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**Dictionary of
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**Second
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leaf spring [DES ENG] A beam of cantilever design, firmly anchored at one end and with a large deflection under a load. Also known as flat spring. { 'lɛf ,sprɪŋ }

league [MECH] A unit of length equal to 3 miles or 4828.032 meters. { lɛɡ }

leakage [ENG] Undesired and gradual escape or entry of a quantity, such as loss of neutrons by diffusion from the core of a nuclear reactor, escape of electromagnetic radiation through joints in shielding, flow of electricity over or through an insulating material, and flow of magnetic lines of force beyond the working region. { 'lɛk-ɪj }

leakage current [ELEC] **1.** Undesirable flow of current through or over the surface of an insulating material or insulator. **2.** The flow of direct current through a poor dielectric in a capacitor. [ELECTR] The alternating current that passes through a rectifier without being rectified. { 'lɛk-ɪj ,kə-rənt }

leakage rate [ENG] Flow rate of all leaks from an evacuated vessel. { 'lɛk-ɪj ,rɪt }

leakage resistance [ELEC] The resistance of the path over which leakage current flows; it is normally high. { 'lɛk-ɪj rɪzɪs-təns }

leak detector [ENG] An instrument used for finding small holes or cracks in the walls of a vessel; the helium mass spectrometer is an example. { 'lɛk dɪ'tekt-tər }

leak test pressure [MECH ENG] The inlet pressure used for a standard quantitative seat leakage test. { 'lɛk 'test ,presh-ər }

lean fuel mixture See lean mixture. { 'lɛn 'fyʊl ,mɪks-ʃər }

leaning wheel grader [CIV ENG] A grader with skewed wheels to help cut or spread the soil. { 'lɛn-ɪŋ 'wɛl 'grād-ər }

lean manufacturing [IND ENG] A production system consisting of manufacturing cells linked together with a functionally integrated system for inventory and production control that uses less of the key resources needed to make goods. { 'lɛn ,man-ə'fak-ʃər-ɪŋ }

lean manufacturing cells [IND ENG] Typically U-shaped manufacturing cells in which workers, cross-trained on all the related processes, move from machine to machine in counterclockwise loops. { 'lɛn ,man-ə'fak-ʃər-ɪŋ ,sɛlz }

lean mixture [MECH ENG] A fuel-air mixture containing a low percentage of fuel and a high percentage of air, as compared with a normal or rich mixture. Also known as lean fuel mixture. { 'lɛn 'mɪks-ʃər }

lean-to [BUILD] A single-pitched roof whose summit is supported by the wall of a higher structure. { 'lɛn,tʊ }

lear See *lehr*. { lɪr }

learning control [CONT SYS] A type of automatic control in which the nature of control parameters and algorithms is modified by the actual experience of the system. { 'lɜ:n-ɪŋ kən'trɒl }

lease [IND ENG] **1.** Contract between landowner and another granting the latter the right to use

the land, usually upon payment of an agreed rental, bonus, or royalty. **2.** A piece of land that is leased. { lɛs }

least-action principle See principle of least action. { 'lɛst 'ak-shən ,prɪn-sə-pəl }

least-energy principle [MECH] The principle that the potential energy of a system in stable equilibrium is a minimum relative to that of nearby configurations. { 'lɛst 'en-ər-jɛ ,prɪn-sə-pəl }

least-work theory [MECH] A theory of statically indeterminate structures based on the fact that when a stress is applied to such a structure the individual parts of it are deflected so that the energy stored in the elastic members is minimized. { 'lɛst 'wɜ:k ,thɛ-ə-rɛ }

LED See light-emitting diode.

LEDE room [ENG ACOUS] A control room in a sound-recording studio in which the rear wall is made reflective or diffusive, while the dead or sound-absorbent treatment is applied at the frontal sidewalls near the loudspeaker to prevent lateral reflections from mixing with direct signals from the loudspeaker. Derived from live-end-dead-end room. { 'lɛ,dɛ ,rʊm }

ledge [BUILD] A horizontal timber on the back of a batten door or on a framed and braced door. [ENG] **1.** A raised edge or molding. **2.** A narrow shelf projecting from the side of a vertical structure. **3.** A horizontal timber that supports the put-logs of scaffolding. { lɛj }

ledged door See batten door. { 'lɛjd 'dɔr }

ledger [CIV ENG] A main horizontal member of formwork, supported on uprights and supporting the soffit of the formwork. [ENG] The horizontal support for a scaffold platform. { 'lɛj-ər }

Ledoux bell meter [ENG] A type of manometer used to measure the difference in pressure between two points generated by any one of several types of flow measurement devices such as a pitot tube; it is equipped with a shaped plug which makes the reading of the meter directly proportional to the flow rate. { lə'du 'bel ,mɛd-ər }

lehr See *lehr*. { lɜr }

Lee's disk [THERMO] A device for determining the thermal conductivity of poor conductors in which a thin, cylindrical slice of the substance under study is sandwiched between two copper disks, a heating coil is placed between one of these disks and a third copper disk, and the temperatures of the three copper disks are measured. { 'lɛz ,disk }

left-hand [DES ENG] Of drilling and cutting tools, screw threads, and other threaded devices, designed to rotate clockwise or cut to the left. { 'left 'hænd }

left-handed See left-laid. { 'left 'hænd-əd }

left-hand screw [DES ENG] A screw that advances when turned counterclockwise. { 'left 'hænd 'skrʊ }

left-laid [DES ENG] The lay of a wire or fiber rope or cable in which the individual wires or fibers in the strands are twisted to the right and the