APPENDIX-PART II.

DICTIONARY OF WORKSHOP TERMS.

Addendum. That part of a gear wheel tooth that extends beyond or outwards from the pitch line. Addendum-circle. The circle representing the full or greatest circumference of a gear wheel. Adjustable reamer. A reamer whose teeth may be adjusted to the required diameter.
Angle-iron. A shape of wrought iron or steel having two flanges at a right angle; thus, L.
Angle-plate. A plate having surfaces at a right angle, one to bolt to the machine work-table, the work being bolted to the other.
Angle-tooth. A gear wheel tooth that runs across the face of the wheel in a line that envelops part of the wheel circumference.
Angular cutters. Cutters, whose teeth are on a circumferential surface, that is, at an angle to the cutter axis, such angle not being that of 90° to either the side face nor to the axis of the cutter.
Angular velocity. Velocity measured in degrees of angle.

the side face nor to the axis of the cutter.

Angular velocity. Velocity measured in degrees of angle.

Annular. In the form of a ring
Apron. 1. The piece that carries the tool port or clamp on an iron planing machine. 2. The front plate of a lathe carriage.

Arbor. 1. A mandrel used to drive work upon.

2. Aspindle or shaft of a machine.

Are. A portion of a circle.

Archimedean drill(är-kǐ-m-e dē'an) A drill ing device in which a nut moved endwise on a stock or handle causes the drill to revolve back and forth.

Are of approach. That part in the revolution of a pair of gear wheels in which the teeth in contact approach the line of centres of the two wheels.

Arc of recess. That part in the revolution of a pair of gear wheels in which the teeth in contact recede from the line of centres of the two wheels.

Arc-pitch. The pitch of gear wheel teeth when measured around the pitch circle.

Attachment. A work-holding device that may be attached to a machine.

Auger. A wood-boring tool having two spiral plates and a pointed screw to feed it, the cutting edge being at the end of the tool.

Axle-box. The bearing in which an axle revolves.

Back-gear. The toothed wheels on the spindle of a lathe and at the back of the lathe-head, by means of which the speed of the lathe is reduced.

Back-geared lathe. A lathe having a back gear to reduce its motion.

Back-knife gauge-lathe. A lathe in which the work is finished and cut to size and shape by a knite at the back of the lathe.

Balanced pulley. A pulley whose weight is so equally distributed that it will run steadily and smoothly at the speed for which it is balanced.

Balanced valve. A valve so constructed as to move with equal force in either direction.

Ball and socket joint. A universal joint consisting of a ball on the end of a shaft and in a casing that envelops it and yet permits it to be moved in its casing.

Ball-cutter. A tool for finishing metal balls.

Ball-pene. A spherical pene of a hammer.

Ball-pene. A spherical pene of a hammer.
Band-saw. A continuous ribbon of steel having saw teeth on one of its edges. Band-saw machine. A machine for operat-

Band-saw machine. A machine for operating a band-saw.

Bastard file. A file whose teeth are one degree or grade coarser than a second cut file and one degree finer than a coarse cut file.

Belt. A leather band employed to drive pulleys, for transmitting motion.

Belt-clamp. A clamp for pulling the ends of a belt together, to lace it, while the belt is upon the

Belt-hook. A hook employed to fasten the ends Belts together.

Belt-pulley. A wheel that drives or is driven

Belt-pulley. A wheel that drives or is driven by a belt.

Belt-shipper. A device for moving a belt from one pulley to another.

Belt-tightener. A pulley employed to cause a belt to tighten upon another pulley to enable it to transmit motion periodically instead of continuously.

Bevel-sawing machine. A wood-working machine in which the saw or the work-table may be set to cut a surface at other than a right angle to the face of the work that rests against the work table or the fence as the case may be.

Bevel-square. A square whose blade may be set to any required angle to the stock that holds it

Bevel-wheel, or bevel-gear. A gear wheel with its teeth at an angle to its shaft.

Bit. 1. A boring tool. 2. A tool that is carried in a holder.

Blank. A piece of material roughly formed and ready to be formed into some definite shape.

Blast-pipe. 1. The pipe conveying the blast or air to a fire furnace or cupola. 2. A small pipe through which steam escapes up a locomotive chimney to increase the draught of the fires.

Blob. An extremely loose place in a plate or saw blade.

Block-plane. A short plane.

Boiler-shell. The outer casing of a steamboiler.

Bolt. r. A holding device having a head at one end and at the other a threaded stem to receive a nut.

end and at the other a threaded stem to receive a nut.
2. A short piece of a round log.

Bolt-cutter. A machine for cutting screw threads upon bolts or similar work.

Boring-bar. A bar that carries boring tools.

Boring-machine. A machine for boring holes in metal or wood.

Boring-mill. A form of lathe used mainly for boring

Boring-tool. A tool for cutting out and enlarg-

Boring-tool. A tool for cutting out and enlarging a bore or hole.

Boss. An enveloping piece on an axle or shaft and having upon it an arm, arms, or spokes.

Bottoming-tap. A tap having a full thread up to its very end so that it will cut a full thread to the bottom of a hole.

Box-chuck. A rectangular two-jawed chuck used by brass finishers.

Box-tool. A tool used in screw machines and turret heads, and which guides the work while it is being operated upon. A box tool in many cases carries more than one cutting tool.

Box-wrench. A wrench which fits over the head of the bolt and passes endways upon it.

Bracket. A projecting frame that braces or supports. 2. A device for revolving cutting tools.

Bracket. A projecting frame that is bolted to its supporting pieces or frame.

Brad-awl. An awl for piercing small holes in wood and having a wedge-shaped end.

Branch-pipe. A pipe leading out of another.

Brass-and-brass. A term used to denote that the two brasses or boxes of a bearing are locked together by the key, cap, or set-screw.

Brasses. Pieces fitted into a frame and intended

gether by the key, cap, or set-screw.

Brasses. Pieces fitted into a frame and intended to afford a bearing for a journal.

Break-lathe or gap-lathe. A lathe having a break or gap in the bed and beneath the face plate to let chucked work of large diameter pass.

Broach. A toothed tool for cutting the walls of bole.

Broaching-press. A machine that forces a

Broaching-press, A machine that rocco a broach to its cut.

Bunter-dog. A work-gripping device for a planing machine, and consisting of a piece having a hook end to engage in the T-slot of the table, and a set-screw to bind the work.

screw to bind the work.

Butt-joint. A riveted joint in which the ends of the plate abut fair, one against the other.

Butt-strap. A strip or band of iron employed to hold the joint together in a butt-joint.

Butt-weld. A weld in which the end of one piece merely abuts against the other when the two pieces are put together to weld.

Buzz-planer. A wood-planing machine in which the work is fed by hand.

Calender-roll. A roll for calendering paper. A gauge in the form of a solid

calipers. A hinged tool for measuring work.

Calipers. A hinged tool for measuring work.

Cam. A revolving disc whose actuating surface is not a true circle.

Cam-motor. A cam together with the rod it

cap. The plate or upper part of a bearing that holds the top half of the box or brasses in place.

Cape. Chisel. A narrow machinist's chisel.

Caps. The backward curves on the points of file

Cap-screw. A screw with a collar and a square

head.

Carrier. A device for driving lathe work.

Case hardening. A process of hardening the surface of wrought iron, the hardening usually extending about \(\frac{1}{2} \) inch in depth.

Cat-head. A sleeve fastened by set-screws to slender lathe work and running in a bearing so as to steady the work.

Caulking-tool. A tool used for caulking riveted joints and in making rust-joints.

Centre-bit. A bit having a triangular conical, point with its cutting edge on one-half of the end and a spur on the other half.

Centre-punch. A tool having a coned point for marking the centres to work.

Chamfer. A facet that removes the corner of a right angle.

Chamier, A fact that say that say the right angle.

Change-gears or change-wheels. The gear wheels employed to change the revolutions of a lead screw or feed motion.

A touched tool for cutting threads by

lead screw or feed motion.

Chaser. A toothed tool for cutting threads by hand in a lathe.

Check, A crack.

Check nut. A second nut screwed against the first to check it from slackening back.

Chip-break. A piece that rests upon the work of a wood-working machine and prevents the cutter from splitting out the wood as the cut leaves the surface.

Chipping-hammer. A machinist's hand ham-

Chipping-hammer. A machinist's hand hammer.

Chips. 1. The cutting from a metal cutting machine tool. 2. The thick cuttings from a wedge-shaped wood-working tool, as from an axe or adz.

Chisel. A wedge shaped tool.

Chisel. A wedge shaped tool.

Chisel-tooth saw. A saw having inserted teeth with a maximum of front rake.

Chop or hammer-sink. A mark left on a plate by a sawmaker's or plate straightener's hammer.

Chord-pitch. The pitch of gear wheel teeth measured in a straight line.

Chuck. A work-holding or tool-holding device.

Chucked. Held in a chuck.

Chucking-lathe. A lathe having a large face plate for chucking purposes, and usually a short bed.

Chuck-plate. A large face plate on which work may be chucked.

Circular saw. A saw having its teeth arranged around its circumference.

Circular saw. A saw having its teeth arranged around its circumference.
Clamp. A device for fastening or holding work together or to some other part.
Clearance. The amount to which one piece clears or escapes another. 2. On a lathetool, clearance is the amount to which the back face of the tool escapes the metal it is cutting.
Clements driver. A device for driving work in a lathe, and that places an equal strain on each end of the lathe dog or carrier.
Clutch. A device for engaging or disengaging so as to cause the motion of one piece to be communicated to another, or to stop such communication.
Cock. A device for opening or closing the bore of a pipe.

Cock. A device for opening or closing the bore of a pipe.

Cog. A wooden tooth for a gear wheel.

Collapsing-taps. A tap that is so formed that its teeth close inwards when the thread is cut so that the tap can be withdrawn without winding it backwards.

Collar. 1. A disc-shaped enlargement on a cylindrical piece. 2. A hollow cylindrical piece containing a set screw, to prevent a shaft from end motion.

Collet. A casing for holding tools or drawers in position.

position.

Combination-chuck. A chuck in which the jaws may be moved simultaneously or independently.

Comparator. A machine for comparing measurements, for testing them and originating sub-divisions.

Compass-calipers. A pair of calipers having one bent leg and one leg with compass joint.

Compasses. A tool answering the same purpose as dividers, but with longer legs and a set screw to secure the position of the legs.

Compass. plane. A plane whose sale or bottom.

Compass plane. A plane whose sole or bottom curved in its length.

Compound gears. A train of gear wheels in Compound gears. A train of gear wheels in which there are two wheels fixed on the same shaft but of different diameters so as to vary the velocity.

Compound slide-rest. A slide-rest having

two slides, one above the other.

Cone-bearing. A bearing (for a journal) that contains a coned sleeve that may be moved endways to

take up wear.

Cone-mandrel. A mandrel that holds hollow

work by means of two cones

Cone-plate. A device for steadying work in the lathe by supporting one end in a coned mouth.

Cone-pulley. A pulley having steps of different

Cone-shaft. The shaft for a cone-pulley

Cook's auger. An auger rounded at the end for cutting end-grain wood.

Cope-cutter. A cutter for under-cutting the Cope-cutter. A cutter for under-cutting the shoulder of a tenon on wood-work.

Cope-head. A head for a cope-cutter in a tenon-

ing machine.

Core. A body of sand that produces a hole or cavity in a casting.

Core-box. The box in which a core is made.

Cored. Containing a hole or recess.

Cotter or cottar. A term applied to small keys that are very broad in proportion to their thickness.

Cotter-drill. A drill used in cutting out keyways in a machine.

Cotter-file. A file thin in proportion to its length, for filing out keyways or slots.

Counterbore. I. A parallel recess at the mouth of a hole. 2. A tool for producing such a recess.

Countershaft. A shaft with pulleys upon it, employed to permit a machine to be started and stopped without stopping and starting the line shaft, also, to afford means for varying the speed of a machine.

Countersink. A tool for cutting a coned mouth to a hole.

Countersunk. Having a coned mouth.
Coupling. A piece used to connect two pieces together.
Covering-plate. A plate used to cover the seams

Cow-mouth chisel. A machinist's chisel shaped at the cutting end like a carpenter's gouge.

Crank. An arm that is fast to a shaft and is used

Crank. An arm that is fast to a shaft and is used as a lever wherewith to revolve the shaft.
Crank-shaft. A shaft having a crank.
Cross-cut. A narrow machinist's chisel.
Cross-cut saw. A saw whose teeth are shaped to cut across the fibre or grain of wood.
Cross-face. A plate straightener's or saw maker's hammer, having one face at a right angle to the other.
Cross-feed. That feed of a lathe which runs across the bed.
Cross-head. That part of an engine that connects the piston rod to the connecting rod.
Cross-slide. A slide that stands across a worktable.

Crowning. Highest in the middle when tested

by a straight edge.

Crown-wheel. A gear wheel having its teeth

upon its side face.

Cup-chuck. A chuck having a coned or cupped

mouth.

Cup-shape. A crack of circular form in a piece

of timber or a log.

Cutter. A tool that is held or carried in a stock bar or mandrel.

Cutter-bar. The bar or shaft that carries the

cutting knives in a wood-planing machine.

Cutter-grinder. A machine for grinding cut-

Cutter-head, 1. A head that carries cutters. 2. The head that carries the cutters in a wood-moulding

machine.

Cutting-off lathe. A lathe used for cutting up rods into required lengths, and having a hollow spindle through which the rod passes.

Cutting-off saw. A sawing machine designed for cropping the ends of work and cutting it to length ("utting-off tool. A tool for cutting up rods or bars, and used in the common lathe and in the cutting-off lathe.

Cycloid (si'kloid)

Cycloid (si'kloid). A curve generated by a pencil fixed in the perimeter of a circle that is rolled upon another circle.

another circle.

Cylinder.

1. That part of a steam-engine in which the steam is utilized to drive the piston.

2. The shaft that carries the knives in a wood-planing ma-

chine.

Cylinder-head, or cylinder-cover.

piece that encloses or seals the end of a cylinder.

Dead centre. The stationary centre of a lathe.
Dead-smooth file, or superfine file. The
finest or smoothest cut of file.
Delivery-rolls. Rolls that remove the work from
a machine or from its cutters or knives.
Describing-circle. The circle or cylinder
containing the pencil for rolling a curve.
Diametral pitch. A system of designating the
sixtype of great wheels

pitches of gear wheels.

Diamond-point. A machinist's chisel, square in cross-section, having a diamond-shaped face at the end, and two cutting edges, one at a right angle to the in cross-section,

other.

Die. I. A tool for cutting threads upon external surfaces, such as bolts. 2. A chumpy sliding piece.

Differential screw. A screw having a coarse and a fine thread, the difference between the two pitches enabling a more powerful strain to be endured by the thread.

by the thread

Dimension planer. A wood-planing machine,

Toimension planer. A wood-planing machine, for planing accurately to size.

Disk or disc. A cylinder whose length is very short in proportion to its diameter.

Dividers. A tool having two legs with sharp points at their ends for measuring distances or drawing circles.

Dog. A work holding device.

Dog-chuck. A chuck containing independent days or tasks.

dogs or jaws.

Dog-head. A hammer used in plate or saw

straightening. **Double-eye** or **knuckle-joint**. A joint in Double-eye or knuckle-joint. A joint in which one piece is forked at its end, to receive the other, and a pin passes through both.

Double-thread. A screw thread, having two spirals in the same bolt or body.

Dovetail. A groove that is wider at the bottom than at the top, or a projection thicker at the top than at the bottom.

Draw-filing. That class of filing in which the

at the bottom.

Draw-filing. That class of filing in which the line of file motion is in the direction of the width of the

Drawn-down. Decreased in diameter, width or thickness, by forging or swaging. **Drawn-out.** Increased in length, by forging

or swaging.

Drift. A tool that cuts the walls of a hole while it is driven through by hammer blows.

Drift-pin. A taper pin that is used by boiler makers to drive through holes that do not come fair, or match properly.

Drill. A tool to pierce holes.

Drill-chuck. A chuck used to hold drills.

Drill-chuck. A chuck used to hold drills.

Drilling-machine. A machine for drilling holes in metal.

Driver. 1. A device for driving work in the lathe

Driver. 1. Adevice for driving work in the lathe and sometimes called a dog or carrier. 2. A gear wheel which drives another.
 Drop-hammer. A forging or stamping hammer which is lifted by power and let fall of its own weight.
 Drunken thread. A screw thread that is not a true spiral, but is waved in its course.
 Duplex slide-rest. A feed motion in which there are two slide-rests in one slide-way.
 Dutchman. A piece let in to restore a worn part, or to hide a defect.

or to hide a defect.

Edge-moulding machine. A machine for dressing the edges of wood-work to shape, and usually for forming a moulding thereon.

Emery grinder, or emery-grinding machine. A machine in which emery wheels are used to grind the work.

Emery wheel. A wheel composed of emery cemented together under pressure.

Endless screw. A short length of screw formed to drive the teeth of a worm wheel.

End-mill. A milling-machine cutter, having teeth on its end face.

Engine-lathe. A lathe having a feed motor for the cutting tool.

the cutting tool.

Epicycloid (ép-i-sī'-kloid). A cycloidal curve in which the rolling circle is rolled outside the fixed or base circle.

Equalizing-file. A file that is slightly thicker

the middle than it is at either end.

Expanding-chuck. A chuck that is capable of expanding to accommodate a slight variation of work-diameter and usually holding the work from its

Expanding-mandrel. A mandrel whose diammay be varied, usually by means of moving jaws

Expansion-joint. A joint capable of permit-

Expansion-joint. A joint capable of permiting the parts it connects to expand and contract under variations of temperature.

Extension-bit. A bit in which a cutter can be set so as to bore different sizes of holes.

Extension-lathe. A lathe whose bed is in two longitudinal divisions so that the upper one may be moved endways and thus form a gap to let chucked work of lorge dismeter pass. work of large diameter pass.

Face. 1. The broadest surface of a piece, or that having the largest area. 2. The circumferential surface of a wheel or pulley. 3. A surface on a gear-wheel

Face-cam. A cam in which the actuating surface is on its side or sides.

Face-cutter. A milling cutter having its teeth

Face-cutter. A milling cutter having its teeth upon its circumferential surface.

Face-plate. A plate or table having a plain or flat surface for holding work.

Facing-cutter. A cutter for levelling a face or curface.

surface. Farrar planer. A wood-planing machine in which a travelling bed is used to feed the work to the cutter head.

cutter head.

Feather. A key that is fast in one piece of the work, and an easy fit to the other, so that the latter may be moved along the feather.

Feed-motor. That part of a machine that feeds either the work or the tool, so as to put on the cut.

Feed-rolls. Rolls that move the work to machines or to cutting tools.

Feed-screw. A screw that is used to feed the

or to cutting tools.

Feed-screw. A screw that is used to feed the cutting tool in a machine.

Fence. A plate in a wood-working machine, against which the work is set or moved to hold it in proper position for the cutting operations.

Fiddle-drill. A drill that is revolved back and forth by a device similar to a fiddle-bow.

Fifth wheel. The circular slideway that enables the front axle of a vehicle to turn horizontally.

File. A hand tool for cutting metal, wood, ivory, bone and all other hard substances except stone.

File-card. A wire-brush for cleaning files.

Fillister-head. A screw-head that is cylindrical and contains a screw slot.

Firmer-chisel. A stout carpenter's chisel that is used for cutting out mortises and similar heavy work.

Fit-strip. A projection usually about an inch wide that is intended to be fitted to bed the piece properly and save bedding the whole surface of the piece.

Fixture. A device for holding work in an exact case may be.

Flat-chisel. A wedge-shaped machinist's chisel.

Flat-drill. A drill whose body is rectangular in cross-section.

Flatter. A swage for flat surfaces.

Flatter. A swage for flat surfaces.
Fleam. Acuteness given to saw teeth by filing their front faces at an acute angle to the plane of the saw blade.

Flexible shaft. A shaft composed of wire, similar to a wire rope, for transmitting rotary motion, not-withstanding that the shaft may be an arc of a circle. Flooring-machine. Amachine for planing and

matching at the same time, and generally used for floor

Flute. A groove.

Fly-cutter. A cutting tool fastened in an arbor or spindle, and used for producing irregular shapes.

Follower. A gear wheel that receives motion from another gear wheel.

Follower-rest, A rest that steadies work on the lathe and travels with the slide rest.

Foot-block, A work-holding device containing a dead centre, used upon a milling machine.

Foot-latne, A lathe operated by foot-power.

Fore-plane or jack-plane. A roughing out

Forging. A piece or part that has been forged into shape.

Fork-centre. A centre used to drive woodwork

Fork-scriber. A double pointed tool used by boiler-makers to mark small circles.

boiler-makers to mark small circles.

Former. r. A piece that acts as a guide to control the movement of a cutting tool. 2. A template or block on which a piece is bent or shaped.

Fox-lathe. A brass finisher's lathe, having a turret head and spiral thread-cutting devices that obviate the use of a lead screw or change gears.

Friction-clutch. A clutch that operates by frictional contact.

Friction-gearing. Wheels that transmit motion by the frictional contact of their circumferences.

Frietion-rollers. Rollers employed to reduce

Friction-rollers. Rollers employed to reduce the friction of the parts.
Friction-wheel. A wheel that drives by the frictional contact of its surface.
Friezing-machine or edge-moulding-machine. A machine for cutting mouldings on the edge of wood work.
Front-tool. A tool having its cutting edge in front, and used for plain surfacing work.
Fuller. A blacksmith's tool for spreading the metal in any particular direction.

metal in any particular direction.

Gang-drill. A dr lling machine on which a number of drills may be used simultaneously.

Gang-edger or gang-edging machine.

A machine in which a gang of saws are employed to trim the edges of boards or cut them to width.

Gang-mills. Milling machine cutters that are placed in gangs and side by side on the same arbor.

Gap-lathe or break-lathe. A lathe having a gap in its bed to enable the chucking of work that would not otherwise pass over the bed.

Gauge. 1. A standard of measurement. 2. A standard of shape.

Gear. A term applied to a piece of mechanism that accomplishes a single object: thus a valve-gear operates a valve; a steering-gear steers the vessel.

Geared. Placed in gear or connected together.

Gear-wheel. A wheel provided with teeth to engage with similar teeth upon another wheel.

Generating-circle. The circle that is supposed to move in the construction of cycloidal curves.

Gib. 1. A piece that may be set up to take up the wear. 2. A piece for holding a strap, and forming an abutting piece for a key.

Gimlet. A wood-boring hand tool, having a threaded conical end to pull it to its cut.

Gimlet. but. A fluted gimlet having no thread at its end, but a spiral flute so shaped as to pull the bit forward to its cut.

Gland. A piece enveloping a stem and used to

at its end, but a spiral flute so snaped as to pun the bit forward to its cut.

Gland. A piece enveloping a stem and used to make a tight working joint.

Globe-valve. A valve, having a spherical body, used in pipe-work.

Goose-neck. A frame affording a fulcrum for a market become.

ratchet brace. A wood-cutting hand tool that is curved

Gouge. A wood-cutting hand tool that is curved in its cross-section.

Gravis. A hand tool, rectangular in cross-section and having cutting edges at its end that are formed by grinding the end face at an acute angle to the body Groove-cam. A cam in which the actuating sur-

Groove-cam. A cam in which the actuating surface is in the form of a groove.

Ground joint. A joint that is finished by grinding the parts together, usually with oil and emery.

Guide-bar or slide-bar. A bar that forms a guide for the crosshead of an engine or other moving

Gum. 1. The bottom of the space between saw teeth. 2. A rubber-like substance formed of oil that has dried.

Hack. A tool used for cutting iron in two under a steam hammer

Hack-saw. A saw held in a frame and used by hand for cutting metal.

Half-cbeck joint. A joint in which a piece is let into the other, so that the surfaces come level.

Half-round file. A file that is half round in

Hand-file. A superior class of file that is parallel in width and thickest in the middle of its length.

Hand-hammer. A hammer that can be used in one hand.

Hand-lathe. A lathe with which hand cutting

tools are used.

Hand-nut. A nut that may be screwed up by hand without the aid of a wrench.

Hand-planer. A wood-planing machine in which the work is fed by hand.

Hand-rest. The rest on which hand-turning tools are supported in a lathe.

Hand-tap. A tap that is used by hand.

Hand-vise. A small vise for use in the hand.

Hanger. A frame that is bolted to another frame or part, and carries another piece, usually a shaft of some kind.

Hardened. Hardened steel is that which has

some kind.

Hardened. Hardened steel is that which has been made haid by heating to a cherry red and suddenly cooling it, usually by quenching it in water.

Hardy. A blacksmith's chisel that fits into the

Heading-block. A block used in upsetting the heads of bolts or pins.

Heart-shake. A split radiating from the centre

falog. **Heating-surface.** That part of the surface of a learn-boiler that receives heat on one side and has steam-boiler water on the other.

Heel-tool. A hand turning tool having a projecting heel to cross the tool rest, and usually held in a wooden stock or handle.

wooden stock or handle.

Herring-bone tooth. A form of gear wheel tooth in which the tooth, instead of passing direct across the wheel face, curves partly around the circumference and then back again, so that the two ends of the tooth only are opposite to each other.

Hindley's-screw. A short length of screw used to drive a worm wheel, and sometimes termed an endless screw.

Hobor hub. A tool for cutting the threads on screw cutting tools such as chaser dies.

Hobor hub. A tool for cutting the threads on screw cutting tools, such as chaser dies.

Hour-glass screw. A worm or tangent screw which is formed to envelop part of the arc of circumference of a worm wheel, and therefore assumes in outline the form of a sand hour-glass.

Hunting-tooth. An extra tooth put into a pair of gear wheels that would otherwise contain the same number of teeth, the object being to prevent the same teeth from always falling together.

Hypocycloid (hf-po-sf'kloid). A cycloidal curve in which the rolling circle is rolled within the fixed or base circle.

Idle pulley or guide pulley. A pulley employed to guide a belt.

ployed to guide a belt.

Independent chuck. A chuck in which each jaw is operated separately.

Index-plate. A plate having holes or notches accurately dividing a circle into equal divisions.

Inserted-tooth cutter. A cutter in which the teeth are inserted in a disc or head.

Inside calipers. Calipers used to measure inside dimensions, as boxes, recesses, etc.

Intermediates. The wheels that are between the front driver and last follower of a train of gear wheels.

Involute. A curve generated by the path of a given point in a straight line, as the line is rolled upon a circle. (Vol. I. p. 31.)

Jack-plane. A plane employed to rough out the

work.

ig. A device for holding work and guiding the Jig. A devoperating tool.

operating tool.

Jointing-machine. A machine for truing the surfaces of wood-work that are to form a joint.

Journal. That part of a shaft that runs in a bearing which guides or limits the motion of the shaft.

Jump or upset. To enlarge at the end by a forging process.

Kerf. The passageway or slot cut by a saw.

Key. A rectangular wedge for locking two pieces together.

Knife. The cutting tool used on a wood-planing or wood-splitting machine.

Knurling-tool or milling-tool. A tool used to press indentations into the edges or upon the surface of metal, in order to increase the hand grip of it.

Land. That part of a tap or a reamer that lies between its plates and carries the cutting edges or teeth.

Lantern. A primitive form of gear in which rungs are used instead of teeth.

Lap. A grinding device consisting of a lead or other soft metal surface, on which emery and oil is

Lap-joint. A joint in which one piece over-

Lap-Joint. A joint in the laps the other.

Lap-weld. A weld in which both pieces are beveled at the ends and one end overlaps the other where the two are put together to weld.

Lathe. A machine that revolves work to be operated by cutting tools.

Lathe-bed. The frame that carries the head and tail stock of a lathe, and that rests upon a solid foundation.

Lathe-carriage. The sliding piece that carries

the tool rest of a lathe.

Lathe-centre. The piece or part of a lathe that enters the coned recess of lathe work that is held be-

Lathe-saddle. The sliding piece that carries

the tool rest of a lathe.

Lathe-shears. The frame of a lathe that carries the head and tail stocks, and that rests on legs.

Lead-screw. A screw for a lathe that is used for screw cutting only.

Left-hand thread. A screw thread in which the nut must be revolved in a direction opposite to that in which the hands of a watch move, in order that the nut may screw upon the bolt.

Leg-vise. A machinist's or blacksmith's vise hav-

Leg-vise. A machinist's or blacksmith's vise having legs.

Line of centres. A line, real or imaginary, passing from one centre to another.

Line out. To mark on work lines denoting the depth of surface that is to be cut away.

Liner. A piece of iron put behind or upon a piece to take up its wear.

Line-shaft. A shaft employed to transmit motion from an engine or motor to distant points.

Link. A piece having holes or pins at its end to connect two other pieces together.

Live centre. The centre of the live spindle of a lathe.

ove spindle. The revolving spindle of a lathe. saw that is not under tension.

Lost motion. Motion that is not transmitted on account of the looseness of the parts.

Lug. A small projection.

Machine-bolt. A bolt and nut of the sizes kept in stock by machinery dealers, the bolt usually being black or unturned.

Machine-screw. A small screw made to the

Machine-tap. A long taper tap used in thread-

Machine-tap. A long taper tap used in threading nuts in a machine.
Machine-tool. A machine that performs work by means of cutting tools.
Mandrel. 1. A cylindrical piece which is driven into hollow work and holds it while it is turned in the lathe. 2. A piece or bar on which work is driven or forced. 3. A shaft running in bearings.
Mangle-wheel. A gear wheel whose teeth are so arranged that the wheel is reciprocated back and forth on its centre and deep not make a full revolu-

forth on its centre, and does not make a full revolu-

Marking-gauge. A tool used by wood-workers

Marking-gauge. A tool used by wood-workers to draw a line upon work.

Master-tap. A standard tap used for producing thread-cutting tools, or kept as a standard of size.

Matched. A board that has a tongue on one edge and a groove on the other so that the edges of the boards will match or be fitted together.

Matching-machine or matcher. A wood-

working machine which cuts a groove on one edge and a tongue on the other edge of a board or piece of

Measuring-machine. A machine for deter-

mining the measurement of a piece.

Micrometer (mi-kröm'e-ter). A tool for measuring to minute fractions of an inch.

Mill-file. A single cut file used for filing sheet

Mill-file. A single cut file used for filing sheet steel, saw teeth, etc.
Milling-cutter or mill. The cutter or cutting tool used in a milling machine.
Milling-machine. A machine in which revolving cutters are used to dress the surfaces of metal and cut them to size and shape.

Mitre-cutting machine. A machine for

Mitre-joint. A joint at an angle of 45 degrees

Mitre-wheel. A bevel gear having its teeth at an angle of 45 degrees to its shaft.

Mortise. A recess slot usually square or rectangular, and employed to receive a tenon from

another piece.

Moulding-cutters. The cutters employed to n wood

oduce mouldings on wood.
Multiple-drilling machine. A drilling-ma-Multiple-drilling machine. A grining-machine in which more than one drilling-tool may be used, and separate and successive operations may be performed upon the work, carrying it from one drill-spindle to another.

Mute-pulley. A belt-guiding pulley that can be adjusted to various positions upon its stand.

Nail-bit. A boring tool for wood, used for cutting across the grain of wood.

Nut. A threaded piece for receiving a screw.

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Odontograph (ö-dön'-to-gräf). An instrument employed in making or drawing gear-wheel teeth.
Oliver. A foot-power hammer used by black-

smiths, mainly for forging bolts or studs.

Outside-calipers.

Calipers used to measure external surfaces.

Panelling-machine. A machine for cutting mouldings upon panels.

Parallel-file. A file whose thickness is equal

rom end to end.

Parallel-vise. A vise in which the gripping face of the movable jaw is maintained parallel to that of the fixed jaw.

Paring-chisel. A wood-worker's chisel that is

pushed to its cut by hand pressure.

Pattern-lathe. A lathe designed for the use of

pattern-makers awl. A tongue that engages with a ratchet. ene (pēn) or pane. The lightest end of a ham-Pawl.

Pening (pēn'ing). The hammering of the surface of metal in order to stretch it and alter the shape of

of metal in order to the piece.

Pillow-block, pillar-block or plumb-er-block. A piece that affords a bearing for a shaft and is bolted to a pillar or frame.

Pin-block. A wooden block used to steady small pins when filed in the vise.

Pinion. The smallest wheel in a pair of wheels or in a train of gearing.

in a train of gearing.

Pin-wrench. A wrench having a pin to enter

bles in the nut.

Pipe-cutter. A hand tool for cutting pipe into

Pipe-die. A tool for cutting threads on pipes.
Pipe-tongs. A hand tool for gripping pipes.
Piston. 1. That part of a steam-engine that
moves under steam pressure.
2 A discharge that fits
a bore and slides therein.
Pitch. The distance apart of two pieces.

Pitch. The distance apart of two pieces.

Pitch-eircle. A circle drawn through these parts in a gear wheel where the face of the tooth meets the flank, this circle representing the diameter of the wheel for calculations involving its velocity.

Pitch-line. A part of a pitch circle.

Pitman. A name sometimes given to a connectional content of the pitch circle.

Planer-shaper. A metal-cutting machine in which the ram or slide carrying the tool is moved after the manner of a planing machine.

Planimeter (pla-nim'-e-ter). An instrument for finding the area of irregularly shaped plane surfaces.

Planing-machine. 1. For iron. A machine having a travelling work-table sliding in guideways, the tool being carried in a slideway that spans the table. two or more slide-rests are used in the larger-sized machines. 2. Wood-planing machine. A machine in which the work is fed to a revolving shaft or head carrying long planing knives.

Platen. 1. A work-holding table. 2. The plane surfaced plate which presses on the type in printing.

Play. Looseness of fit.

Plug. The interior piece of a cock.

Plug-and-collar gauge. A pair of gauges for the same size, the plug being sometimes termed the male and the collar the female gauge.

Plug-tap. A tap that follows the taper taps and has but two or three of its teeth eased off at

Plug-tap. A tap that follows the tappand has but two or three of its teeth eased

Plumb-level. A levelling tool depending for its accuracy on a weighted line and an edge that is

raight. P**lumb-rule.** A straight edge containing a plumb-bob

Pod-bit or nose-bit. A wood-boring tool, having a cutting lip at its end.

Point. The surface or the extremity of a gear-

Polishing-lathe. A lathe that is used for

polishing and therefore requires no tool-carrying de-

Poppet-head. The main head of a lathe.
Porter-bar. A bar for handling heavy forgings,
which is welded to the forging and afterwards cut off.
Pressure-bar. A bar or piece that presses the
work to the table in a wood-planing machine.
Protractor. A tool having a blade which may
be set to the degrees of a circle which are marked upon
the back or stock of the protractor.
Pulley. A wheel that receives or drives a band,
belt or rope.

lt or rope.

Pulley or belt-pulley. A wheel that drives or is driven by a belt.

Q.

Quadrant. 1. A piece forming one-fourth of a circle. 2. A piece forming the segment of a circle. Quick return. A motion by means of which a head ram or work-table is moved faster during its return traverse than during its cutting traverse.

Rabbet. A step at the end of a piece of wood.
Rabbeting-plane. A plane for rabbeting.
Rack. A straight body, having on it, (1) teeth corsponding to the teeth in the wheel that drives it or lat it drives; (2) notches to engage a pawl or

ratchet

Rack-feed. A feed motor in which the work-table has a rack driven by a gear-wheel.

Rake. The inclination of the front face of a cut-

Rake. The inclination of the front face of a cutting tool to the body of the steel of which it is made.

Ratchet. A pawl or tongre one end of which engages in notches in a rack or wheel.

Ratchet-brace. A hand-drilling device, in which a lever carries a pawl that engages with a ratchet-wheel, which drives the drill.

Rat-tail file. A taper round file of small diameter or less than one-fourth of an inch.

Reamer, rymer, or rimer. A tool for smoothing and enlarging bores or holes.

Recut-file. A file whose original teeth have been ground off and new teeth have been cut.

Red-marking. A mixture of Venetian red and common oil, used to put on a piece of work when trying its fit, and serving to denote the fit.

Return-cam. A secondary cam used to move

Return-eam. A secondary cam used to move a piece back, after the main cam has moved it forward.

Reverse-keys. An arrangement of keys or wedges, that releases two pieces that have been keyed

wedges, that releases two pieces that have been keyed together. **Rib.** A projecting strip usually employed to strengthen a piece, as the arm of a wheel. **Right-hand thread.** A screw thread in which, with the end of the bolt towards you, the top of the nut must revolve from left to right like the hands of a watch in order to cause it to screw upon the bolt.

Rip-saw. A saw whose teeth are shaped to cut lengthways of the grain of the wood.

Rod-feed. A feed motion that is operated by a

rod.

Roll-feed. A feed motion in which the work is fed to the cutting tool by revolving rolls.

Rope-socket. A socket in which the ends of a wire rope are secured.

Rose-bit. A reamer that cuts at the end only.

Rotary planer. An iron planing machine in which a number of cutters are set in a revolving face plate that is fed to the cut by a head on a slide.

Round-nosed chisel. A machinist's chisel whose cutting edge is shaped so as to cut a groove circular in cross-section.

Round-nosed tool. A tool whose cutting

Round-nosed tool. A tool whose cutting edge is circular in its course or length.

Routing-machine. A machine using a re-

rolving cutter to cut away some parts of a surface and leave the rest in relief.

Rust-joint. A joint that is made by being filled with cast-iron cuttings mixed with sal-ammoniac and sulphur to cause the cuttings to rust and form a solid body.

Safe-edge file. A file having no teeth upon one

of its edges.

Sanding or sand-papering machine.

Sanding or sand-paper-covered rollers or which cand-paper covered rollers or which candmachine in which sand-paper-covered rollers or wheels are used for finishing wood-work.

Saw-arbor. The arbor or mandrel on which a circular saw is driven.

Saw-bench. A circular saw machine.
Saw-gummer. A machine for deepening the spaces between saw teeth.
Saw-packing. Plaited hemp that is packed on both sides of a circular saw to warm it and equalize its tension when it is running.
Scale. 1. A rule or measuring device having lines of division upon it. 2. Proportion of size.
Scarf. The bevel of a piece of metal that is to be lan welded.

Scart. The bevel of a piece of inetal that is to be lap welded.

Scraper. A hand tool that scrapes rather than cuts the metal.

Screw-cutting lathe. A lathe that has a screw feed with change gears to enable it to cut threads or screws upon the work.

threads or screws upon the work.

Screw-cutting lathe with independent feed. A lathe that has a lead screw for cutting threads and a separate feed motion for ordinary tool

Screwing-machine. A machine used to cut

Screw-machine. A form of lathe in which the spindle is hollow and a revolving head or turret is employed to carry the cutting tools.

Screw-plate. A tool for cutting external threads

on small work.
Screw-thread. The thread upon a screw or

other piece of work

other piece of work.

Screw-tool. Another name for a chaser.
Scribing-block or surface-gauge. A tool that carries a needle or scriber for marking on work lines denoting its finished size or the amount of metal that is to be cut off, and that is also used for setting

work.
Second-cut file. A file whose teeth are coarser than a smooth file and finer than a bastard file.
Sector. A device used in connection with an index plate to denote the holes to be used in any particular division of a circle.

division of a circle.

Segment. A piece having the shape of a segment of a circle, used for building up a hollow cylinder.

Segmental saw. A saw that is composed of parts secured to a frame or disc.

Self-acting lathe. A lathe having an automatic feed motion for the cutting tool.

Set. The bend to one side of the body of the blade of the teeth of saws. 2. Adjustment or alignment. 3. Binding two pieces together.

Set-screw. A screw that binds or secures two pieces together by being screwed through one piece and against the other.

Shafting-rest. A slide rest carrying several cutting tools and usually employed for turning shafting in the lathe.

Shafting-rest. A slide rest carrying several cutting tools and usually employed for turning shafting in the lathe.

Shake. A crack in timber.

Shank-mill. A milling machine cutter that is provided with a shank or stem.

Shaper-centres. A chuck in which the work is held between centres.

Shaper or shaping-machine. I. A machine for cutting such surfaces on iron work as can be cut by a tool travelling in a straight line. 2. A woodworking machine in which cutting tools are revolved on an upright spindle projecting above a work table.

Shavings. The cuttings from a paring tool.

Shell. I. The body of a steam-boiler. 2. An outer casing.

Shell-reamer. A short reamer that is driven by fitting to a coned mandrel.

Shimer-heads. A form of cutter head for wood-working machines, in which circular cutters are used. Shingle saw. A saw thick in the body and beyeld off for about two or three inches of its outer diameter.

Shooting-board. A device upon which pieces are held when required to have their ends dressed to

exact shape or angle.

Shrink age-fit or contraction-fit. of securing two pieces together by leaving the hole of one too small to receive the other, and then expanding the piece containing the hole so that it will go on and bind fast as it cools and contracts.

Side-chisel. A machinist's chisel shaped to cut on the sides of slots or keyways, and having its cutting

edge on one side of the end facet.

Side-tool. A tool used to cut the ends of lathe work that is held between the lathe centres.

Single-geared lathe. A lathe in which there

Single-riveted joint. A joint having but one row of rivets in a lap joint and one row of rivets on each side of the plate joint in a butt joint.

Single-thread. A screw thread having a single

spiral.

Skew-bevel. A bevel gear wheel in which the teeth sides do not form lines radiating from the wheel centre, but point to one side of it.

Skew-chisel. A carpenter's chisel in which the cutting edge is not at a right angle to the body of the

Skew-cutter. A cutter in which the cutting edge does not stand parallel to the axis of the shaft that drives it.

Slab. 1. A rough square piece of iron forged from scrap. 2. The first piece cut from the side of a log of wood.

Sleave.

wood.

Sleeve. An enveloping piece that is usually cylindrical and too long to be termed a ring.

Slide-valve. The valve that governs the admission of steam into and its exhaust out of a cylinder.

sion of steam into and its exhaust out of a cylinder.

Slot. A rectangular passage or hole passing entirely through the material.

Slotting-machine. A machine having a vertical bar or ram that carries the cutting tool on its lower end and has a vertical reciprocating motion.

Smooth-file. The finest cut of file that is made

for ordinary use.

Smoothing-plane. A carpenter's short plane for producing a smooth surface.

Socket. A piece that is hollow and receives an-

Socket-wrench. A wrench that envelops the

whole of the head of a bolt.

Solid milled cutters. Cutters for woodwork, in which an irregular shaped cutting edge is obtained by recesses cut in the flat face of the cutter.

Space or spaces. The opening between the teeth of gear wheels.

spanner. A form of wrench.
Spindle. A shaft that is used to transmit purely rotary motion, and that is usually of small diameter in

rotary motion, and that is usually of small diameter in proportion to its length.

Spiral cutter. A milling cutter having its teeth cut spirally and not parallel to the axis of its bore.

Spiral head. A device for holding work and revolving it in a milling machine.

Spirit-level. An instrument in which an air-space or bubble is utilized to disclose whether the surface upon which the spirit level is laid is horizontal.

Spline. A long feather-way.

Split-pin. A pin that is split so that its end can be opened out to prevent its coming out of place.

Spoke. The arm that connects the hub of a wheel to its rim or felloe.

Spoon-bit. A wood-boring tool that is shaped somewhat like a gouge.

Spring. 1. A piece of elastic metal. 2. The movement or deflection of a piece of metal on a tool, by its own weight or from the strain placed on it.

Spur. A sharp cutting edge placed on some kind of wood-cutting tools to sever the fibre before the cutting edge removes the wood cuttings.

Spur-wheel. A gear-wheel having its teeth upon its circumferential surface.

Square-centre. A lathe centre having four cutting edges at its coned end.

Square thread. A screw-thread that is rectangular in cross-section.

Stanchion (stăn'shun). A vertical frame.

Standing-bolt. A bolt that screws into the

gular in cross-section.

Stanchion (stan'shun). A vertical frame.

Standard. An upright piece.

Standing-bolt. A bolt that screws into the work, and does not therefore require a nut.

Stave. I. A piece that forms part of a hollow wooden casing. 2. A pin on a gear-wheel that has pins instead of teeth.

Steady-rest or back-rest. A device for steadying work in the lathe.

Steam-boiler. A boiler used to generate steam and hold it at a pressure above that of the atmosphere.

Steam-hammer. A forging machine in which the hammer is raised or lifted by steam, and is sometimes also forced downwards by steam.

Steam-space. That part of the boiler that is above the level of the water.

Sticker. A machine that operates on wood of small cross-sectional area in proportion to its length, such as picture frame moulding.

Stock, Material.

Stocks-and-dies. Tools for cutting external threads by hand.

threads by hand.

Stop. 1. A piece that arrests the motion of another piece. 2. A part of a gauge, against which the work

abuts.

Stop-motion. A device for preventing the overwinding of clocks and watches.

Straddle-mills. Milling-machine cutters that are used in pairs and straddle the work, both cutters being of the same diameter.

Straight edge. A piece or strip having one or both edges made straight to use as a guide in testing work.

Stub end. The end of a connecting rod.

Stud r A bolt that screws into the work at one

Stub end. The end of a connecting rod.
Stud. 1. A bolt that screws into the work at one end and receives a nut at the other. 2. A piece that screws into the work at one end.
Stuffing-box. The box in which a gland fits.
Surface-plate. A plate having a true flat surface to test the flatness of work by.
Swage. A blacksmith's tool for smoothing and shaping surfaces.
Swing-frame. A frame having a movable stud for carrying the change gears of a lathe.
Swing-saw. A saw that is suspended in a swinging frame.
Swivel-vise. A vise that may be swiveled or revolved upon its base plate.

revolved upon its base plate.

Tortee. A pipe fitting having two bores at a right angle, one to the other

Tailstock or tailblock. That part of a lathe that carries the dead centre.

Tangent-wheel. A wheel whose teeth are formed to work with a screw or worm.

Tap. I. A tool for cutting threads in holes or bores. 2. A device for shutting off or turning on the flow of water through a pipe.

Tape-tap. A tap that has part of the thread turned off in order that it may enter the hole easily and start to cut the thread. It is sometimes termed the first tap.

first tap.

Tapped. r. Threaded internally. 2. Having a connection that branches from the main pipe or flow.

Target. A frame used in setting shafting in line.

Temper. r. The degree of hardness that has been imparted to steel by heating and suddenly cooling it.

2. A term employed by steel makers with reference to the percentage of carbon contained in steel.

Tempering. Tempering consists in reheating hardened steel and thus modifying or reducing its degree of hardness.

Template or Templet. A piece of metal made nape, to serve as a pattern for one or more of the k surfaces.

Thread-gauge. A threaded cylinder or bore that serves as a standard of reference for the shape and diameter of a screw thread.

Threading-tool. A tool for cutting screws in

Throw-line. The travel of a piece, moved by **Thumb-nut.** A nut so shaped that it may be

rewed up or unscrewed by hand.

Tight. A term used to denote those parts of a plate or saw that are under undue tension, and prevent the

or saw that are under thank tensor, and other parts of the plate from lying flat. **Timber-planer.** A wood-planing machine for thick work, usually having side heads as well as cutter

thick work, usually naving side received bars.

Tire. The iron band surrounding a wheel rim.

Tit-drill. A drill having a point or teat, and employed to cut flat-bottomed holes.

Tool-post. The device employed in a slide-rest to grip the cutting tool.

Train. An arrangement of gear wheels in which there are more than two gear wheels employed.

Trammels or tram. A device for measuring distances too great to be measured by ordinary compasses.

passes. **Trip-hammer.** A forging machine in which the helve or hammer holding beam is tripped by a re-

Trundle. A gear-wheel having rungs in place

Trying-up. A term usually employed to indicate that the work is accurately done or fitted.

Try-square. A tool having a rectangular back, and a blade whose edges are a right angle to the edges of the back.

of the back.

T Slot. A slot or groove, shaped to receive a bolt head and prevent it from turning when the nut is

screwed up.
Turnbuckle. A socket that receives and holds

Turnbuckle. A socket that receives and holds the ends of two rods and permits either to be revolved independently of the other or the socket to be revolved without revolving either rod.

Turret-lathe. A lathe in which a revolving head or turret carries the cutting tools.

Tuyere (twē'ar). The nozzle through which air is forced into a blacksmith's fire, a furnace or a cupola.

Twin-mills. Milling cutters that are used in pairs, and have teeth on their side faces as well as upon the circumference.

Twist-drill. A drill having a spiral flute along it.

Twist-hammer. A sawmaker's hammer having its two faces parallel, so that by turning it over in the hand its marks will be in opposite directions.
Two-jawed chuck. A chuck having two

Universal chuck. A chuck in which the jaws move simultaneously

Universal joint. A joint or connection that permits a piece to be moved about in any required diction. Universal milling-machine.

Universal mining-machine. A mining-machine that is capable of cutting spirals, and is provided with an index head.
Upright. A vertical post or frame.
U. S. standard thread. A V-shaped thread having a flat place at the top and bottom.

Verneer (vër'ni-er). A measuring device in which two sets of lines of division are employed, one set being narrower spaced than the other, but so spaced that in a certain number of divisions the two end lines of each piece measure exactly alike: this provides a means of making a minute measurement.

Vise. A work-holding device in which one jaw is movable amd the other stationary.

Vise-clamp. A piece of metal placed on the vise jaw and passing between it and the work to prevent the jaw teeth from indenting the work.

V-thread. A V-shaped thread, sharp at the top and bottom.

Warding file. A thin file suitable for filing out the wards of the keys of door locks, etc. Washer. A perforated disc of metal, usually forming a scating for some other piece as a rest or a

forming a seating for some other piece as a pin.

Wheel lathe. A lathe for turning wheels.

Whitworth's quick-return motion. A mechanism employed to move a cutting tool faster on its return than on its cutting stroke.

Whitworth's thread. A screw thread designed by Sir Joseph Whitworth, and having a rounded top and bottom.

Winding strips. A pair of straight edges, used to detect any wind or twist in surfaces that ought to be parallel.

Wing-nut. A nuthaving wings so that it may be screwed up with the fingers.

Wing-nut. A nut having wings so that it may be screwed up with the fingers.
Wire-gauge. A gauge having notches in it that are standards of size for wire, for the thickness of sheet metal, for screws, etc., etc.
Worm-wheel. A wheel whose teeth are formed to work with a worm or screw.
Wrench. A tool for turning nuts, etc.

Yoke. A piece that embraces two other pieces to hold them together, or adjust their distance apart.