

This heading comprises only the following subject matter:

- . screwing and tapping metals and other materials
- . screwing-up and unscrewing threaded members

and embraces:

- . machine details peculiar to screwing, tapping, screwing-up and unscrewing machines
- . power and manually operated screwdrivers, spanners and wrenches
- . screwing-dies, chasers and taps
- . studding-chucks, stud boxes and like devices
- . yielding-drive and reversing drill-holders
- . yielding or reversing driving-mechanism embodied in chucks

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

- . applications of flywheels—B3B, Machine tool details
- . applications of optical apparatus for observing tools and work—B3B, Machine tool details
- . applications of swash-plate motors and pumps—B3B, Machine tool details
- . arrangements and applications of dashpots—B3B, Machine tool details
- . automatic control of machine cycle by programme recorded in code form, by plug-board or by use of rotary selector switches—B3B, Machine tool details
- . beds, frames, stands and sliding carriages—B3B, Machine tool details
- . chucks—B3B, Machine tool details
- . compensating for, preventing, or allowing for, temperature fluctuations—B3B, Machine tool details
- . detecting worn or broken tools—B3B, Machine tool details
- . gauging, setting, measuring and control arrangements in combination with metal cutting machine tools—B3B, Machine tool details
- . joystick control—B3B, Machine tool details
- . lubricating and cooling—B3B, Machine tool details; F2A, Bearings, lubricating &c
- . machine details of general application to other metal cutting machines—B3B, Machine tool details
- . preventing backlash—B3B, Machine tool details
- . supporting work by frozen or solidified material—B3B, Machine tool details
- . tool and work spindles (*including* mounting)—B3B, Machine tool details
- . transferring blanks and finished workpieces—B3B, Machine tool details
- . grinding and polishing or abrading—B3D, Abrading
- . corrugating and twisting single bodies axially—B3E, Bending and breaking metals
- . forging and hammering metals—B3H, Power hammers &c
- . spinning sheet metal—B3J, Seaming &c metal sheets
- . milling metals—B3K, Milling
- . rolling metals—B3M, Rolling metals
- . drawing metals—B3P, Drawing and extruding metals
- . stamping and embossing metals—B3Q, Stamping and embossing metals
- . turning metal and other materials—B3T, Turning
- . screwing and slugging with material fed in the form of continuous length of wire—B4C, Impelling-tools &c
- . machines for screwing up and unscrewing bottle, can, jar and like closures—B8T, Bottling, stoppers &c
- . self-tapping screws—F2H, Bolts, rivets, nails &c
- . tensioning bolts *other than* by screwing-up or unscrewing—F2H, Bolts, rivets, nails &c
- . machine attachments for performing operations *other than* screwing, tapping, screwing-up and unscrewing—*headings for such operations*

The exclusion references listed in this heading 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

Relationship with the Universal Indexing Schedules (heading U1S)

In addition to recording the nature of broader processes or apparatus with or in which inventions classified here may be used, U1S is used, subject to its indexing rules, to index useful products obtained, except for mere references to metal articles, which are regarded as commonplace applications

Operative date for Key entries

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

In this heading there are some terms which are only assigned to those features with which novelty is associated. Thus it is not possible to use a combination of terms for searching in all cases

- N3M alarms, applications of
 N6 apparatus for performing screwing, tapping, screwing-up or unscrewing, and also one or more other operations
 (other than mere attachments designed for separation from machine)
 N1 attachments, machine, for screwing, tapping, screwing-up and unscrewing
 N3Q balancing parts, applications of mechanism for
 . balancing slides. *See* B3B, Machine tool details
 . correcting for unbalance of workpieces by machining. *See* B3B, Machine tool details
 N3N brakes and brake-actuating mechanism, arrangement and applications of
 N3L cuttings, catching and removing, *(other than dies, die-heads, die-stocks, and taps modified for)*
 . removing cuttings by a stream of fluid applied to the tool or work. *See* B3B, Machine tool details
 dies, die-heads, and die-stocks for hand or machine use—
 N5A . bushings and guides
 . concentric—
 N5K1 . . bevel-closing
 N5K2 . . cam-closing
 N5K3 . . lever-closing
 . . miscellaneous—
 N5KX1 . . . arranged for self-opening when rotated in either direction for right and left hand threads (0)
 N5KX4 . . . cover plates for unspecified die-heads
 N5KX3 . . . dies grouped on a pair of slides operated by means *other than* transverse screws
 N5KX6 . . . die-slides pin-jointed through links to rotating ring
 N5KX5 . . . rack-and-pinion closing
 N5K4 . . pivoted die-carrier
 . . secondary or indirect actuating mechanism—
 . . . other than for rotation and axial sliding of rings—
 cam, cone, and wedge
 lever and like linkage
 screw-and-nut
 toothed gearing—
 rack-and-pinion
 worm-and-wheel
 unclassified
 . . . rotation of rings, for—
 cam, cone, and wedge
 friction gearing (*including* brakes)
 hand operated direct (*other than* for cam plates)
 lever and like linkage
 screw-and-nut
 toothed gearing—
 differential and epicyclic
 worm-and-wheel
 unclassified
 . . . sliding rings axially, for—
 cam, cone, and wedge
 hand operated direct
 lever and like linkage
 screw-and-nut
 yoke
 N5K6C10 yoke
 N5K5 . . transversely-wedged die-carrier
 N5N . cuttings, modified for removing and excluding
 N5G . die heads and stocks modified for other purposes
 . dies, chasers, and screw-threading cutters—
 . racks or brackets for supporting. *See* A4B, Cabinets, shelves, runners &c
 . racks or stands for supporting. *See* A4L, Furniture &c
 . chasers (*other than* rotary)
 N5B1 . . cutting-edges
 N5B3 . . dies (*other than* integral)
 N5B6 . . gauging-devices for setting chasers in die-heads
 N5B8 . . integral
 N5B5 . . modified for other uses
 N5B2 . . rotary chasing-cutters
 N5B7 . . supporting, guiding, and clamping chasers in dieheads
 N5B4 . . supporting, guiding, and clamping chasers in dieheads

- N5C7 . die-stocks—
- N5C2 . . die adjustments
- N5C3 . . gated
- N5C4 . . handles
- N5C5 . . hinged
- N5C5 . . lubricating dies and work, modified for
- N5C5 . . miscellaneous—
- N5CX3 . . . double-sided for button dies of two sizes
- N5CX1 . . . spring frame
- N5C6 . . ratchet
- N5D . divided-die (hand tools only)
- N5J . guide-screw
- N5E . integral-die
- N5R . mounting die-heads in machines
- N5F . multiple-die
- N5F . self-opening die-heads—
- N5M1 . . automatically reset
- N5M1 . . opened by—
- N5M1 . . . contact with—
- N5M2A2 stop not carried by work-holder
- N5M2A1 work, end of or shoulder on
- N5M2A3 work-holders
- N5M2B . . . differential feed
- N5M2D . . . feed, stoppage, reversal, or other change of
- N5M2X . . . means, unclassified
- N5M2X . . unlocking of die-head effected by—
- N5M3A . . . rotary movement
- N5M3B . . . sliding movement
- N5L . set position, determining and indicating
- N5P . taper-threading
- driving machine spindle by—
- driving machine spindle by— . electric motor. *See* machines, kinds &c, (self-contained motor, with)
- driving machine spindle by— . fluid-pressure motor. *See* machines, kinds &c, (self-contained motor, with)
- N3C1 . belt and chain
- N3C2 . flexible shaft
- N3C4 . friction and yielding means
- N3C5 . hand
- N3C7 . toothed gearing
- feeds—
- feeds— . bar feeds. *See* B3B, Machine tool details
- N3DX . carriage and slide feeds *other than* for screwing
- N3D2 . screwing
- N3D4 . split-nut controllers
- N3D3 . tap-spindle and screwing-up spindle
- machines, kinds or types of—
- machines, kinds or types of— . drilling-machines not specially modified for. *See* B3C, Drilling and boring
- machines, kinds or types of— . lathes not specially modified for. *See* B3T, Turning
- machines, kinds or types of— . bolts, nuts, and other threaded members, screwing-up and unscrewing—
- machines, kinds or types of— . . plate-clamping apparatus. *See* B3U, Riveting &c
- machines, kinds or types of— . . hammer blows, imparting
- N2A4 . . making and breaking drill and pipe joints
- N2A6 . . means for feeding threaded members prior to, or during, screwing-up or unscrewing
- N2A5 . . multiple-spindle
- N2A1 . . portable
- N2A2 . . . braces and like hand and breast drills. *See* B3C, Drilling and boring
- N2A3 . . yielding-drive
- N2AX . . types, unclassified
- N2D . combination machines for performing operations specified in at least two of the following categories: (a) bolts, nuts, and other threaded members, screwing-up and unscrewing; (b) screwing; (c) tapping
- N2D . screwing—
- N2B1 . . die-unscrewing
- N2B2 . . headstock and slide
- N2B2 . . multiple-die—
- N2B3A . . . aligned
- N2B3B . . . turret
- N2B3X . . . unclassified
- N2B4 . . portable and hand-operated
- N2BX . . types, unclassified
- N2BX . self-contained motor, with—
- N2E1 . . electric
- N2E2 . . fluid-pressure
- N2E2 . tapping—
- N2C2 . . multiple-spindle

- . . . nuts, for—
- N2C6 . . . curved-shank tap
- N2C1 . . . double tap grip
- N2C4 . . . releasable-tap (*other than* double tap grip)
- N2C7 . . . unclassified
- N2C3 . . . portable and hand-operated
- N2C5 . . . yielding tap drive
- N2CX . . . types, unclassified
- N4 processes, special, (*comprising only* processes independent of construction of apparatus)
 - . machining in inert atmosphere. *See* B3B, Machine tool details
- releasing and stop devices—
- N3JX . other than thread determining
- N3J1 . thread determining (*otherwise than by* self-opening die-heads)
- N3C6 reversing-mechanism
- screwdrivers—
- N7A . combined with other appliances
- N7B . construction
- spanners and wrenches, hand driven—
- . adjustable jaws—
- . . . jaws slidable—
- N9A1 . . . by cam, wedge or lever
- N9A2 . . . by rack and pinion, worm or gear
- N9A3 . . . by screw or nut
- N9A4 . . . unclassified
- . . . arrangements for locking the jaws—
- N9A5 by cam, wedge or friction means
- N9A6 by toggle links
- N9A7 by toothed locks
- N9A8 unclassified
- . . . jaws pivotable—
- N9B1 . . . by cam, wedge or lever
- N9B2 . . . by screw or nut
- N9B3 . . . unclassified
- . . . arrangements for locking the jaws—
- N9B4 by cam, wedge or friction means
- N9B5 by toggle links
- N9B6 by toothed locks
- N9B7 unclassified
- N9C . chuck type
- N9D . combined with other appliances (*other than* screwdrivers)
- N9E . flexible chain and like
- N9F . gear operated
- N9G . impact wrenches
- N9H . jaw faces and attachments
- . non-adjustable jaws—
- N9J1 . . pin and like
- N9J2 . . box, socket and ring jaw type
- N9J3 . . open jaw type
- N9K . ratchet, clutch and clutch grip
- N9L . retaining in engagement
- N9M . torque limiting and measuring
- N9X . unclassified
- N3K speed-controlling mechanism
- N3B studs, helical coils and screwed bushes and ferrules, tools for inserting and extracting
 - . geared or power-driven apparatus. *See* machines, kinds &c
 - taps—
 - . racks or brackets for supporting. *See* A4B, Cabinets, shelves, runners &c
 - . racks or stands for supporting. *See* A4L, Furniture &c
- N5H2 . built-up
- N5H3 . chip-clearing
- . collapsible and adjustable—
- N5H4A . . cam-core
- N5H4B . . wedge-core
- N5H4X . . unclassified
- N5H6 . cutting-edges
- N5H7 . guides
- N5H1 . hollow
- N5H8 . integral, unclassified
- N5H9 . interrupted thread
- N5H5 . modified for other uses
- N5H10 . shanks
- N5H11 . taper-threading
- work-holders—
- N3HX . other than turret
- N3H1 . turret