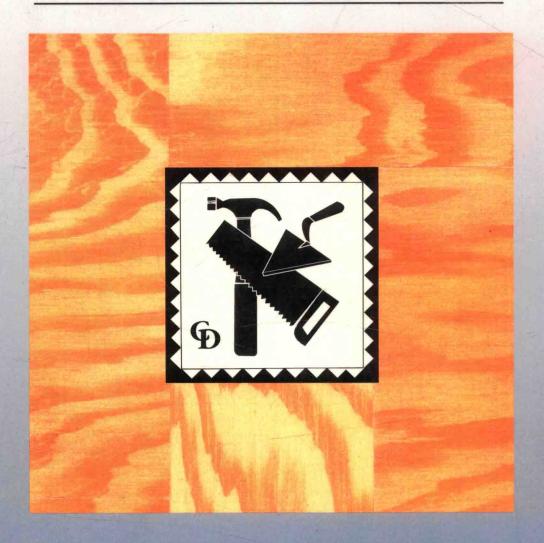
THE

CONCISE

DICTIONARY

OF

CONSTRUCTION



FREDERIC H. JONES, PH.D.

A CONCISE DICTIONARY OF CONSTRUCTION

Frederic H. Jones, Ph.D.

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INTRODUCTION

Concise Dictionary of Construction

This project has truly been a labor of love. Words have been a fascination for me all my life. I have collections of dictionaries, glossaries, word lists, etc. in many languages and on many subjects. I suppose it was just a matter of time before I was compelled to undertake a word list project of my own. I hope you find it both interesting and useful.

Many of the words and definitions included here were provided by historic dictionaries of architecture and design including the late 19th century edition by Russell Sturgis. Many of the illustrations have also been derived from these sources. In all cases the language and definitions were updated when necessary. Another primary source of words and their definitions were various associations and trade organizations. They include: The Illumination Engineering Society, Carpet and Rug Institute, Western Institute of Cabinetmakers, and many others. I wish to acknowledge their invaluable assistance and hasten to add that errors, no doubt, derive from my translation rather than from their creation.

My hope is that this and the other dictionaries in the series serve as introductory aids to students of design and architecture. The need to know both the meaning of obscure words and the obscure meanings of familiar words is one that a student of any profession encounters early in their studies. In fact the very "putting on of the mantle" of the language of the profession is the very essence of engaging the profession. We find ourselves sounding and thinking like designers and eventually we become the thing we emulate. This list of words will serve as an incomplete but helpful map on this journey.

I, in the process of editing this dictionary, encountered many words and illustrations that would extend beyond the scope of any single dictionary. I have also been very involved in the contemporary process of automating the very word management and drawing management tools essential to design practice. I speak of the computer of course. I therefore have combined the extensive database of words and images and the computer and am making available an electronic "encyclopedia" of architecture and design. If you are interested in this product please contact me at 39315 Zacate Avenue, Fremont, CA 94538.

Frederic H. Jones, Ph.D.



Abandonment: When a contractor stops work on a job before it is completed and removes all equipment and material.

Abated: In stone cutting, hammered metal work, and the like, cut away or beaten down, lowered in any way, as the background of a piece of ornament, to show a pattern or figure in relief.

Abatement: See asbestos abatement.

Abrasion resistance: A material's ability to resist rubbing and scraping without wearing away.

Abrasion-finished surface: A surface that results from sanding with disks coated with abrasives of different grain sizes.

ABS: Abbreviation for acrylonitrilebutadiene-styrene.

Absenteeism: Prolonged or chronic absence from duty or work.

Absolute coordinates: Coordinates based on points measured from a fixed origin in x, y, or z axes.

Absolute pressure: The total pressure measured from absolute vacuum. It equals the sum of gauge pressure and atmospheric pressure corresponding to the barometer (expressed in pounds per square inch) (kilo Pascals).

Absolute temperature: Temperature measured from absolute zero. A point of tem-

perature theoretically equal to 459.73° F (-273.18° C). The hypothetical point at which a substance would have no molecular motion and no heat.

Absolute zero: Zero point on the absolute temperature scale. A point of total absence of heat, equivalent to -459.73° F (-273.18° C).

Absorbents: Sound-absorbing materials.

Absorption: (A) Capillary, osmotic, or chemical action by which fibers, yarns, or fabrics become intermixed with liquids or gases. (B) The dissipation of light within a surface or medium.

Absorption: The immersion in a fluid for a definite period of time, usually expressed as a percent of the weight of the dry pipe. The property of a material that allows it to take up liquids and to assimilate them.

Abstract of bids: A summary of prices prepared by an owner for a given job, based on bids received from contractors to select the contractor to be awarded the job and of informing all bidders.

Abuse coverings and finishes: Jackets or mastics used to protect insulation from mechanical abuse.

Abut: To touch or join by its end, as in a timber where the end grain is planted against another member of a structure, but without framing, or where an arch bears upon a pier, course of stone, skew back, or the like.

Abutment: A surface of a structure on which a body abuts or presses. Specifically, (A) That which takes the weight and thrust of an arch, vault, or truss; usually that part of the wall or pier that may be supposed to be the special support of the construction above. In the case of a series of arches or trusses, the term usually applies to the comparatively heavy piers at the ends and not to the intermediate supports, unless very large. Hence, by extension but incorrectly, the masonry or rock to which the cables of a suspension bridge are anchored. (B) In carpentry, the joining of two pieces so that their grain is perpendicular.

Abuttal: A piece of ground that bounds on one side of the lot or plot under consideration. Thus, the owner has to be careful not to encroach upon his abuttals by walls or substructures except by party wall agreement, or the like.

Acatia: A dense wood, resembling rosewood, used in making furniture with turned parts and handles. It is yellowishred to reddish-brown in color and native primarily to Australia.

Acceleration: When a contractor is required to complete work at an earlier date than originally scheduled. See constructively accelerated.

Accent lighting: Directional lighting to emphasize a particular object or draw attention to a part of the field of view.

Acceptance inspection: An inspection that must be performed before the acceptance of a project or any part thereof for payment.

Acceptance periods: Intermediate milestones for partial completion established in a contract, with provisions for owner's inspection and acceptance of work completed up to that point before continuation of other work.

Acceptance: The essential elements of an acceptance are: (A) The offeree (recipient) must know of the offer; (B) The offeree must show an intention to accept; (C) The acceptance must be unconditional; and (D) The acceptance must be made according to the terms of the offer.

Accelerator: Any material added to gypsum plaster that speeds up the natural set.

Access door: Hinged panel mounted in a frame with a lock, normally mounted in a wall or ceiling, to provide access to concealed valves or equipment that requires frequent attention.

Access unit, Hand hole, or Junction box: An opening with a removable cover to provide access to the header and distribution ducts or cells.

Access: (A) Freedom or ability to enter, communicate with, or pass to and from; (B) An approach to premises.

Accessible (handicapped): Site, building, facility, or portion thereof that can be ap-

proached, entered or used by physically handicapped people.

Accessories: Linear formed metal, meal and paper, or plastic members fabricated to form corners, edges, control joints, or decorative effects in conjunction with gypsum board and plaster assemblies.

Accident: A sudden, unexpected event identifiable as to time and place.

Accommodation: The process by which the eye changes focus from one distance to another.

Accordion door: A door constructed with joined portions of wood that will fold together.

Account code structure: The system used to assign summary numbers to elements of the work breakdown and charge (account) numbers to individual work packages.

Account number: A numeric identification of work package (also known as shop order number, charge number, or work order number). An account number may be assigned to one or more activities.

Accumulator: A container in which fluid or gas is stored under pressure as a source of power.

Acid vent: A pipe venting an acid waste system.

Acid Waste: A pipe that conveys liquid waste matter containing a pH of less than 7.0.

Acknowledgement: A formal notice of acceptance of an order that usually states delivery date.

Acme thread: A screw thread, the section of which is between the square and V threads, used extensively for feed screws. The included angle of space is 29% as compared to 60% of the National Coarse of U.S. Thread.

Acoustic: Used with a basic sound property.

Acoustical plaster: A finishing plaster designed to correct sound reverberations or reduce noise integrity.

Acoustical tile: Tiles or sheets that are acoustical absorbents.

Acoustical: Used in the control of sound.

Acoustics: The science of the control and transmission of sound. The unit of measure of sound is the decibel. Zero decibels is no sound. Normal conversation is 45-60 decibels. Hearing injury can occur at more than 100 decibels.

Acrylic coating cured with radiation process: A coating over particleboard that meets the requirements of the Woodwork Institute of California. The coating meets the requirements of NEMA LQ 1-77, Light Duty, and shall be as manufactured by Willamette Industries product known as KorTron/EB.

Acrylonitrile-butadiene-styrene (ABS): A high-impact plastic. A thermoplastic compound from which fittings, pipe and tubing are made.

Active sludge: Sewage sediment, rich in destructive bacteria, that can be used to break down fresh sewage more quickly.

Activity description: A condensed explanation of the nature of the work to be performed, which easily identifies an activity to any recipient of the schedule.

Activity duration: The length of time from start to finish of an activity, estimated or actual, in working or calendar time units.

Activity splitting: Breaking down a big activity into smaller parts to allocate resources or technology better on the project.

Activity times: Time information generated through the CPM calculation that identifies the start and finish times for each activity in the network.

Activity total slack: The latest allowable end time minus earliest allowable end time. The activity slack is always greater than or equal to the slack of the activity ending event.

Activity: Any definable and timeconsuming task, operation, or function to be executed in a project. Actual completion date (Actual finish date) (TA): The calendar date on which an activity was completed. This date should be no later than the report date.

Actual costs: Program or project expenditures.

Actual start date: The calendar date on which the activity began. It must be prior to or equal to the data date.

Adaptation: The process by which the visual system becomes accustomed to more or less light than it was exposed to during an immediately preceding period. It results in a change in the sensitivity of the eye to light.

Adapter fitting: (A) Any fittings designed to mate, or fit, to other two pipes or fittings that are different in design, when connecting the two together would otherwise not be possible. (B) A fitting that serves to connect two different tubes or pipes to each other, such as copper tube to iron pipe.

Addendum: Written or graphic instrument issued before the receipt of bids that modifies or interprets the bidding documents, including drawings and specifications, by additions, deletions, clarifications, or corrections (will become part of the contract documents).

Addition (to contract sum): An amount added to the contract sum by a change order to reimburse the contractor for extra work or for unanticipated additional costs

or damages for performing the work in the original contract, occasioned by delays or interference not the fault of the contractor. See extra or change order.

Addition (to the structure): A construction project physically connected to an existing structure, as distinct from alterations within an existing structure.

Additive alternate: An alternate bid resulting in an addition to the same bidder's base bid. See alternate bid.

Additive: An admixture added to a product at the mill during manufacture. See admixture.

Addressable system smoke detector: System of smoke detectors that in addition to providing alarm and trouble indication to a control unit, communicate a unique identification (address).

Adhesion: The property of a material that allows it to bond to the surface to which it is applied.

Adhesive, type I, fully waterproof: Forms a bond that will withstand full weather exposure and be unaffected by microorganisms; bond shall be of such quality that specimens will withstand shear and cyclic boil tests specified in PS 51-71.

Adhesive, type II, water-resistant: Forms a bond that will retain practically all of its strength when occasionally subjected to thorough wetting and drying; bond shall

be of such quality that specimens will withstand the coat soak test specified in PS 51-71.

Adhesive: A substance capable of bonding materials by surface attachment. It is a general term and includes all cements and glues.

Administrative authority: The individual official, board, department, or agency established and authorized by a state, county, city, or other political subdivision created by law to administer and enforce the provisions of the plumbing code.

Admixture: A substance, a chemical or color, added to a mixture of concrete or plaster, usually water repellent.

Adobe: Sundried mud bricks used for construction in Latin America, Spain, and the American Southwest.

Advertisement for bids: Published public notice soliciting bids for a construction project. Often used to conform to legal requirements pertaining to public projects and usually published in newspapers of general circulation in the geographic area from which the public funds are derived.

Aeration: An artificial method in which water and air are brought into direct contact with each other. One purpose is to release certain dissolved gases that often cause water to have obnoxious odors or disagreeable tastes. Also used to furnish oxygen to waters that are oxygen deficient.

The process may be accomplished by spraying the liquid in the air, bubbling air through the liquid, or by agitation of the liquid to promote surface absorption of the air.

Aerobic: Bacteria living or active only in the presence of free oxygen.

Affidavit of noncollusion: A sworn statement by bidders that their proposal prices were arrived at independently without consultation among them.

Agency: (A) Relationship between agent and principal. (B) Organization acting as agent. (C) Administrative subdivision of an organization, particularly in government.

Agent: A person authorized to act on behalf of another person.

Aggregate: Foreign material such as rocks or pebbles mixed with cement to form concrete. Exposed aggregate is concrete that contains decorative aggregate processed to expose to surface view. The word used in connection with plastering usually means sand, vermiculite, or perlite.

Agreement form: A printed contract describing the general provisions of an agreement, with spaces provided for insertion of specific data relating to the project.

Agreement: (A) A meeting of mind, (B) A legally enforceable promise or promises between two or more persons. (C) A con-

struction project document which states the essential terms of the construction contract that incorporates by reference the other contract documents. (D) The document setting forth the terms of the contract between two parties, such as the architect and owner, the architect and a consultant, etc. See agreement form and contract.

Air, compressed: Air at any pressure greater than atmospheric pressure.

Air, free: Air that is not contained and subject only to atmospheric conditions.

Air, standard: Air having a temperature of 70° F (21.1° C), a standard density of 0.0075 lbs/ft (0.11 kg/m) and under pressure of 14.70 p.s.i.a. (101.4 kPa). The gas industry usually considers 60° F (15.6° C) as the temperature of standard air.

Air ambient: The air that surrounds an object.

Air break: A physical separation in which a drain from a fixture, appliance, or device indirectly discharges into a fixture, receptacle, or interceptor at a point below the flood level rim of the receptacle, to prevent backflow or backsiphonage.

Air chamber: A continuation of the water piping beyond the branch to fixtures, finished with a cap designed to eliminate shock or vibration of the piping when the faucet is closed suddenly.

Air changes: The amount of air exchanged in space volumes. This explains the amount of air moving in and out of a building.

Air circulation: The movement of air.

Air cleaner: A device that filters and washes the impurities from the air.

Air conditioned space: Building area supplied directly with conditioned air.

Air conditioning, central: A conditioning system that will manage the temperature and dehumidify and purify the air.

Air cooling: Reducing air temperature by reducing heat.

Air diffuser: An outlet that discharges airconditioned air.

Air drain: A flue arranged to provide a supply of air to a fireplace, or the like.

Air-dried: Wood that has been naturally dried by the atmosphere.

Air entrainment: Intentionally introducing into Portland cement plaster in its plastic state a controlled number of minute disconnected air bubbles well distributed throughout the mass to improve flow and workability or to improve other desired characteristics in the mortar.

Air fitting (air bonnet, air hood, air saddle, air box): A fitting mounted to an air-handling luminaire which connects to the primary air duct by flexible ducting. It

normally contains one or two volume controls.

Air gap: The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water or waste to a tank, plumbing fixture receptor, or other device and the flood level rim of the receptacle. Usually required to be twice the diameter of the inlet.

Air sampling-type detector: A sampling-type of detector consists of piping or tubing distribution from the detector unit to the areas to be protected. An air pump draws air from the protected area back to the detector through the air sampling ports and piping or tubing. At the detector, the air is analyzed for fire products.

Air shaft: A vertical or nearly vertical space reserved for the free passage of air. It can be small, like an air drain, air duct, or air flue, or large enough to form a small courtyard among high buildings.

Air test: A test applied to the completed plumbing system before the building is plastered.

Air-dried lumber: Lumber that has been piled in yards or sheds for any length of time. For the United States as a whole, the minimum moisture content of thoroughly air-dried lumber is 12% to 15% and the average is somewhat higher. In the south,

air-dried lumber may have a moisture content no lower that 19%.

Airway: A space between roof insulation and roof boards for movement of air.

Alarm (signal) indicating appliance: An electromechanical appliance that converts energy into audible or visible signal for perception as an alarm signal.

Alarm check valve: A check valve, equipped with a signaling device, which will annunciate a remote alarm, when sprinkler heads are discharging.

Alarm signal: A signal indicating an emergency requiring immediate action, as an alarm for fire from a manual box, a water flow alarm, an alarm from an automatic fire alarm system, or other emergency signal.

Alarm verification feature: A feature of automatic fire detection and alarm systems to reduce unwanted alarms wherein automatic fire detectors must report alarm conditions for a minimum period of time or confirm alarm conditions within a given time period after being reset to be accepted as a valid alarm initiation signal.

Alarm: Any audible or visible signal indicating existence of a fire or emergency requiring response and emergency action by the fire fighting service. The alarm device or devices by which fire and emergency signals are received.

Alder: A hardwood that is light-brown in color, finishes nicely, and will not absorb water very well.

Alkalinity: The tendency of a material to have a basic alkaline reaction. The tendency is measured on the scale, with all readings above 7.0 alkaline and below 7.0 acidic.

Alkyds: Plastics that are resistant to acids and oils and can withstand high temperatures. They are used for lacquer and enamel as a liquid and light switches, motor insulation, and fuses as a solid. These plastics are very strong.

All-purpose compound: A joint treatment compound that can be used as a bedding compound for tape, a finishing compound, and a laminating adhesive or texturing product.

All-service jacket (ASJ): A jacket of white, chemically treated kraft paper reinforced with fiberglass yarn mesh and laminated to aluminum foil. Used as a vapor barrier on insulation.

Alley: A narrow passageway (A) Between two houses, like a very narrow street. (B) In or under a house, as affording passage directly to the inner court or yard without entering the rooms of the house. (C) A walk in a garden; (D) An aisle, as in a church (obsolete). (E) An aisle in the modern sense, that is a passage between the

pews, more accurate in this sense than aisle. (F) A long and narrow building.

Alligator cracks: See check cracks.

Alligatoring: Coarse checking pattern characterized by a slipping of the new paint coating over the old coating to the extent that the old coating can be seen through the fissures.

Allowance (cash allowance): An amount established in the contract documents for inclusion in the contract sum to cover the cost of prescribed items not specified in detail, with provision that variations between such amount and the finally determined cost of the prescribed items will adjust the contract sum.

Allowance: An agreed-upon reduction of length, width, or thickness of a block or length and width of a slab. The allowance is the measure of the entire block or slab.

Alloy pipe: A steel pipe with one or more elements other than carbon that give it greater resistance to corrosion and more strength than carbon steel pipe.

Alloy: A substance composed of two or more metals or a metal and nonmetal, usually fused and dissolving in each other when molten.

Alpha (alfa): Designates alphabetical characters rather numerical (number) characters.

Alpha gypsum: Denotes a class of specially processed calcined gypsum having properties of low consistency and high strength.

Alterations: (A) A construction project comprising revisions within or to an existing structure, as distinct from additions to an existing structure. (B) Remodeling or retrofit.

Alternate bid: Amount stated in the bid to be added to or deducted from the amount of the base bid if the corresponding change in project scope or alternate materials or methods of construction is accepted.

Alternate route: A secondary communications path used to reach a destination if the primary path is unavailable.

Alternate: A different approach or design and generally requiring a separate bid.

Alternating current (AC): Flow of electricity that cycles or alternates direction many times per second. The number of cycles per second is referred to as frequency. Most common frequency used in this country is 60 Hertz (cycles per second).

Aluminum: A metal combined chiefly with bauxite. It is extremely light and resists moisture and corrosion.

Amaranth: A hardwood, purplish-red in color, used chiefly for marquetry and veneering.

Ambient lighting: General lighting or lighting of the surrounding (rather than task lighting or the lighting of the object one is looking at). It can be produced by direct lighting from recessed surface or stem-mounted luminaries, or by indirect lighting, which is wall or stem mounted, built into furniture, or free standing.

Ambient temperature: The prevailing temperature in the immediate vicinity or the temperature of the medium surrounding an object.

Ambient: Surrounding. Generally applied to temperature of the medium, usually air, surrounding the object under consideration.

Ambulant disabled: Physically disabled people who can walk.

American standard pipe thread: A type of screw thread commonly used on pipe and fittings.

Ampacity: The current a conductor can carry continuously without exceeding its temperature rating. Ampacity is a function of cable size, insulation type, and the conditions of use.

Ampere rating: The continuous current carrying capability of a fuse under defined laboratory conditions. The ampere rating is marked on each fuse. Class L fuses and E-rated fuses may be loaded to 100% of their ampere rating. For all other fuses,

continuous load current should not exceed 80% of fuse ampere rating.

Amperes (amps or A): The unit of measurement of electric current.

Anaerobic: Bacteria living or active in the absence of free oxygen.

Anathyrosis: A smooth dressing of the outer contact band of a masonry joint.

Anchor bolts: Bolts to secure a wooden sill plate to concrete or masonry floor or wall.

Anchor: A device used to secure pipes to the building or structure. A piece of metal that joins building parts such as plates or joists.

Anchorage: The means by which slabs or any stone product is attached to a self supporting structure.

Andirons: Metal frames or platforms used to hold firewood above the floor of a fireplace and thereby provide air circulation for combustion.

Angle iron: A 90°-angled iron bar used as lintel support. Metal section sometimes used as main runners in lieu of channels.

Angle of bend: In a pipe, the angle between radial lines from the beginning and end of the bend to the center.

Angle valve: A device, usually of the globe type, in which the inlet and outlet are at right angles.

Angle of incidence: An angle perpendicular to the surface upon which a lighted ray falls.

Anhydrite: The mineral consisting primarily of anhydrous calcium sulfate, CaSO4.

Annealing: A process that strengthens flintglass by heating it and then allowing it to cool off.

Annunciation: A visible or audible indication.

Anti-abrasive coating: Material applied to prevent wearing away of insulation at its joints or at contact with pipe or equipment.

Anticlastic: A surface with curvatures both concave and convex through any point. A hyperbolic parabolic roof is an example.

Antisweat: Any application that prevents condensation.

Antisyphon trap: A trap designed to prevent the syphonage of its water seal by increasing the diameter of the trap outlet leg so that it contains enough water to prevent syphoning.

Apex stone: The top stone in a gable end. Also called a saddle stone.

Apparatus closet: A suitable enclosure large enough to contain key telephone system apparatus power equipment, terminating facilities for key telephone system and services, and central office and PBX lines. Apparatus closets may also serve as equipment closets, zone closets, or riser closets, according to the design of the underfloor raceway or riser system.

Apparent intent: The accepted purpose in carrying out a particular act.

Appearance covering: A material or materials used over insulation to provide desired color or texture.

Applewood: A light-colored wood more important for its fruit than the small pieces of furniture it produces.

Appliance: Equipment such as electrical fans and toasters that consume currents.

Application for payment: Contractor's written request for payment of amount due for completed portions of the work and, if the contract so provides, materials delivered and suitably stored pending their incorporation into the work.

Application temperature limits: Temperature for safe application of finishes, adhesives, and sealants.

Appraisal: Professional evaluation of the market value or worth of land, facilities, or property.

Apprentice: A person learning a skilled trade, usually four years of formal training.

Approval, engineer's or architect's: Written or imprinted acknowledgement that

materials, equipment, or methods of construction are acceptable for use in the work, or that a contractor's request or claim is valid.

Approved equal: Material, equipment, or method approved by the architect or engineer for use in the work as being acceptable as an equivalent in essential attributes to the material, equipment or method specified in the contract documents.

Approved testing agency: An organization established to test approved standards and acceptable by the administrative authority.

Approved: Acceptable under an applicable standard cited for the proposed use under procedures and authority of the administrative authority.

Apron: A raised panel below a window sill. An addition or extension to the front of a stage platform.

Arbitration: Method of settling disputes between parties to a contract. The arbitrator is selected for their specialized knowledge in the field, to hear the evidence and render a binding decision.

Arc tube: An enclosure usually found on fluorescent, mercury, quartz, or highpressured sodium lamps, made of glass or ceramic. Arch, abutment: That arch of a series that comes next to the outer abutment, as the land arch of a bridge.

Arch, back: An arch carrying the back or inner part of a wall, where the exterior face of the wall is carried in a different way; as above a window opening, which has a stone lintel for the outer part of the wall and a concealed arch carrying the inner part.

Arch, basket handle: A three-centered arch of the more usual kind. The term might equally well be applied to a five-centered or seven-centered arch having the same general form.

Arch, bell: An arch resting upon two corbels with curved face or edge, so that the resulting compound curve has a distant resemblance to the outlines of a bell.

Arch braces: A pair of curved braces forming an arch.

Arch, built: One composed of material other then masonry and put together with rivets, spikes, or the like; therefore not depending upon the mutual support of wussoirs nor a solid ring of masonry. The simplest form is the laminated arch. The elaborate forms are more usually called arched truss or arch truss. Instances of this latter class can be seen in New York City at the Grand Central railway station and the Washington Bridge.

Arch, camber: Same as flat arch; so called because it is usual to give to the intrados, and sometimes to the extrados, a very slight camber. This arch has a scarcely perceptible segmental curve.

Arch, catenarian: An arch whose intrados or central line is a catenary curve. Extremely rare in architecture, though not uncommon in engineering.

Arch, contrasted: An ogee arch, or one with a reverse curve.

Arch, cusp: One that has cusps or foliations worked on the intrados. Also called foiled or lobed arch.

Arch, cycloidal: One whose intrados or center line is a cycloid; a form thought to have been recognized in the architecture of India.

Arch, diaphragm: A transverse arch across the nave of a church.

Arch, diminished: An arch having less rise or height than a semicircle, whether segmental, multicentered, or elliptical. The term is not in common use.

Arch, discharging: Built over a lintel or similar closure or opening in a wall and intended as an appliance for throwing the load above an opening to the piers on both sides, thus relieving the lintel or flat arch from the danger of fracture or dislocation. In an arched doorway, where there is a tympanum under the arch or a lintel with a

glazed light above it, the arch is considered the principal thing, and the lintel, or transom, an accessory. Here the term discharging arch would hardly be used. In some cases the discharging piece of whatever nature is concealed.

Arch, drop: (A) A pointed arch in which the two centers are nearer together than the width of the arch, so that the radii are less than the span. (B) One in which the centers or some of the centers are below the springing line, as in basket handle arch. Also called depressed arch.

Arch, equilateral pointed: See pointed arch.

Arch, extradosed: One that has the extrados clearly marked, as a curve exactly or nearly parallel to the intrados. This differs from an arch whose *voussoirs* are cut with horizontal returns so as to pass into the masonry of the wall. The extradosed arch has then a well-marked archivolt.

Arch, flat: One having a horizontal or nearly horizontal intrados and, in most cases, a horizontal extrados as well. A flat arch with slightly concave intrados is called a camber arch. When built of brick, the radiation of the *voussoirs* is effected in cheap work by the thickening of the joints outward; in finer work, by cutting or rubbing the brick to the required taper or using specially molded bricks. Such arches are for square-headed openings and in fire-proof flooring between steel or iron beams.