

This heading comprises three parts:

- Part A: Fastener driving tools
- Part B: Percussive drills and related subject matter
- Part C: Miscellaneous hand tools

PART A. Fastener driving tools

This Part of the heading concerns the organisation and details of fastener driving tools, for inserting *eg* nails, staples *including* surgical staples, rivets, spike plates and pronged fasteners, as well as subjects associated therewith

Explanation of subject matter and relationships with other headings

Overall organisation of fastener driving tools:

Classified here are disclosures of the overall organisation of fastener driving tools. Specific provision is made for tools characterised by the fastener used, for tools adapted to cope with particular workpieces or situations, and for tools specifically designed to insert a plurality of fasteners

Excluded are:

- . pinning or dowelling—F2H, Bolts, rivets, nails &c
- . attaching belt fasteners—F2Q, Gearing elements &c

Control and command of fastener driving tools:

Classified here are disclosures concerned with fastener driving tools having condition responsive or programmed command apparatus or components specifically adapted therefor. Control and command apparatus of general interest are dealt with in headings such as: G1A, Radiation and radiation utilizing measurement &c; G3N, Automatic electric control systems; G3P, Fluid-pressure servomotor systems; G3R, Electric retroactive control; G4P, Fluid digital systems

Sub assemblies and basic units of fastener driving tools:

Classified here are disclosures concerned with tool sub assemblies and basic units, in particular fastener feeding and driving, applicable to this art, where the various possible operations are identified in detail. Some overlap exists between disclosures of fastener feeding classified here, and disclosures of feeding articles in general which are classified in headings B8S, Shoots and hoppers &c; B8U, Dispensing discrete articles. Affinity also exists between fluid powered driving mechanisms classified here and hydraulic and pneumatic actuators which are classified in F1D, Hydraulic and pneumatic actuators &c. Provision is also made for holding and guiding workpieces and fasteners, as well as bending of fasteners and forming fasteners in association with driving fasteners

Excluded are:

- . joiners' and like cramps and clamps—B4W, Gripping-tools &c
- . feeding sheets, of general interest—B8R, Handling thin material
- . tools *characterised by* being driven by combustion of a solid and/or cased propellant charge—F3C, Weapons &c

Ancillary and perfecting features of fastener driving tools:

Classified here are the features listed in the schedule, *including* ancillary features relating to the tool as a whole *eg* silencing, damping vibrations and safety mechanisms, as well as features more concerned with fasteners *eg* preventing jamming or freeing jammed fasteners or ancillary provision for extracting fasteners

Excluded are:

- . lifting and extracting lasting-tacks—A3B, Boots and shoes; D1G, Sewing
- . pliers and other tools for extraction of fasteners—B4W, Gripping-tools &c

Elements of fastener driving tools:

Classified here are elements of fastener driving tools *eg* housings, shields and guards, magazines, and anvils

Excluded are:

- . handles, *including* fixing—B4K, Handles &c
- . bolts, nails, spikes and the like—F2H, Bolts, rivets, nails &c; F3A, Ammunition &c

The exclusion references listed in this heading part are not exhaustive. Reference should be made to the appropriate general heading/s for processes, materials, elements or devices which may be more widely applicable than can appropriately be classified in this heading

Part A—contOperative dates for Key entries in Part A

The operative dates of terms in this Part of the heading are:

1. for all terms annotated by a marginal code, that of the Edition corresponding to that code
2. for all other terms, that of Edition B

Classifying Schedule

| | |
|---------|--|
| | overall organisation of fastener driving tools— |
| CA1 | . characterised by the fastener used |
| CA2 | . adapted to cope with particular workpieces or situations |
| | . characterised by inserting a plurality of fasteners in a single workpiece— |
| CA3A | .. simultaneously or substantially so |
| CA3B | .. indexing of fasteners inserting tool |
| | .. indexing workpiece, <i>See</i> term CB7, <i>below</i> |
| CA3C | .. workpiece and tool move together as fastener is inserted |
| CA3D | .. plural insertion <i>not otherwise provided for</i> |
| CA4 | . other than the above |
| CE | control and command of fastener driving tools |
| | sub assemblies and basic units of fastener driving tools— |
| | . driving fasteners— |
| | .. driving agent being— |
| CB1A | ... manual |
| | ... compressed gas— |
| CB1B4 | ... causing the tool to complete more than one cycle |
| e CB1BX | ... other than the <i>above</i> |
| CB1C | ... solenoid |
| CB1D | ... spring, <i>including</i> gas spring |
| CB1E | ... mechanical, <i>other than</i> spring |
| | ... combustion gas— |
| e CB1F8 | ... returning a drive piston |
| | ... by solid and/or cased propellant combustion, <i>other than</i> CB1F8 <i>above</i> — <i>See</i> F3C, Weapons &c |
| e CB1F1 | ... by fluid propellant combustion, <i>other than</i> CB1F8 <i>above</i> |
| CB1G | ... other |
| CB2 | .. varying the drive force |
| CB3 | .. stopping the driver |
| CB4 | .. limiting depth of penetration of fastener |
| CB5 | .. driving by repeated blows |
| CB10 | .. holding driver in ready position |
| | . feeding fasteners— |
| CB6A | .. simultaneous feeding of all the fasteners in an array |
| CB6C | .. feeding one fastener at a time |
| CB6D | .. severing one fastener or blank from an array |
| CB6E | .. transferring a plurality of fasteners from a store to a conduit |
| CB6F | .. fastener feeding <i>not otherwise provided for</i> |

Part A—contClassifying Schedule—cont

- CB7 . holding and/or guiding and/or introducing workpiece
 CB8 . holding and/or guiding fasteners
 CB9 . bending fasteners
 CB11 . forming fasteners in association with driving fasteners
 CB12 . other than above
 ancillary and perfecting features of fastener driving tools—
 CC1 . full stroke mechanism *ie* further fastener not fed if drive stroke is incomplete
 CC2 . preventing and freeing jammed fasteners
 CC3 . workpiece contact required to permit drive of a fastener
 CC4 . other safety and drive preventing mechanisms
 CC5 . with provision for extracting fasteners
 CC6 . cutting work in association with driving fasteners
 CC7 . damping vibrations
 CC8 . silencing
 CC9 . not otherwise provided for
- elements of fastener driving tools—
 CD1 . housings
 CD2 . shields and guards
 . magazines for fasteners—
 CD3A . . characterised by the method of loading
 CD3B . . providing for different sized/shaped fasteners
 CD3C . . not otherwise provided for
 CD4 . anvils and anvil supports and provision of alternative anvils
 CD5 . guide for inserting fastener at required spacing
 CD6 . fastener driver and/or channel therefor
 CD7 . fastener holder not part of a fastener driver tool
 CD8 . other than above

Indexing Schedule

Terms C100-C107 are assignable with any term from the Classifying Schedule. Terms C110-C125 are assignable only with certain terms from the Classifying Schedule, as indicated by the Notes in the schedule below

- tool powered by—
 C100 . electricity
 C101 . compressed gas
 C102 . pressurised liquid
 C103 . combustion
 tool used—
 C104 . for surgical purposes
 . to drive a spiked plate or other pronged three dimensional fastener—
 C105 . . into rigid workpiece *eg* wood
 C106 . . into flexible workpiece *eg* fabric, paper
 e C107 . to insert a flexible connector having a head, filament and cross-bar
 C110 hand held tool
 . *Note: This term is assignable only with term CB7*
 C111 indexing workpiece
 . *Note: This term is assignable only with term CB7*
 loading magazine—
 . *Note: The following terms are assignable only with term CD3A*
 . with a rigid rectilinear array of fasteners—
 C120 . . from front
 C121 . . from rear
 C122 . . from side
 C123 . . from bottom
 C124 . . from top
 C125 . other than with a rigid rectilinear array of fasteners

PART B. Percussive drills &cExplanation of Part B subject-matter and relationships with other headings

This Part of the heading comprises only the following subject matter:

. percussive drills, and arrangements and details peculiar to hand-supported and hand-guided percussive tools
and embraces :

. laying dust in bore holes by supplying fluid to drill bit
. percussive rock drills, and spindles, carriage feeds, carriages, cradles and supports therefor

but does not include the following subject matter, which is to be found in the headings indicated:

. motors and motor details, construction of—*See such headings as* F1B, Internal combustion engines &c; F1W, Fluid-pressure reciprocating machines; H2A, Dynamo-electric machines &c
. testing and measuring power, or force of blow—G1W, Weighing; dynamometers

Drilling machines or details operated by both rotary and percussive action are indexed also in B3C, Drilling and boring

The exclusion references listed in this heading part are not exhaustive. Reference should be made to the appropriate general heading/s for processes, materials, elements or devices which may be more widely applicable than can appropriately be classified in this heading

Operative date for Key entries in Part B

The operative date of the terms in this Part of the heading is earlier than that of Edition A

To facilitate searches for combinations of features, throughout this part of the heading each feature is indexed for which a coded term is available, irrespective of novelty

percussive drills, and arrangements and details peculiar to hand-supported and hand-guided power-driven percussive tools—

- . actuation, external—
- C14D . . belt, rope and chain gearing
- C14A . . flexible shafts
- C14B . . fluid-pressure conduits and unions
- C14E . . rotary motor mounted in or on tool casing
- C14X . . unclassified
- C13 . . anvil blocks and other internal members for transmitting blows
- C7 . . barrels, cylinders, and casings
- . . cylinders of interest apart from percussive-tool barrels. *See* F2T, Pistons, cylinders, flywheels &c
- . . carriages, cradles, handles, and supports—
- . . tripod stands. *See* A4L, Furniture &c
- C2A . . cradles
- C2E . . handles
- C2D . . mountings
- C2B . . pillars and struts
- C2C . . trollies
- C2X . . unclassified
- . . chucks or sockets. *See* tools &c
- . . clearing and cooling tools and boreholes (*including* laying dust in connection with boreholes)—
- . . tools and devices for extracting drills—*See* Part C
- . . apparatus for and methods of cleaning, of interest apart from percussive tools. *See* F4X, Gas distribution, liquid heating vessels &c
- . . separate tools for cleaning boreholes after drilling. *See* E1F, Earth and rock working &c
- . . tools, bits, and tool-holders modified for. *See* tools &c
- . . by air or other gas (*other than* exhaust motive fluid)
- C3A . . by exhaust motive fluid
- C3B . . by suction
- C3C . . by suction
- C3D . . by water or other liquid
- C3E . . clearing means also employed for cooling
- C3F . . cooling means not employed for clearing
- C3G . . leakage, preventing
- C3H . . supply tubes and passages for cooling or clearing fluid
- C3K . . valves and cocks, applications of
- C3X . . unclassified

Part B—cont

- CX . details and accessories, unclassified
- C10 . exhaust, deflecting and disposing of
 - . . using exhaust for cooling or clearing. *See* clearing &c
 - . feed motions—
- C4A . . fluid-pressure (*including* combined fluid-pressure and screw)
- C4D . . pressure bars, hand and like (*other than* handles)
- C4C . . screw
- C4X . . unclassified
- C17 . fluid-pressure distributing valves and valve-chambers, arrangement and disposition of
- C16 . fluid-pressure ports and passages, internal, arrangement and disposition of
 - . guiding tools and bits. *See* tools &c (shanks)
 - . handles. *See* carriages &c
 - . kinds or types—
- C1G . . convertible to rotate continuously without percussion
 - . . electric—
 - . . . electromotor-driven
 - . . . solenoid-actuated
 - . . . unclassified
 - . . fluid-pressure—
 - . . . hammer-piston type—
 - other than piston actuated by fluid pressure alone
 - piston actuated by fluid pressure alone
 - operated by specified fluids *other than* air—
 - gases or vapours in combustion
 - liquids—
 - other than water
 - water
 - steam
 - unclassified
 - . . . reciprocating air column—
 - internal
 - other than internal
 - . . . reciprocating cylinder
 - . . suction
 - . . tool or tool-carrier piston type—
 - . . . other than piston actuated by fluid pressure alone
 - piston actuated by fluid pressure alone
 - . . . without separate distributing-valves
 - . . . with self-contained compressor for motive fluid
 - . . unclassified
 - . . hand-supported and hand-guided
 - . . mechanical—
 - . . . piston or tup actuated in part by solenoid or fluid pressure and in part by return springs or other mechanical means. *See* electric; fluid-pressure
- C1D1 . . . cam or crank (*other than* drop and spring)
- C1D5 . . . centrifugal and rotary blow
 - . . . drop and spring—
 - cam or crank
 - other than cam or crank
- C1D2A cam or crank
- C1D2X other than cam or crank
- C1D6 . . . reaction
- C1D3 . . . screw
- C1DX . . . unclassified
- C1E . . multiple
- C1F . . rotary and percussive (coal puncher)
- C1H . . travelling (*other than* hand-supported and hand-guided)
- C1X . . types, unclassified
- C20 . lubricating passages, channels, and reservoirs
- C12 . operations, special, performing by
 - . . massages appliances. *See* A5R, Medical, dental and veterinary equipment
- C15 . pistons and piston-rods
 - . . pistons, piston-rods, and packing therefor, of interest apart from percussive tools. *See* F2T, Pistons, cylinders, flywheels &c
 - . shock, absorbing. *See* vibration, preventing
 - . slinging and supporting. *See* carriages &c, *above*; B3B, Machine tool details; E1G, Rail and road ways (ramming apparatus)

Part B—cont

- . starting and stopping percussive action—
- C9A . . control valves, applications of
- C9D . . electric switches, arrangement and disposition of
- . . starting by pressure, and stopping by release of pressure, on work—
- C9BX . . . other than with separate pressure-actuated valve
- C9B1 . . . with separate pressure-actuated valve
- C9E . . starting or stopping action of hammer member on tool without affecting its motion
- C9C . . triggers and thumb pieces
- C9X . . unclassified
- . stopping percussive action on an idle blow. *See* starting &c
- . stroke, varying and controlling—
- . . adjusting parts of distributing valves. *See* F1W, Fluid-pressure reciprocating machines
- . . hand-operated distributing valves. *See* starting &c (control valves &c)
- . . adjusting force of blow by—
- . . . cushioning. *See* cushioning *below*
- . . . adjusting electric contacts
- C5A4 . . . adjusting tension or compression of check or return springs
- C5A2 . . . adjusting tension or compression of driving springs
- C5A3 . . . altering supply of electric current
- C5A5 . . . altering supply of pressure fluid
- C5A1 . . adjusting length of stroke
- C5B . . cushioning
- C5C . . unclassified
- C5X . . tools, bits, and tool-holders—
- . . chisel and like chipping tools or bits. *See* B4B, Cutting &c
- . . drills and drilling heads, for use with hole lining casings during boring earth or rock. *See* E1F, Earth and rock working &c
- . . tool-holders modified for producing twist motion. *See* twist mechanism
- . . tools specially modified for performing particular operations. *See* operations, special &c
- C6A . . adjustable and detachable cutter (*including* means for retaining)
- . . attaching and retaining (*other than* adjustable and detachable cutter *and* chucks and sockets)—
- . . . means external to barrel or cylinder
- C6B1 . . . other than means external to barrel or cylinder
- C6BX . . chucks and sockets (*including* clamps)
- C6C . . clearing or cooling, modified for
- C6D . . cutting lips and edges
- C6E . . double-ended or reversible
- C6F . . eccentric
- C6G . . shanks (*including* outside guides therefor)
- C6H . . striking faces (*other than* cutting lips and edges)
- C6L . . unclassified
- C6X . . transmitting-members between hammer piston and tool. *See* anvil blocks &c
- C19 . . twist mechanism
- . valves and valve gear. *See* clearing &c; fluid-pressure distributing valves &c; starting &c; F1W, Fluid-pressure reciprocating machines; F2V, Fluid-pressure control valves &c
- . vibration, preventing—
- C11A . . means external to barrel or cylinder
- C11X . . other than means external to barrel or cylinder
- . . . cushioning under abnormal working conditions. *See* starting &c (starting by pressure &c)
- . . . cushioning under normal working conditions. *See* stroke, varying &c
- . withdrawal motions. *See* feed motions

PART C. Miscellaneous hand toolsExplanation of Part C subject-matter and relationships with other headings

This Part of the heading comprises only the following subject matter:

- . tools and devices for extracting and removing rivets, keys, cotters, drills, ferrules, bushes and tubes, and wheels, collars, and other articles from shafts, and like devices for inserting rivets, keys and cotters
- . hand hammers and mallets
- . marline-spikes
- . box-openers, crowbars and like prizing-tools

and embraces:

- . drifts
- . extracting broken drills from holes

but does not include the following subject matter, which is to be found in the headings included:

- . medical percussion sounding-apparatus—A5R, Medical, dental and veterinary equipment
- . mallets for games—A6D, Outdoor sports &c
- . screwed bush and ferrule inserting and extracting devices—B3N, Screwing and tapping
- . bush-hammers for dressing stone—B4B, Cutting &c
- . nail and like extractors—B4W, Gripping-tools &c
- . tyre levers—B7C, Vehicle wheels &c
- . extracting broken drills from bore holes and fishing-tools therefor—E1F, Earth and rock working &c
- . prizing-tools modified to lubricate leaf springs—F2A, Bearings, lubricating &c
- . strainers for wires, cords, bands, and like ties—F2G, Pipe and rod couplings &c
- . mountings, for securing wheels, collars and other machine elements on shafts, reversible in action to effect or facilitate removal—F2U, Rollers, shafts &c

The exclusion references listed in this heading part are not exhaustive. Reference should be made to the appropriate general heading/s for processes, materials, elements or devices which may be more widely applicable than can appropriately be classified in this heading

Operative date for Key entries in Part C

The operative date of the terms in this Part of the heading is earlier than that of Edition A

To facilitate searches for combinations of features, throughout this part of the heading each feature is indexed for which a coded term is available, irrespective of novelty

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|------|--|
| C26A | tools and devices for extracting and removing rivets, keys, cotters, drills, ferrules, bushes and tubes, and wheels, collars, and other articles from shafts, and like devices for inserting rivets, keys and cotters— |
| | . combined with other appliances |
| C26B | . . combined with and solely applicable to vehicle wheels. <i>See</i> B7C, Vehicle wheels &c |
| | . construction |
| | hand hammers and mallets— |
| C27A | . combined with other appliances |
| C27B | . construction |
| C28 | marline-spikes |
| | box-openers, crowbars, and like prizing-tools— |
| C29A | . combined with other appliances |
| C29B | . construction |