of the locking mechanism for retaining the bolt in the retracted position
- 63/20 • • released automatically when the wing is closed
- 63/22 • operated by a pulling or pushing action perpendicular to the front plate (E05B 35/04 takes precedence)
- 63/24 • Arrangements in which the fastening members which engage one another are mounted respectively on the wing and the frame and are both movable, e.g. for release by moving either of them (hasp locks E05B 65/48; hasp fastenings E05C 19/08) [4]
- 65/00 Locks for special use**
- 65/02 • for thin, hollow, or thin-metal wings

## E05B

- 65/04 • for wings, one behind the other, hinged on the same side (fastening devices specially adapted for two wings which lie one behind the other when closed E05C 7/02) [4]
- 65/06 • for swing doors
- 65/08 • for sliding wings
- 65/10 • for panic or emergency doors
- 65/12 • for vehicles (E05B 71/00 takes precedence; locking arrangements for non-fixed vehicle roofs B60J 7/185) [2]
- 65/14 • • for railway freight-cars or the like; for lorries (E05B 65/20 takes precedence)
- 65/16 • • • for back doors of vans
- 65/18 • • • with provision for sealing
- 65/19 • • for car-boot lids; for car bonnets
- 65/20 • • for passenger or like doors
- 65/22 • • • with rectilinearly-moving bolt
- 65/24 • • • • locked by a special movement of the door handle
- 65/26 • • • • with the outside door handle drawn into a recess when the door is locked
- 65/28 • • • • with means carried by the bolt for interlocking with the keeper
- 65/30 • • • • with two or more bolts moved simultaneously
- 65/32 • • • with the bolt turning about an axis
- 65/34 • • • • in which the member engaging the keeper is shaped as a lockable toothed wheel or the like
- 65/36 • • • Locking several doors simultaneously
- 65/38 • • • • by pneumatic or hydraulic means
- 65/40 • • • Locking one door by shutting another (by non-mechanical means E05B 47/00, E05B 51/00; operation of locks by mechanical transmissions E05B 53/00; fastenings, other than locks, for double doors E05C 7/06)
- 65/42 • • • Securing the latch or bolt by movement of the vehicle
- 65/44 • for furniture or drawers
- 65/46 • • Special locks for drawers, e.g. for a plurality of drawers [4]
- 65/48 • Hasp locks (hasp fastenings other than locks E05C 19/08)
- 65/50 • • for briefcases
- 65/52 • Other locks for chests, boxes, trunks, baskets, travelling bags, or the like (closures for bags or trunks A45C 13/06, A45C 13/10, A45C 13/16)

### 67/00 Padlocks (permutation locks E05B 37/00); Details thereof

- 67/02 • Cases
- 67/04 • • Armoured cases
- 67/06 • Shackles; Arrangement of the shackle
- 67/08 • • Padlocks with shackles hinged on the case
- 67/10 • • • with devices for securing the free end of the shackle
- 67/12 • • • • with built-in cylinder locks
- 67/14 • • • with devices for securing the hinged end of the shackle
- 67/16 • • • • with built-in cylinder locks
- 67/18 • • • with devices for securing both ends of the shackle
- 67/20 • • • • with built-in cylinder locks
- 67/22 • • Padlocks with sliding shackles, with or without rotary or pivotal movement
- 67/24 • • • with built-in cylinder locks
- 67/26 • • • with screw action, with or without the shackle being moved by turning the key
- 67/28 • • Padlocks with shackles forming a circle
- 67/30 • • • with built-in cylinder locks
- 67/32 • • Padlocks with pincer-like shackles
- 67/34 • • • with built-in cylinder locks
- 67/36 • Padlocks with closing means other than shackles
- 67/38 • Auxiliary or protective devices

### Locking devices for clothing, sticks, umbrellas, or cycles

#### 69/00 Devices for locking clothing; Lockable clothing holders or hangers (dress or hat holders in general A47G 25/00)

- 69/02 • Lockable clothing hooks (coin-controlled locking hooks G07F)

#### 71/00 Locks specially adapted for bicycles, other than padlocks (locks integral with cycles B62H 5/00)

- 71/02 • with permutation locking devices

#### 73/00 Devices for locking portable objects against unauthorised removal; Locking devices not provided for in other groups of this subclass

- 73/02 • for walking-sticks or umbrellas (stick or umbrella holders in general A47G 25/12)

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### 75/00 Handcuffs