

**CPC****COOPERATIVE PATENT CLASSIFICATION****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 used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[B25B 23/143](#) covered by [B25B 23/1422](#)  
[B25B 23/144](#) covered by [B25B 23/1425](#)  
[B25B 23/151](#) covered by [B25B 23/14](#), [B25B 23/147](#)  
[B25B 23/153](#) covered by [B25B 23/1415](#)  
[B25B 23/155](#) covered by [B25B 23/141](#)  
[B25B 23/157](#) covered by [B25B 23/14](#)  
[B25B 23/159](#) covered by [B25B 23/14](#)  
[B25B 27/067](#) covered by [B25B 27/06](#)  
[B25B 27/073](#) covered by [B25B 27/062](#)

**B25B 1/00**

**Vices** ( specially adapted for tying flies for angling [A01K 97/28](#); specially adapted for machine tools [B23Q 3/00](#); { rope or cable splicing vices [D07B 7/162](#) } )

**B25B 1/02**

- . with sliding jaws

**B25B 1/04**

- . with pivoted jaws

**B25B 1/06**

- . Arrangements for positively actuating jaws

**B25B 1/08**

- .. using cams

**B25B 1/10**

- .. using screws

**B25B 1/103**

- ... { with one screw perpendicular to the jaw faces, e.g. a differential or telescopic screw }

**B25B 1/106**

- ... { with mechanical or hydraulic power amplifiers }

**B25B 1/12**

- ... with provision for disengagement

**B25B 1/125**

- .... { with one screw perpendicular to the jaw faces }

**B25B 1/14**

- .. using toggle links

**B25B 1/16**

- .. by pedal, with or without provision for additional manual actuation

**B25B 1/18**

- .. motor driven, e.g. with fluid drive, with or without provision for manual actuation

**B25B 1/20**

- . Vices for clamping work of special profile, e.g. pipes

**B25B 1/205**

- .. { Vices of the chain or strip type }

**B25B 1/22**

- . Arrangements for turning or tilting vices

B25B 1/24	. Details, e.g. jaws of special shape, slideways
B25B 1/2405	.. { Construction of the jaws }
B25B 1/241	... { characterised by surface features or material }
B25B 1/2415	.... { being composed of a plurality of parts adapting to the shape of the workpiece }
B25B 1/2421	..... { the parts having a linear movement }
B25B 1/2426	..... { the parts having a pivotal movement }
B25B 1/2431	... { the whole jaw being pivotable around an axis perpendicular to the actioning direction of the vice }
B25B 1/2436	.... { around a vertical axis ( <a href="#">B25B 1/2447</a> takes precedence ) }
B25B 1/2442	.... { around a horizontal axis ( <a href="#">B25B 1/2447</a> takes precedence ) }
B25B 1/2447	.... { to put one of the jaw faces in a position opposite to the second jaw }
B25B 1/2452	... { with supplementary jaws }
B25B 1/2457	... { with auxiliary attachments }
B25B 1/2463	.... { Supports for the workpiece }
B25B 1/2468	.... { Lateral positioning arms }
B25B 1/2473	... { with pull-down action on the workpiece }
B25B 1/2478	... { with more than one pair of jaws }
B25B 1/2484	.. { Supports }
B25B 1/2489	.. { Slideways }
B25B 1/2494	.. { Means indicating the distance between jaws or their angular position }

### **B25B 3/00** Hand vices, i.e. vices intended to be held by hand; Pin vices

### **B25B 5/00** **Clamps** ( for holding or positioning work for welding, soldering, or cutting by applying heat locally [B23K 37/04](#) )

B25B 5/003	. { Combinations of clamps }
B25B 5/006	. { Supporting devices for clamps }
B25B 5/02	. with sliding jaws
B25B 5/04	. with pivoted jaws
B25B 5/06	. Arrangements for positively actuating jaws
B25B 5/061	.. { with fluid drive ( <a href="#">B25B 5/087</a> , <a href="#">B25B 5/122</a> take precedence ) }
B25B 5/062	... { with clamping means pivoting around an axis parallel to the pressing direction }
B25B 5/064	... { with clamping means pivoting around an axis perpendicular to the pressing direction ( <a href="#">B25B 5/122</a> takes precedence ) }
B25B 5/065	... { involving the use of flexible pressure bags or diaphragms }
B25B 5/067	.. { C-clamps ( <a href="#">B25B 5/061</a> , <a href="#">B25B 5/082</a> , <a href="#">B25B 5/101</a> , <a href="#">B25B 5/125</a> take precedence ) }

- B25B 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 )}
- B25B 5/08 .. using cams
- B25B 5/082 ... { C-clamps }
- B25B 5/085 ... { with at least one jaw sliding along a bar }
- B25B 5/087 ... { actuated by a hydraulic or pneumatic piston }
- B25B 5/10 .. using screws
- B25B 5/101 ... { C-clamps }
- B25B 5/102 ... { with at least one jaw sliding along a bar }
- B25B 5/103 ... { with a hinge }
- B25B 5/104 ... { with one screw and one clamping lever and one fulcrum element }
- B25B 5/105 .... { with one end of the lever resting on a table and the screw being positioned between the ends of the lever }
- B25B 5/106 .... { with one end of the lever resting on an additional block and the screw being positioned between the ends of the lever }
- B25B 5/107 ..... { Blocks therefor }
- B25B 5/108 .... { the screw contacting one of the ends of the lever }
- B25B 5/109 ... { with two screws, e.g. parallel screw clamps }
- B25B 5/12 .. using toggle links
- B25B 5/122 ... { with fluid drive }
- B25B 5/125 ... { C-clamps }
- B25B 5/127 ... { with at least one jaw sliding along a bar }
  
- B25B 5/14 . Clamps for work of special profile {( using chains or strips [B25B 1/205](#) )}
- B25B 5/142 .. { for windows and frames }
- B25B 5/145 .. { for plates }
- B25B 5/147 .. { for pipes }
  
- B25B 5/16 . Details, e.g. jaws, jaw attachments
- B25B 5/163 .. { Jaws or jaw attachments }
- B25B 5/166 .. { Slideways; Guiding and/or blocking means for jaws thereon }

**B25B 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](#) )

- B25B 7/02 . Jaws
- B25B 7/04 .. adjustable
  
- B25B 7/06 . Joints
- B25B 7/08 .. with fixed fulcrum

- B25B 7/10
  - .. with adjustable fulcrum
- B25B 7/12
  - . involving special transmission means between the handles and the jaws, e.g. toggle levers, gears
- B25B 7/123
  - .. { with self-locking toggle levers }
- B25B 7/126
  - .. { with fluid drive }
- B25B 7/14
  - . Locking means {( [B25B 7/123](#) takes precedence )}
- B25B 7/16
  - .. combined with means for tightening the operating arms of jaws
- B25B 7/18
  - . Adjusting means for the operating arms
- B25B 7/20
  - . Pliers for sealing
- B25B 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](#) )
- B25B 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](#) )**
- B25B 9/02
  - . without sliding or pivotal connections, e.g. tweezers, onepiece tongs
- B25B 9/04
  - . with sliding jaws
- B25B 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](#) )**
- B25B 11/002
  - . { Magnetic work holders }
- B25B 11/005
  - . { Vacuum work holders }
- B25B 11/007
  - .. { portable, e.g. handheld }
- B25B 11/02
  - . Assembly jigs
- B25B 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 pecially 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](#) } )**
- B25B 13/005
  - . { Cross wrenches }
- B25B 13/02
  - . with rigid jaws ( [B25B 13/46](#), [B25B 13/48](#) take precedence )
- B25B 13/04
  - .. of ring jaw type
- B25B 13/06
  - .. of socket type
- B25B 13/065
  - ... { characterised by the cross-section of the socket }
- B25B 13/08
  - .. of open jaw type
- B25B 13/10
  - . with adjustable jaws ( [B25B 13/46](#), [B25B 13/48](#) { [B25B 13/5041](#) } take precedence )

- B25B 13/102 .. { composed of a plurality of sockets slidable in each other }
- B25B 13/105 .. { composed of a plurality of slidable pins }
- B25B 13/107 .. { composed of a main body with exchangeable inserts }
- B25B 13/12 .. the jaws being slidable
- B25B 13/14 ... by rack and pinion, worm or gear
- B25B 13/16 ... by screw or nut
- B25B 13/18 ... by cam, wedge, or lever
- B25B 13/20 ... Arrangements for locking the jaws
- B25B 13/22 .... by ratchet action or toothed bars
- B25B 13/24 .... by cam, wedge, or friction means
- B25B 13/26 .... by toggle links
- B25B 13/28 .. the jaws being pivotally movable
- B25B 13/30 ... by screw or nut
- B25B 13/32 ... by cam, wedge or lever
- B25B 13/34 ... Arrangements for locking the jaws
- B25B 13/36 .... by ratchet action
- B25B 13/38 .... by cam, wedge, or friction means
- B25B 13/40 .... by toggle links
- B25B 13/42 .... with self-locking action
  
- B25B 13/44 . of the chuck type
  
- B25B 13/46 . of the ratchet type, for providing a free return stroke of the handle
- B25B 13/461 .. { with concentric driving and driven member }
- B25B 13/462 ... { the ratchet parts engaging in a direction radial to the tool operating axis }
- B25B 13/463 .... { a pawl engaging an externally toothed wheel }
- B25B 13/465 .... { a pawl engaging an internally toothed ring }
- B25B 13/466 ... { the ratchet parts engaging in an axial direction }
- B25B 13/467 ... { which are gear-operated }
- B25B 13/468 ... { with possibility of locking the ratchet mechanism }
  
- B25B 13/48 . for special purposes
- B25B 13/481 .. { for operating in areas having limited access }
- B25B 13/483 .. { for spark plugs }
- B25B 13/485 .. { for theft-proof screws, bolts or nuts }
- B25B 13/486 ... { using a threaded connection between screw and tool }
- B25B 13/488 .. { for connections where two parts must be turned in opposite directions by one tool }
  
- B25B 13/50 .. for operating on work of special profile, e.g. pipes
- B25B 13/5008 ... { for operating on pipes or cylindrical objects ( [B25B 13/52](#) takes precedence ) }
- B25B 13/5016 .... { by externally gripping the pipe }
- B25B 13/5025 ..... { using a pipe wrench type tool }
- B25B 13/5033 ..... { with fixed jaws }

B25B 13/5041	.....	{ with movable or adjustable jaws }
B25B 13/505	.....	{ Pivotaly moving or adjustable }
B25B 13/5058	.....	{ Linearly moving or adjustable, e.g. with an additional small tilting or rocking movement }
B25B 13/5066	.....	{ using rollers moving along radial cams in a cage structure at least partially surrounding the pipe }
B25B 13/5075	.....	{ using jaws moving along radial cams or by excentric disks in a cage structure at least partially surrounding the pipe }
B25B 13/5083	....	{ by internally gripping the pipe }
B25B 13/5091	...	{ for operating on wing nuts, hooks, eye hooks or the like }
B25B 13/52	...	Chain or strap wrenches
B25B 13/54	...	Internal grip wrenches {( <a href="#">B25B 13/5083</a> takes precedence )}
B25B 13/56	.	Spanner sets
B25B 13/58	.	Jaw attachments
<b>B25B 15/00</b>		<b>Screwdrivers</b> ( hand-driven gear-operated <a href="#">B25B 17/00</a> ; impact screwdrivers <a href="#">B25B 19/00</a> ; portable power-driven <a href="#">B25B 21/00</a> ; { screwdrivers specially adapted for osteosynthesis <a href="#">A61B 17/8875</a> } )
B25B 15/001	.	{ characterised by material or shape of the tool bit }
B25B 15/002	..	{ characterised by material used or surface finishing }
B25B 15/004	..	{ characterised by cross-section }
B25B 15/005	...	{ with cross- or star-shaped cross-section }
B25B 15/007	...	{ with blade of flat or substantially flat cross-section }
B25B 15/008	...	{ Allen-type keys }
B25B 15/02	.	operated by rotating the handle
B25B 15/04	..	with ratchet action
B25B 15/06	.	operated by axial movement of the handle
<b>B25B 17/00</b>		<b>Hand-driven gear-operated wrenches or screwdrivers</b> ( ratchet-operated <a href="#">B25B 13/46</a> { <a href="#">B25B 13/467</a> }, <a href="#">B25B 15/04</a> ; { for mounting or dismounting wheels <a href="#">B60B 29/005</a> } )
B25B 17/02	.	providing for torque amplification
<b>B25B 19/00</b>		<b>Impact wrenches or screwdrivers</b> ( portable power-driven <a href="#">B25B 21/02</a> )
<b>B25B 21/00</b>		<b>Portable power-driven screw or nut setting or loosening tools</b> ; ( details or components, e.g. casings, bodies, of portable power-driven tools not particularly related to the operation performed <a href="#">B25F 5/00</a> ; { for mounting or dismounting wheels <a href="#">B60B 29/006</a> } ); <b>Attachments for drilling apparatus serving the same purpose</b> ( machines <a href="#">B23P 19/06</a> )
B25B 21/001	.	{ Combined nut setting and crimping }

- B25B 21/002 . { for special purposes }
- B25B 21/004 . { of the ratchet type }
- B25B 21/005 . . { driven by a radially acting hydraulic or pneumatic piston }
- B25B 21/007 . { Attachments for drilling apparatus for screw or nut setting or loosening }
- B25B 21/008 . { with automatic change-over from high speed-low torque mode to low speed-high torque mode }
- B25B 21/02 . with means for imparting impact to screwdriver blade or nut socket
- B25B 21/023 . . { for imparting an axial impact, e.g. for self-tapping screws }
- B25B 21/026 . . { Impact clutches }
- B25B 23/00** **Details of, or accessories for, spanners, wrenches, screwdrivers ( [bolt tensioners B25B 29/02](#) )**
- B25B 23/0007 . { Connections or joints between tool parts }
- B25B 23/0014 . . { Screwdriver- or wrench-heads provided with cardan joints or the like }
- B25B 23/0021 . . { Prolongations interposed between handle and tool }
- B25B 23/0028 . . { Angular adjustment means between tool head and handle }
- B25B 23/0035 . . { Connection means between socket or screwdriver bit and tool }
- B25B 23/0042 . . { Connection means between screwdriver handle and screwdriver shaft }
- B25B 23/005 . { Screw guiding means }
- B25B 23/0057 . { Socket or nut ejector means }
- B25B 23/0064 . { Means for adjusting screwing depth }
- B25B 23/0071 . { Abutment for screws or nuts }
- B25B 23/0078 . { Reaction arms }
- B25B 23/0085 . { Counterholding devices }
- B25B 23/0092 . { Tools for placing nut or screw lock wires }
- B25B 23/02 . Arrangements for handling screws or nuts
- B25B 23/04 . . for feeding screws or nuts
- B25B 23/045 . . . { using disposable strips or discs carrying the screws or nuts }
- B25B 23/06 . . . using built-in magazine ( [B25B 23/045](#) takes precedence )
- B25B 23/065 . . . . { the magazine being coaxial with the tool axis }
- B25B 23/08 . . for holding or positioning screw or nut prior to or during its rotation
- B25B 23/10 . . . using mechanical gripping means
- B25B 23/101 . . . . { for hand-driven screw-drivers ( [B25B 23/105](#) takes precedence ) }
- B25B 23/103 . . . . { for gripping threaded studs }

- B25B 23/105 . . . . { the gripping device being an integral part of the driving bit }
- B25B 23/106 . . . . . { the driving bit being a blade }
- B25B 23/108 . . . . . { the driving bit being a Philips type bit, an Allen type bit or a socket }
- B25B 23/12 . . . using magnetic means
  
- B25B 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](#) )
- B25B 23/1405 . . { for impact wrenches or screwdrivers }
- B25B 23/141 . . { Mechanical overload release couplings }
- B25B 23/1415 . . { Break members; Arrangements specially adapted for break-bolts ( break-bolts per se [F16B 31/00](#) ) }
- B25B 23/142 . . specially adapted for hand operated wrenches or screwdrivers
- B25B 23/1422 . . . { torque indicators or adjustable torque limiters }
- B25B 23/1425 . . . . { by electrical means }
- B25B 23/1427 . . . . { by mechanical means }
- B25B 23/145 . . specially adapted for fluid operated wrenches or screwdrivers
- B25B 23/1453 . . . { for impact wrenches or screwdrivers }
- B25B 23/1456 . . . { having electrical components }
- B25B 23/147 . . specially adapted for electrically operated wrenches or screwdrivers
- B25B 23/1475 . . . { for impact wrenches or screwdrivers }
- B25B 23/15 . . having a mechanism to mark the work when the selected torque is applied to the work
  
- B25B 23/16 . Handles ( in general [B25G](#) )
  
- B25B 23/18 . Devices for illuminating the head of the screw or the nut
  
- B25B 25/00** **Implements for fastening, connecting or tensioning of wire or strip**
  
- B25B 25/005 . { for applying wire clasps to hose couplings }
  
- B25B 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](#) )**
  
- B25B 27/0007 . { Tools for fixing internally screw-threaded tubular fasteners }
- B25B 27/0014 . . { motor-driven }
  
- B25B 27/0021 . { Tools for bonding or debonding brake linings }
  
- B25B 27/0028 . { Tools for removing or installing seals ( [B25B 27/0092](#) takes precedence ) }
  
- B25B 27/0035 . { for motor-vehicles ( wrenches for mounting or dismounting wheels [B60B 29/003](#) ) }
- B25B 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 }
- B25B 27/005 . . { for pulling off battery terminals }



- B25B 27/0057 . . { for screwing or unscrewing tire valve caps }
- B25B 27/0064 . . { for assembling or disassembling clutches }
- B25B 27/0071 . { for bicycles }
- B25B 27/0078 . { Tools for wheel weights }
- B25B 27/0085 . { explosive-powered }
- B25B 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](#) ) }
- B25B 27/02 . for connecting objects by press fit or detaching same ( ( [B25D 1/16](#) takes precedence ) )
- B25B 27/023 . . { using screws }
- B25B 27/026 . . { fluid driven }
- B25B 27/04 . . inserting or withdrawing keys
- B25B 27/06 . . inserting or withdrawing sleeves or bearing races
- B25B 27/062 . . . { using screws }
- B25B 27/064 . . . { fluid driven }
- B25B 27/08 . . inserting or withdrawing cotter pins
- B25B 27/10 . . inserting fittings into hoses
- B25B 27/12 . . mounting or demounting piston rings
- B25B 27/14 . for assembling objects other than by press fit or detaching same
- B25B 27/143 . . { for installing wire thread inserts or tubular threaded inserts }
- B25B 27/146 . . { Clip clamping hand tools }
- B25B 27/16 . . abutted flanges
- B25B 27/18 . . withdrawing broken threaded parts or twist drills
- B25B 27/20 . . inserting or withdrawing split pins or circlips
- B25B 27/205 . . . { Pliers or tweezer type tools with tow actuated jaws }
- B25B 27/22 . . positioning sprocket chains, endless tracks, antiskid chains ( tools or implements for repairing chains using metal-working operations [B21L 21/00](#) )
- B25B 27/24 . . mounting or demounting valves ( for tyre valves [B60C 25/18](#) )
- B25B 27/26 . . . compressing the springs
- B25B 27/28 . . positioning or withdrawing resilient bushings or the like
- B25B 27/30 . . positioning or withdrawing springs, e.g. coil or leaf springs ( [B25B 27/26](#) takes precedence; watchmakers` or watch-repairers` tools [G04D](#) )
- B25B 27/302 . . . { coil springs other than torsion coil springs }
- B25B 27/304 . . . . { by compressing coil springs }
- B25B 27/306 . . . . { by tensioning coil springs }
- B25B 27/308 . . . { leaf springs }
- B25B 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](#) )**

B25B 29/02 . Bolt tensioners

**B25B 31/00** **Hand tools for applying fasteners ( nailing or stapling tools [B25C](#) )**

B25B 31/005 . { for temporarily connecting sheets before or during assembly operations }

**B25B 33/00** **Hand tools not covered by any other group in this subclass**

B25B 33/005 . { Chuck keys }