

**A**

**DICTIONARY**

**OF**

**LOCKSMITHING**

**By KEITH MAYERS**

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**NOTE:**

**The user will find information related to technical terms defined in this dictionary by following references given at the end of the individual dictionary entries. Technical terms found in the text of an entry are defined separately under their own individual entries. A careful search will provide a full picture of the meaning of a given term.**

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ISBN 0-9604860-0-3

Printed in the United States of America

(Reprinted 1996)

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**The author thanks  
MR. WALTER TIEDEMAN  
Former Chief Instructor  
Locksmithing Institute of America  
for his careful reading of the  
manuscript and for his many  
valuable suggestions for the  
improvement of this dictionary.**



**ACE LOCK** – A high quality lock with pin tumbler chambers arranged in a circle instead of a straight line as they are in a standard cylinder. Ace locks use tubular keys and have a shear line parallel to the face of the lock. The name comes from the trade name of the most popular lock of this type. Also called tubular lock.

**ACTIVE DOOR** – Of a pair of double doors, the door which opens first and which holds the locking mechanism. Also called the active leaf.

**ADJACENT KEY CUT** – One of at least two key cuts which are next to each other on a key blade.

**ANODIZING** – The electrostatic depositing of a corrosion-resistant film of oxide on the surface of aluminum and its alloys, as in anodized keys.

**ANTI-FRICTION LATCH** – A special latch designed to reduce the pressure needed to push a door closed. A small trigger hits the strike ahead of the main portion of the latch and exerts lever action to retract the latch. Also called a swinging latch bolt.

**ANTI-PICK LATCH** – See deadlocking latch.

**ANTI-SHIM SPRINGBOLT** – Another name for deadlocking latch.

**ANTI-THRUST BOLT** - A springbolt on a night latch which cannot be pushed back into the latch once extended, although it can be retracted by the key or by the turn knob.

**ANVIL** – That stationary part of a key micrometer which fits into a key cut when it is measured. See also thimble, sleeve and spindle.

**APARTMENT FUNCTION LOCK** – A lockset in which inside knob works latchbolt, retracts deadbolt and releases stop button; outside knob works latchbolt unless locked by stop button or outside key; inside turnpiece and outside key work deadbolt.

**ARBOR** – A bar or shaft, usually threaded at one end, for holding cutting tools, such as hole saws, so they can be rotated in drills, lathes and other machines.

**ARMORED FACE PLATE** – A double face plate, one plate of

which is a scalp to cover the mounting screws. Also called an armored front.

**ARMORED FRONT** – See armored face plate.

**ASSOCIATED MASTER KEY** – A master key related to a block of change keys which cannot be used with other master keys in a master key system without creating uncontrolled cross-keying.

**ASTRAGAL** – A molding to cover the gap between a pair of meeting doors.

**ASYMMERRICAL DOUBLE WING KEY** – A double wing key with each of its two bits cut differently so that it will work its lock only when inserted into its keyway in the one correct manner.

**ATTENDANT'S KEY** – Key symbol ATT. A selective master key used by attendants in mental institutions to lock and unlock patient rooms in various buildings under different master or grand master keys.

**AUGER DRILL BIT** – A drill bit, used in a brace, with deep spiral channels, for boring holes in wood; replaced for the most part by spade type and twist type drill bits used in electric drills.

**AUXILIARY BOLT** – The anti-thrust bolt of a deadlocking latch which automatically deadlocks the latchbolt when its door is closed.

**AUXILIARY CYLINDRICAL LOCK** – A door lock, with a bolt and either two cylinders or one cylinder and a thumb turn, designed with round housings so that drilled holes can replace mortises. Sometimes called a tubular deadlock.

**AWL** – A pointed instrument, usually with a handle, for punching small holes in soft materials like leather or wood, or for making scratch marks on harder materials.

**BACK PLATE** – The plate used to clamp a rim cylinder to a door. Also called a retainer or retaining plate and, sometimes, a false back plate. The tailpiece passes through the back plate to transmit the turning motion of the key to the bolt. Also, a plate attached to the inside of a door to finish off a letter drop opening. Also, the plate

which closes off the back of a night latch.

**BACKSET** – The distance from the edge of a lockset's faceplate to the center of its keyway.

**BALL CATCH** – See friction catch.

**BAR** – That portion of a lever tumbler which is cut in two by the gate through which the fence passes from one pocket to the other.

**BAR LOCK** – A lock which secures one half of a sliding glass door or window by insertion of a steel bar horizontally across the non-operating door to jam the sliding element of the door against the door frame.

**BARREL** – Another name for a cylinder plug. Also, the hollow shank section of a barrel key.

**BARREL KEY** – A bit key with a hollow shank, or stem, which fits on a post in a lock and positions the bit as it turns. Also called a hollow post key or a pipe key.

**BARREL POST** – A round pin fixed to a lock case to support a barrel key as it turns in the lock. Also called a drill pin.

**BELLY** – Another name for the lift radius of a lever tumbler.

**BEVEL** – See door bevel, lock bevel.

**BEVELLED BOLT** – See springbolt.

**BEZEL NUT WRENCH** – A double ended wrench used for removing a special nut on certain small locks, such as some automobile locks and some cabinet locks.

**BICENTRIC CYLINDER** – A cylinder with two plugs, often used in large, multi-level, high security master key systems. Bicentric cylinders usually have geared tailpieces connecting the two plugs. The correct key in either cylinder will open the lock.

**BIT** – The section of a key which enters a lock, which has the key cuts formed in it and which engages the bolt or tumblers of the lock. The bit is called a blade in the case of a cylinder key. See also drill bit.

**BIT HEIGHT** – The dimension of a bit from the post to the top edge of the bit, that is, to the edge most distant from the post of the

key. See also bit thickness and bit width.

**BIT KEY** – A key with a blade, called a bit, which projects from the side of a round shank near the tip and on which are made key cuts to clear the wards on a warded lock. Also called a wing key.

**BIT KEY LOCK** – A lock which uses a bit key; a warded lock.

**BIT THICKNESS** – The dimension of a bit which is smaller than the diameter of its post. See also bit height and bit width.

**BITTING** – A depth of key cut on a cylinder key, expressed as a number, called an equivalent. Also, the combination of key cuts on a bit key.

**BITTING INCREMENT** – See increment.

**BIT WIDTH** – The dimension of a bit which runs parallel to the post of the bit key. Since it is often the longest dimension of the bit, the bit width is sometimes erroneously called the length. See also bit height and bit thickness.

**BLADE** – The segment of a key which enters the keyway of a lock and has key cuts machined into it. On a bit key the blade is called a bit.

**BLANK** – An unfinished key as it comes from the manufacturer, with keyway grooves, in the case of cylinder keys, but without key cuts. Also called a key blank.

**BLOCKING LEVER** – See trap lever.

**BODY PULLER** – A tool for quickly removing automobile ignition locks from steering wheel columns when they have to be replaced and when damaging them is of no consequence. Also called a slapper.

**BOLT** – The part of a lock which slides part way out of the lock case to fasten the lock to its strike, shackle or other restraining member.

**BOLT HEAD** – The portion of a bolt which projects from a door lock into the door frame.

**BOLT TAIL** – The section of a bolt fixed to the bolt head which secures the bolt in its lock and which is usually notched for throwing and retracting the bolt.

**BOLT WIRE** – A bolt tail made of round rod.

**BOND** – An agreement under which an insurance company agrees to pay a customer for financial loss caused by a locksmith's failure to perform a contract or by his negligence or error in judgment.

**BONDED LOCKSMITH** – A locksmith who has taken out an insurance policy to protect his customers financially from his mistakes.

**BOND BOX** – A removable metal box which fits inside a safe deposit box to hold the renter's valuables.

**BORING JIG** – A guide for the accurate drilling of mortises for installing mortise locksets in doors. A good boring jig can be adjusted for door thickness and depth of mortise.

**BOTTOM PIN** – A cylinder pin tumbler, usually tapered or rounded at the lower end, with a length which corresponds to one of a lock's bittings. The bottom pin occupies the lowest position in one of a cylinder's pin chambers. The correct key lifts the bottom pins to the shear line so the plug can turn and open the lock. Also called the lower pin.

**BOW** – The handle, or head, of a key. On a cylinder key, that part beyond the shoulder which does not enter the keyway and by which the key is held and turned.

**BOX OF WARDS** – A complete, self-contained system of wards ready for installation in some locks and safes; popular in past centuries but no longer in use.

**BOX STRIKE** – A strike which is installed on the exterior of a door frame and which completely houses a lock's bolt.

**BRACE** – A hand drill, made of steel rod with wood handles, curved like the outline of a top hat, used with auger and expansion bits for drilling large holes in wood and other soft materials. Electric drills have replaced braces for most commercial uses. Also, the steel bar of a brace lock.

**BRACE LOCK** – A door lock in which a cylinder and lock body mounted on a door controls a long steel bar, called a brace, which is anchored in a steel plate secured to the floor.

**BRASS** – A yellow-colored alloy of copper and zinc, usually two parts copper to one part zinc. Brass is harder and stronger than copper but still malleable and ductile.

**BRIDGE** – The plate which supports the wards in some two side locks .

**BRIDGE WARD** – A type of ward used in two side locks, with a plate, called the bridge, fixed in the center of the lock on cheeks for support.

**BROACH** – The pin in a lock which enters the barrel of a barrel key. Also, that part of the stem, or post, of a bit key which enters a socket to support the key as it turns.

**BROACHING** – A process of shaping an interior hole or slot in metal by pulling through the hole a toothed tool which scrapes away excess material. Broaching with locks is used primarily to form keyways.

**BRONZE** – An alloy of copper and tin. Usually ninety percent copper, bronze can be rolled and drawn. It is a common finish material on locks.

**BUILDING MASTER KEY** – A master key which opens most of the locks in a building.

**BULLET** – A side groove on the bit of a bit key, parallel to the post, cut into the key to clear a keyhole ward.

**BULL NOSE EDGE** – A door edge with a radius.

**BURGLAR-PROOF** – A description which means that entry into a secure area is virtually impossible without either explosives or unlimited time.

**BURGLAR-PROOF GUARD RING** - A ring of hardened steel installed around the head of a cylinder to prevent prying of the cylinder. Also called a shield ring.

**BURGLAR-PROOF SPINDLE** - A tapered or shouldered spindle on a combination lock, either hardened or with hardened pin inserts to prevent punching, pulling or drilling.

**BUTT HINGE** – A rectangular hinge, one half of which is mortised

into the edge of a door, the other half into the door jamb, so that both halves touch when the door is closed. Also called a butt

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**CABINET LOCK** – A small lock with pin or disc tumblers contained in a horn which is mounted through a hole in a cabinet or other piece of furniture. Cabinet locks are often also semi-mortise locks.

**CALIPER** – A precision instrument used to measure outside and inside dimensions of small objects, such as key cuts; available with either a vernier scale or a dial scale.

**CAM** – A piece of metal attached to the rear of a cylinder plug which rotates about the central axis as the correct key turns the plug, and moves the bolt or latch. Sometimes called a tongue.

**CAM LOCK** – A small cylinder lock, usually with disc tumblers, threaded on the outside circumference of its housing to accept a matching nut for fastening to a case or drawer, with a relatively large cam which acts as its bolt. The housing of a cam lock often has a flat to keep the lock from twisting as the key turns if its nut is loose.

**CAP** – The removable lid of a lock case, more commonly called the

cover. Also, a formed sheet metal cover, often plated, for the face of a cylinder, especially on certain automobile locks.

**CARBIDE TIP DRILL BIT** – A drill bit with a tip made of an especially hard material, called carbide, to penetrate especially hard alloys of steel or of steel which has been hardened by heat treatment. **CARD ACCESS** - A method of opening a lock by inserting a magnetic-coded, wallet-sized card into a slot in place of the traditional key in the keyhole. In some systems the card activates an electrical mechanism which retracts the bolt.

**CASE** – The housing for a locking mechanism.

**CASEMENT DOOR** – A hinged door which is mostly glass.

**CASEMENT WINDOW** – A window with its sash hinged at the side or at the top.

**CASE WARD** – A ward which is an inseparable part of the case of a warded lock.

**CASTING** – A method of making objects of a required shape by pouring molten metal into a mold and letting it cool until hard.

**CAST PADLOCK** – An inexpensive type of padlock in which the case is cast in a mold instead of being extruded, laminated or pressed out of sheet metal.

**CATCH** – Any of a number of small fasteners.

**CATCH BUTTON** – The button of a rim night latch which holds the latchbolt in a retracted position.

**CHAIN LOCK** – A door lock with a length of chain which bolts into a horizontal slot to permit the door to be opened part way for screening visitors.

**CHAIN PADLOCK** – A padlock with a chain permanently fixed to its case.

**CHAMBER** – One of a series of holes in either a cylinder plug or a cylinder shell which holds the cylinder's tumblers and springs. The chambers in the shell are called upper chambers, those in the plug, lower chambers.

**CHAMFER** – A beveled edge, usually at a 45 degree angle.

**CHANGE** – Each different combination which can be set to operate a given type of lock.

**CHANGEABLE LEVER** – See changeable tumbler.

**CHANGEABLE TUMBLER** – A combination tumbler used in safe deposit locks in which two geared parts, called the detent and the sweep, can move in relation to one another to change the tumbler setting when released by the change key.

**CHANGE KEY** – A key which opens and closes only one lock or a group of locks keyed alike, that is, with the same bittings. Also, a special key used to release the inner ring of a key change combination lock when setting the combination. Also, a special key, inserted from the rear, used to release the detents from the sweeps in a changeable tumbler safe deposit lock when changing the combination.

**CHANGE KEY PROGRESSION CHART** – A chart used to lay out all the combinations possible for the master key system with a given progression sequence. The combinations of bittings for the change keys and the master keys in the system are selected from among the possibilities listed in the change key progression chart. See also progression, progression formula, progression formula chart and progression sequence.

**CHANGING INDEX** – The index to which a combination is dialed when changing the combination of a combination lock. See opening index.

**CHEEK** – A support or guide for some moving member of a lock.

**CLASSROOM FUNCTION LOCK** - A lockset in which inside knob works latchbolt at all times; outside knob works latchbolt except when locked by key.

**CLEAN OPENING** – A skillful entry into a locked area.

**CLEARANCE** – The planned space between adjacent parts to allow for inaccuracies, called tolerances, in their manufacture.

**CLEVIS** – A U-shaped metal link with many uses, one of which is the fixing of a chain to a padlock.

**CLIPPER** – Another name for a code cutter.

**CLOSED TUMBLER** – See traveling lever.

**CLOSET FUNCTION LOCK** – A lockset in which both knobs work latchbolt; outside key works deadbolt.

**CLOSET SPINDLE** – A spindle with a turnpiece securely fixed to one end and room for a door knob at the opposite end, for use on the inside of closet doors.

**CODE** – A series of numbers or letters, representing a particular combination of key cuts, for making a new key for a lock without an existing key to copy. Also called a code number. Code can also mean a listing of code numbers for a particular group of locks, printed in a code book. See also derivative code and direct reading code.

**CODE BOOK** – A published listing of code numbers and their corresponding combination of key cuts for the locks of various manufacturers to enable a locksmith to cut a key for a coded lock without an existing key to copy and without taking the lock apart.

**CODE CUTTER** – A hand-operated key machine which cuts keys by punching out the key cuts according to a number of different pre-set spacings and depths which vary from manufacturer to manufacturer. Also called a clipper.

**CODE MACHINE** – A motorized key machine designed so that an operator can cut a key for any lock which has a code, without duplicating an existing key. One type of universal key machine uses sets of discs to set up the spacings and depths for the various types of locks. Another type of machine, which can also be used easily to duplicate existing keys, has micrometer settings for both key cut spacing and key cut depth.

**CODE NUMBER** – See code.

**COIL SPRING** – A wire spring wound into a helix. A coil spring may be either a compression spring (used in locks as a bolt spring, a pin tumbler spring, etc.) or a tension spring (used in locks to assist various parts to return to their rest positions).

**COLD CHISEL** – A chisel made of tool steel, an especially hard al-

loy, suitable for chipping and cutting cold metals as well as concrete. Cold chisels are especially helpful in safe work.

**COLD DRAWING** – See drawing.

**COLLAR** – See cylinder collar. Also, that portion of a T-handle or an L-handle cabinet lock which is attached to the door and in which the handle pivots and locks (see locking handle). Also, the shoulder of a bit key.

**COLLAR WARD** – The ward which encircles the round part of a keyhole in a bit key lock and helps support the post of the key. Also, the ward cut on a bit key which corresponds to the collar ward of the lock.

**COLOR CODING** – Bottom pins and master pins for pin tumbler locks are color-coded for ease of handling. Pin makers color their pins in order of length, repeating their chosen sequence of colors if the number of increments for a given type of lock is greater than the number of colors they are using to dye the pins.

**COLORED PIN** – See color coding.

**COMBIMATE** – To set tumblers in a lock to match a given series of key cuts; that is, to set a given combination.

**COMBINATING** – The act of setting the tumblers in a lock to match a given series of key cuts.

**COMBINATION** – A series of key cuts and a matching series of tumblers set in a lock to permit opening only with the use of a key cut to match the series. Also, the sequence of numbers to which the dial of a combination lock must be turned as a result of the setting of its tumbler wheels.

**COMBINATION LOCK** – A keyless lock in which notched wheels are turned in a given sequence so that their notches will line up and allow the lock's bolt to move.

**COMBINATION LOCK CHANGE KEY** – See change key.

**COMBINATION LOCK TUMBLER WHEEL** – See wheel.

**COMBINATION TUMBLER** – One of a group of six to eight safe deposit lock lever tumblers which determine the combination of the

renter's key and part of the combination of the guard key. A combination tumbler may be either a fixed tumbler or a changeable tumbler. See also guard tumbler, trap tumbler; changeable tumbler, fixed tumbler.

**COMBINATION WAFER** – One of the three types of wafer tumblers of a popular cylindrical lock made by the Schlage Lock Co., designed so that the combination wafer stem falls within the circumference of the plug when there is either no key in the keyway or a key in the keyway which matches the combination set in the plug. There are four combination wafers used in the lock. See also master wafer, series wafer and wafer tumbler.

**COMMUNICATING FUNCTION LOCK** – A lockset without key in which both knobs work latchbolt; inside turnpiece works half of split deadbolt; outside turnpiece works other half of split deadbolt.

**COMPARATIVE LISTING** – A list of the key blank numbers of one manufacturer which shows the corresponding key blank numbers for the same key blanks made by another key blank manufacturer. A number of such listings are usually found in the back of key blank catalogs as an aid to the locksmith in identifying key blanks.

**COMPOSITE METAL FACE DOOR** – A door with a solid core bonded to a metal facing.

**COMPOUND LEVER** – A lever tumbler with two lift radii to permit master keying.

**COMPRESSION SPRING** – A spring that stores energy when its ends are squeezed together, as opposed to a tension spring which stores energy when its ends are stretched apart.

**CONNECTING BAR** – Another name for a tailpiece.

**CONSTANT** – One of the bittings in the locks of a master key system which is the same for every lock in the system. In a well designed master key system at least two of the key cut bittings are constants.

**CONSTRUCTION BREAKOUT KEY** – A special key, cut for the sole purpose of driving the construction master pins in a series of

locks into side holes, permanently out of the regular pin chambers, so that the construction master keys will no longer work the locks. It insures the new owner against any loss of key control which might have occurred during construction of a building.

**CONSTRUCTION MASTER KEY** – A key which operates designated cylinders for a temporary period during construction and is rendered inoperative after the first use of the regular change key or of the construction breakout key. Either the regular change key or the construction breakout key will drive the construction master pin into its permanent place in a side hole.

**CONSTRUCTION MASTER PIN** – A special master pin which permits use of the construction master key during the construction of a building but which slips into a permanent side hole after the first use in the lock of the regular change key or of the construction breakout key.

**CONTROL BUTTON** – One of two buttons mounted flush with the face plate of a mortise lock for locking and unlocking the outside knob. Pushing in one button pushes out the other and prevents the outside knob or handle from retracting the latch. Pushing in the other button reverses the action of the first button. See stop.

**CONTROL KEY** – A key which operates the sleeve of an interchangeable core cylinder permitting the core to be withdrawn from the cylinder housing. See also removal key.

**CONTROL PIN** – A special pin tumbler used in certain interchangeable core cylinders to permit use of a secondary shear line called the control shear line.

**CONTROL SHEAR LINE** – The secondary shear line of certain interchangeable cores which controls the sleeve and its locking lug and thereby the removal of the core from its cylinder. The control shear line is the gap between the sleeve and the cylinder housing. A special key, called the control key, lifts the pins so that the control pins line up at the control shear line and permit the sleeve to turn and the locking lug to retract. See also operating shear line.

**CONTROLLED CROSS-KEYING** – Two or more keys under the same master key to operate one cylinder.

**CONVERSION CODE** – Another name for a derivative code.

**CORE** – Another name for a cylinder lock plug. Also, an interchangeable core or a removable core.

**CORRUGATED KEY** – A steel key with ridges and valleys stamped along the blade, parallel to the edges, to match a keyway.

**COVER** – A removable lid of a lock case. Also called a cap or, in a safe deposit lock, the horn plate.

**COVER ARM** – A part of a combination lock which raises the lever during combination changing so that the drive wheel can turn.

**COVERED ESCUTCHEON** – A keyhole escutcheon with a cover. Also called a drop escutcheon.

**CRANK** – A part of some mortise locksets which pivots on a post and transmits turning motion from the hub of the lock to the bolt.

**CREMONE BOLT** – A full length two-piece sliding bolt, operated by a central handle, which locks a door or window into its frame at both the top and the bottom.

**CROSS-KEYING** – The keying of locks so that two or more different change keys will operate one lock. Cross-keying is usually found in master key systems. Called cross suiting or interpassing in England.

**CROSS SUITING** – A British name for cross-keying.

**CURB POST** – A post, or stump, attached to the case of a safe deposit lock and on which the tumblers pivot.

**CUSTODIAN** – Another name for a vault attendant.

**CUSTOMER'S KEY** – An alternate name for a safe deposit box renter's key.

**CUT** – See key cut.

**CUTTER** – Another name for a key machine cutting wheel.

**CUTTING WHEEL** – The circular cutting tool for a key machine. Also called a cutter. See also milling cutter, rotary file cutter, slotting cutter, side milling cutter.

**CYLINDER** – The housing, plug and tumblers in certain pin and disc tumbler locks. Also, the cylinder housing itself. Cylinders are generally circular in shape but not necessarily perfectly round.

**CYLINDER COLLAR** – A decorative plate used between the head of a cylinder and a door. Also called a cylinder ring, a spacing collar and, simply, a collar.

**CYLINDER GUARD** – A plate installed in front of a cylinder to help prevent the wrenching of the cylinder from a door.

**CYLINDER HOUSING** – See housing.

**CYLINDER KEY** – A key which fits a cylinder lock. See also paracentric key.

**CYLINDER KEY FILE** – A special diamond-shaped file with two of its four angles formed to the included angle of a standard cylinder key keycut. Also called a keymaker's file.

**CYLINDER LOCK** – A lock for which the bolt is controlled by a cylinder.

**CYLINDER RING** – A decorative and sometimes tamper-proof, tapered collar which fits between the face of a cylinder and the door. Sometimes called a cylinder rose. See also cylinder collar.

**CYLINDER ROSE** – See cylinder ring.

**CYLINDER SCAR PLATE** – A plate used to cover oversized, chipped, cracked or scarred cylinder holes.

**CYLINDER SET SCREW** – The screw which holds a cylinder in place in its lock (usually a threaded cylinder in a mortise lockset).

**CYLINDRICAL LATCH** – See cylindrical lockset.

**CYLINDRICAL LOCKSET** – A lockset with the plug, the tumblers and the housing contained in the knob. Also called a key-in-the-knob lock, a lock-in-the-knob or, sometimes, a cylindrical latch. See also lock function.

**DEADBOLT** – A lock bolt without spring action, operated by a key or by a thumb turn.

**DEADLATCH** – See deadlocking latch.

**DEAD LIFT LEVER** – A lever tumbler with a gate cut as high as possible through the bar so that in its rest position the gate is in line with the fence. Any lifting of a dead lift lever will block the bolt.

**DEADLOCK** – A lock with a deadbolt but with no other bolt or latch.

**DEADLOCKING LATCH** – A latch or springbolt with a small antithrust bar mounted alongside, parallel to the main latch, which resists forcing. Also called an anti-shim springbolt, a deadlatch or, occasionally, an anti-pick latch.

**DECODER GAGE** – A gage used in reading the combinations of certain locks. Also called a tumbler gage. See also reading.

**DECODING** – Any of a number of techniques for determining the combination of a key, such as 1) searching through a code listing when a code number is known, 2) reading the size of the key cuts by micrometer, 3) reading the size of the key cuts with a depth gage, 4) reading the lock.

**DEPARTMENT MASTER KEY** – A master key which allows one department of an organization to open all locks to which it should have access, no matter where the locks are located.

**DEPTH AND SPACING GUIDE CHART** – A chart which shows the number of increments a manufacturer uses, the size of each increment, the spacing between each key cut and the spacing between the shoulder of the key and the first key cut. Depth and spacing guide charts list manufacturers' specifications for most popular locks.

**DEPTH GAGE** – See key depth gage.

**DEPTH GUIDE** – Another name for the key guide on a key machine. **DEPTH KEY** - One of a series of keys precut to the spacing and increment specifications of a given lock manufacturer to aid in cutting keys by code. Also called depth and spacer keys or guide keys, or depth and spacing keys.

**DEPTH OF KEY CUT** – The distance between the top edge of an uncut key blade and the root of the key cut.

**DERIVATIVE CODE** – A code series which uses the same list of

combinations as some other code series and for which the individual codes are obtained by adding or subtracting a fixed number from the other code series. Also called a conversion code. See also code and direct reading code.

**DETECTOR LEVER** – See detector lock.

**DETECTOR LOCK** – A lever lock with a special lever tumbler, called a detector lever, which, when lifted by a false key or by a lock pick, will catch in its lifted position and prevent the bolt from moving so that the owner can tell that someone has tampered with the lock.

**DETENT** – The upper lever of a safe deposit lock changeable tumbler, with teeth which separate from matching teeth in the lower lever, called the sweep, when the change key is turned. When the detent and the sweep are separated, the sweep can move to a new setting for a different renter's key.

**DIAL** – A combination lock part, calibrated by number, which is turned in a set sequence to a certain combination of numbers to open a combination lock.

**DIAL CALIPER** – A caliper on which fine gradations of size are read on a dial instead of on a straight line vernier scale.

**DIAL RING** – The safe combination lock part which encircles the dial and on which the various indexes are stamped. See also opening index, changing index and L.O.B.C. index.

**DIE** – The larger of two matched cutting tools which supports material to be cut while the smaller tool, called the punch, shears the material and discards the scrap through a similarly shaped hole in the die. Also, a cutting tool with internal cutting threads for cutting external threads on round shafts. Also, a form for making castings.

**DIECASTING** – A form of casting in which molten metal is poured into a die to give it shape.

**DIE STAMPS** – Hardened steel stamps shaped as letters and figures, used by locksmiths to impress codes onto the bows of keys. Locksmiths also use special stamps for master keying, “Do Not Du-

plicate” and “Master.”

**DIFFER** – The British name for bitting.

**DIRECT DIGIT CODE** – Another name for a direct reading code.

**DIRECT READING CODE** – A special code in which a lock’s combination is apparent in the numbers selected for the code. Special instructions are usually needed to decipher the combination from the code. For example, a direct reading code may contain the combination of key cuts in reverse order.

**DISC TUMBLER** – One of a number of spring-loaded flat plates positioned in slots in a cylinder plug. The disc tumblers project across a shear line until retracted by a properly cut key which overcomes spring pressure and allows the plug to turn in its housing. Disc tumbler gates are either rectangular punchings in the centers of the discs or notches in the sides.

**DISPLAY KEY** – A key which permits the occupant of a room to lock the door from the outside against the use of all other keys except an emergency key; used in hotels.

**DIVIDED BOLT** – A two-piece deadbolt in a communicating door lock. One half of a divided bolt can be worked from one side of the door only, the other half of the bolt from the other side of the door only.

**DOG** – A lock part which holds another part in place in some locks or prevents its movement. See locking dog.

**DOGGING KEY** – A wrench with a hexagonally shaped cross section on its business end, used to release a retracted panic bolt. Also called a dog key.

**DOOR BEVEL** – The inside-to-outside angle of the lock edge of a door. The common bevel for heavy doors—one-eighth of an inch for every two inches—is needed so that the leading edge of the door will clear the frame in a close fit. See also lock bevel.

**DOOR CHECK** – Another name for a door closer. Also, a device used along with spring hinges to prevent the slamming of a door.

**DOOR CLOSER** – A device used to automatically complete the

closing of a hinged door once the door has been pushed by hand. Usually a strong spring enclosed in a cylinder pulls the door closed while a piston pushing oil through a vent hole retards the closing to prevent slamming.

**DORMITORY FUNCTION LOCK** – A lockset in which inside knob works both latchbolt and deadbolt and unlocks outside knob at all times; outside knob works latchbolt except when locked by outside key; both inside turnpiece and outside key work deadbolt.

**DOUBLE ACTING DOOR** – A door with a pivot hinge which swings ninety degrees in either direction.

**DOUBLE ACTING TUMBLER** – The common lever tumbler with a gate connecting two pockets. If the lever tumbler is either too high or too low, the fence cannot pass through the gate and the bolt will not open. See also single acting tumbler.

**DOUBLE BEVELED EDGE** – A door edge beveled to the center from each edge.

**DOUBLE-BITTED CYLINDER** – A cylinder with a series of disc tumblers, held together in a pack, which follow the wave pattern of the cylinder's key in order to clear the shear line of the lock.

**DOUBLE-BITTED KEY** – A key with key cuts along both edges of its blade. Also called a double-sided key. See also single-bitted key.

**DOUBLE BOLT LOCK** – A lock with two bolts, usually deadbolts.

**DOUBLE CUSTODY LOCK** – A safe deposit lock which opens only when two different renter's keys are used in sequence.

**DOUBLE CUT** – Two adjacent key cuts of the same depth, often with a closer spacing than the other key cuts of the key, without an obstruction to divide the two key cuts.

**DOUBLE D PUNCH AND DIE SET** – A punch and die set for cutting holes to accept cam locks which are round except for two flat areas opposite one another. See also single D punch and die set.

**DOUBLE HORN LOCK** – A lever tumbler safe deposit lock with two keyway tubes, called horns, projecting out of the front of the

lock, one for the renter's key and one for the guard's key.

**DOUBLE-SIDED KEY** – A key with key cuts along both edges, sometimes to work two sets of tumblers but often so that the key will work a single set of tumblers no matter which edge is up. Also called a double-bitted key.

**DOUBLE THROW LOCK** – A lock which needs two revolutions of its key to extend its bolt completely and two revolutions to retract the fully extended bolt.

**DOUBLE WING KEY** – A wing, or bit, key with two bits, often on opposite sides of the post.

**DRAWBACK LOCK** – A rim lock with a sliding handle, called a drawback handle, to retract the springbolt.

**DRAWING** – A process whereby a cold metal bar takes its size and shape from the opening in a die through which it is pulled. Also called cold drawing. Wire is usually cold drawn.

**DRIFT PUNCH** – A round tool with a blunt point for driving nails and pins when struck with a hammer. See pin punch.

**DRILL BIT** – A cutting tool with an edged or pointed end which makes holes when turned at the correct speed into a piece of material, such as wood or metal. The main types of drill bits are twist drills, spade bits and auger bits.

**DRILL PIN** – Another name for a barrel post.

**DRIVE CAM** – Another name for the drive wheel.

**DRIVER** – Another name for a top pin. Also, another name for the trunnion of a safe deposit lock. Also, another name for the drive wheel of a combination lock.

**DRIVER PIN** – The lug on the drive wheel of a combination lock which engages the tumblers as the combination is dialed. Also, another name for the top pin in a pin tumbler lock.

**DRIVE WHEEL** – The small wheel in a combination lock, connected directly to the tumbler post, which engages the tumbler wheels by means of a lug, called a driver pin, as the combination is dialed. The drive wheel is also called a driver.

**DROP ARM** – Another name for the lever of a combination lock to which the fence is attached.

**DROP BOTTOM COMBINATION LOCK** – A combination lock in which the lever nose is pushed into the notch of the drive cam from the bottom of the lock by a counterweight, when the notch and the nose are lined up.

**DROP ESCUTCHEON** – A key plate with a pivoted keyhole covering.

**DUCE'S SPINDLE** – A square door spindle threaded at one end and used with a Mace's rose.

**DUMMY CYLINDER** – A cylinder with no working parts, used for appearance, such as to make a lock installation symmetrical on a pair of double doors or to hide the removal of a lock by a previous tenant of an apartment.

**DUMMY LEVER** – A stationary, gated lever in a safe deposit lock with neither spring nor lift radius.

**DUMMY PLATE** – One of the laminations of a laminated padlock which has a clearance hole for the key to pass through and which serves to fill out the body of the padlock.

**DUMMY TRIM** – Lock fittings without the lock, used on the inactive door of a pair of doors to create balance.

**DUPLICATE** – A key made by copying an existing key.

**DUPLICATOR** – Another name for a key machine.

**DUST CAP** – A keyhole cover with a spring-loaded shutter, used frequently on automobile door and trunk locks.

**DUTCH DOOR** – A door split into upper and lower halves, usually with the primary lock in the lower half and a surface bolt mounted vertically in the upper half to lock the two halves together.

**EAR** – Another, less common, name for the shoulder of a key.

**EASY ACTION** – The British term for easy spring.

**EASY SPRING** – The arrangement of springs in a lock, especially in a lock with the unbalanced weight of a lever handle, to insure that

a minimum of effort will open the lock.

**ELECTRIC STRIKE** – A strike which retracts automatically when activated electrically from a distant point to allow a door to open without turning the knob.

**EMERGENCY KEY** – A top level master key which will open all locks at all times, even if they are locked from the inside. Emergency keys are used primarily with hotel locks which have a lockout feature, called shutout, for blocking entry by all other keys.

**ENCLOSED TUMBLER** – See traveling lever.

**END CAP** – A piece of metal, wood or plastic used to finish off a door with a recessed top or bottom edge.

**ENGINEER'S KEY** – Key symbol ENG. A selective master key, designed into a master key system and set to open locks also controlled by various other master keys, without cross-keying, thereby permitting maintenance people to enter areas they must enter without giving them the use of high level master keys.

**ENTRANCE WARD** – The first ward in the keyway of a lever lock which corresponds to the throat cut in the key.

**EQUIVALENT** – The reference number, from zero to nine or, sometimes, from one (through nine) to zero, which stands for the depth of key cut for a particular key cut for the lock of a given manufacturer. Also called equivalent biting depth. Equivalentents are found in code charts. When zero stands for no key cut, the depth of key cut which the equivalent represents is found by multiplying the biting increment by the equivalent number.

**EQUIVALENT BITTING DEPTH** – See equivalent.

**ESCUTCHEON** – A protective or ornamental plate, fixed to a door, drawer or cabinet, with cutouts for knob, handle and cylinder. Also called the escutcheon plate. See also drop escutcheon, keyhole escutcheon and thread escutcheon.

**ESPAGNOLETTE BOLT** – A full length door or window bolt with a hook at each end. The hooks engage locking plates attached to the frame when they are turned by the bolt handle. The bolt handle locks

into its own fastener.

**EXIT ALARM LOCK** – A lock which, even when locked on the outside, opens freely from the inside for emergency exit at the push of a handle, but which will sound an alarm when opened.

**EXIT DEVICE** – Another name for a panic bolt.

**EXPANSION DRILL BIT** – A drill bit used with a brace which can be adjusted to various diameters.

**EXPLORATORY CUT** – A cut made in a key to a trial depth in an effort to determine, by elimination, the combination of a master key.

**EXTENSION FLUSH BOLT** – A flush bolt with a rod connecting the bolt head to its control mechanism by a hole through the thickness of the door.

**EXTRACTOR** – See key extractor, screw extractor.

**EXTRUDED PADLOCK** – A padlock in which the case is formed from some material, usually metal, forced through dies under pressure while in a heat-softened state.

**EXTRUSION** – The process whereby a material, such as metal, in a plastic state, is forced through a hole in a die and keeps the shape of the hole if cooled at once.

**EZY-OUT** – See screw extractor.

**FACE** – The front surface of a lock cylinder perpendicular to the keyway at the point where the key enters the lock.

**FACE CAP** – A cover on the cylinder plugs of some locks. On automobile locks, face caps are usually chrome-plated. On other locks, face caps may have a variety of finishes, depending on the decorating scheme of the area in which the lock is used.

**FACE PLATE** – The part of a door lock through which the bolts extend and by which the whole lock, in the case of a mortise lock, or the latch, in the case of cylindrical lock, is fastened to the door. Also called a front, and, in England, a forend or selvedge.

**FAST PIN HINGE** – A hinge with a non-removable pin.

**FEATHER SPRING** – A V-shaped spring with an eye fashioned at the bottom of the V to fit over a stump in a lock.

**FEELER GAGE** – A measuring instrument either of specified thickness or with fixed openings for judging whether or not an object has a dimension within a specified tolerance.

**FENCE** – An upright metal pin attached to the bolt of a lever lock, or to the bolt of a combination lock, which passes through the gates in the levers when the correct key aligns the lever gates, or into the gates in the tumblers of a combination lock.

**FILE** – A hardened steel tool with ridges, called teeth, cut by a chisel across its surfaces, used for grinding away or smoothing various materials, such as metals.

**FILE CARD** – A special, short wire brush, with bristles set in a flat piece of wood, for cleaning metal chips from file teeth.

**FILE CUTTER** – See rotary file cutter.

**FILE TEETH** – The angular projections, or ridges, on the surface of a file, cut in various patterns into the steel of the file by a chisel before the steel is hardened. The edges of the file teeth are the cutting edges of the file.

**FINE WARD** – A type of bridge ward made out of sheet metal.

**FIRST GENERATION DUPLICATE** – A duplicate key made by copying an original key directly. Also called simply a duplicate. See also second generation duplicate.

**FILLER PLATE** – A blank plate for closing off mortised cutouts in doors.

**FITTING A FIRST KEY** – The technique of cutting a key to an existing combination in a pin tumbler lock when there is no matching key to duplicate. The locksmith removes the plug from the lock and then files each of the key cuts until he can see, by testing the key in the plug, that the top surfaces of the bottom pins line up with the circumference of the plug.

**FIXED PIN HAND CHANGE WHEEL** – A combination lock hand change wheel in which a pin is moved from hole to hole in

the wheel to change the combination. The screw change wheel is one type of fixed pin wheel.

**FIXED TUMBLER** – A safe deposit lock lever tumbler with an unchangeable setting. Also called a fixed lever or a non-changeable lever. While combination tumblers may or may not be fixed tumblers, guard tumblers and trap tumblers are always fixed tumblers.

**FLAT KEY** – A key, usually punched out of flat steel sheet and used in lever tumbler locks, without grooves on its blade and with spacings for key cuts measured from the tip rather than from the shoulder as in most cylinder keys.

**FLAT PIN** – A pin that is flat on top instead of being rounded. Most pin tumblers are flat pins with a slight chamfer around the circumference of the flat surface. .

**FLAT SLOTTER** – See slotter.

**FLAT SPRING** – A spring fashioned from flat spring steel, brass or bronze and bent into various shapes depending on use and location.

**FLOOR MASTER KEY** – A master key which operates most of the locks on a given floor of a building.

**FLOOR SOCKET** – See socket.

**FLUSH BOLT** – A locking bolt which, when installed on a door, is flush with the surface of the door.

**FLY** – A small ring with a lug projecting up from it, installed, together with a tumbler wheel, in a combination lock to engage a matching lug either on the adjacent tumbler or on the drive wheel. Also called a tumbler fly. See also fly stop and top fly.

**FLY BOLT** – See Nettlefolds lock.

**FLY STOP** – Either end of an arc-shaped slot in a combination lock tumbler wheel which limits the travel of the fly.

**FLY TALON** – A part on some lever locks mounted on a pivot below the keyhole and extending into the bolt talon to increase the throw of a bolt activated by a small key. The key passes through the center of the fly talon. See also talon.

**FOCUSING LIGHT** – See illuminated magnifier scope.

**FOLDING KEY** – A key which can be folded in half at a joint between the handle and the shank.

**FOLLOWER** – A plug follower. Also, a name used in England for a hub.

**FOLLOWING TOOL** – Another name for a plug follower.

**FOOT BOLT** – A bolt attached near the bottom of a door which locks into a hole mortised in the floor, is released by foot and held open by a spring.

**FORGING** – The process of shaping hot metal by hammering.

**FOREND** – The English name for the face plate.

**FRENCH DOOR** – One of a pair of full length doors with small panes of glass from top to bottom. Also called A French window.

**FRENCH SHANK** – An ornamental knob shank.

**FRENCH SPRING** – A flat-wire, coiled spring used in French door locks to hold the lever handle horizontal. Also called a gun spring.

**FRENCH WINDOW** – Another name for a French door.

**FRICTION CATCH** – A mechanical fastener with a spring-loaded ball inside a round mortise case to hold a door closed. Also called a ball catch. Friction catches are used mostly on cabinet doors.

**FRONT** – Another name for a face plate.

**FRONT DOOR LATCH** – A mortise lock for entrance doors; with deadbolt, latch and stop buttons.

**FUNCTION** – See lock function.

**FURNITURE** – Any lock or hardware fittings, either ornamental or protective. Also called trim.

**GAGE** – Any of a number of non-adjustable devices for measuring various specified dimensions, as a key depth gage.

**GAGE FORK** – Another name for a key machine shoulder guide.

**GATE** – The opening in a lever tumbler which allows the fence to pass and the bolt to retract when lifted by the correct key so that it lines up with the fence. The position of the gate on the lever determines the bitting of the key. Also called the gating or the gateway.

**GATEWAY** - See gate.

**GATING** – See gate.

**GRAND MASTER KEY** – Key symbol GM. A master key opening all the locks in a master key system, or in a sub-system, which is itself divided into two or more groups of locks, each group operated by a different master key. Sometimes grand master key means specifically a level six master key.

**GRAPHITE** – Powdered carbon crystals used to lubricate small lock parts.

**GRAPHITE GUN** – A dispenser for injecting powdered graphite into lock parts.

**GREAT GRAND MASTER KEY** – Key symbol GGM. A master key which opens all the locks in a large master key system divided into two or more groups of locks, each group operated by a different grand master key and further subdivided into other groups operated by different master keys.

**GROOVE** – One of several milled or stamped indentations running the length of the key blade of a cylinder key to clear the keyway wards of a lock.

**GROOVED KEY** – See paracentric key.

**GUARD BAR** – One of a series of cross bars for protecting glass or screen in a door.

**GUARD KEY** – The key used by a safe deposit box guard to prepare the safe deposit lock mechanism for opening when the renter of the box subsequently inserts his key. —

**GUARD TUMBLER** – A special type of lever tumbler used in safe deposit locks to prevent opening without use of a guard key with matching combination. In single horn safe deposit locks there are usually two guard tumblers mounted on the same curb post as the other tumblers. In double horn safe deposit locks there are usually five or six guard tumblers mounted on a separate curb post with key access through the second horn. The guard tumbler is also called the preparatory tumbler. See also trap tumbler, combination tumbler.

**GUIDE KEY** – Another name for a depth and spacing key.

**GUN SPRING** – See French spring.

**HAND CHANGE COMBINATION LOCK** – A combination lock which does not use a change key but which requires disassembly to change its combination. See also combination lock and hand change wheel.

**HAND CHANGE WHEEL** – A combination lock tumbler wheel in which the combination is changed by hand without use of a change key. There are three types of hand change wheels: the mesh change wheel, the hole change wheel and the screw change wheel.

**HANDING OF COMBINATION LOCKS** – The direction in which the bolt of a combination lock points, determined by the position of the spindle spline in relation to the bolt. There are four possible hands: right-hand horizontal (RH), left-hand horizontal (LH), vertical up (VU) and vertical down (VD).

**HANDING OF DOORS** – The direction in which a door opens, viewed from the outside as either left-hand or right-hand, depending on whether the hinges are on the left (left-hand) or on the right (right-hand). With left-hand reverse handing or right-hand reverse handing the door opens outward instead of the more common inward opening. The handing of a lock depends on the handing of the door. With many locks, the locksmith can change the handing to match the door.

**HARDENING** – A process whereby certain steels are heated to a precise temperature and rapidly cooled in order to cause a permanent rearrangement of their molecules and the resulting increase in resistance to penetration.

**HASP** – A two-piece fastener, consisting of a U-shaped link, sometimes called a staple, and a hinge with a slot in the longer portion cut to fit over the link.

**HEAD** – The front portion of a lock cylinder, including the face, which has a slightly larger diameter than the main body of the cylin-

der so that it forms a rim under which a cylinder ring is placed to prevent the face of the cylinder from slipping into its hole in a door. Also, a bolt head. Also, another name for a header.

**HEADER** – The top cross member of a door frame.

**HEEL OF A PADLOCK** – The end of a shackle which is secured in the padlock case even when the padlock is open.

**HEEL-AND-TOE-LOCKING PADLOCK** – A padlock with a shackle held locked by a bolt at each end.

**HEEL-LOCKING PADLOCK** – A padlock with a shackle held locked by a bolt at the fixed, or heel, end.

**HEIGHT** – See bit height.

**HIGH SECURITY CYLINDER** – Any of various types of lock cylinders manufactured to a high degree of precision and utilizing various special designs, such as mushroom drivers, angled key cuts and magnetic pins, to resist picking.

**HOBBS SHACKLE** – A pivoted shackle with a notch on the inside curve near the toe to accept the bolt.

**HOLE CHANGE WHEEL** – A type of combination lock hand change wheel for which the combination is changed by turning an inner ring and moving a spacer pin attached to it to a different hole in the perforated outer ring.

**HOLE SAW** – A cylindrical saw with teeth along the circumference of one end and an arbor mount on the other end for cutting large holes, as needed for installing cylinders and cylinder locksets in doors.

**HOLLOW MILL DRILL BIT** – A drill bit shaped with a hollow in its tip for cutting external cylindrical forms in various materials. Hollow mill drill bits are used by locksmiths for removing rivets.

**HOLLOW POST KEY** - Another name for a barrel key.

**HOOK BOLT** – A bolt which moves both out from the lock face plate and then either to one side or to the other, such as the bolt on most piano locks.

**HOOK WARD** – A type of wheel ward with a flange so that the

barrel key which passes it must have an L shape. See also wheel ward.

**HORN** – One of two projections on the hub of a lock to engage the bolt. Also, a round boss cast into the cover of certain locks, especially safe deposit locks and small cabinet locks, to contain the keyway. Also called the nose or the nozzle.

**HORN PLATE** – The cover of a safe deposit lock of which the horn is a permanent part.

**HOTEL FUNCTION LOCK** – A lockset in which inside turnpiece works deadbolt; inside knob operates both latchbolt and deadbolt change key and master keys release latchbolt, but only emergency key can retract deadbolt from the outside.

**HOUSEKEEPER'S KEY** – A grand master key which operates all hotel guest rooms, cleaning closets and linen closets, and any other rooms under the housekeeper's control. See also maid's key.

**HOUSING** – The external case of a lock. Also called the shell, or, in the case of a cylinder lock, called the cylinder housing.

**HUB** – A door lock part with a square hole in the center to accept the spindle and with two projections, called horns, to withdraw the lock's springbolt when turned by the knob. The hub is sometimes called a follower. Also, the part of a combination lock wheel into which the change key fits in order to lift the levers and release the inner wheel for changing the setting.

**HUB SPRING** – A piece of spring steel fitted to the hub of a door lock to return the hub and the lock's latch to rest position after release of the knob.

**IGNITION PULLER** – A tool for removing automobile ignition locks from steering wheel columns.

**ILLUMINATED MAGNIFIER SCOPE** – A small hand-held light with a built-in magnifying glass for examining keyways and other dark recesses. Also called a focusing light.

**IMPRESSIONING** – A technique of fitting a key to an existing

combination in a lock, without taking the lock apart, when no existing key is available to copy. The method involves binding the tumblers in their chambers with a turning action on an inserted key blank so that up and down or in and out movement of the blank will cause a small mark, called an impression, to appear along the top edge of the key blade for each of the bound tumblers. The locksmith files each key cut until impressions stop appearing. No impression at a key cut indicates that the tumbler has cleared the shear line, is no longer binding against the wall of the cylinder housing and that, therefore the key cut is the proper depth. When every key cut is so filed, the plug will turn and the lock will open.

**IMPRESSIONING TOOL** – Any of a number of special tools to aid in making clear impression marks along the top edge of a key blank.

**INCLUDED ANGLE** – The angle formed by the two slopes of a cylinder key keycut. See slope angle.

**INCREMENT** – An increase in the length of a pin or in the depth of a key cut; that is, the size difference, measured in thousandths of an inch, between the depth of one key cut and the depth of a key cut of the next closest possible size, according to manufacturer's specifications. Increments vary from one type of lock to another. Also called the biting increment, and, occasionally, the interval.

**INDEX** – A pointer to which a combination is dialed on a combination lock. To index means to measure from a certain point.

**INDICATING BOLT** – See indicator.

**INDICATOR** – A button on hotel guest room locks which moves in or out to show whether or not the room is occupied. Also, a button inserted into a safe deposit lock keyway to show unpaid rent or an unrented box. Also, the index on a combination lock dial ring.

**INNER RING** – A non-fixed, geared part of a combination lock tumbler wheel which determines the setting of that wheel and hence also determines part of the lock's combination.

**INTERCHANGE** – The ability of a key from one lock to open an-

other lock it was not meant to open. Interchange occurs most often in poorly master keyed systems because the combinations are uncontrolled.

**INTERCHANGEABLE CORE** – The removable unit of an interchangeable core cylinder which contains the plug, the sleeve, the tumblers and the upper chambers of the lock. See also interchangeable core cylinder, removable core and removable core cylinder.

**INTERCHANGEABLE CORE CYLINDER** – A cylinder, used in interchangeable core systems, in which the plug and tumblers form a separate unit, called the core, which is held in place in the cylinder by a special sleeve, also called the slide, operated by a control key. Interchangeable core cylinders permit a person to rekey a lock or a group of locks without special training by simply inserting and turning the control key, pulling out the old core and putting in a new core. See also interchangeable core, removable core and removable core cylinder.

**INTERPASSING** – A British name for cross-keying.

**INTERVAL** – A name, used primarily in England, for increment.

**JAMB** – The vertical member of a door frame or of a window frame which forms the side of the opening.

**JIGGLING** – See raking.

**JIMMY** – Any tool, such as a short crowbar, to provide leverage for jimmying open locked doors.

**JIMMY-RESISTANT LOCK** – A lock with a bolt which moves up or down into its strike instead of moving in and out of the door frame, so that prying the door will not release the bolt of the frame. Also called a jimmy-proof lock.

**KEEP** – The staple, or catch, mounted to a door frame, which receives the latch of a Suffolk latch when the door to which the latch is attached is closed.

**KEEPER** – Another name for a strike.

**KEEPER SLOT** – A slot in the collar of a locking handle which

holds the protruding section of the locking lug and keeps the handle from turning when locked.

**KEY** – An instrument, almost always portable, for opening and closing a lock by arranging the lock's tumblers according to a preset pattern of key cuts called a combination.

**KEY BITTING** – See bitting.

**KEY BITTING DEPTH** – The depth of the notch which is cut into the blade of a pin tumbler or disc tumbler key.

**KEY BITTING LIST** – A list of all the combinations of key bittings for both master keys and change keys used in a master key system, furnished with the system to allow proper servicing and control of the system.

**KEY BLANK** – See blank.

**KEY-BY-NUMBER** – A key made to a combination of key cuts found under a known code number in a listing of codes.

**KEY CHANGE** – See change.

**KEY CHANGE COMBINATION LOCK** – A combination lock for which the combination can be changed by inserting a key into a special hub to release the inner ring of the wheel. See also key change wheel and combination lock.

**KEY CHANGE NUMBER** – The code number, usually stamped on a change key, by which the recorded key combination is located.

**KEY CHANGE WHEEL** – A combination lock tumbler wheel in which the combination is changed by turning a change key one quarter turn to release the geared inner ring.

**KEY CODE** – See code.

**KEY CONTROL** – An organized method of recording, issuing, collecting and holding all the keys in a given building or group of buildings in order to maintain effective security.

**KEY CUT** – A square, rounded or V-shaped depression, filed or machined into a key, to allow the key to turn in its lock. In tumbler locks, the series of key cuts on a key causes the tumblers to line up at the shear line or gate so the lock will open. In warded locks, the

key cuts bypass the wards so the key can push or pull the bolt.

**KEY DEPTH GAGE** – A gage, usually with tapered cutouts, and indexed to match key depths for a specific lock, used to check the accuracy of key cuts on a key intended to fit the lock. Also called a key decoding gage.

**KEY DECODING GAGE** – Another name for a key depth gage.

**KEYED ALIKE** – A lock combination in which the same change key works two or more locks.

**KEYED DIFFERENT** – A lock combination in which a different change key is needed for each of two or more locks.

**KEYED-TO-PASS** – A lock combination in which a given lock will work with a limited number of different change keys or master keys or in which a given key will open a number of different locks.

**KEY EXTRACTOR** – Any of several thin tools used to remove broken key segments from a lock keyway, often homemade from spring steel wire, crochet hooks, fish hooks, coping saw blades and the like.

**KEY GUIDE** – A half-round metal tube which helps direct a bit key through a door into its rim lock. Also, an adjustable part of a key machine which follows the contour of a sample key while the cutting wheel recreates that contour on a key blank. Also called a depth guide or a profiler, it controls accuracy of key cut depth.

**KEYHOLE** – The opening in a lock to accept a key.

**KEYHOLE ESCUTCHEON** – A small, decorative escutcheon with a keyhole only.

**KEYHOLE LOCK** – A small pin tumbler lock used to block the keyhole of a warded bit key lock.

**KEYHOLE PLUG** – Another name for a keyhole lock.

**KEYHOLE WARD** – A projection into the keyhole of a bit key lock from the side of the keyhole which prevents a bit key from entering unless it has a side groove, called a bullet, cut along the bit width. The keyhole ward is usually part of the metal cover of the lock case.

**KEYING** – The choice of combinations for a lock or a group of

locks to meet certain requirements, such as keyed alike, keyed different, master keyed, maison keyed, keyed-to-pass.

**KEYING LEVELS** – The divisions of a master key system, each higher level operating more groups of locks than the next lower level.

**KEY-IN-THE-KNOB LOCKSET** – Another name for a cylindrical lockset .

**KEY-IN-KNOB LOCKSET** – Another name for a cylindrical lockset.

**KEY LOCKING DIAL** – A combination lock dial which has a separate keyed lock in its center to prevent rotation.

**KEY LOCKING DIAL RING** – A dial ring with a key lock to lock the dial in place and to prevent rotation.

**KEY MACHINE** – A machine designed for making key cuts. Also called a duplicator. The standard key machine has a rotating cutting wheel and a pair of joined, movable vises—one for a sample key and one for a key blank. The operator guides the sample key in one vise over an adjustable guide and the key blank in the other vise automatically passes and is shaped by the cutting wheel. See also code cutter.

**KEYMAKER'S FILE** – See cylinder key file.

**KEY MICROMETER** – A precision measuring instrument used to determine the depths of key cuts to within one thousandth of an inch. See also anvil, sleeve, spindle, thimble.

**KEY PLATE** – A small escutcheon with no hole other than a keyhole. Also called a keyhole escutcheon. See also drop escutcheon.

**KEY SECTION** – The shape of a key blade in cross section—that is, viewed in the plane perpendicular to the length of the blade—determined by the shape of the keyway it fits. Key blank illustrations show key sections as viewed from shoulder to tip. For a given key section, the milling of the key matches the broaching in the barrel, or plug, of the lock.

**KEY SECTION SERIES** – A group of key sections used together in the master key system to provide greatly increased numbers of key

changes by permitting a repetition of the same bittings on different key sections. Master keys are milled so they will enter some or all of the different keyways in the system. Each keyway in the series is called a sectional keyway.

**KEY SET** – The group of letters and numbers which identify an individual key in a master key system. See also symbol.

**KEY SLOT** – The opening in a disc tumbler which allows the key to pass and which is positioned on the disc so the correct key cut will align the disc with the shear line.

**KEY STOP** – The end of a flat steel key blade, and also of certain cylinder key blades, opposite the bow, which limits the travel of the key into the keyway, as does the shoulder on a standard cylinder key. The positions of the key cuts on blades of this type are indexed from the key stop. See also shoulder.

**KEY SYMBOL** – See symbol.

**KEYWAY** – The longitudinal milling or broaching in a cylinder plug, shaped to accept a key with the correct key section—that is, with matching grooves in the sides of the key blade.

**KEYWAY SHUTTER** – A cover which closes off a keyway when there is no key in it to keep out foreign matter or to prevent easy access to the keyway. The dust caps on the door and trunk locks of automobiles are examples of keyway shutters. Keyway shutters which often appear on old style bit key locks are called drop escutcheons.

**KNOB** – A round, or at least symmetrical, door handle, which usually turns to release a latch; used for pulling a door open and for pushing it closed as well as for freeing the latch.

**KNOB SHANK** – That portion of a knob which passes through the rose into the door. Also called the knob sleeve or the neck.

**KNOB SLEEVE** – Another name for a knob shank. Also, the removable back portion of the knob on certain cylindrical locks.

**KNOB TOP** – The grip of the knob attached to the shank.

**KNUCKLE** – The rounded part of a butt hinge which encircles the hinge pin

**LAMINATED PADLOCK** – A padlock made from a series of steel plates, called laminations, riveted together, with holes stamped through the plates to allow room for the shackle and the lock mechanism. Laminated padlocks are often warded padlocks.

**LATCH** – A door fastener, often a beveled springbolt, retracted by a knob or handle, but most often without a locking function.

**LATCHBOLT** – Another name for a latch.

**LATCH GUARD PLATE** – A steel plate bolted to a door to cover the gap between the door and the frame, in the vicinity of the latch and the strike, to prevent jimmying and loiding.

**LAYOUT BOARD** – Another name for a pin tray.

**LAZY CAM** – A cam which moves less than its cylinder plug.

**LEADING EDGE** – The vertical edge of a swinging door, opposite the hinges, through which the bolt protrudes.

**LEADING FACE** – The side of a door from which the hinge knuckles can be seen when the door is shut. See also trailing face.

**LEAF** – One member of a hinged double door or a hinged double window.

**LEFT HAND LOCK** – A lock used with a left hand door. See handing of doors.

**LEVEL ONE MASTER KEY** – A sub-master key of the lowest possible level which controls no more than four cylinders.

**LEVEL TWO MASTER KEY** – A sub-master key which controls cylinders set to any of 16 possible combinations in a master key system.

**LEVEL THREE MASTER KEY** – A master key which controls cylinders set to any of 64 possible combinations in a master key system. Also called a segment master key.

**LEVEL FOUR MASTER KEY** – A master key which controls cylinders set to any of 256 possible combinations in a master key system. Also called a quad master key.

**LEVEL FIVE MASTER KEY** – A master key which controls cylinders set to any of 1,024 possible combinations in a master key

system. Also called a section master key.

**LEVEL SIX MASTER KEY** – A master key which controls cylinders set to any of 4,096 possible combinations in a master key system. Also called a grand master key.

**LEVEL SEVEN MASTER KEY** – A master key, invariably the top master key, which controls cylinders set to any of 16,384 possible combinations in a master key system.

**LEVER** – A geared part of a combination lock tumbler wheel in a key change combination lock which locks the wheel's setting in place until the change key is inserted into the hub to release the gears of the inner ring. Also called the wheel arm. Also, that part of a combination lock to which the fence is attached and by which the bolt is retracted after the proper combination has been dialed. Also called a drop arm. Also, a lever tumbler. Also, the detent or the sweep of a safe deposit lock changeable tumbler.

**LEVER ACTION BOLT** – A flush fitting door or window bolt extended and retracted by swinging a lever with the thumb. The extended bolt fits into a hole in the head or the sill of the door or window frame.

**LEVER HANDLE** – A horizontal handle used in place of a knob to release the latchbolt on some doors.

**LEVER SPRING** – A flat spring fixed to the post end of a lever tumbler to keep the lever in the keyway.

**LEVER TUMBLER** – A flat metal, spring-loaded tumbler which pivots on a post and has a gate cut into it at one of various positions to permit the bolt fence to pass through as the bolt is retracted or extended with use of the proper key. The positions of the gates determine the combinations in lever tumbler locks.

**LIFT RADIUS** – The curved area on the bottom edge of a lever tumbler across which the root of the key cut moves when the key is turned. Also called the belly.

**LIGHT** – A compartment in a window which holds a single piece of glass, divided from other such compartments, if any, by mullions.

**LIP** – The mildly curved segment of a strike which protrudes beyond the edge of a door to protect the molding of the door frame and to help the latchbolt slip into place.

**L.O.B.C. INDEX** – The index to which a combination is dialed when removing the cover of some safe combination locks for repair or for combination changing. The initials, L.O.B.C., stand for locked on by combination.

**LOCATING BOSS** – A protrusion on some lock cases, especially safe combination locks, which insures proper alignment of the lock case in its mounting.

**LOCK** – A mechanism for fastening two or more objects together so they can be separated with relative ease only by those with proper authority.

**LOCK BEVEL** – The angle between the face of a mortise lock and the body of the lock which matches the angle of the door bevel. A lock has a regular bevel if the door opens in and a reverse bevel if it opens out. See also door bevel.

**LOCKING BOLT** – See locking dog.

**LOCKING BOLT SPRING** – A compression coil spring which pushes the locking bolts into their notches in the shackle.

**LOCKING DOG** – That part of a padlock which locks the shackle in place. Often called simply the bolt or the locking bolt.

**LOCKING GAS CAP** – A cap for an automobile gasoline tank with a lock cylinder mounted in its center which operates a double retracting bolt by means of a cam.

**LOCKFACE** – See face.

**LOCK FUNCTION** – The arrangement of the parts of a lockset so that certain of its control elements, such as the knob, the key and the thumb turn, will operate certain of its locking elements, such as the latch or the deadbolt, in a specified way. Lock functions are currently used primarily on mortise locksets and cylindrical locksets. See also apartment function lock, classroom function lock, closet function lock, communicating function lock, dormitory function lock, hotel

function lock, office function lock, passage function lock, privacy function lock and storeroom function lock.

**LOCKING GROOVE** – An indentation in the housing of a disc tumbler lock into which the tops of the discs fit when locked to keep the plug from turning.

**LOCKING HANDLE** – A T-shaped or an L-shaped cabinet handle with a plug through the center, locked and unlocked by turning the key to raise or lower a cam-activated lug, called the locking lug, which fits into the keeper slot in the collar. The collar is mounted on the door.

**LOCKING LUG** – That part of an interchangeable core sleeve which holds the core in its housing and which is retracted by the control key. Also, part of a locking handle.

**LOCKING ROD** – The rod which connects the lock button to the door latch on automobile door locks.

**LOCK-IN-THE-KNOB** – Another name for a cylindrical or key-in-the-knob lockset.

**LOCK-KNOB** – Another name for a cylindrical or key-in-the-knob lockset.

**LOCKOUT KEY** – A special key, formerly used by the management of a hotel or a rooming house, made by cutting away the bow and the top half of the key except for the tip which remains intact so that the lock's pins will trap the tip of the lockout key and prevent insertion of any other key. Lockout keys were used against tenants with unpaid bills.

**LOCK PICK** – See pick.

**LOCK PICKING** – See picking.

**LOCK READER** – A tool made of stiff wire used to push the front tumblers of a lock out of the way so the locksmith can see the rear tumblers as he looks in a keyway to examine and compare tumblers in order to determine a disc tumbler lock's combination. See also reading.

**LOCKSET** – A lock with all of its necessary fittings.

**LOCKSMITH** – A security expert who sells, installs, repairs and modifies locks and makes keys for them.

**LOIDING** – The shimming open of a springbolt with a thin piece of flexible material, such as a plastic card.

**LOUVER** – An opening in a door or a window with pivoting slats to allow passage of air.

**LOWER PIN** – See bottom pin.

**MACE'S ROSE** – A rose with a sleeve which extends out from the door to surround the neck of a knob attached to a Duce's spindle.

**MAGNETIC LATCH** – A latch which is drawn into its strike by the force of magnets embedded both in it and in its strike, instead of by spring action.

**MAID'S KEY** – A master key which opens a specified number of hotel guest rooms, such as all the guest rooms on a floor, except when a door is locked by the guest from the inside. See also housekeeper's key.

**MAINTENANCE MASTER KEY** – A master key set to control only certain cylinders in maintenance areas. See also engineer's key.

**MAISON KEYING** – A system, the reverse of master keying, in which several keys work one lock, often used on entrance doors to apartment buildings. In maison keying master pins of many increments are used to allow many keys to open the same cylinder, with substantial loss of security.

**MANDREL** – Another name for an arbor.

**MANIPULATION** – The technique of discovering the combination of a combination lock by turning the dial and listening, often with the aid of an audio amplifier, for the faint noises of the moving parts, but without the use of other tools or of force. The locksmith is able to feel the parts engaging one another because their motion is transferred through the spindle to the dial and to his fingers.

**MANIPULATION-RESISTANT COMBINATION LOCK** – A combination lock with precisely machined parts and special lubri-

cating coatings, such as Teflon, as well as special design features, to hinder discovery of the lock's combination by manipulation. Also called manipulation-proof lock.

**MASTER DISC TUMBLER** – A disc tumbler with a special cut in the center slot to accept special key blanks for master keying. The master key and the change key each lift the tumbler at a different point in the tumbler's slot.

**MASTER KEY** – A key which operates every lock in a group, whether keyed different or keyed alike. Each lock operated by a master key also has its own change key.

**MASTER KEYED LOCK** – A lock which has been combined so that both its own change key and at least one master key will open it.

**MASTER KEYING** – The process of selecting the key changes for a series of locks and then setting up the tumblers of the locks so that at least one master key will open every lock in the group while only one change key will open each lock.

**MASTER KEYING CHART** – A chart which shows the master key combinations, and the change key combinations which they can control, for a master key system of a given size.

**MASTER PIN** – A small pin tumbler, flat on both ends, placed between the bottom pin and the top pin in a lock's pin chamber to allow more than one key to work the lock. The extra pin creates an extra break between pins which allows a division at the shear line when the master key is used. Also called a master pin tumbler.

**MASTER RING MASTER KEYING** – The master keying of a specially designed cylinder by use of a special master ring which encircles the cylinder's plug and provides a separate shear line at which the master pins line up when the master key is inserted in the lock keyway, increasing both security and the number of available changes.

**MASTER WAFER** – One of three types of wafer tumblers of a popular cylindrical lock made by the Schlage Lock Co., designed so that, as with the series wafers of this lock, when there is no key in

the keyway, the master wafer stem sticks out of the plug to prevent the plug from turning. The master wafer differs from the three series wafers in having a smaller inner notch which requires a key cut at the tip of the key blade to permit full entry of the key into the keyway and full retraction of the master wafer stem into the plug. See also combination wafer, series wafer and wafer tumbler.

**MESH CHANGE WHEEL** – A type of combination lock hand change wheel for which the combination is changed by removing a geared inner ring from a geared outer ring and relocating them in different positions.

**MILL BASTARD FILE** – A medium course rectangular file, tapered both in thickness and in width from the middle to the point.

**MILLING CUTTER** – A key machine cutting wheel with both edges beveled to make a V-cut in cylinder keys. It is used on code cutting and heavy duty key machines. See also rotary file cutter, side milling slotter and slotting cutter.

**MORTISE** – A cavity or hole cut into a piece of wood, or other material, to hold another object, such as a lock.

**MORTISE BOLT** – A door bolt with a round body and a face plate, mortised into the edge of a door and operated by a handle or knob from the side of the door.

**MORTISE CYLINDER** – A cylinder, threaded on its outside circumference and supplied with a cam at its rear, to operate certain mortise door locks.

**MORTISE LATCH** – A latch installed inside a mortise in a door.

**MORTISE LOCKSET** – A lockset installed in a deep mortise cut into the edge of a door with the cylinder, if it has one, installed through a hole in the side of the door and threaded into the lock case. See also lock function.

**MULLION** – The center post between a pair of double doors. Also, the vertical dividers between window panes.

**MULTIPLE KEY SYSTEM** – A system of locks in which each keyway has individual barrel broaching and a key section for each

individual master key, with grand master keys milled to pass more than one broached keyway. Also called multiplex master keying.

**MULTIPLE KEY SECTION SYSTEME**– See key section series and multiple key system.

**MULTIPLEX MASTER KEYING** – Another name for multiple key system. See also key section series.

**MUNTIN** – A door or window member used to divide glass panels.

**MUSHROOM DRIVER** - See spool driver.

**MUSHROOM PIN** – See spool driver.

**MUSHROOM TUMBLER** – See spool driver. **NECK** - A knob shank.

**NETTLEFOLDS LOCK** – An old style lock with two side bolts which protrude out of the main bolt near its end and retract into a hollow in the main bolt during unlocking. The bolt assembly is sometimes called a fly bolt.

**NEUTRAL KEY** – A key used to open and close changeable tumbler safe deposit locks when the safe deposit box is unrented and the combination tumblers are set to a neutral position. Also called vacant box key or set-up key.

**NIB WARD** – A ward formed by pressing a portion of a lock case or a lock cap made of sheet metal into the lock interior.

**NICKEL SILVER** – An alloy of copper, zinc and nickel, similar to brass but harder and tougher because of the addition of nickel. Nickel silver is used to make cylinder keys.

**NIGHT BOLT** – An auxiliary bolt in a hotel bedroom lock which is finger controlled from the inside of the room only.

**NIGHT LATCH** – An auxiliary door lock with a spring latch, used in addition to the door's primary lock; operated from the outside by a rim cylinder and from the inside by a thumb turn. A night latch is mounted on the inside surface of a door with its rim cylinder mounted in a hole through the door. Also called a rim night latch.

**NIGHT WORKS** – Another name for stop works.

**NON-CHANGEABLE LEVER** – See fixed tumbler.

**NON-FERROUS METAL** – Any metal or alloy of metals which does not contain iron and is therefore non-magnetic and will not rust.

**NOSE** – Another name for a safe deposit or cabinet lock horn. Also, the top edge of the bit of a bit key, parallel to the post. Also, the projection on the lever of a combination lock which engages the notch of the drive cam to retract the bolt.

**NOSE PLATE** – A collar sometimes used to encircle the nose of some small cabinet locks in the manner of a cylinder ring.

**NOSE PULLER** – A safe deposit lock tool which uses the mechanical advantage provided by a screw thread to pull the nose out of a safe deposit lock and thereby breach the lock's security.

**NOZZLE** – Another name for a safe deposit or cabinet lock horn.

**OFFICE FUNCTION LOCK** – A lockset in which both knobs work latchbolt (in some cases outside key and inside knob work latchbolt); outside key and either inside key or inside turnpiece, if part of lock, work deadbolt; stop button locks outside knob; inside knob and outside key release stop button.

**ONE-WAY SCREW** – A screw with either special threads or a specially cut screwdriver blade slot which prevent easy removal.

**OPENING INDEX** – The index to which a combination is dialed when opening a combination lock. See changing index.

**OPERATING SHEAR LINE** – The primary shear line of an interchangeable core which controls the rotation of the plug and the opening of the lock. It is the gap between the plug and the sleeve. See also control shear line.

**OPHTHALMOSCOPE** – A physician's instrument for examining eyes and ears, used by locksmiths for peering into small, dark openings, such as keyways. See also illuminated magnifier scope.

**ORIGINAL KEY** – A key or key blank made for a lock by its manufacturer .

**PADLOCK** – A portable lock with hinged or sliding shackle.

**PALACE MOTION** – An action used in mortise and rim locks in which the hub works directly against the foot of the bolt and alternately against a crank so that the bolt will move with approximately the same ease when the knob is turned in either direction.

**PANEL LOCK** – A lock specially designed to fit standard metal casement doors.

**PANIC BOLT** – A door bolt released by pressing on an easily accessible cross bar for instant exit, especially on emergency doors in public buildings. Also called a panic exit lock.

**PANIC EXIT LOCK** – See panic bolt.

**PARACENTRIC KEY** – A key for a cylinder lock with milled grooves to fit a standard paracentric keyway, as opposed to a bit key, a flat key, a tubular key and so on. The grooves run parallel with the edges of the blade and cross the blade's vertical center line. Also called a cylinder key and, sometimes, a grooved key.

**PARACENTRIC KEYWAY** – A keyway in a cylinder lock with one or more side wards on each side projecting beyond the vertical center line of the keyway to hinder picking.

**PASSAGE FUNCTION LOCK** – A lockset without key in which turning either inside or outside knob will retract latchbolt.

**PASSAGE SET** – A lockset for doors which do not need locking and on which either the inside or the outside knob opens the springbolt at all times.

**PASSING** – The ability of a key to open a lock or a set of locks. A key passes a lock when it opens the lock.

**PASSKEY** – A master key or a skeleton key

**PEENING** – The process of enlarging the surface around a piece of metal by hammering it.

**PEG WARD** – A type of sash ward fixed to a lock case with pegs. See sash ward.

**PHANTOM KEY** – A key which operates a cylinder by means of unwanted cross-keying, or interchange. Phantom keys have key cuts proportional to any random combination of the master and bottom

pins set in the cylinder.

**PHOSPHOR BRONZE** – A bronze alloy with a small amount of phosphorus added to make it tough and springy. Phosphor bronze is used extensively for small springs such as are used in locks.

**PICK** – One of a number of tools for manipulating the tumblers of a lock so that the pins separate at the shear line to permit turning the plug and opening the lock without using its key.

**PICK GUN** – A hand-held vibrating tool with a lock pick attached to aid a skilled operator in manipulating a lock's tumblers away from its shear line.

**PICK KEY** – A key filed so that only a narrow projection at the tip remains for lifting lever tumblers one at a time while picking a lever tumbler lock.

**PICKING** – The manipulation of the tumblers of a lock with small tools called picks inserted through the keyway so that the tumblers line up and the lock can be opened. See also raking.

**PIN** – A pin tumbler. Also, as a verb, the action of setting pins of various lengths in cylinders to match a chosen combination. Also, a name used in England for the post of a bit key.

**PIN CHAMBER** – One of a number of holes bored in the cylinder housing and plug of a pin tumbler lock, perpendicular to and penetrating into the keyway, to hold the lock's pin tumblers. The upper chambers are in the housing, the lower chambers are in the plug.

**PINNING CHART** – A chart which shows the combinations of pin lengths needed to pin all the cylinders in a master key system.

**PIN PUNCH** – A drift punch used for removing jammed pins.

**PIN STACK** – The total height of the top, master and bottom pins in a cylinder chamber.

**PIN TRAY** – A tray with grooves or depressions for holding pin tumblers in proper sequence while working on a pin tumbler lock.

**PIN TUMBLER** – One of a number of small cylindrical brass pins which slide up and down in the pin chambers of a cylinder lock, preventing the cylinder plug from turning except when none of the

pin tumblers cross the shear line. See also tumbler. disc tumbler, wafer tumbler.

**PIN TUMBLER SPRING** – Small compression spring which fits into a pin chamber in a lock to force the pins down into the keyway.

**PIN TUMBLER TWEEZERS** – Small tweezers with hollows filed near the tip of each prong, facing one another, to help a locksmith hold pin tumblers with ease.

**PIN VISE** – A hand-held, small-tool holder with a split jaw chuck.

**PINNING** – The filling of the pin chambers of a pin tumbler cylinder with pins which match a selected combination of key cuts.

**PIPE KEY** – The British name for a barrel key.

**PIPPIN FILE** – A file with a cross section shape similar to an apple seed, from which its name comes, or to a teardrop.

**PITT'S FITTING** – A door knob fitting in which the knob cannot be removed from the rose but is free to turn in it.

**PLUG** – The round core of a cylinder lock, fitted into a hole in the cylinder, into which the keyway is broached and through which the key transmits turning motion to the locking mechanism.

**PLUG FOLLOWER** – A round shaft of the same diameter as a plug used to push the plug out of its cylinder housing while keeping the spring-loaded driver pins in place.

**PLUG HOLDER** – A tool shaped to hold the plug of a pin tumbler lock during servicing.

**PLUG RETAINER** – That part of a cylinder lock, usually fixed to the rear of the plug, which holds the plug in place in the cylinder housing. Also called the retaining ring or the retainer.

**PLUG SPINNER TENSION WRENCH** – A coiled tension wrench made of spring steel to permit a locksmith who has accidentally picked a lock in the wrong direction to flip the plug chambers quickly past the shell chambers without repicking the lock.

**POCKET** – One of the two rectangular holes on either side of the bar of a lever tumbler in which the fence rests when the bolt is either fully extended or fully retracted.

**POKE HOLE** – A small hole in the housing of some locks to permit depression of a retainer for removing one or more of the parts, usually the plug of a cylinder lock.

**POLICE LOCK** – A heavy-duty, double-bar lock which is mounted horizontally across the center of a door with its steel bars controlled from the outside by a rim cylinder and from the inside by a turn knob.

**POST** – The round section of a bit key between the shoulder and the tip, from which the bit projects. Also, one of any number of round projections of a lock case on which lock parts pivot or by which they are held in place. See curb post.

**PREPARATORY KEY** – Another name for a safe deposit box guard key.

**PREPARATORY TUMBLER** – Another name for a safe deposit lock guard tumbler.

**PRESSED PADLOCK** – A padlock with case parts pressed out of sheet metal and riveted together.

**PRESSING** – The process of shaping sheet metal by supplying enough force to push it into a forming die.

**PRESSURE PAD** – A raised area on the inside of the horn plate of a safe deposit lock which forms a bearing surface for the lever pack.

**PRIVACY FUNCTION LOCK** – A lockset in which either inside or outside knob works latchbolt; either inside turnpiece or inside knob works deadbolt.

**PRIVACY KEY** – Key symbol SKD. A change key set up as part of a master key system, but independent of all master keys in the system, to operate either a single lock or a group of locks keyed alike. Privacy keys are used for food storage rooms, narcotic cabinets, liquor cabinets, and so on.

**PROFILER** – Another name for the key guide on a key machine.

**PROGRESSION** – A mathematical series of bittings, chosen for master keying, in which each bitting is related by uniform arithmetical laws to every other bitting.

**PROGRESSION FORMULA** – The method used in master key-

ing to select the bittings which will be used in all the cylinders and keys in a master key system. The progression formula generates the individual change key combinations for the system.

**PROGRESSION FORMULA CHART** – A chart used to enumerate and select top master bittings and a progression sequence from among various possibilities for a master key system.

**PROGRESSION SEQUENCE** – The order in which bittings are selected from the columns of a progression formula chart to make up combinations for the various master keys and change keys in a master key system, using a change key progression chart.

**PUNCH** – A stamping tool. Also, a tool which comes in various shapes for cutting holes. See die.

**PUNCH AND DIE SET** – Two matched cutting tools which come in various shapes and sizes for cutting holes in sheet metal and other materials. See die.

**PUSHBUTTON LOCK** – A keyless lock on the combination lock principle with either combination slides or combination wheels which move to line up gates when the buttons are depressed in their correct sequence.

**PUSH KEY** – A key which pushes a lock's tumblers to a vertical shear line, as in the case of a tubular ACE type lock, instead of lifting them to a horizontal shear line as in a standard tumbler lock.

**PUSH TYPE PADLOCK** – A padlock with a shackle released by pushing the key and the plug inward before turning.

**QUAD MASTER KEY** – Another name for a lever four master key.

**QUADRUPLE BOLT LOCK** – A lock with four bolts, usually deadbolts.

**QUADRUPLE BOLT/QUADRUPLE THROW LOCK** – A lock with four bolts, all fully extended by four full turns of its key.

**QUADRUPLE THROW LOCK** – A lock which requires four revolutions of its key to reach the full throw of its bolt.

**RABBET** – A woodworking joint, cut into abutting edges of a pair

of doors to eliminate any open gap between the door. The edge of one door has a step which matches, and closes snugly into, a step in the edge of the other door.

**RABBETED LOCK** – A lock with a stepped front to match the rabbeted edge of the door.

**RACK-DRIVE BOLT** – A lock bolt driven by a key engaging teeth built into the bolt.

**RADIUS ROOT** – A key cut root which is curved instead of flat.

**RAIL** – One of the horizontal door members which join the stiles together; called the top rail, the bottom rail and the lock—or center—rail.

**RAKING** – A picking technique which entails rapid in and out, up and down movement of a wave-shaped pick to cause the tumblers of a lock to bounce to the shear line and catch there as turning pressure is applied to the plug. Also called jiggling.

**RAPPING** – A technique of opening a pin tumbler lock, when its key is missing, by striking its cylinder sharply with a blunt instrument so that both the top pins and the bottom pins are driven away from the shear line to allow the plug to turn. Rapping requires split second timing.

**RASP** – A coarse cutting tool similar to a file but with cutting points raised in the metal by the oblique stroke of a sharp punch, instead of with edges cut by a chisel as on a file. Rasps are used primarily on non-metallic materials.

**RATTAILE FILE** – A round file, usually one quarter of an inch or less in diameter, tapered toward the point.

**READER** – See lock reader. See also reading.

**READING** – A technique for determining the combination of key cuts of a disc tumbler lock by looking into the lock's keyway to judge, either by sight or with a gage, the respective positions of the tumblers. See also decoder gage and lock reader.

**REBATED LOCK** – Another name for a rabbeted lock.

**RECOMBINATE** – To change the combination of a lock.

**REGISTER GROOVE** – The milled groove closest to the bottom edge of the blade of a paracentric key and parallel to the length of the blade.

**REGULAR BEVEL** – See lock bevel.

**REKEYING** – The changing of the combination of a keyed lock. Rekeying requires changing both the lock's tumblers and the key cuts of its key.

**RELOCKER** – A device on some safes which locks the safe's main bolt when a burglar has tampered with the combination lock. Also called a relocking device, it is independent of the combination lock. See also relocking trigger.

**RELOCKING DEVICE** – Another name for a relocker on safes.

**RELOCKING TRIGGER** – A part of a combination lock which secures the lock's bolt if and when the cover at the back of the lock is punched off. See also relocker.

**REMOVABLE CORE** – The separable unit of certain cylinders and padlocks which contains the plug, the tumblers and the upper chambers of the lock, and which can be taken out of the lock for rekeying and repair. See also interchangeable core, interchangeable core cylinder and removable core cylinder.

**REMOVABLE CORE CYLINDER** – A cylinder with a removable core. Although an interchangeable core cylinder, with its unique control key, is sometimes considered one type of removable core cylinder, the term is usually limited to those cylinders with removable cores which are not operated by control keys. See also interchangeable core, interchangeable core cylinder and removable core.

**REMOVABLE DIAL** – A combination lock dial which can be removed from its spindle.

**REMOVAL KEY** – A key used to remove the active core of interchangeable core cylinders. Also called the control key.

**RENTER'S KEY** – The key given to the renter of a safe deposit box. A renter's key will not open a safe deposit box until the guard key has first prepared the lock mechanism for opening.

**RESTRICTED KEY BLANK** – A key blank available from the manufacturer only, either with the purchase of a lock with a restricted keyway to match or with proof of ownership of such a lock.

**RESTRICTED KEYWAY** – A keyway which a manufacturer supplies on his locks only on special request, as an added security feature.

**RETAINER** – See back plate, plug retainer, retaining washer, spring retainer.

**RETAINING PLATE** – Another name for a back plate.

**RETAINING RING** – A plug retainer.

**RETAINING WASHER** – A washer which keeps the wheel pack on its post in a combination lock. There are three basic types of retaining washers: horseshoe, split ring and spirolox.

**RETRACTOR** – That part of a knobset which engages the latchbolt and draws it into the door when the knob is turned.

**REVERSE BEVEL** – See lock bevel.

**REVERSIBLE BOLT** – A latchbolt which can be turned so that it will work either on a left-hand door or on a right-hand door. See handing of doors.

**REVERSIBLE LOCK** – A lock with a reversible latchbolt which can be changed from left-hand to right-hand, usually by reversing the bolt. See handing of doors.

**RIGHT HAND LOCK** – A lock used with a right-hand door. See handing of doors.

**RIM CYLINDER** – A lock cylinder mounted through a door hole and fixed from the inside by means of screws and a retaining plate, called the back plate. It operates its lock, which is mounted on the inside surface of the door, by a connecting bar.

**RIM LATCH** – A latch attached to the surface of a door. See also night latch.

**RIM LOCK** – A lock secured to the surface of a door instead of being mortised into the edge.

**RIM NIGHT LATCH** – An auxiliary lock installed on the inside

surface of a door. The bolt of the night latch is retracted on the inside by a thumb turn and on the outside by a key which works a pin tumbler cylinder mounted through a hole in the door. Also called simply a night latch.

**RING PLIERS** – Special pliers for spreading or compressing the sides of the split rings which fit on various shafts and plugs to hold parts in place.

**ROCKER** – A straight lock part which pivots from a hole in the center to transmit or change the direction of the motion of some other part.

**ROLLBACK** – A lock part which transmits motion from the knob or key to the retractor.

**ROLLER BOLT** – A bolt with a roller mounted vertically on the tip, used on occasion in place of a beveled bolt to reduce friction and to reduce the danger of injury from the sharp edges of a beveled bolt.

**ROOT** – The flat surface of the base of a key cut, parallel to the length of the blade, on which a lock tumbler rests.

**ROOT DEPTH** – The distance between the bottom, called the root, of a key cut and the bottom edge of the key blade.

**ROSE** – A round lock fitting, attached to the surface of a door, which supports the knob and through which the knob shank, and in some cases the spindle, passes. Also, another name sometimes given to a cylinder ring.

**ROTARY DISC TUMBLER** – A special type of round disc tumbler with a stem which lines up with the stems of other rotary disc tumblers when turned by a rectangular key cut with an angled root acting through its center. It is used exclusively in locks made by Abloy, Inc.

**ROTARY FILE CUTTER** – The most common type of cutting wheel for key machines. The rotary file cutter has serrations like a file and one beveled edge. See also milling cutter, side milling slotter and slotting cutter.

**ROUNDED FRONT** – A face plate curved to match the rounded

edge of some doors.

**RUNNER** – A sliding lock part which transmits the motion of the hub to the bolt in some spring locks and night latches.

**SAFE** – A box or chest, universally made of metal and sometimes built into a wall or vault, for holding money and other valuables, often fire and burglar proof and usually equipped with a combination lock.

**SAFE DEPOSIT BOX** – One of a group of attached metal boxes, usually inside a bank vault, secured individually with a precision lever tumbler lock, called a safe deposit lock, and rented to customers for storing valuable papers and small objects.

**SAFE DEPOSIT LOCK** – A high precision lever tumbler lock with either one or two keyway horns, with either fixed tumblers or changeable tumblers, and used to secure an individual safe deposit box.

**SAFE DEPOSIT LOCK PULLER** – A tool which forcibly removes the door of a safe deposit box, using the mechanical advantage of a screw thread, when other means of entry are impractical and after the locksmith has tried to open the door by pulling only the nose of the lock.

**SAFE LOCK** – A lock, usually a combination lock, built into the door of a safe to prevent unauthorized access to the safe's contents.

**SAFETY DEPOSIT LOCK** – An incorrect name sometimes given to a safe deposit lock.

**SASH** – The movable part of a window.

**SASH WARD** – A type of ward used in two side rim and mortise locks which, machined usually from brass, is fixed in matching pairs to both sides of the lock case around the keyholes.

**SCALP** – A second face plate on a mortise lockset to conceal the set screws which hold the threaded cylinder in place.

**SCANDINAVIAN PADLOCK** – The common padlock which has a U-shaped, spring-loaded shackle, instead of a pivoted shackle.

**SCOTCH SPRING** – A long, tapered spring used in old locks in tandem with a pivoted arm to help retract the bolt.

**SCREW CHANGE WHEEL** – A type of combination lock hand change wheel for which the combination is changed by moving the screw which serves as a drive pin from one threaded hole in the wheel to another. Also called a fixed pin hand change wheel.

**SCREW EXTRACTOR** – A special tapered drill bit with long-fluted, left-hand threads for removing broken screws. Also called EZYOUT, after a trade name.

**SCREWLESS KNOB** – A knob fastened to a spindle without screws. **SCRIBER** - A sharp, pointed tool for marking lines on materials to be cut or measured.

**SECOND GENERATION DUPLICATE** – A duplicate key made by copying another duplicate key which was made from an original key.

**SECTIONAL KEYWAY** – One of a group of keyways, each with individual but interrelated key sections, used for part of a master key system, such as the floor of a building. See key section series.

**SECTIONAL MASTER KEY** – A master key used in one sectional keyway only as part of a master key system. See key section series.

**SECTIONAL MASTER KEYING** – A method of master keying by using the same combinations with a number of different key sections chosen in such a way that higher level master keys will fit into the keyways of lower level master keys and their change keys, but not vice versa.

**SECTION MASTER KEY** – Another name for a level five master key.

**SECONDARY LOCK** – Any lock, usually a deadbolt lock, added to a door to supplement an existing lock. Also called an auxiliary lock.

**SECURITY** – The ability of an enclosed area and the lock which guards it to withstand unauthorized entry.

**SEGMENT BOLT** – A curved springbolt which pivots instead of

sliding to cut down on friction when it hits the strike.

**SEGMENT MASTER KEY** – Another name for a level three master key.

**SELECTIVE MASTER KEY** – A special master key set to operate any lock in a master key system without cross-keying, such as an engineer's key. Usually there are no more than two selective master keys in a system. See also unassociated master keys.

**SELVEDGE** – A name used in England for the face plate.

**SEMI-MORTISE LOCK** – A lock which is cut into a door or drawer so that it is flush with the surface but not entirely encircled by the door or drawer as it would be if fully mortised.

**SEPARATOR DISC** – See spacer.

**SERIES WAFER** – One of the three types of wafer tumblers of a popular cylindrical lock made by the Schlage Lock Co., designed so that, when there is no key in the keyway, the series wafer stem, along with the stem of the master wafer, sticks out of the plug to prevent the plug from turning. Each such lock normally uses three series wafers, but one or two of them can be removed for masterkeying. See also combination wafer, master wafer and wafer tumbler.

**SERVANT KEY** – The British name for a change key in a master key system.

**SET SCREW** – A screw used to hold part of a mechanism in place. For example, a set screw, with access from the face plate, holds the cylinder securely in a mortise lock case.

**SET-UP KEY** – Another name for a safe deposit box neutral key.

**SHACKLE** – The hinged or sliding link of a padlock, usually U-shaped or curved and made of hardened steel.

**SHACKLE CLEARANCE** – The distance between the top of a padlock case and the highest inside point on the shackle when closed.

**SHACKLE RETAINER** – A specially cut lamination of a laminated padlock which keeps the heel of the shackle in place. Also, a pin which holds the shackle heel in place in several types of padlocks.

**SHACKLE SPRING** – The compression coil spring positioned under the heel of a padlock shackle to push the free end of the shackle out of the padlock when the locking dog retracts.

**SHANK** – The section of a bit key between the bow and the shoulder. Also, the projecting stem of a knob which holds the end of the spindle.

**SHAVED BLADE** – A key blade with a curved bottom edge to follow the contour of the cylinder plug circumference. Most original key blanks have shaved blades. See also unshaved blade.

**SHEAR LINE** – The space of several thousandths of an inch between a cylinder plug and its cylinder housing. The shear line is completely unblocked only when the ends of the tumblers line up with the circumference of the plug.

**SHELL** – Another name for the housing of a lock.

**SHIELD RING** – Another name for a burglar-proof guard ring.

**SHIM** – A thin strip of metal, usually less than five thousandths of an inch thick and one quarter of an inch wide, used in shimming open a pin tumbler lock.

**SHIMMING** – A technique of opening a pin tumbler cylinder by inserting a shim from the rear across the shear line while withdrawing a key blank from the keyway so that the shim can slip between the bottom pins and the top pins.

**SHIM WASHERS** – Washers used in locks to compensate for manufacturing tolerances. Shim washers are placed, for example, on the post of a lever tumbler lock to space the tumblers. They are also used to space the wheels in combination locks.

**SHOOT** – The throw of a springbolt; that is, the distance it travels.

**SHOULDER** – A projection between the bow and the blade of a key which limits the travel of the key into the keyway and from which the positions of the key cuts on the blade are indexed. See also key stop.

**SHOULDER GUIDE** – That part on some key machines, shaped like a two-pronged fork, which permits the operator to set with ease

the proper spacing between the shoulders of the sample key and the key blank as they are clamped in the key machine vises. The shoulder guide is mounted on a pivot so it can be pushed out of the way during the cutting of the key. Also called a gage fork.

**SHUT-OUT** – A setting on hotel function locks, operated by a thumbturn or push-button from the inside or by a display room key or emergency key from the outside, which renders the guest room key and all other master keys except the emergency key inoperative.

**SHUT-OUT KEY** – A key to permit the management of a hotel to lock a door against the use of all other keys except an emergency key.

**SHUTTER** – The spring-loaded part of a dust cap on an automobile door or trunk lock which actually covers the keyhole and which is pushed out of the way when the key is inserted. See also keyway shutter.

**SIDEBAR** – A metal bar which protrudes from the side of certain cylinder plugs and crosses the shear line when the correct key is not in use to prevent the plug from turning, performing the same function as the tumblers of a standard cylinder when they cross the shear line.

**SIDEBAR CYLINDER** – A disc tumbler cylinder with a spring-loaded V-shaped metal bar along its side which falls into notches in the disc tumblers, when the correct key lines them up, to allow the plug to turn. Sidebar cylinders are used extensively on General Motors automobiles. A spring-loaded sidebar is also used on some pin tumbler cylinders, such as the high security Medeco cylinder, to add an extra resistance to picking.

**SIDEBAR TUMBLER** – A disc tumbler with its gate on the side to accept a bar, called a sidebar, which blocks the shear line.

**SIDE MILLING CUTTER** – A thin key machine cutting wheel with cutting edges on both the bottom and the side edges, for cutting cylinder keys and flat steel keys. Also called a side mill slotter. See also milling cutter, rotary file cutter and slotting cutter.

**SIDE MILL SLOTTER** – See side milling cutter.

**SILL** – The bottom horizontal member of a door or a window frame.

**SIMPLEX KEY SECTION** – A individual key section which is not part of a multiple key section system.

**SINGLE ACTING TUMBLER** – A very inexpensive lever tumbler which need only be lifted high enough to free the lock bolt and which can be lifted too high without resecuring the bolt. See also double acting tumbler.

**SINGLE-BITTED KEY** – A standard key with key cuts along only one edge of the key blade to work a single set of tumblers. See also double-bitted key.

**SINGLE BOLT LOCK** – A lock with one bolt, usually a deadbolt.

**SINGLE D PUNCH AND DIE SET** – A punch and die set for cutting D-shaped holes to accept cam locks which are round except for a single flat area on their circumference. The flat prevents rotation of the lock housing. See also double D punch and die set.

**SINGLE HORN LOCK** – A lever tumbler safe deposit lock with one keyway tube, called a horn, projecting out the front of the lock, to accept both the renter's key and the guard's key.

**SINGLE THROW LOCK** – A lock for which one complete turn fully extends its bolt.

**SKELETON KEY** – A key for warded locks with as much of the bit as possible cut away so that the key will clear the wards in several locks and yet still retain enough of its metal to lift the tumblers and move the bolts. Also called a pass key.

**SLAPPER** – Another name for a body puller.

**SLEEVE** – That part of a key micrometer which is attached to the frame and which has a scale in divisions of twenty-five thousandths of an inch. See also anvil, spindle and thimble. Also, a thin metal ring, with a thicker section which forms a locking lug and which has chambers to hold pins. The sleeve encircles the plug of an interchangeable core, forming a second, separate shear line called the control shear line. See also interchangeable core cylinder. Also, a knob shank.

**SLIDE** – Another name for the sleeve of an interchangeable core cylinder.

**SLIDE BOLT** – Another name for a surface bolt.

**SLIDER** – A lever which slides, either between or on guides, instead of swinging on a pivot. The lever has a notch which the key engages, and lifts, and a slotted post hole which allows the lever to move horizontally. Also called a sliding lever or a slider lever.

**SLIDING LEVER** – Another name for a slider.

**SLOPE** – The side of a cylinder key keycut which is angled to permit easy entry and exit of the key into and out of its keyway.

**SLOPE ANGLE** – The number of degrees which the slope of a cylinder key keycut departs from a line perpendicular to the edge of the key blade and drawn through the center of the key cut. Standard slope angle is fifty degrees. The included angle is 100 degrees.

**SLOTTER** – A key machine equipped with a slotting cutter to make rectangular key cuts in flat steel keys for lever tumbler locks. Also, the cutting wheel for such a key machine. See also slotting cutter.

**SLOTTING CUTTER** – A thin key machine cutting wheel which cuts straight into the metal of a key like the blade of a circular saw and makes rectangular cuts on flat steel keys. Also called a slotter. See also milling cutter, rotary file cutter and side milling cutter.

**SNAP RING** – A circular mechanical fastener with a small gap to allow it to spread apart and slip onto a shaft, and then spring back to its original shape to stay in place. Also called a split ring.

**SOCKET** – The lock fitting which is fixed to a door frame or mortised into a floor to receive the extended section of a bolt. Also called a floor socket.

**SOLID CASE PADLOCK** – A padlock with a body made from a single piece of metal machined to accept the moving parts.

**SOLID WARD** – A type of bridge ward with a combination of wards made of solid metal and fixed to the bridge.

**SPACER** – A thin disc, shaped like a lever tumbler, placed between each changeable lever tumbler to prevent any jamming from the pos-

sible separation of detents and sweeps. Also called separator disc or spacing washer.

**SPACER KEY** – See depth key.

**SPACING** – The location of each cut along the blade of a key, measured from the shoulder or, more rarely, from the tip of a key. The spacing is determined by the location of each tumbler in a lock. Also, the distance between the center of a lock's keyhole and the center of its spindle hole.

**SPACING CHART** – See depth and spacing guide chart.

**SPACING COLLAR** – Another name for cylinder collar.

**SPADE DRILL BIT** – A wing-shaped, flat drill bit with a pointed tip used in an electric drill for cutting medium sized holes in wood and other soft materials.

**SPANNER WRENCH** – A wrench used with round nuts and other nuts which a standard wrench will not grip. Spanner wrenches are usually made out of two pieces of steel, pivoted at one end for adjustment, with pins at the other end of each arm which fit into holes in the nut to permit tightening and loosening. Spanner wrenches are sometimes a single piece of steel shaped like a half circle with a hook bent into one end to catch a notch in the nut and a handle shaped out of the other end.

**SPINDLE** – The usually square shaft which fits through the hub in a lockset to work the latch and on which the handles or knobs are fitted. Also, the threaded rod which connects the dial and the drive cam of a combination lock. Also, that part of a key micrometer which is attached to the thimble and which screws into the frame.

**SPINDLE SPLINE** – A piece of metal fitted lengthwise into a spindle and projecting beyond the circumference of the spindle to prevent independent rotation of the spindle and of the various parts which fit on it, such as the dial.

**SPIROLOX WASHER** – A type of retaining washer for a combination lock formed into a spiral like a coil spring.

**SPLINE KEY** – A metal insert which prevents independent rotation

of the drive wheel and the dial on a combination lock by keeping the drive wheel from unscrewing from the dial spindle.

**SPLIT HUB** – A two-piece hub for separate inside and outside control of certain lock functions and of the knobs of a mortise lockset.

**SPLIT PIN MASTER KEYING** – The standard method of pinning the cylinders in a master key system by using small master split pins to allow the various change and master keys to work in their appropriate cylinders.

**SPLIT RING** – See snap ring.

**SPLIT SPINDLE** – A special spindle used in mortise locksets with one knob and an entrance handle.

**SPOOL DRIVER** – A top pin shaped like a spool, used in place of a regular top pin in a high security pin tumbler lock to hinder picking. The inside edge of the spool rim is prone to become trapped at the shear line preventing the plug from turning. Also called a mushroom driver, a mushroom pin or a mushroom tumbler.

**SPRINGBOLT** – A bolt which is driven out of its retracted position by a compressed spring as soon as its handle or key is released. Also called a latch, a latchbolt or a beveled bolt, **SOMETIMES** a springlatch.

**SPRING LOCK** – A lock which opens with a key but closes automatically as soon as the key is withdrawn.

**SPRING RETAINER** – A piece of metal used to hold the tumbler springs in their chambers in a pin tumbler lock. Spring retainers take a number of different shapes depending on the maker of the lock.

**SPRING STEEL** – A variety of steel with more carbon than ordinary mild steel to allow hardening and extra springiness when heat treated or cold drawn.

**SPY-PROOF DIAL AND RING** – A special combination lock dial with a dial ring which covers all but a small portion of the dial so that no one but the operator can see the dial.

**STACK** – See pin stack.

**STAINLESS STEEL** – An alloy of iron, chromium and nickel

which, in addition to being rust resistant, is harder than ordinary mild steel.

**STAKING** – A technique for holding a spring retainer in place by slightly deforming the surrounding metal of the shell. Many spring retainers are designed so that they do not have to be staked.

**STANDARD KEY SYMBOL** – See symbol.

**STAPLE** – A box-like strike for the bolt and latch of a rim lock. Also, the U-shaped link over which the slotted portion of a hinged hasp fits. Also, any wire or rod bent to a U shape.

**STEEL** – An alloy primarily of iron and carbon which comes in hundreds of varieties depending upon the proportions of its various ingredients.

**STEERING WHEEL PULLER** – A tool for easy removal of automobile steering wheels, similar in function and design to a gear puller.

**STEM** – Another name for the post of a bit key.

**STEP** – A key cut on the outer edge of the bit of a lever lock bit key

**STILE** – A vertical member of a paneled door.

**STILEMAKER WRENCH** – A type of spanner wrench used for removing a screw-in rose when taking apart certain cylindrical lock-sets.

**STOP** – The button on a lock which either deadlocks the latch, holds the latch in or prevents the outside handle from withdrawing the latch. On a mortise lock the stop consists of two buttons recessed into the face plate below the latch, called control buttons. On a night latch the stop is next to the thumb turn. Also, a key stop.

**STOP GROOVE** – The groove in a paracentric key cut to match the keyway ward which stops the bottom pins from dropping lower than the tip of the key.

**STOP PIN** – A pin in a padlock which holds the heel of the shackle in place when the padlock is open.

**STOP WORKS** – The stop buttons, also called control buttons, together with the mechanism of a lock, which deadlock the latch to

keep the outside handle or knob from retracting it.

**STOREROOM FUNCTION LOCK** – A lockset in which both knobs work latchbolt; outside key or inside turnpiece work deadbolt.

**STRIKE** – A metal piece secured to a door jamb to accept a lock bolt. The common strike has a bent lip to guide the bolt of the closing door, is mortised into the door jamb, and has a hole punched in it and a deeper mortise behind the bolt hole to make room for the bolt. Also called a striking plate or a keeper.

**STRIKE BOX** – A box either pressed out of metal and mortised into a door behind the strike or formed as part of a strike behind the bolt hole to enclose the bolt.

**STRIKE LOCATOR** – A template for accurately marking the position of a strike.

**STRIKE REINFORCING** – A plate or tab for extra strength to which a strike is attached in a door frame or in the inactive door of a pair of double doors.

**STUMP** – A post fastened to a lock perpendicular to the case back. One type of stump is more commonly called a fence.

**SUB-MASTER KEY** – A low level master key which controls sixteen or fewer cylinders in a large master key system.

**SUFFOLK LATCH** – A keyless door fastener with a pivoted lever latch lifted by a thumbpiece, often used as a gate latch. See also keep.

**SURFACE BOLT** – A sliding bolt, pushed by hand, mounted on the surface of a door. Also called a slide bolt.

**SWEEP** – The lower lever of a safe deposit lock changeable tumbler with a lift radius to ease the turning of the key. See also detent.

**SWING** – Another name for hand, as in handing of doors. See handing of doors.

**SWINGING LATCHBOLT** – See anti-friction latch.

**SWISS PATTERN FILE** – A finishing file with very fine, precise teeth which comes in many shapes and sizes. The American pattern file has coarser teeth and is made to less exacting standards than

the Swiss pattern file. Swiss pattern files are essential for efficient impressing of keys.

**SWIVEL SPINDLE** – Two lengths of spindle joined in the middle so that one end can be rigid while the other end is free to turn.

**SYMBOL** – One of the sets of letters and numbers used on keys and cylinders in master key systems to tell the user the exact function of the key or cylinder in the system. Also called a key symbol. See key set. For example, M - master, GM - grand master, GGM - great grand master. Master keys often carry two letters, one to identify their grand master, the other to identify their series of locks. The symbol A is often used for a grand master key, with AA, AB, AC, etc., representing master keys controlled by A. Change keys would then be AAI, AA2, etc., and ABI, AB2, etc., and so on. Another grand master key in the same system would be designated B, a third would be C, and so on. The prefix X on a cylinder indicates crosskeying. Some other symbols are SKD—single keyed different (not opened by master keys), KA—keyed alike.

**SYMMETRICAL DOUBLE WING KEY** – A double wing key with both bits identical so that the key is reversible.

**TAIL** – See bolt tail.

**TAILPIECE** – The bar at the rear of a rim cylinder to transmit the turning motion of the key to the locking mechanism. Also called the connecting bar.

**TALON** – The notch in the bolt tail which the key or other rotating member engages to move the bolt.

**TANG** – The section of a file without teeth which fits into a handle.

**TAP** – A tool with external cutting threads to cut internal threads in a hole.

**TAPER PIN** – A pin made from cold-drawn steel drill rod and press fitted into holes which have been drilled for access in safes and safe deposit box doors. As the name implies, a taper pin has a large diameter at one end than at the other end.

**TEETH** – File teeth. Also, the angular projections along the blade of a saw whose edges are sharpened for cutting.

**TEMPERING** – A manufacturing process of controlled heating and cooling whereby metal loses some of the brittleness it gained and gains back some the toughness it lost when hardened.

**TEMPLATE** – A detailed pattern from which to prepare a door or frame for its hardware.

**TENSION SPRING** – A spring which stores energy when its ends are stretched apart, as opposed to a compression spring which stores energy when its ends are squeezed together.

**TENSION WRENCH** – An L-shaped tool made of spring steel strip, used in picking locks to apply pressure to the cylinder plug while manipulating the pins to the shear line. Also called a turning wrench.

**THICKNESS** – See bit thickness.

**THIMBLE** – Another name for a plug holder. Also, a rotating socket joined to an escutcheon in which the end of the knob shank turns. Also, that part of a key micrometer which is turned with the fingers to adjust the spindle toward or away from the anvil in measuring a key cut. The key micrometer thimble has a scale graduated in thousandths of an inch. See also anvil, sleeve, spindle.

**THREAD** – The projecting rib of a screw or bolt which is cut into a piece of rod in a spiral. Also called a screw thread. Many machined parts have threads to fasten them together.

**THREAD ESCUTCHEON** – A keyhole escutcheon fitted into a wood keyhole flush with the front so that a narrow band outlines the keyhole; in effect, a keyhole liner.

**THRESHOLD** – A piece of wood or stone which lies directly under the bottom edge of a closed door. Also called a sill.

**THROAT** – The space between the shoulder of a bit key and the nearest edge of the bit. A throat is left on the key to allow the bit to clear the cover of the lock case.

**THROAT CUT** – The rectangular key cut, closest to the bow of a

flat key, which allows the key to clear the cover of a lever lock when turned.

**THROW** – The total travel distance of a bolt. The length of a bolt outside its lock when fully extended, measured from the face plate to the end of the bolt. Throw is often called shoot when it refers to a springbolt.

**THRUST KEY** – Another name for a push key. **THUMB BIT** - See thumbpiece.

**THUMBPIECE** – That part of a mortise door handle lockset which is depressed by the thumb to retract the springlatch. Also called a thumb bit.

**THUMB TURN** – A small T-shaped handle for locking and unlocking a bolt or latch. Also called a turn knob or turnpiece.

**TIME LOCK** – A special lock used on large safes and bank vaults with a heavy bolt which blocks the main bolts of the safe or vault. When the time lock is on guard (that is, when it is locked), no one can open the door, even with the correct combinations and keys, short of destroying the door, until the specified time set on the lock has elapsed. Time locks usually have at least two clock mechanisms to prevent lockout in case one of them should break down.

**TIP** – The end of the key opposite the bow.

**TOE** – The end of a padlock shackle which separates from the case when the padlock is opened.

**TOE-LOCKING PADLOCK** – A padlock with a shackle held locked by a bolt at the free, or toe, end.

**TOLERANCE** – The maximum allowable deviation, larger or smaller, from the specified size of a machined part.

**TONGUE** – Another name for the cam of a cylinder plug.

**TOP FLY** – The combination lock fly closest to the drive cam, with an enlarged lug to engage the lug on the drive cam.

**TOP LEVEL MASTER KEY** – The most universal master key in a large master key system which operates all the locks keyed to the system.

**TOP MASTER BITTING** – The bitting combination from which a given master key system is derived.

**TOP PIN** – An upper pin in a pin tumbler cylinder which crosses the shear line to prevent the plug from turning until raised by the correct key. A top pin is usually flat on both ends with a slight chamfer along each diameter. Also called driver or upper pin.

**TOP PIN SEATER** – A pair of pin tumbler tweezers with an L-shaped piece of wire positioned above the dual hollows near the tips of each prong for pushing pin tumblers, especially top pins, into place in their chambers.

**TRAILING FACE** – The side of a door from which the hinge knuckles can be seen when the door is shut. See also leading face.

**TRAP LEVER** – A lever in a changeable lever tumbler safe deposit lock which blocks entrance of the change key when the renter's key is withdrawn. Also, a lever which blocks entrance of the change key in some combination padlocks.

**TRAP TUMBLER** – A special type of safe deposit lock lever tumbler with a vertical slot above the gate to block the change key unless raised by a matching key cut on the renter's key, the guard key or the neutral key. The trap tumbler is placed first on the curb post so that it is closest to the change key hole. See also guard tumbler and combination tumbler.

**TRAVELING LEVER** – A lever tumbler which is attached to a post on a lock bolt and which moves with the bolt. The fence in a lock with traveling levers is fixed to the lock case. Also called an enclosed tumbler or a closed tumbler.

**TRIM** – Another name for an escutcheon. Also, any lock fittings, either ornamental or protective.

**TRUNNION** – A swivel keyway in a safe deposit lock machined to fit in the horn and to support the key without interfering with the action of the levers. Also sometimes called a driver.

**TRYOUT KEYS** – Sets of keys, cut to various combinations for automobile locks, with depths between the standard bitting increments

so that by trying a limited number of pre-cut keys and manipulating them in a lock's keyway, the lock can be opened.

**TUBE** – A part of some safe combination locks which surrounds the spindle to keep the safe insulation out and to connect the dial ring to the inner mechanism.

**TUBE HORN** – A horn on certain safe combination locks on which a tube is mounted to coordinate the dial ring with the case and the lock's inner workings.

**TUBULAR DEADLOCK** – See auxiliary cylindrical lock.

**TUBULAR KEY** – A key for an ACE lock, shaped as a cylinder, with semi-circular key cuts drilled in a circle along the circumference of the face, with their depths perpendicular to the face.

**TUBULAR LOCK** – A name sometimes inappropriately given to the auxiliary cylindrical lock and, also, to the ACE lock because of its tubular key.

**TUMBLER** – A movable obstruction in a lock cylinder which keeps the plug from turning until it and its mates are lined up at the shear line or fence by the key during locking and unlocking.

**TUMBLER FLY** – See fly.

**TUMBLER GAGE** – See decoder gage.

**TUMBLER WHEEL** – See wheel.

**TUMBLER SPRING** – A small spring, either flat or coiled, for putting pressure on lock tumblers to maintain a lock's security.

**TURNING WRENCH** – Another name for a tension wrench.

**TURN KNOB** – Another name for a thumb turn.

**TURNPIECE** – Another name for a thumb turn.

**TWO SIDE KEY** – A key for a two side lock, often with either a collar or an eccentricity to prevent the bit from being pushed through to the other side of the door.

**TWO SIDE LOCK** – A rim or mortise lock with a keyhole in both the case and the cap, for locking and unlocking from both sides of a door.

**UNASSOCIATED CHANGE KEY** – A key set for use with unassociated master keys in a specially designed master key system, but not controlled by the system's regular master keys.

**UNASSOCIATED MASTER KEY** – A special master key in a specially designed multi-level master key system which is set to operate locks anywhere in the system without cross-keying. An unassociated master key can have special changes connected with it which are independent of the rest of the system. Akin to selective master keys.

**UNCONTROLLED CROSS-KEYING** – Two or more change keys under different master keys to operate one cylinder, greatly reducing the number of changes available to the system and increasing the number of master pins (which mean less security).

**UNIT-DESIGN LOCK** – A lock which needs no disassembly for proper installation in a cutout in a door.

**UNIVERSAL DEVICE** – A lock, door closer or other fitting which fits either left-hand or right-hand doors.

**UNSHAVED BLADE** – A key blade with a flat bottom edge which forms a ninety degree angle with the sides. Most replacement key blanks have unshaved blades. See also shaved blade.

**UPPER PIN** – See top pin.

**UPRIGHT LOCK** – A lock mounted so that its largest dimension is vertical and so that the handle and the keyhole are in the same vertical line.

**UTILITY LOCK** – A small cylinder lock, usually used on metal cabinets, chests and drawers, with a cam in the rear to act directly as a bolt and with a flat area on at least one side of the housing to keep the cylinder from turning in its mounting hole.

**VACANT BOX KEY** – Another name for a safe deposit lock neutral key.

**VAULT** – A room made of heavy armored steel plate and concrete with a massive steel door controlled by precision combination locks,

and, usually, a time lock, used mostly in banks for holding large sums of money and valuables. Most bank vaults include a group of safe deposit boxes for customers to store their valuables in. Called a strong room in England.

**VAULT ATTENDANT** – A bonded bank employee in charge of safe deposit boxes and their guard keys. Also called a custodian.

**VAULT LOCK WHEEL PACK** – A set of wheels, flies, tension washers and a wheel bridge, which allows for right-hand (RH), left-hand (LH), and locked-on-by-combination (LOBC) combination changes for a vault combination lock. See wheel pack.

**VENEERED FRONT** – A decorative plate permanently fixed over a primary front plate of a lock of usually inferior material.

**VERNIER SCALE** – A short scale, named after the sixteenth century French mathematician Pierre Vernier, designed to slide along the divisions of a graduated instrument, such as a caliper, so that parts of the division are determined by observing which line of the short scale coincides with a line of the larger scale.

**WAFER** – A wafer tumbler. Also, a name sometimes given to master pins and to control pins because of their usual short length.

**WAFER TUMBLER** – One of the eight special disc tumblers used in the plug of a popular cylindrical lockset made by the Schlage Lock Co. There are three series wafers, four combination wafers and one master wafer in each such lock, under normal conditions. The series and the combination wafers can be changed to any of fourteen positions in seven slots for different combinations. See also combination wafer, master wafer and series wafer. The name, wafer tumbler, is sometimes used indiscriminately to refer to the disc tumbler in general.

**WARD** – An obstruction or projecting ridge of metal in a lock case or keyhole which guards against entry of all but keys with matching grooves. See also bridge ward, collar ward, fine ward, hook ward, nib ward, peg ward, sash ward, solid ward and wheel ward.

**WARD CUT** – A key cut in the end of a bit key made to bypass the wards of the lock. The clearance key cut for a ward.

**WARD CUTTER** – A special key machine cutting wheel which can be used on some key machines to make ward cuts in the ends of the bits of bit keys.

**WARDED KEY** – A bit key with grooves cut to bypass obstructions in the keyway of a warded lock.

**WARDED LOCK** – A lock with wards.

**WARDED PADLOCK** – A laminated padlock in which some of the laminations, called ward plates, form obstructions against improper keys.

**WARDING FILE** – A thin, rectangular file, with a taper toward the point, used for making the ward cuts in keys.

**WARD PLATE** – One of the laminations of a laminated, warded padlock with a slot cut into it to allow a key of the correct dimensions to pass but which prevents the key from turning to open the lock unless it has key cuts corresponding to the position of the ward plate in the lock body.

**WHEEL** – One of the circular, notched tumblers on a combination lock. There are two basic types of wheels, the key change wheel and the hand change wheel.

**WHEEL ARM** – Another name for a lever on a key change combination lock tumbler wheel.

**WHEEL CURB** – A circular metal guard surrounding the wheels of combination locks in some safes which makes forced entry more difficult.

**WHEEL PACK** – A set of wheels, fliers, spacers and washers which control the combination of a combination lock. See also vault lock wheel pack.

**WHEEL POST** – The post on which the wheels of a combination lock turn.

**WHEEL WARD** – A type of ward fixed to the lock case of a barrel key lock and made of sheet metal bent into a circle so that key cuts

parallel to the post of the key are needed to permit the key to turn.

**WIDTH** – See bit width.

**WIDTH OF CUT** – The distance between the two points where the slopes of a key cut meet the top edge of the key blade.

**WING** – Another name for the bit of a bit key. Also, one of two projections on a metal plate attached to a night latch thumb turn which serves to retract the latch when the thumb turn is turned. Also, one of two projections on a metal plate which transfers the motion of the connecting bar through the night latch back plate to retract the latch when the key is turned. Wings are similar in function to the horns of a hub.

**WING KEY** – Another name for a bit key.

**WROUGHT CASE PADLOCK** – A padlock with a body formed by rolling, hammering or drawing a sheet of metal.

**YOKE** – That part of a mortise lockset which connects the knob to the latchbolt. Also, a part in certain mortise locksets which enables a single set screw to secure either two cylinders or one cylinder and a thumb turn at the same time.