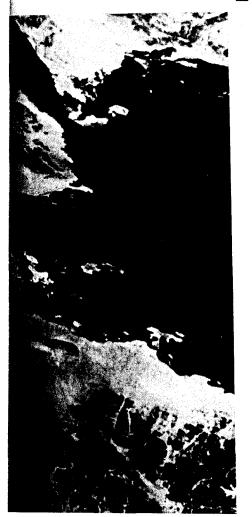
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McGraw-Hill DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

Fourth Edition



Sybil P. Parker

EDITOR IN CHIEF

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On the cover: Pattern produced from white light by a computer-generated diffraction plate containing 529 square apertures arranged in a 23 \times 23 array. (R. B. Hoover, Marshall Space Flight Center)

On the title pages: Aerial photograph of the Sinai Peninsula made by Gemini spacecraft. (NASA)

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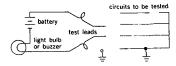
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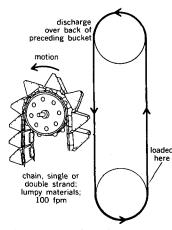
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CONTINUITY TEST



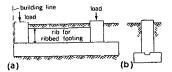
Simple continuity test setup.

CONTINUOUS BUCKET ELEVATOR



Components of continuous bucket elevator, and typical path of travel.

CONTINUOUS FOOTING



Two types of continuous footings. (a) Cantilever and ribbed footings. (b) Wall footing.

continue statement [COMPUT SCI] A nonexecutable statement in FORTRAN used principally as a target for transfers, particularly as the last statement in the range of a do statement. { ken'tin'vu stāt'ment }

continuity [CIV ENG] Joining of structural members to each other, such as floors to beams, and beams to beams and to columns, so they bend together and strengthen each other when loaded. Also known as fixity. [ELEC] Continuous effective contact of all components of an electric circuit to give it high conductance by providing low resistance. { känt-ən 'ü-əd-ē } continuity chart [METEOROL] A chart maintained for weather analysis and forecasting upon which are entered the positions of significant features (pressure centers, fronts, instantinuous).

ability lines, through lines, ridge lines) of the regular synoptic charts at regular intervals in the past. { ,känt-ən'ü-əd-ē ,chärt } continuity equation [PHYS] An equation obeyed by any conserved, indestructible quantity such as mass, electric charge, thermal energy, electrical energy, or quantum-mechanical probability, which is essentially a statement that the rate of increase of the quantity in any region equals the total current flowing into the region. Also known as equation of continuity. { ,känt-ən'ü-əd-ē i'kwā-zhən }

continuity test [ELEC] An electrical test used to determine the presence and location of a broken connection. { ,känt-an'ü-ad-ē, test }

continuous at a point [MATH] A function f is continuous at a point x if for every sequence $\{x_n\}$ whose limit is x, the sequence $f(x_n)$ converges to f(x); in a general topological space, for every neighborhood W of f(x), there is a neighborhood N of x such that $f^{-1}(W)$ is contained in N. { kən',tin-yə-wəs ad ə 'point } **continuous beam** [CIV ENG] 1. A beam resting upon several supports, which may be in the same horizontal plane. 2. A beam having several spans in one straight line; generally has at least three supports. { kən',tin-yə-wəs 'bēm }

continuous brake [MECH ENG] A train brake that operates on all cars but is controlled from a single point. { kən¦tin yər was 'brāk }

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continuous carrier [COMMUN] A carrier signal that is transmitted at all times during maintenance of a communications link, whether or not data are being transmitted. { kən'tin yəwəs 'kar ērər }

continuous casting [MET] A technique in which an ingot, billet, tube, or other shape is continuously solidified and withdrawn while it is being poured, so that its length is not determined by mold dimensions. { ken;tin ye was 'kast in }

continuous cell line [CYTOL] A group of morphologically uniform cells that can be propagated in vitro for an indefinite time. { kən¦tin yə wəs 'sel ,līn }

continuous clamp See voltage-amplitude-controlled clamp.
{ kən¦tin yə wəs 'klamp }

continuous coal cutter [MIN ENG] A coal mining machine that cuts the coal face without being withdrawn from the cut. { kən¦tin·yə·wəs 'kōl ˌkəd·ər }

continuous comparator See linear comparator. { kən¦tin-yə-wəs kəm'par-əd-ər }

continuous contact coking [CHEM ENG] A thermal conversion process using the mass-flow lift principle to give continuous coke circulation; oil-wetted particles of coke move downward into the reactor in which cracking, coking, and drying take place; pelleted coke, gas, gasoline, and gas oil are products of the process. { kən¦tin-yə-wəs ¦kän,takt 'kök-iŋ }

continuous control [CONT SYS] Automatic control in which the controlled quantity is measured continuously and corrections are a continuous function of the deviation. { kən¦tin yəwəs kən'trōl }

continuous countercurrent leaching [CHEM ENG] Process of leaching by the use of continuous equipment in which the solid and liquid are both moved mechanically, and by the use of a series of leach tanks and the countercurrent flow of solvent

through the tanks in reverse order to the flow of { kən¦tin-yə-wəs ¦kaunt-ər¦kər-ənt 'lēch-iŋ }

continuous distillation [CHEM ENG] Separation by of a liquid mixture with different component boiling feed is introduced continuously, with continuous removerhead vapors and high-boiling bottoms liquids. { ye-wes, dis-te-lia-shen }

continuous distribution [STAT] Distribution of a cous population, which is a class of pairs such that the member of each pair is a value, and the first member pair is a proportion density for that value. {kən,ting, dis-trə-byü-shən}

continuous dryer [ENG] An apparatus in which draws accomplished by passing wet material through without ruption. { kən tin yə wəs 'drī ər }

continuous-duty rating [ELEC] The rating that define load which can be carried for an indefinite time with ceeding a specified temperature rise. { kən¦tin yə waşı 'rād-iŋ }

continuous equilibrium vaporization See equilibrium vaporization. { kən¦tin·yə·wəs ˌē·kwə¦lib·rē·əm vān shən }

continuous extension [MATH] A continuous which is equal to another continuous function defined smaller domain. { kən',tin:yə:wəs ik'sten:shən } continuous filament [TEXT] A long, continuous filament [TEXT] A long, continuous filament cept raw silk), which are of short staple or length. yə:wəs 'fil-ə:mənt }

continuous film scanner [ELECTR] A television ner in which the motion picture film moves continuous being scanned by a flying-spot kinescope. {kming skan or }

without interruption, for application of adjustment or for other causes. 2. In field artillery, a succession the pieces being fired consecutively at the interval in the command. { kən'tin yə wəs 'fir }

continuous-flow conveyor [MECH ENG] A totally continuous-belt conveyor pulled transversely through of granular, powdered or small-lump material recoverhead hopper. { kən',tin-yə-wəs 'flō kən',vā-ər' continuous flowmeter log [PETRO ENG] A record made to record changes in the flow pattern of productions a function of changes in conditions at the surface in type of operation, or after stimulation treatments yə-wəs 'flō,mēd-ər ,läg }

continuous footing [CIV ENG] A footing that wall. { kən¦tin yə wəs 'fud iŋ }

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continuous forms [COMPUT SCI] 1. In character any batch of source information that exists in religious tally rolls or cash-register receipts. 2. Preprinted repeat on each page, with the bottom of one page top of the next by a perforated attachment, so that fed through a printer. { kən¦tin·yə·wəs 'formz } continuous function [MATH] A function which ous at each point of its domain. Also known as transformation. { kən¦tin·yə·wəs 'fəŋk·shən } continuous furnace [MET] A type of reheating which the charge introduced at one end moves through the furnace and is discharged at the { kan¦tin·yə·wəs 'fərnəs }

continuous gas lift [PETRO ENG] Oil producion reservoir gas pressure (natural or injected) is sufficient a continuous upward flow of oil through the life in the l

{ kən¦tin·yə·wəs 'gas ,lift }

continuous geometry [MATH] A generalizator
tive geometry. { kən¦tin·yə·wəs jē'ām·ərtrē }

continuous image [MATH] The image of a selli
tinuous function. { kən¦tin·yə·wəs 'im'ij }

continuous industry [IND ENG] An industry in
material is subjected to successive operations,
finished product. { kən¦tin·yə·wəs 'in·dəs'trē }

continuous kiln [ENG] 1. A long kiln through

McGraw-Hill DICTIONARY OF SCIENTIFIC AND **FCHNICAL** Fifth Edition

Sybil P. Parker
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On the cover: Photomicrograph of crystals of vitamin B₁. (Dennis Kunkel, University of Hawaii)

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continental borderland, shelf, slope, and rise. { känt ən ent əl 'mär jən]

continental mass [GEOGR] The continental land rising more or less abruptly from the ocean floor and also the shallow submerged areas surrounding this land. { |kant-ən|ent-əl |mas }

continental nucleus [GEOL] A large area of basement rock consisting of basaltic and more mafic oceanic crust and periodotitic mantle from which it is postulated that continents have grown. Also known as continental shield; cratogene; shield. { känt ən ent əl 'nü klē əs }

continental plate [GEOL] Thick continental crust. { käntən¦ent əl 'plāt }

continental plateau See tableland. { |känt ən ent əl plə to } continental platform See continental shelf. { |känt-ən|ent-əl 'plat,fòrm

continental polar air [METEOROL] Polar air having low surface temperature, low moisture content, and (especially in its source regions) great stability in the lower layers. { |käntən ent əl polər er }

continental rise [GEOL] A transitional part of the continental margin; a gentle slope with a generally smooth surface, built up by the shedding of sediments from the continental block, and located between the continental slope and the abyssal plain. { 'känt on ent ol 'rīz }

continental shelf [GEOL] The zone around a continent, that part of the continental margin extending from the shoreline and the continental slope; composes with the continental slope the continental terrace. Also known as continental platform; shelf. { 'känt ən ent əl 'shelf }

continental shield See shield. ['känt ən ent əl 'sheld]

continental slope [GEOL] The part of the continental margin consisting of the declivity from the edge of the continental shelf extending down to the continental rise. { 'känt ən ent əl 'slop } continental terrace [GEOL] The continental shelf and slope together. { 'känt ən ent əl 'ter əs }

continental tropical air [METEOROL] A type of tropical air produced over subtropical arid regions; it is hot and very dry. { 'känt ən ent əl träp ə kəl 'er }

continent formation [GEOL] A series of six or seven major episodes, resulting from the buildup of radioactive heat and then the melting or partial melting of the earth's interior; the molten rock melt rises to the surface, differentiating into less primitive lavas; the continent then nucleates, differentiates, and grows from oceanic crust and mantle. { |känt-ən|ent-əl fər'mā-shən } contingency interrupt [COMPUT SCI] A processing interruption due to an operator's action or due to an abnormal result from the system or from a program. { kən'tin jən sē 'inta,rept l

contingency table [STAT] A table for classifying elements of a population according to two variables, the rows corresponding to one variable and the columns to the other. { kən'tinjən·sē tā·bəl }

continuant [MATH] The determinant of a continuant matrix. { kən'tin·yə·wənt }

continuant matrix [MATH] A square matrix all of whose nonzero elements lie on the principal diagonal or the diagonals immediately above and below the principal diagonal. Also known as triple-diagonal matrix. { kən'tin yə wənt 'mā triks } continued equality [MATH] An expression in which three or more quantities are set equal by means of two or more equality signs. { kən'tin yüd i'kwäl əd ē }

continued fraction [MATH] The sum of a number and a fraction whose denominator is the sum of a number and a fraction, and so forth; it may have either a finite or an infinite number of terms. { kən'tin yüd 'frak shən }

continued-fraction expansion [MATH] 1. An expansion of a driving-point function about infinity (or zero) in a continued fraction, in which the terms are alternately constants and multiples of the complex frequency (or multiples of the reciprocal of the complex frequency). 2. A representation of a real number by a continued fraction, in a manner similar to the representation of real numbers by a decimal expansion. { kən'tin yüd 'frakshən ik'span·shən }

continued product [MATH] A product of three or more factors, or of an infinite number of factors. { kən'tin yüd 'präd-

continue statement [COMPUT SCI] A nonexecutable statement in FORTRAN used principally as a target for transfers, particularly as the last statement in the range of a do statement { kən tin yü stāt mənt }

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continuity of state [THERMO] Property of a transition tween two states of matter, as between gas and liquid, dur which there are no abrupt changes in physical proper { känt ən 'ü əd ē əv 'stāt }

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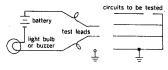
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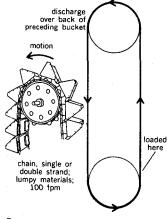
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