

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### SHAPING

## B25 HAND TOOLS; PORTABLE POWER-DRIVEN TOOLS; MANIPULATORS

(NOTE omitted)

## B25B TOOLS OR BENCH DEVICES NOT OTHERWISE PROVIDED FOR, FOR FASTENING, CONNECTING, DISENGAGING OR HOLDING

### NOTE

This subclass is to be understood as covering those hand tools for fastening, connecting, disengaging, or holding which are not provided for in another subclass such as [B25C](#) (nailing or stapling tools) or in an application class such as [B65B](#) (packaging) or [B21F](#) (working of wire)

### WARNING

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

|                             |            |  |
|-----------------------------|------------|--|
| <a href="#">B25B 23/143</a> | covered by | <a href="#">B25B 23/1422</a>                             |
| <a href="#">B25B 23/144</a> | covered by | <a href="#">B25B 23/1425</a>                             |
| <a href="#">B25B 23/151</a> | covered by | <a href="#">B25B 23/14</a> , <a href="#">B25B 23/147</a> |
| <a href="#">B25B 23/153</a> | covered by | <a href="#">B25B 23/1415</a>                             |
| <a href="#">B25B 23/155</a> | covered by | <a href="#">B25B 23/141</a>                              |
| <a href="#">B25B 23/157</a> | covered by | <a href="#">B25B 23/14</a>                               |
| <a href="#">B25B 23/159</a> | covered by | <a href="#">B25B 23/14</a>                               |
| <a href="#">B25B 27/067</a> | covered by | <a href="#">B25B 27/06</a>                               |
| <a href="#">B25B 27/073</a> | covered by | <a href="#">B25B 27/062</a>                              |

|             |  |             |  |
|-------------|--|-------------|--|
| <b>1/00</b> | <b>Vices (specially adapted for tying flies for angling <a href="#">A01K 97/28</a>; specially adapted for machine tools <a href="#">B23Q 3/00</a> {; rope or cable splicing vices <a href="#">D07B 7/162</a>})</b> | 1/2415      | . . . . {being composed of a plurality of parts adapting to the shape of the workpiece}  |
| 1/02        | . with sliding jaws  | 1/2421      | . . . . {the parts having a linear movement}   |
| 1/04        | . with pivoted jaws  | 1/2426      | . . . . {the parts having a pivotal movement}  |
| 1/06        | . Arrangements for positively actuating jaws   | 1/2431      | . . . {the whole jaw being pivotable around an axis perpendicular to the actioning direction of the vice}                              |
| 1/08        | . . using cams   | 1/2436      | . . . . {around a vertical axis ( <a href="#">B25B 1/2447</a> takes precedence)}   |
| 1/10        | . . using screws   | 1/2442      | . . . . {around a horizontal axis ( <a href="#">B25B 1/2447</a> takes precedence)}   |
| 1/103       | . . . {with one screw perpendicular to the jaw faces, e.g. a differential or telescopic screw}   | 1/2447      | . . . . {to put one of the jaw faces in a position opposite to the second jaw}   |
| 1/106       | . . . {with mechanical or hydraulic power amplifiers}  | 1/2452      | . . . {with supplementary jaws}  |
| 1/12        | . . . with provision for disengagement   | 1/2457      | . . . {with auxiliary attachments}   |
| 1/125       | . . . . {with one screw perpendicular to the jaw faces}  | 1/2463      | . . . . {Supports for the workpiece}   |
| 1/14        | . . using toggle links   | 1/2468      | . . . . {Lateral positioning arms}   |
| 1/16        | . . by pedal, with or without provision for additional manual actuation  | 1/2473      | . . . {with pull-down action on the workpiece}   |
| 1/18        | . . motor driven, e.g. with fluid drive, with or without provision for manual actuation  | 1/2478      | . . . {with more than one pair of jaws}  |
| 1/20        | . Vices for clamping work of special profile, e.g. pipes   | 1/2484      | . . {Supports}   |
| 1/205       | . . {Vices of the chain or strip type}   | 1/2489      | . . {Slideways}  |
| 1/22        | . Arrangements for turning or tilting vices  | 1/2494      | . . {Means indicating the distance between jaws or their angular position}   |
| 1/24        | . Details, e.g. jaws of special shape, slideways   | <b>3/00</b> | <b>Hand vices, i.e. vices intended to be held by hand; Pin vices</b>   |
| 1/2405      | . . {Construction of the jaws}   | <b>5/00</b> | <b>Clamps (for holding or positioning work for welding, soldering, or cutting by applying heat locally <a href="#">B23K 37/04</a>)</b> |
| 1/241       | . . . {characterised by surface features or material}  |             |  |

- 5/003 . {Combinations of clamps}
- 5/006 . {Supporting devices for clamps}
- 5/02 . with sliding jaws
- 5/04 . with pivoted jaws
- 5/06 . Arrangements for positively actuating jaws
- 5/061 . . {with fluid drive ([B25B 5/087](#), [B25B 5/122](#) take precedence)}
- 5/062 . . . {with clamping means pivoting around an axis parallel to the pressing direction}
- 5/064 . . . {with clamping means pivoting around an axis perpendicular to the pressing direction ([B25B 5/122](#) takes precedence)}
- 5/065 . . . {involving the use of flexible pressure bags or diaphragms}
- 5/067 . . {C-clamps ([B25B 5/061](#), [B25B 5/082](#), [B25B 5/101](#), [B25B 5/125](#) take precedence)}
- 5/068 . . {with at least one jaw sliding along a bar ([B25B 5/061](#), [B25B 5/085](#), [B25B 5/102](#), [B25B 5/127](#) take precedence)}
- 5/08 . . using cams
- 5/082 . . . {C-clamps}
- 5/085 . . . {with at least one jaw sliding along a bar}
- 5/087 . . . {actuated by a hydraulic or pneumatic piston}
- 5/10 . . using screws
- 5/101 . . . {C-clamps}
- 5/102 . . . {with at least one jaw sliding along a bar}
- 5/103 . . . {with a hinge}
- 5/104 . . . {with one screw and one clamping lever and one fulcrum element}
- 5/105 . . . . {with one end of the lever resting on a table and the screw being positioned between the ends of the lever}
- 5/106 . . . . {with one end of the lever resting on an additional block and the screw being positioned between the ends of the lever}
- 5/107 . . . . . {Blocks therefor}
- 5/108 . . . . {the screw contacting one of the ends of the lever}
- 5/109 . . . {with two screws, e.g. parallel screw clamps}
- 5/12 . . using toggle links
- 5/122 . . . {with fluid drive}
- 5/125 . . . {C-clamps}
- 5/127 . . . {with at least one jaw sliding along a bar}
- 5/14 . Clamps for work of special profile ([using chains or strips B25B 1/205](#))
- 5/142 . . {for windows and frames}
- 5/145 . . {for plates}
- 5/147 . . {for pipes}
- 5/16 . Details, e.g. jaws, jaw attachments
- 5/163 . . {Jaws or jaw attachments}
- 5/166 . . {Slideways; Guiding and/or blocking means for jaws thereon}

- 7/00 **Pliers; Other hand-held gripping tools with jaws on pivoted limbs; Details applicable generally to pivoted-limb hand tools** (implements for fastening, connecting, or tensioning wire or strip [B25B 25/00](#); adapted for other fitting or separating purposes [B25B 27/00](#); for marking animals [A01K 11/00](#); dentists' forceps [A61C 3/00](#); bending wire eyes [B21F 1/06](#); hand-held metal-shearing or metal-cutting devices [B23D 29/00](#); hand cutting tools [B26B](#); for punching or perforating [B26F 1/36](#); devices for securing ends of binding material in bundling machines [B65B 13/24](#); specially designed for watch-making or comparable work [G04D 1/00](#))
  - 7/02 . Jaws
  - 7/04 . . adjustable
  - 7/06 . Joints
  - 7/08 . . with fixed fulcrum
  - 7/10 . . with adjustable fulcrum
  - 7/12 . involving special transmission means between the handles and the jaws, e.g. toggle levers, gears
    - 7/123 . . {with self-locking toggle levers}
    - 7/126 . . {with fluid drive}
  - 7/14 . Locking means ([B25B 7/123](#) takes precedence)
  - 7/16 . . combined with means for tightening the operating arms of jaws
  - 7/18 . Adjusting means for the operating arms
  - 7/20 . Pliers for sealing
  - 7/22 . Pliers provided with auxiliary tool elements, e.g. cutting edges, nail extractors ([for removing insulation or armouring from electric cables H02G 1/12](#))
- 9/00 **Hand-held gripping tools other than those covered by group [B25B 7/00](#)** (wrenches [B25B 13/00](#); specially adapted for watchmakers' or like use [G04D](#))
  - 9/02 . without sliding or pivotal connections, e.g. tweezers, onepiece tongs
  - 9/04 . with sliding jaws
- 11/00 **Work holders not covered by any preceding group in the subclass, e.g. magnetic work holders, vacuum work holders** (for holding or positioning work for welding, soldering, or cutting by applying heat locally [B23K 37/04](#); specially adapted to machine tools [B23Q 3/00](#))
  - 11/002 . {Magnetic work holders}
  - 11/005 . {Vacuum work holders}
  - 11/007 . . {portable, e.g. handheld}
  - 11/02 . Assembly jigs
- 13/00 **Spanners; Wrenches** (hand-driven gear-operated [B25B 17/00](#); impact wrenches [B25B 19/00](#); portable power-driven [B25B 21/00](#) {; spanners or wrenches specially adapted for osteosynthesis [A61B 17/8875](#)}; machines for fitting together or separating metal parts [B23P 19/00](#) {; for mounting or dismounting wheels [B60B 29/003](#)})
  - 13/005 . {Cross wrenches}
  - 13/02 . with rigid jaws ([B25B 13/46](#), [B25B 13/48](#) take precedence)
    - 13/04 . . of ring jaw type
    - 13/06 . . of socket type
    - 13/065 . . . {characterised by the cross-section of the socket}
    - 13/08 . . of open jaw type

- 13/10 . . with adjustable jaws ([B25B 13/46](#), [B25B 13/48](#) [B25B 13/5041](#) take precedence)
- 13/102 . . {composed of a plurality of sockets slidable in each other}
- 13/105 . . {composed of a plurality of slidable pins}
- 13/107 . . {composed of a main body with exchangeable inserts}
- 13/12 . . the jaws being slidable
- 13/14 . . . by rack and pinion, worm or gear
- 13/16 . . . by screw or nut
- 13/18 . . . by cam, wedge, or lever
- 13/20 . . . Arrangements for locking the jaws
- 13/22 . . . . by ratchet action or toothed bars
- 13/24 . . . . by cam, wedge, or friction means
- 13/26 . . . . by toggle links
- 13/28 . . the jaws being pivotally movable
- 13/30 . . . by screw or nut
- 13/32 . . . by cam, wedge or lever
- 13/34 . . . Arrangements for locking the jaws
- 13/36 . . . . by ratchet action
- 13/38 . . . . by cam, wedge, or friction means
- 13/40 . . . . by toggle links
- 13/42 . . . . with self-locking action
- 13/44 . . of the chuck type
- 13/46 . . of the ratchet type, for providing a free return stroke of the handle
- 13/461 . . {with concentric driving and driven member}
- 13/462 . . . {the ratchet parts engaging in a direction radial to the tool operating axis}
- 13/463 . . . . {a pawl engaging an externally toothed wheel}
- 13/465 . . . . {a pawl engaging an internally toothed ring}
- 13/466 . . . {the ratchet parts engaging in an axial direction}
- 13/467 . . . {which are gear-operated}
- 13/468 . . . {with possibility of locking the ratchet mechanism}
- 13/48 . . for special purposes
- 13/481 . . {for operating in areas having limited access}
- 13/483 . . {for spark plugs}
- 13/485 . . {for theft-proof screws, bolts or nuts}
- 13/486 . . . {using a threaded connection between screw and tool}
- 13/488 . . {for connections where two parts must be turned in opposite directions by one tool}
- 13/50 . . for operating on work of special profile, e.g. pipes
- 13/5008 . . . {for operating on pipes or cylindrical objects ([B25B 13/52](#) takes precedence)}
- 13/5016 . . . . {by externally gripping the pipe}
- 13/5025 . . . . . {using a pipe wrench type tool}
- 13/5033 . . . . . {with fixed jaws}
- 13/5041 . . . . . {with movable or adjustable jaws}
- 13/505 . . . . . {Pivotally moving or adjustable}
- 13/5058 . . . . . {Linearly moving or adjustable, e.g. with an additional small tilting or rocking movement}
- 13/5066 . . . . . {using rollers moving along radial cams in a cage structure at least partially surrounding the pipe}
- 13/5075 . . . . . {using jaws moving along radial cams or by excentric disks in a cage structure at least partially surrounding the pipe}
- 13/5083 . . . . {by internally gripping the pipe}
- 13/5091 . . . . {for operating on wing nuts, hooks, eye hooks or the like}
- 13/52 . . . Chain or strap wrenches
- 13/54 . . . Internal grip wrenches ([B25B 13/5083](#) takes precedence)}
- 13/56 . . Spanner sets
- 13/58 . . Jaw attachments
- 15/00** **Screwdrivers** (hand-driven gear-operated [B25B 17/00](#); impact screwdrivers [B25B 19/00](#); portable power-driven [B25B 21/00](#) {; screwdrivers specially adapted for osteosynthesis [A61B 17/8875](#))}
  - 15/001 . . {characterised by material or shape of the tool bit}
  - 15/002 . . {characterised by material used or surface finishing}
  - 15/004 . . {characterised by cross-section}
  - 15/005 . . . {with cross- or star-shaped cross-section}
  - 15/007 . . . {with blade of flat or substantially flat cross-section}
  - 15/008 . . . {Allen-type keys}
  - 15/02 . . operated by rotating the handle
  - 15/04 . . with ratchet action
  - 15/06 . . operated by axial movement of the handle
- 17/00** **Hand-driven gear-operated wrenches or screwdrivers** (ratchet-operated [B25B 13/46](#) ([B25B 13/467](#)), [B25B 15/04](#); {for mounting or dismantling wheels [B60B 29/005](#)})
  - 17/02 . . providing for torque amplification
- 19/00** **Impact wrenches or screwdrivers** (portable power-driven [B25B 21/02](#))
- 21/00** **Portable power-driven screw or nut setting or loosening tools;** (details or components, e.g. casings, bodies, of portable power-driven tools not particularly related to the operation performed [B25F 5/00](#); {for mounting or dismantling wheels [B60B 29/006](#)}); **Attachments for drilling apparatus serving the same purpose** (machines [B23P 19/06](#))
  - 21/001 . . {Combined nut setting and crimping}
  - 21/002 . . {for special purposes}
  - 21/004 . . {of the ratchet type}
  - 21/005 . . {driven by a radially acting hydraulic or pneumatic piston}
  - 21/007 . . {Attachments for drilling apparatus for screw or nut setting or loosening}
  - 21/008 . . {with automatic change-over from high speed-low torque mode to low speed-high torque mode}
  - 21/02 . . with means for imparting impact to screwdriver blade or nut socket
  - 21/023 . . {for imparting an axial impact, e.g. for self-tapping screws}
  - 21/026 . . {Impact clutches}
- 23/00** **Details of, or accessories for, spanners, wrenches, screwdrivers** (bolt tensioners [B25B 29/02](#))
  - 23/0007 . . {Connections or joints between tool parts}
  - 23/0014 . . {Screwdriver- or wrench-heads provided with cardan joints or the like}
  - 23/0021 . . {Prolongations interposed between handle and tool}
  - 23/0028 . . {Angular adjustment means between tool head and handle}
  - 23/0035 . . {Connection means between socket or screwdriver bit and tool}

- 23/0042 . . {Connection means between screwdriver handle and screwdriver shaft}
- 23/005 . {Screw guiding means}
- 23/0057 . {Socket or nut ejector means}
- 23/0064 . {Means for adjusting screwing depth}
- 23/0071 . {Abutment for screws or nuts}
- 23/0078 . {Reaction arms}
- 23/0085 . {Counterholding devices}
- 23/0092 . {Tools for placing nut or screw lock wires}
- 23/02 . Arrangements for handling screws or nuts
- 23/04 . . for feeding screws or nuts
- 23/045 . . . {using disposable strips or discs carrying the screws or nuts}
- 23/06 . . . using built-in magazine ([B25B 23/045](#) takes precedence)
- 23/065 . . . . {the magazine being coaxial with the tool axis}
- 23/08 . . for holding or positioning screw or nut prior to or during its rotation
- 23/10 . . . using mechanical gripping means
- 23/101 . . . . {for hand-driven screw-drivers ([B25B 23/105](#) takes precedence)}
- 23/103 . . . . {for gripping threaded studs}
- 23/105 . . . . {the gripping device being an integral part of the driving bit}
- 23/106 . . . . . {the driving bit being a blade}
- 23/108 . . . . . {the driving bit being a Philips type bit, an Allen type bit or a socket}
- 23/12 . . . using magnetic means
- 23/14 . Arrangement of torque limiters or torque indicators in wrenches or screwdrivers ([couplings for transmitting rotation or clutches F16D](#); devices for measuring torque [per se G01L](#))
- 23/1405 . . {for impact wrenches or screwdrivers}
- 23/141 . . {Mechanical overload release couplings}
- 23/1415 . . {Break members; Arrangements specially adapted for break-bolts ([break-bolts per se F16B 31/00](#))}
- 23/142 . . specially adapted for hand operated wrenches or screwdrivers
- 23/1422 . . . {torque indicators or adjustable torque limiters}
- 23/1425 . . . . {by electrical means}
- 23/1427 . . . . {by mechanical means}
- 23/145 . . specially adapted for fluid operated wrenches or screwdrivers
- 23/1453 . . . {for impact wrenches or screwdrivers}
- 23/1456 . . . {having electrical components}
- 23/147 . . specially adapted for electrically operated wrenches or screwdrivers
- 23/1475 . . . {for impact wrenches or screwdrivers}
- 23/15 . . having a mechanism to mark the work when the selected torque is applied to the work
- 23/16 . Handles ([in general B25G](#))
- 23/18 . Devices for illuminating the head of the screw or the nut
- 25/00** **Implements for fastening, connecting or tensioning of wire or strip**
- 25/005 . {for applying wire clasps to hose couplings}
- 27/00** **Hand tools, specially adapted for fitting together or separating parts or objects whether or not involving some deformation, not otherwise provided for ([machines for simply fitting together or separating metal parts or objects B23P 19/00](#))**
- 27/0007 . {Tools for fixing internally screw-threaded tubular fasteners}
- 27/0014 . . {motor-driven}
- 27/0021 . {Tools for bonding or debonding brake linings}
- 27/0028 . {Tools for removing or installing seals ([B25B 27/0092](#) takes precedence)}
- 27/0035 . {for motor-vehicles ([wrenches for mounting or dismantling wheels B60B 29/003](#))}
- 27/0042 . . {Tools for removing or replacing filters or for draining oil; Tools for setting or loosening closure means for radiators, batteries, or the like}
- 27/005 . . {for pulling off battery terminals}
- 27/0057 . . {for screwing or unscrewing tire valve caps}
- 27/0064 . . {for assembling or disassembling clutches}
- 27/0071 . {for bicycles}
- 27/0078 . {Tools for wheel weights}
- 27/0085 . {explosive-powered}
- 27/0092 . {Tools moving along strips, e.g. decorating or sealing strips, to insert them in, or remove them from, grooves or profiles ([machines therefor B23P 19/047](#))}
- 27/02 . for connecting objects by press fit or detaching same ([B25D 1/16](#) takes precedence)}
- 27/023 . . {using screws}
- 27/026 . . {fluid driven}
- 27/04 . . inserting or withdrawing keys
- 27/06 . . inserting or withdrawing sleeves or bearing races
- 27/062 . . . {using screws}
- 27/064 . . . {fluid driven}
- 27/08 . . inserting or withdrawing cotter pins
- 27/10 . . inserting fittings into hoses
- 27/12 . . mounting or demounting piston rings
- 27/14 . for assembling objects other than by press fit or detaching same
- 27/143 . . {for installing wire thread inserts or tubular threaded inserts}
- 27/146 . . {Clip clamping hand tools}
- 27/16 . . abutted flanges
- 27/18 . . withdrawing broken threaded parts or twist drills
- 27/20 . . inserting or withdrawing split pins or circlips
- 27/205 . . . {Pliers or tweezer type tools with tow actuated jaws}
- 27/22 . . positioning sprocket chains, endless tracks, antiskid chains ([tools or implements for repairing chains using metal-working operations B21L 21/00](#))
- 27/24 . . mounting or demounting valves ([for tyre valves B60C 25/18](#))
- 27/26 . . . compressing the springs
- 27/28 . . positioning or withdrawing resilient bushings or the like
- 27/30 . . positioning or withdrawing springs, e.g. coil or leaf springs ([B25B 27/26](#) takes precedence; [watchmakers' or watch-repairers' tools G04D](#))
- 27/302 . . . {coil springs other than torsion coil springs}
- 27/304 . . . . {by compressing coil springs}
- 27/306 . . . . {by tensioning coil springs}
- 27/308 . . . {leaf springs}
- 28/00** **Portable power-driven joining or separation tools ([B25B 21/00](#) takes precedence)**

## B25B

- 29/00** **Accessories** (specially for spanners, wrenches, screwdrivers [B25B 23/00](#); tool boxes, tool positioning stands [B25H](#))
  - 29/02 . Bolt tensioners
- 31/00** **Hand tools for applying fasteners** (nailing or stapling tools [B25C](#))
  - 31/005 . {for temporarily connecting sheets before or during assembly operations}
- 33/00** **Hand tools not covered by any other group in this subclass**
  - 33/005 . {Chuck keys}