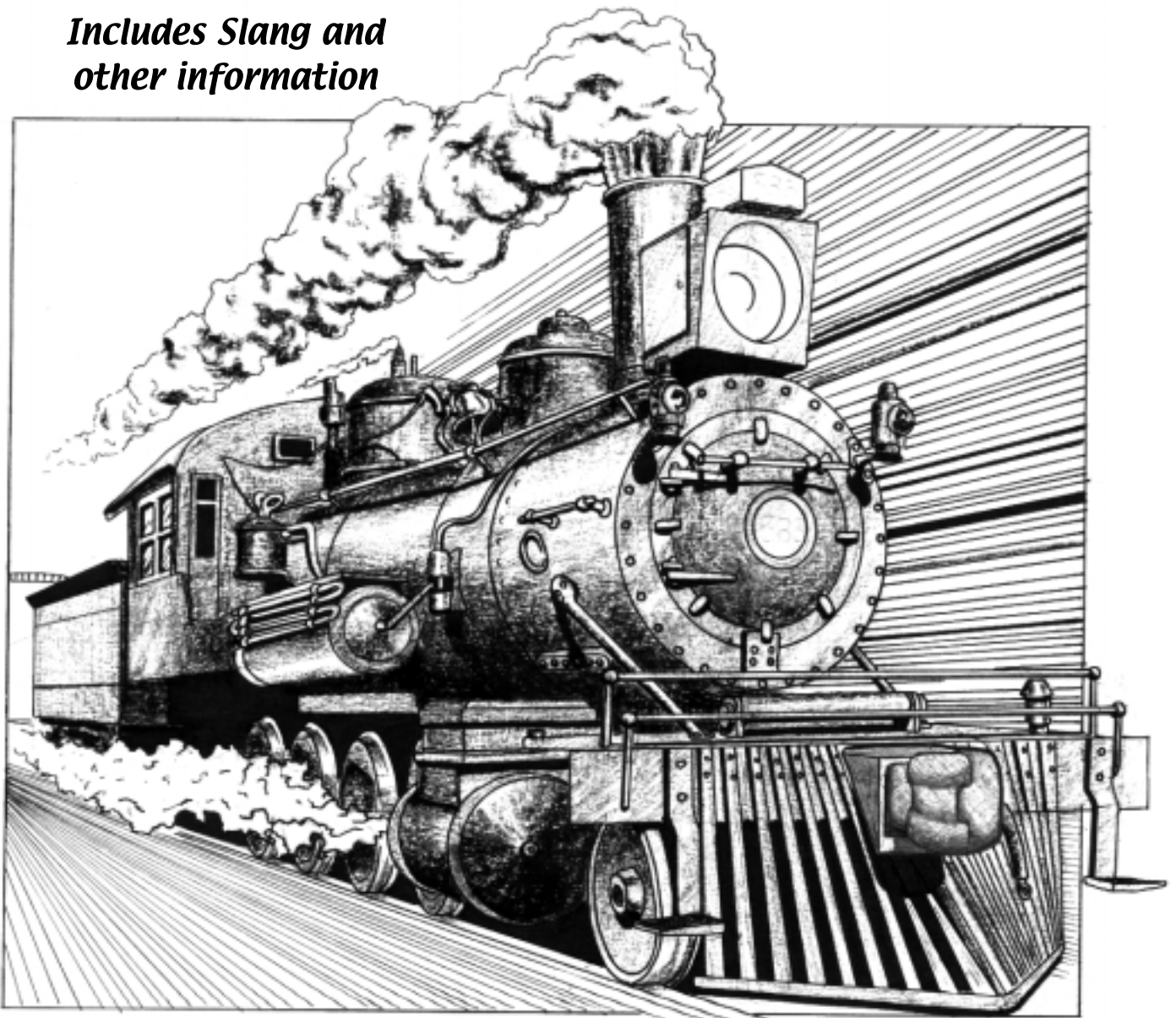


A Book Of RAILROAD TERMS

*Includes Slang and
other information*



W. E. (Bill) Wood

RAILROAD TERMS

A message from the author:

Some words may be capitalized where no capitalization is grammatically required or printed in italics, to call your attention to another defined term. Some terms are followed by their common acronym. For more acronyms, see Appendix 1, Abbreviations. The location of additional information on related terms can be found in parentheses. While the terms are public property through general usage, most of the definitions are my own and the compilation of terms are mine. This is copyrighted material. Please don't misuse it.—W. E. Wood



AAR American Association of Railroads. A rule-making body whose principle function is the advancement of railroading by the process of governing the interchange of information and equipment between participating rail-

roads. Their main focus is on safety, interchangeability of equipment, and fair business practices. (*see RAILINK, Transportation Technology Center Inc.*)

AAR CAR TYPE A coding system with a leading alpha character and three numerals each standing for a particular characteristic of the car.

ABANDONMENT The process of giving up the right to haul goods over a line or branch line which is no longer profitable.

AB BRAKE VALVE (*ABC, ABD, ABDW*) A device on a rail car which controls the application and release of brakes on that car through the reduction or increase of air pressure in a supply pipe. the ABDW valve is an improvement of the ABD valve. It modifies the emergency portion and provides for an accelerated build-up of brake cylinder pressure during quick service applications. (*See Air Reduction Brake System, Compressed Air Brakes.*)

ABSOLUTE BLOCK A block or section of track into which no train or engine is permitted to enter while it is occupied by another train or engine.

ABOLISH AN ASSIGNMENT To do away with an assigned position or job when it is no longer necessary. (*See Assignment, Annulled Assignment*)

ABSOLUTE SIGNAL A block signal or interlocking signal without a number plate or one designated by a sign plate with the letter "A" indicating the signal is not a Permissive signal.

ABUTMENT A solid vertical wall designed to contain the lateral pressure of an approach to the abutment, such as a loading ramp or the approach to a bridge.

ACCELEROMETER A device associated with a locomotive speedometer which ascertains and displays the rate of acceleration or deceleration in miles per hour per minute as an aid in controlling the speed of a train. A device combined with a rear end device with which the engineer can ascertain the acceleration or deceleration of the rear car of a train. For instance when starting a train and the accelerometer telemetry sends a signal that the rear end is moving, the engineer knows the slack is stretched and can then further open the throttle without fear of breaking the train in two.

ACKNOWLEDGING VALVE A valve which allows the engineer to acknowledge a safety device warning and forestall a pending penalty application of the brakes.

ADHESION (*Coefficient of Adhesion*) The resistance to slippage between a wheel and the rail.

ADJUSTING SPRING A spring or group of springs to return a device to a center or neutral position after a displacing action. (*Used on some steam engine leading or trailing trucks, some drawbars, brake beams, momentary contact switches, etc.*)

ADVERSE TRAIN DYNAMICS INCIDENT An accident caused by some condition of train make-up or operation. For instance, some types of empty cars tend to climb the rail and derail at high speed due to truck hunting, necessitating a speed restriction on those cars.

ADVERTISE AN ASSIGNMENT To post a notice that a job or position is being created or that a permanent vacancy has been created in an existing position and is open for bid by qualified personnel.

ADZ An axe-like tool with the cutting edge of the blade mounted perpendicular to the plane of the handle. For shaping and smoothing wooden beams and planks. Used by early railroad laborers to shape parallel tops and bottoms on crossties. (*See also BROAD-AXE*)

ADZER A machine which shaves carefully spaced depressions in a crosstie to accept tie-plates. It shaves a depression slightly wider than the tie plate to allow room to adjust the gauge between the rails.

AEI TAG Automatic Electronic Identification. A means of identifying some rail cars by means of way-side tag readers.

AFL/ CIO American Federation of Labor/ Congress of Industrial Organizations. Labor union authorized to negotiate with company managers in matters of wages, benefits, and working conditions.

AFTER-COOLER Cools air heated by compression before the air is sent to the main reservoir. Intercooler. (See also Dehydrator)

AGENCY SHOP (*Union Shop, Closed Shop*) An organization with a labor contract agreement to require union membership as a requisite for employment.

AGENT An employee authorized to conduct business for the employing entity.

AGENT, FREIGHT An employee who takes orders for, and requisitions freight cars for customers. Supervisor of station forces and station freight handling.

AGENT, TICKET An employee who dispenses passenger tickets, makes reservations, arranges for shipment of baggage, monitors and announces arrival and departure times of trains, etc.

AGGREGATED TIME Time on duty accumulated on two or more trips during a twenty-four hour period according to the federal hours-of-service law. With a rest of four hours or more but less than eight hours, actual work time is aggregated (*added together*) to arrive at total time on duty. (*See Continuous time, Hours-of-service law.*)

AIR CAR A traveling classroom for instruction in air brake operating rules and equipment.

AIR BRAKES (*Westinghouse brakes*) Invented by George Westinghouse in 1869, the present air brakes are operated by compressed air acting on a piston which causes brake shoes or bands to press against wheels, drums, or disks to control the speed of a vehicle or machine. (*For operation see Air Reduction Brake System (Compressed air brakes), Also see Vacuum Brakes*)

AIR BRAKE SYSTEM All of the devices and parts which make up an airbrake including the controlling devices and those operated or controlled by air used in stopping or controlling the speed of a locomotive or train.

AIR COMPRESSOR A piston type compressor driven by the diesel engine or a steam turbine or piston

on steam locomotives to supply air to the brakes, control systems, and other air operated devices of engines and cars.

AIR DATE The date of the last periodic inspection of the brake equipment on a freight car. The date and inspection station location are stencilled on the side of the car.

AIR MAN A carman who assists the engineer in the performance of air brake tests and makes repairs of brake equipment on trains.

AIR MAN A traveling instructor in the use and repair of air brake equipment.

AIR MONKEY An air brake repairman.

AIR REDUCTION BRAKE SYSTEM Air brakes. Compressed air brakes. Westinghouse brakes. The type of brakes used on trains. A trainline (Brake Pipe) consisting of pipes and flexible hoses with couplings charges reservoirs on each car from a compressor and main air reservoir on the locomotive. When pressure in the trainline and air reservoir on the car are equal, the brakes are released. A reduction in trainline air pressure causes a valve (*Control Valve*) to introduce air from the auxiliary reservoir on the car to the application cylinder, applying the brakes through a system of levers and rods to increase the force applied to the brake shoes. When the trainline is recharged to equal the reservoir pressure, the valve on each car opens to exhaust application air to the atmosphere, releasing the brakes. When the brakes are released, the trainline continues to charge the reservoir to a preset pressure, determined by the feed valve (*Regulating Valve*) setting on the engineer's control stand. A partial reduction of trainline pressure will cause an application equal to the reduction. This way the engineer can control the amount of braking power on a train. On a typical freight car, a movement of several inches of piston travel may translate through a system of levers and fulcrums into several thousand pounds pressure of the brake shoes on the wheels. (*See also Vacuum Brakes*)

AIR RESERVOIR A pressure resistant closed container with inlet and outlet ports. (*See Main, Equalizing, Auxiliary, and Emergency Reservoirs.*)

AIR SIGNAL A whistle on a passenger train locomotive, fed by a continuous air line similar to a trainline which can be operated by a passenger conductor from a car in the train. (*See Whistle Talk, Appendix 4.*)

AIR SLIDE HOPPER (*TM*) A covered hopper car with air assisted dump door for unloading loose commodities.

AJAX BRAKE..... (*Brand name*) Hand-wheel operated gear reduction chain winch used with a system of

rods and levers to pull the brake shoes against the wheels of rail cars.

ALERTOR A safety device that sounds an alarm if certain actions are not taken within a specified time and sets the brakes if no response is detected. An example of the actions required are a control movement or touching a metal surface to complete a low amperage circuit with an antenna imbedded in the engineer's seat.

ALL DARK/ ALL BLACK Verbal response to a request for an inspection of a moving train when no defect is detected.

ALLEN WHEEL (*See Paper Wheel*)

ALLEY A clear track. A passing track.

ALTERNATOR A machine which is capable of generating an alternating electrical current. (*See also Inverter*)

ALTERNATING CURRENT An electric current which continuously and periodically reverses it's direction of flow. The rate of alternation is usually measured in cycles per second (*Hertz*). (*See Cycle*)

AMERICAN ASSOCIATION OF RAILROADS (*see AAR above*) An organization for the standardizing of equipment and procedures used in Interchange.

AMPERE, AMPERAGE, AMPS The standard measurement of the flow of electric current. (One ampere equals approximately six and a quarter quintillion (6.25x10¹⁸) electrons past a given point in one second. I thought you would want to know this.) (*See also Volts*)

AMMETER, AMP-METER A dash or console mounted or hand held gauge indicating the amount of flow of an electric current through an electrical conductor.

ANCHOR Rail Anchor. A spring device applied in pairs to the bottom of a rail and held in place by spring tension. Applied on each side of a crosstie they anchor the rail and prevent linear creep due to current of traffic, engine acceleration or deceleration or temperature induced shrinkage or expansion. (*See Sun Kink, Creep.*)

ANCHOR IT DOWN.. To tie (*apply*) a handbrake on a moving car until the car slows to an acceptable speed or stops, or on a standing car to prevent it's movement.

ANCHOR WRENCH A special-shaped long-handled wrench for applying rail anchors.

ANGEL VEIL Coupler yoke. (It surrounds the best part of a car in the opinion of those riding behind it,... the shock absorbing draft gear.)

ANGLE BARS Formed plates (*Also called fish-plates*) used to fasten two lengths of rail together with

bolts. An angle bar fits on each side of the rails to be joined and bolts are inserted through holes in the angle bars and holes drilled through the web of the rails.

Alternate holes in the angle bars are oval shaped to accept an oval shoulder on the head end of the track bolts to prevent the bolt from turning as the nut is tightened. The alternate oval holes allow the bolts (*pear-necked fish bolts*) to be inserted through alternate sides.

ANGLE COCK Brake-pipe (*Trainline*) air cut-off valve on each end of a car or engine.

ANGLE COCK LOCKING ARM The hinged, spring loaded handle of the angle cock which must be lifted to pass over a lug molded into the body of the valve. This prevents accidental closure of the angle cock.

ANTI-CHECKING IRON A flat iron bar, sharpened on one edge and bent to an appropriate shape. It is driven into the end of a split crosstie or timber to prevent further splitting. C, S, Z irons.

ANNUL AN ASSIGNMENT To hold off a job or position for a specified length of time.

ANNUNCIATOR PANEL Electric or electronic fault detection display panel for electric or diesel-electric engines.

APE All Purpose Employee. A person skilled at all jobs within a department or craft class.

APPLICATION CYLINDER The air cylinder on an engine or car in which a piston pushes on the brake linkage to apply the brakes.

APPLICATION VALVE An air operated valve which provides a penalty application of the brakes when initiated by a safety device.

APPROACH LIT SIGNAL An energy-saving color-light block signal which remains off or dark until a train enters the block approaching that signal.

APPROACH SIGNAL A signal which governs the approach to another signal. Intermediate signal. For example, if a train passes an approach signal which is yellow, the next signal WILL be red, requiring an immediate reduction in speed and a stop before passing the next signal.

APRON The paved area (*the platform*) in front of a depot.

APRON A flat steel plate hinged to a steam locomotive deck with it's rear edge riding free on the tender deck or vice versa. It provides a walkway between the tender and the locomotive cab.

ARBITRARIES Contract agreements for payments in addition to regular pay, for work not normally done by the employee being paid. For instance a switchmen

being paid to couple multiple air hoses under circumstances in which air hoses are usually coupled by carmen and no carman is available to do the work.

ARBITRATION Taking a (*labor-management*) dispute to a disinterested third party for settlement.

ARC Electrons flowing across a gap in a live electrical circuit. Usually started by separated contacts, a failed insulator causing a short to ground, or a broken or molten conductor. A segment of a circle. The measurement of a curve or turn-out in degrees per length. (*Turnouts are also measured in a certain length of rail per specified variance from a straight line.*)

ARCH BAR The top member of a diamond truck side frame. (*The arch bar type side frame is forbidden in interchange.*) (*See Truck, Diamond Truck.*)

ARCH SECURITY CIRCULATORS Inverted T-shaped water tubes in a locomotive firebox with inlets at each side and an outlet at the top in the crown sheet. Cooler water is drawn in from the side water spaces and rises when heated, increasing the natural circulation. This increase in circulation prevents the accumulation of sediments in the side water spaces, also called water legs. (*See Mud Ring.*)

ARCH TUBES Tubes supporting a rearward leaning wall of firebricks at the front of a firebox to divert the fire from a direct route through the flues. The combustion gasses are directed to the rear and along the top of the firebox (*Crown Sheet*) then to the flues. This longer path allows for the more complete combustion of the volatile gasses driven off the fuel by the initial burning. Connected to the boiler in the front and rear, the tubes also aid in the circulation of water since they are exposed to the direct heat first. The heated water rises and pulls cooler water into the bottom of the tubes at the front of the firebox.

ARMED A two-way rear end device in communication with the controlling unit on the head end of a train and which may make an emergency brake application from the rear of the train.

AROUND THE WORLD Going from one end of a switch yard to the other through a passing or run-around track.

ARTICULATED AUTOMATIC MECHANICAL

BLUE FLAG A device operated from a remote location to protect employees working on equipment in the protected track. (*See Blue Flag*)

ARTICULATED CAR Two or more inseparable cars or 'decks' hooked together without couplers using a common Reporting Mark and identifying number.

ARTICULATED LOCOMOTIVE A steam locomotive having two independent sets of driving wheels

powered by two sets of pistons. In articulated compound locomotives, the common practice was to have the rear drivers driven by the high pressure steam and the front drivers driven by the low pressure steam from the high pressure exhaust. (*See also Steam Engine Classification, Appendix 3*)

ASH CAT Fireman.

ASH PAN A reservoir for ashes under a steam engine firebox. As the fuel is consumed, the ashes fall or are shaken into the ash pan and cleaned out at the end of a run or at other convenient locations.

ASH PAN DAMPER A device to control the air entering the firebox through the ash pan.

ASH PAN DUMP Various ways the ashes are removed from the locomotive ash pan or the location at which ashes are dumped.

ASSIGNMENT A position or job created by an increase in business or a change in work requirements and if required, advertised for bid by qualified employees.

ASYNCHRONOUS MOTOR An Induction Motor, either wound rotor or squirrel-cage type which always runs at less than Synchronous Speed.

ATOMIZER A spray head through which fuel oil is forced into a steam engine firebox on oil-fired engines.

ATTRITION A permanent reduction in the number of employees by retirement, resignation, relocation, or dismissal. Some jobs or job classes are eliminated in this manner.

AUTOMATIC AIR BRAKE One which is automatically applied by a reduction in trainline pressure. (*See Air Reduction Brake System.*)

AUTOMATIC BRAKE VALVE A hand operated valve on the engineer's control stand to apply the train brakes. (*See Independent Brake Valve.*)

AUTOMATIC BRAKE VALVE CUT-OUT VALVE A manually operated valve for enabling or disabling the automatic brake valve on a locomotive.

AUTOMATIC CAB SIGNAL A traffic control signal display in the cab of an engine automatically activated by conditions affecting the movement on a track. Sometimes used in addition to wayside signals.

AUTOMATIC DRAIN VALVE A device which automatically and periodically drains condensate from an air reservoir.

AUTOMATIC BRAKE SLACK ADJUSTER A device which takes up the slack in brake rigging due to wear of brake shoes and other parts, maintaining the proper free play between the brake shoes and wheels. This action also maintains the proper application piston travel.

AUTOMATIC ELECTRONIC IDENTIFICATION READER A device which reads an identification (*barcode, colorbar, transponder, or other method*)

from the side of a passing railcar and relays the information to a storage medium which compiles a list of the of cars passing the reader. The list can then be accessed by personel with a need for the information.

AUTOMATIC TRAIN CONTROL A means of controlling the speed of a train on certain territories and on certain units in non-ATC territory. If the high-speed limit is exceeded while the train is in ATC territory, an automatic brake application is made unless the engineer forestalls the automatic application by making a full service application himself (*Suppression*).

AUTOMATIC TRAIN STOP A device on an engine which, when activated by wayside inductors placed at strategic locations, will apply the brakes on a train unless certain actions are taken by the engineer within a specified time.

AUTO RACK Rail freight car equipped to carry automobiles. It may be open, partially enclosed, or fully enclosed and is usually a multi-deck car furnished with permanent tie-down equipment.

AUXILIARY ALTERNATOR Used to supply alternating electrical current (*ac*) to the engine fan motors and the field coils of the main generator in deisel-electric locomotives. Also called the exciter.

AUXILIARY GENERATOR Supplies low voltage current to locomotive lighting and control circuits and for charging the batteries and energizing electrical switch gear in deisel-electric locomotives.

AUXILIARY RESERVOIR An air storage container on railway cars which supply air to the brake cylinder during a service application of the brakes.

B

B & B GANG Bridge and building installation and repair crew.

BABBITT A metal alloy of tin, copper, and antimony used in making (*friction type*) bearings.

BABY LIFTER A brakeman on a passenger train.

BACK ALLEY A siding, Side track.

BACK-HAUL Using a car to haul freight on a return trip rather than sending it back empty.

BACK HEAD The rear sheet or plate of the locomotive boiler. The temperature, pressure, and water gauges and the fire-box door are mounted in, and some control rods pass through the back head.

BACK SHOP Repair facility for cars, machinery, and locomotives.

BACK THE FIRE Rapidly closing the throttle on a steam engine without first opening the blower cock can sometimes cause the fire to blow back through the port in the firebox door, surprising anyone in the path of the fire.

BACK-UP VALVE (*Monkey tail*) Portable air valve attached to rear car of a cut of cars or to the rear of a train to provide control of a reverse movement and sometimes whistle protection.

BADGE Job title badge worn by train crew members on their jacket breast or cap.

BADGE PLATE A plate attached to freight cars depicting a diagram of the brake linkage.

BADGE PLATE A plate attached to the back-head of a boiler indicating the maximum allowed steam pressure.

BAD ORDER Broken, worn, or defective equipment. A repairable defect on a car or locomotive.

BAFFLE PLATE A plate in a steam locomotive smoke box to route the combustion gasses away from a direct route to the blast pipe. Sometimes used with a damper to further reduce the speed of combustion gasses and allow the maximum utilization of heat.

BAFFLE PLATES Vertical plates in a tank installed perpendicular to the main direction of movement to suppress or prevent sloshing.

BAGGAGE CAR Car with sliding side doors equipped to handle baggage on passenger trains.

BAGGAGE CART Two or four-wheeled hand cart used by redcaps to move luggage.

BAGGAGEMAN An employee who rides the baggage car and sorts, labels, loads, and unloads baggage at the proper stations.

BAGGAGE TRUCK A four-wheeled cart with it's bed level with the floor of a baggage car. Used to carry luggage from depot to train or vice versa. May be hooked together by a latch or pintle hook on the rear of one truck and a ring on the tongue of the other and pulled by tractor or hand.

BAIL A device on independent brake valve which may be depressed to release the engine brakes during an automatic brake application or to control engine brake pressure independently of the train brakes during an emergency brake application to prevent slid-flat wheels. On older locomotives, the bail was a semi-circular piece of metal which passed under the independent brake handle and attached to an independent brake release valve. It could be depressed regardless of the location of the brake handle.

BAIL Handle of a bucket, pail, or coal scuttle.

BAKE-HEAD Fireman. (*From looking into the fire-box.*)

BAKER VALVE GEAR A system of levers, rods, cranks, etc. to control the amount and timing cycle of steam introduced to steam engine drive cylinders. (*Also Stevenson and Walschaerts valve gears.*)

BALLAST A weight carried on diesel-electric locomotives to increase traction.

BALLAST Crushed stone, slag, volcanic cinders, or other course material used as a bed for railroad crossties.

BALLAST CLEANER A machine which removes, cleans out the dirt and fine particles, and replaces ballast under a track.

BALLAST FORK A "D-handled" fork (*similar to a scoop shovel*) with many closely spaced tines used to move small amounts of ballast.

BALLAST REGULATOR An on-track machine to sweep, plow, groom, and shape the roadbed.

BALLING THE JACK (*High Balling the Jack*) Giving a proceed signal to a locomotive. (See High Ball, Jack) A series of proceed signals allows a train to make sufficient speed to maintain a schedule.

BALLOON TRACK A track which doubles back on itself in the shape of a teardrop, with a single switch at the point of juncture.

BAT 'EM OUT To switch a cut of cars. (*See Cut, Switch, Yard.*)

BATTER Deformation of the end of a rail next to a joint due to traffic passing over the joint.

BATTERY A group of electric cells connected to form a unit with increased capacity. Cells may be connected in series to increase voltage or in parallel to increase current or a combination of both.

BATTERY BOX A box on diesel engines to hold batteries for starting the engine.

BATTERY CELLAR A track-side container for batteries used as back-up power for signals or crossing gates.

BAY An area of a building projecting out from a wall and containing windows. A single stall for the service or repair of locomotives or other machines.

BAY WINDOWS A work area for operators. Situated to the trackside of some intermediate station depots, it provided a view of traffic in both directions. Seating areas protruding from each side of some cabooses with small windows looking forward and backward so crew members may inspect their train without sticking their head out into the wind and weather.

BEADING TOOL A specially shaped punch used to form a bead on the protruding ends of steam engine boiler flues to provide a steam-tight seal. (*See Flue Roller.*)

BEANS Go to lunch.

BEANERY A cafe or restaurant.

BEANERY QUEEN Waitress.

BEARING Friction reducing brass block, sleeve, balls and races, or rollers and races at the end of an axle (*journal*) or other rotating or sliding, weight-bearing surfaces. Most friction type bearings are made of a material that is softer than the device they are designed to protect and may be replaceable when excessively worn.

BEDDING SAND Sand spread on stock car floors to provide a secure footing for livestock.

BEDHOUSE Caboose.

BELL BOTTOM BRAKEMAN A brakeman (*who retains his seniority during a tour of military duty*) working during a leave from the military service or a college student working on the railroad during a summer vacation.

BELLOWS A Passage for cooling air from the car body to the traction motors on diesel-electric locomotives. The accordion-pleated cover of a passenger car vestibule providing a protected passageway between cars.

BELPAIRE FIREBOX A locomotive firebox with a long, narrow configuration. It is used primarily for burning wood.

BELT LINE A short line feeder railroad supplying freight to through railroads and receiving freight or freight cars for distribution to industries.

BEND THE IRON/ RAIL/ RUST To line a switch for another track.

BENEFICIAL OWNER The actual owner of a shipment who may or may not be the shipper.

B of E PAMPHLET 20 A Bureau of Explosives booklet detailing the handling of hazardous materials allowed to be carried by railroads.

BID To present an application for assignment to a vacant position providing seniority permits such assignment.

BID BOOK A book of advertised job vacancies available to qualified employees who wish to bid on such vacancies.

BID BUMP Using a right of seniority displacement to bid on a job without actually submitting a bid. If no one with higher seniority bids on the job, the bump will be considered as a bid.

BID ON A JOB To exercise one's seniority by filing

a written request to be placed on an advertised vacant position on a crew or job. The employee with the most seniority filing a bid will be placed.

BIFFY A toilet, privy, can. A section shanty. A small shed where employees can wait out passing trains out of the weather.

BIFURCATION A division into two branches. The area where tubes join to a larger tube, such as where the superheater tubes join the steam feed pipe. A convergence or junction of two tracks.

BIG HOLE To open an air valve or separate the train-line between cars allowing brakes to apply on the entire train. (*See Emergency, Air Reduction Brake System.*)

BIG HOOK A railroad derrick used for cleaning up derailments and for other heavy lifting.

BIG JOHN A large-capacity covered hopper.

BI-LEVEL CAR Two deck automobile carrier, two level passenger car, or a two level stock car.

BIG OX Conductor.

BILL CLERK Employee who handles freight movement documents, receiving and dispensing information about the movement of freight or freight cars. (*Waybills, C.L.I.C. lists, hazardous manifests, etc..*)

BILL OF LADING A contract specifying the shipper, consignee, commodity, routing, and special handling instructions, if any. A document listing the goods in a shipment.

BILLET A piece of firewood. Wood was used as fuel in early locomotive fireboxes. Military sleeping quarters.

BIRD CAGE An automobile conveyor car with perforated sheet-metal sides.

BIRD GANG (*Join the bird gang.*) Employees abandoning equipment before a collision.

BLACK DIAMONDS Coal belonging to the transportation company. A valuable necessity when it was used as primary fuel as oil is today.

BLAST PIPE A pipe leading from the steam locomotive driving cylinders to a nozzle below the petticoat pipe (*The bottom of the smoke stack.*). Steam exhausted from the cylinders blasts up through the blast pipe into the flared petticoat pipe creating a partial vacuum in the smoke box which draws combustion gasses and heat through the flues (*Pipes leading from the firebox through the boiler to the smoke box*). This action causes the 'chug-chug' sound and the white puffs of steam from the stack.

BLE Brotherhood of Locomotive Engineers. Labor union authorized to negotiate with company managers in matters of wages and working conditions for engine

service employees.

BLEED A CAR To exhaust the air from the application cylinder to release the brakes by pulling the bleeder rod attached to the brake cylinder release valve on a car or by opening the brake cylinder release cock on an engine.

BLEEDER One whose job is to release the air brakes on a cut of cars or a train in preparation for a switching operation..

BLEED ONE OFF Bleed off the brakes on a car or urinate.

BLEED ONE OFF AND BOTTLE IT Provide a urine specimen for a drug test.

BLENDED BRAKING Using the automatic brake valve to set the brakes on a train while in dynamic braking.

BLENDED BRAKING (AMTRACK) A service brake application while the throttle is in idle will automatically result in a combination of air and dynamic braking.

BLIND The canvas or leather accordion-pleated bellows covering the walkway between two passenger cars. Hobos and bums used to "ride the blinds" on the ladders between the cars beside the blinds. See Bellows, Wedge Board.

BLIND GASKET A disk inserted in a pipe union to block the flow of air, gas, or fluid where no plug, valve or stop cock is available.

BLIND SIDING Any siding where no agent or operator is on duty.

BLIND SIDING REPORT FOR FREIGHT

TRAINS A list of cars present on blind sidings, prepared by train crews. It must be turned in at the next office of communication.

BLIND SIDING REPORT FOR PASSENGER

TRAINS A report by the flagman of the time a passenger train passes each blind siding. Used to compute and maintain passenger train schedules.

BLIND TIRES The tires of steam engine drive wheels without flanges. The wheels depend on the flanged wheels ahead and behind to keep them on the rails. Wider than normal, these tires allow a locomotive to negotiate a sharp curve without derailing.

BLIND TRACK A dead end track or one containing cars or equipment.

BLOCK A section of main track, between signals, or between a block signal and the end of block system limits, on which movement is governed by block signals, cab signals, or both. (*Block signals may be lights, semaphores, or both.*) A named portion of main track with fixed limits (*DTC Block*). For example,

Riley Block-Mile Post 283.6 to East Switch Glover. In this example, a sign reading "Begin Riley Block" at M.P. 283.6 would indicate the entrance to the Riley Block. A sign at the east switch at Glover reading "End Riley Block" would indicate the exit.

BLOCK A group of cars on a train, all destined for one location.

BLOCK A TRAIN To place all cars for one destination, especially those with a destination short of a terminal, into one group in a train. They are usually placed in the train in the order in which they are to be set out, starting from the head end.

BLOCKED-ON-LINE A train switched on the road when such a move will save time in a switch yard without causing undue delays on the road.

BLOCK INDICATOR A small semaphore or light signal placed at the entrance to a block to indicate whether or not that block is occupied. The indicator must not be taken as a signal to enter that block.

BLOCK REGISTER TERRITORY A system of operation in non-signaled territory where trains, men, and equipment are authorized to occupy a block on the main track within limits specified by the timetable.

BLOCK SIGNAL A fixed signal at the entrance to a block governing the entrance to and the movement within that block.

BLOW-BY DOUBLE-CHECK VALVE MALFUNCTION A fictional device used as an excuse by an engineer to explain an unexplainable or (more likely) an inadvertent application of the engine brakes.

BLOW-DOWN COCK A valve on a steam engine to clean the mineral deposits and sediments from the boiler crown sheet.

BLOW-DOWN COCK (*Automatic Drain Valve*) A valve to exhaust condensate from an air reservoir or cylinder. On most modern locomotives, the main reservoir blow-down cock is automatically timed to exhaust condensate at frequent intervals.

BLOWER RING A ring surrounding the blast pipe below a petticoat pipe with nozzles pointing upward through which steam may be blown to increase the draft through a firebox temporarily. Care should be used in operating the blower because excessive amounts of cold air drawn into the firebox may cause the sheets to contract, allowing a leak to develop.

BLOW-OFF COCK A valve to blow off or remove excess water from a steam engine boiler or drain the boiler.

BLOW PLUG A plug which will blow out before pressure reaches a dangerous level. A steam locomotive safety device. (*See Fusible Plug.*)

BLOW-UP A disagreement between an employee and an official.

BLOW-UP To resign suddenly.

BLUE CARD Federal Railroad Administration (FRA) record of locomotive inspection and repair, required at one time, to be carried on freight diesel engines.

BLUE FLAG A means of protecting workmen on or around stationary equipment. Equipment protected by a blue flag or blue light must not be coupled into or moved.

BLUE FLAG DERAIL A special derail placed on a track to protect employees working on or around equipment on that track. Only a person authorized by a supervisor of the craft which placed the derail is allowed to remove it because there may be connections to the equipment or other conditions within the cars which may prevent their safe movement..

BOARD To get on a car, train, engine, or other equipment.

BOARD List of employees or crews and their order of availability for work or for other purposes. (*Bump board, vacation board, etc..*)

BOARD A list of employees of a particular craft in seniority order. (*In the order in which they were hired.*)

BOARD A paper listing crew, train consist, and engine consist issued to train crew as they go on duty. (*Soup sheet, Outbound Soup*)

BOARD A track-side sign whose color or content indicates a condition to be acted on. (Slow board, resume speed board, whistle board, order board, etc..)

BOARD AWARD A ruling by a government regulatory agency in a labor-management dispute. (*National Mediation Board, Labor Relations Board ruling according to the Railway Labor Act.*)

BODY BOLSTER A cross-member attached to underside of the end of a freight car with a mating surface for the center plate of the truck bolster and with bearing surfaces extending over the outboard side bearings which ride in pockets on the truck bolster. (*See Bolster*)

BOG DOWN To stall while pulling a heavy load up a steep grade.

BOILER Early steam engine boilers were merely vertical tanks under which a fire was built or double-walled tubes with the water between the walls. A fire-tube boiler is a water tank with flue pipes extending the length of the tank through which hot combustion gasses are forced to heat the water to boiling, generating steam for propelling a steam engine or for heat on a passenger train. A water-tube boiler has water tubes

extending the length of the boiler and heat circulates around the water tubes. Thanks to modern materials and methods, this type can withstand greater pressures than the fire-tube boiler and has become the boiler of choice for large capacity steam generators.

BOILER BACK-HEAD The rear sheet of the boiler surrounding the fire door opening. Pressure gauges and water level indicators are mounted in, and the throttle shaft extends through the boiler back-head.

BOILER COMPOUND A lime or soda ash compound used to prevent foaming of water in the boiler.

BOILER EXPLOSION While the temperature of the water in a locomotive boiler seldom exceeds 400 degrees Fahrenheit, the firebox may be at 2500 degrees. When the water level falls below the top of the firebox (*the crown sheet*) the heat in the firebox will soften the crown sheet and cause the sheet to warp and loosen the staybolts in their holes. If they merely leak, steam will escape into the firebox thus damping the fire, but if the crown sheet ruptures, the rapid reduction in pressure will cause almost all the water in the boiler to flash to steam. Since steam occupies about seventeen hundred times the volume of water, and the rupture will not allow that amount of steam to escape, pressure builds rapidly causing an explosive failure of the boiler. The failure usually occurs at the weakest place, the already softened crown sheet, blasting down through the firebox into the crew area. The force of the explosion sometimes lifts the rear of the boiler into the air through rocket action. Fusible plugs inserted into the crown sheet were designed to melt at a comparatively low temperature admitting small amounts of steam into the firebox, killing the fire and cooling the firebox before damage to the crown sheet could occur.

BOILER PLATE The steel sheets used to fabricate steam boilers.

BOILER SWEAT Sweat is moist air or combustion products which condense on cold surfaces as droplets. One of the by-products of combustion is water vapor, therefore when starting a fire in a steam engine firebox, especially when using coal, care should be taken to prevent sweat from forming in the flue pipes.

Sweat will have to be evaporated before the boiler water can start to heat. A small wood fire should be built to drive out moist air and slowly heat the flues before switching to coal.

B of RT Brotherhood of Railroad Trainmen. Labor union authorized to negotiate in matters of wages and working conditions for train and yard service employees. Now merged with the United Transportation

Union (*UTU*).

BOGIE Removable wheel assembly for vans, containers, etc., a railway truck, or the rear drive wheels of a highway truck.

BOLSTER Cross frame in a freight car truck assembly. Transfers the weight of the car on the center plate through spring groups to the side frames which hold the journal boxes (*the axle bearing containers*). (*See Journals and Body Bolster*)

BOLSTER GIB The outboard ends of the truck bolster which fit between the columns of the side frame. Column guides and wear plates maintain the vertical alignment between the bolster and side frame.

BOND WIRE A stranded wire applied across a rail joint to provide positive electrical continuity through the rails. The wire is applied by driving tapered copper pegs (*Bond plugs*) attached to both ends of the wire into holes in the rails or by a thermite weld.

BOOM The moveable load-bearing arm of hoisting machinery such as cranes or derricks.

BOOM The sound emitted by Class B (*pushing*) explosives as compared to the sharper bang of faster-acting Class A (*shattering*) explosives.

BOOM CAR A flat car over which the boom of a derrick, crane, or pile driver extends when the boom is too long for the car carrying the machine.

BOOMER An employee who moves from railroad to railroad, quitting one and hiring out with another. Derived from the days when a town (*A boomtown.*) grew because of a new industry (*mining, timber, etc.*) which required a railroad to move the freight then died out when the resource was depleted or the market for the product dried up.

BOOSTER UNIT A cab-less locomotive controlled from another unit. Called a "B" unit when mated with a controlling "A" unit. (*The A.T. & S.F. designation for a matched consist including booster units is L-A-B-C. L is the lead unit, A and B are the booster units, and C is the controllable rear unit. The C is included on the number plate of the rear unit, as in 251C.*)

BOOT A CAR To start a car moving on a track then uncouple the car and allow it to continue moving on it's own. (*See Kick a car*)

BOTTLENECK Anything causing an unusual delay of trains. (*A switch yard with problems in building and dispatching trains could be a bottleneck.*)

BOTTLE THE AIR To close the angle cock on the portion of a train left standing when a cut is made, leaving air in the trainline of the standing cut. Since there is a possibility that the brakes may bleed off through leakage allowing the trainline air to overcome

the application air, thereby releasing the brakes, the outstanding instructions are to leave the angle-cock open on the portion left standing, allowing the standing cut to go into emergency braking.

BOTTOM The fluid below the outlet in a storage tank. It is counted as a part of the capacity but it can't be used.

BOUNCER Caboose.

BOUTET WELD (*Pronounced BOO-TAY*) Chemical (*Thermite process*) means of welding two lengths of rail. A three-piece sand-cast mold is placed around the joint, sealed with clay and preheated. A charge of powdered aluminum mixed with powdered metallic oxide and chunks of steel is suspended over the mold in a charge pot and ignited. When the charge burns to the bottom of the pot a plug is melted and the molten metal flows at about 6000 degrees Fahrenheit into the mold forming a weld. The excess metal and the mold is removed with a hydraulic shear or a hammer and chisel then the joint is ground smooth.

BOXCAB LOCOMOTIVE A diesel locomotive with a wide crew cab placed between narrower nose and motor compartments.

BOX CAR Enclosed freight car with sliding side doors.

BOXER An on-track machine which installs rail anchors by means of operator controlled hydraulically operated arms.

BRADLEY BAR A tool for straightening grab irons.

BRAIN BOX Caboose.

BRAKE APPLICATION Turning a hand wheel to mechanically force brake shoes against the wheels.

BRAKE APPLICATION A reduction of brake pipe pressure resulting in the control valve moving to a position that will apply the brakes. (*See Air reduction brake system*)

BRAKE BEAM Moveable beam assembly with brake shoes fastened to brake heads on each end. Force applied to the center of the brake beam exerts an equal pressure of the brake shoes on both of the wheels.

BRAKE BURN CRACK Small transverse fissures in the tread or flange of a wheel caused by overheating due to sticking or over-used brakes.

BRAKE BURN COMBY/ COMBY SPOT Brake burn cracks sometimes become interconnected to form a rough honeycomb pattern. The surface layer of metal loosens and falls out to form a rough spot on the wheel. (*See also Shelled Out Tread, Spall*)

BRAKE CLUB A stout wooden stick used to provide additional leverage when applying hand brakes on a

car.

BRAKE CYLINDER A cylinder with a pressure operated piston to apply the brakes and a return spring to release the brakes. Pressure is supplied by air or hydraulics.

BRAKE CYLINDER CUP A flanged rubber cup held by a spring against the pressure face of the application piston to prevent leakage during a brake application. The pressure medium forces the flange against the wall of the cylinder.

BRAKE CYLINDER RELEASE VALVE A valve designed to exhaust air from the brake cylinder without draining the application reservoirs. To drain both the auxiliary and emergency reservoirs, the car must be put in emergency. If this is not done, leakage may reapply the brakes. (*See Duplex Release Valve.*)

BRAKE DOG Swiveling latch that engages the ratchet wheel of a staff brake to prevent releasing.

BRAKE HEAD A device at each end of a brake beam to hold replaceable brake shoes.

BRAKEMAN A train crew member. Conductor's helper. Ties (*applies*) or releases hand-brakes, does the switching on the road, throws out (*removes from a train*) bad orders, inspects passing trains, makes the check of his train, digs out frozen switches, flags defective signals, flags following trains, etc. Flagman.

BRAKE PIPE The reservoir air supply pipe throughout a train or engine consist, including the flexible couplings between cars.

BRAKE SHOES Replaceable iron or composition blocks that are forced against the wheels by air pressure or hand brake linkage to slow or stop a car or engine.

BRAKE SHOE RETAINER Slightly curved flat spring key holding a brake shoe to a brake head. The retainer has a thin, tapered end for easy insertion and a tab bent over at the top to make removal simpler by tapping upward on the tab.

BRAKE SLACK ADJUSTER An automatically adjusted device to maintain the proper free play between brake shoe and wheel and at the same time, maintain the proper brake piston travel.

BRAKE WARNING Automatic light warning when wheels slip in dynamic braking, allowing engineer to apply sand to the tracks or reduce braking power.

BRANCH LINE A track to a destination off the main line.

BRASS An alloy of copper and zinc.

BRASS Solid brass friction bearing for a car axle (a Journal).

BRASS Administrative official. Supervisor. (*Brass*

hat, brass collar, etc.)

BRASS A CAR To change the brass wheel bearing on a freight car.

BRASS POUNDER Telegrapher.

BREAK A period when no trains are run so Maintenance of Way can work on a track.

BREAK-IN-TWO To pull out a drawbar or break a coupler causing a train to part.

BRIDGE GANG (*B&B Gang*) A traveling work gang which installs, replaces, repairs, and maintains railway bridges and buildings.

BRIDGE PLATES Plates, either hinged or removable, that form a bridge between two automobile or piggy-back flat cars or between cars and a dock.

BRIDGE TRAFFIC (1) A train carried intact between two other railroads by a third railroad. The bridge carrier neither originates nor terminates the train.

BRIDGE TRAFFIC (2) Freight in containers transloaded from ships to trains and carried over a "land bridge" to a ship terminal across country thereby cutting out a long sea voyage, saving on shipping time and charges.

BRIDGE TRAFFIC (3) Freight carried by or over a railroad for the purpose of joint trackage rights, routing traffic around a derailment, washout, or a difficult route.

BRINELL HARDNESS A gauge of hardness of a metal determined by pressing a hardened steel ball into the surface of the material being tested with a predetermined pressure and measuring the size of the depression. The numbers are arrived at by dividing the pressure applied in kilograms by the size of the indentation in square millimeters. Used as a measure of the hardness of railway wheels and axles.

BROADAXE An axe with a large head, sharpened on one side and with a slight "S" shaped offset in the handle (*to allow the hands of the user to clear the work*). Used for shaping and smoothing the top and bottom surfaces of logs used as crossties or in the construction of bridges, trestles, and log buildings.

BROAD GAUGE The gauge of a track when the distance between the rails is greater than standard gauge which is four feet, eight and one-half inches.

BROCHARD COUPLING A device to repair a broken train-line (*brake air supply pipe*) by inserting the device into both broken ends of the pipe and turning opposing nuts in the center to expand rubber collars near the ends of the device inside the pipe. Air could then flow through the coupling.

BRONCO A highway vehicle equipped with steel

guide wheels for running on a railway. High rail car. Hi-railer.

BRONZE An alloy of copper and tin, sometimes with other metals and chemicals (*phosphor bronze*). Used as bearing material.

BROOMSTICK CAR A trolley-type electric railcar or locomotive with a single collector pole on the roof of the car. (*See also Pantograph.*)

BROTHERHOOD NOTCH A notch on the reverser lever which used the least amount of steam saving work for the fireman but taking longer to get over the road. (*See Company Notch*)

BROWNIE BOX Division superintendent's business car.

BROWNIE POINTS Making points with one's supervisor to the detriment of one's fellow workers.

BROWNIE/ BROWNIE POINT A demerit of the Brown System of Discipline. An excessive accumulation of Brownie points for the violation of rules is cause for dismissal from service.

BROWN SYSTEM OF DISCIPLINE A system in which demerits are awarded for violations of policy or infractions of rules according to the severity of the offense. An excessive accumulation of demerits is grounds for removal from service. Demerits less than the maximum maybe removed by maintaining a clear record for a specified period of time.

BROTHERHOOD NOTCH A notch on the reverser quadrant which limited the amount of steam used. It is easier on the fireman. (*See Company Notch.*)

BRUSH A copper or carbon block held against the rotating commutator of a motor or generator to convey electricity. An electrical contact held against a rotating insulated part.

BRUSH BURN Molten spot or grooves on the commutator due to excessive arcing between the commutator and brush. Stall Burn.

BUCK-EYE An early mating-jaw type coupler. Takes its name from the Buckeye Steel Casting Company. (*See also Janney coupler.*)

BUFF (1) Bumping action of the couplers and drawbars when slack is running in. Compressive force of the couplers when cars are bunched.

BUFF (2) A person for whom something holds a fascination. An enthusiast. A railroad buff. Railfan.

BUFFER (1) A device to absorb the shock imparted through slack action in addition to that absorbed by the draft gear.

BUFFER (2) A device, either spring loaded or wedge adjusted, to reduce the slack between a locomotive and its tender to a minimum. The friction between the

two steadies and dampens the movement of the tender at high speed and prevents the tender from derailing.

BUFFER CAR A car placed next to a car with a shiftable load to protect other cars or loads or to separate cars containing material which must be separated from other loads or from occupied cars or engines.

BUFFER CASTING FACE-PLATE A heavy frame around the outboard end of the coupler housing.

BUG A defect in signal or switch operating circuitry or a computer program preventing normal or proper operation. A telegraph key.

BUGGY Caboose.

BUGGY BAR A short pry bar with one end flattened to a wedge and bent at a slight angle and the other end sharpened. Used to repair freight cars or to open stubborn freight car doors.

BUG TORCH A trainman's lantern.

BUILD A TRAIN To place all cars for particular destinations together in 'blocks' of cars. Consecutive blocks would then be placed in the train in the order in which they are to be set out. Placement restrictions may have an affect on the make-up of a train.

Explosives and other hazardous materials have their placement restrictions. Loose material which may be blown out may not be placed near ahead of automobiles on open cars, cars marked Rear End Only must be placed on the rear of the train, etc.

BUILT-UP TREAD Caused by metal from the wheel tread or brake shoe heated by friction to a plastic state and dragged and deposited around the wheel. This condition is usually caused by excess braking or sticking brakes creating a slipping or partial sliding situation.

BULK FREIGHT Freight of a form and consistency that it can be unloaded by pouring, dipping, vacuuming, magnetically lifting a quantity, etc. Not packaged or assembled.

BULKHEAD A solid wall on the end of some flat cars. A moveable wall used as a load separator or load retainer in box cars.

BULKHEAD AIR BAG An inflatable bladder used between a bulkhead and the load as a shock absorber or soft load retainer.

BULL Railroad policeman. Special Agent.

BULL BAR (1) Bar used to operate the grate shaker on a steam engine.

BULL BAR (2) A pipe bar placed across the entrance to a stockcar to restrain loaded livestock while closing the sliding door.

BULL CHAIN A heavy chain used to pull disabled or derailed railcars. (*Lungers or grounders.*)

BULLETIN BOOK A book located at specific locations into which messages are inserted as a means of providing information or instructions to affected employees.

BULLETIN ORDERS Published changes to rules, procedures, or other instructions concerning or affecting the movement of trains.

BULL GEAR The large gear mounted on the axle of the locomotive drive-wheels and driven by the traction motor pinion gear.

BULLHEAD A condition in which both coupler knuckles are closed while trying to make a joint.

BULLING Deliberately delaying the start of work.

BULLNOSE COUPLER A fixed front-end pocket coupler which replaced the pilot bar coupler on some locomotives. It's purpose was to provide a means of coupling a car to the front end of a steam locomotive by means of a link and pin.

BULL PUNCH Aligning punch. A long tapered drift (blunt tipped) punch for driving out stuck track bolts and for aligning the holes in angle bars and rails. Commonly known by the vulgar name bull prick.

BULL RING The receiving (*classification*) tracks of a hump yard.

BULL-RINGER A switchman who grabs run-away cars or heavy cuts of cars and ties them down (*stops them*) with hand brakes.

BULL'S-EYE LANTERN A lantern having a convex lens to concentrate the light into a beam.

BULL TONGUE Drawbar. Wide cultivator plow-share or row marker.

BUMP To displace an employee with less seniority. A person receives a right to bump by himself being bumped or by his position being abolished.

BUMP BOARD A list of employees who have been displaced from their job positions and who themselves have displacement rights over employees with less seniority.

BUMPER POST A device at the end of a spur track with a bumper block at the same level as the couplers or a device on each rail high enough to stop the wheels to prevent rail cars from running off the end of a track.

BUNCHED A condition occurring when slack between cars is compressed.

BUNCHING The distribution of a number of cars to a shipper in excess of the shippers orders.

BUNK A single occupant bed on a caboose or bunk car.

BUNKER A compartment which can be sealed against outside elements. Ice compartments in a refrigerator car. Coal compartment on a steam engine

tender. A hopper, usually elevated, for the storage of coal.

BUNKER COAL Coal of a size which can be used as a fuel in a steam locomotive.

BURNED BRAKE HEADS Brake shoe holders on the ends of brake beams melted by the friction of wheels because the shoes are worn down or missing. The entire brake beam assembly must be replaced.

BURNETIZING Infusing crossties with zinc salts as a preservative.

BURN OFF THE PINION GEAR To cut off a locked up traction motor pinion gear with a cutting torch. The teeth of the pinion and bullgears fail to mesh properly and lock up causing the wheels to slide.

BURROW CRANE (TM) Also called "Burro Crane". Multi-purpose crane on rails on a flat car. Mobile while on the flat car, it can load or unload cars coupled to either end of the flat car. Equipped with removable ramp rails, it can be loaded or unloaded from it's special car to do other types of work.

BURY A CAR To move a car deeper into the train consist to comply with hazardous materials placement restrictions or with rules concerning shiftable loads or for other placement restrictions.

BUS/ BUS BAR A metal rod or bar used as an electrical conductor, sometimes with multiple connection points.

BUSTER BOXES Cardboard filing boxes used to store reports, letters, and time claims.

BUSINESS CAR A special living/ office/ passenger car for use by railway officials.

BUSINESS CYCLE Annual cycle of periods of increase or decrease in business. The annual grain harvest causes a temporary increase in freight-car loadings and the Christmas season causes a slowdown which follows after New Year's Day.

BUTTERFLY DOOR A firebox door that opens like the wings of a butterfly when a pedal is depressed allowing the fireman to use both hands to feed the fire a full scoop of coal.

BYPASS VALVE Drifting valve. A valve attached to steam engine cylinders to connect both ends of the cylinders. In a drifting situation, without positive pressure to the cylinders, a partial vacuum forms which draws abrasive smoke and super-hot combustion gasses through the blast pipe from the smoke box and into the steam chest and cylinders. The hot, dry gasses destroy the lubrication in the valves and cylinders and build a varnish-like coating on moving surfaces. The bypass valve allows steam present in a cylinder and air drawn in through a vacuum relief

valve or cylinder relief valve to circulate back and forth between the two ends thus taking up space and excluding the smoke.



CAB Caboose or riding area of locomotive.

CABIN CAR Caboose.

CABLE CROSSING BADGE A stamped sheet-metal location warning plate applied to the center of a crosstie where an electrical or communication cable crosses under the track.

CABOOSE A rolling office/ living/ signaling/ observation and inspection car. Designed for employees to ride the rear of a train. Bed-house, Bouncer, Brain Box, Buggy, Cab, Cabin Car, Cage, Captain's Cage, Chariot, Crumby or Crummy, Dog House, Drover's Cab, Glory Wagon, Guard Car, Hack, Palace Car, Parlor Shack, Shelter Car, Way Car, Zoo Car.

CABOOSE AIR GAUGE Located on the forward wall of the cupola and fed by a pipe from the train line (Brake Pipe), It indicates the trainline air pressure at rear of a train.

CABOOSE HOP An engine or engines pulling a caboose or cabooses without any other cars. They may be carrying deadhead crews or ferrying deadhead equipment to another point, on their way to pick up a train or cars, on the way to do local switching, leaving the consist at an outlying point for another crew to use later, etc..

CABOOSE ROTARY VALVE Located on the forward wall of the cupola and connected with the trainline brake pipe, it gives the train crew control of the train brakes, if needed.

CAB SIGNALS Block signal display in the cab of an engine controlled by conditions outside the engine on Cab Signal System territory.

CAB SIGNAL SYSTEM A system of traffic control using colorlight signals displayed in the cab (*control compartment*) of engines and other on-track equipment and sometimes in conjunction with trackside block or interlocking signals.

CABOOSE TRACK Caboose service and storage area.

CAB TURRET A manifold in the top of a steam locomotive boiler with pipes feeding steam to auxiliary appliances such as the feedwater injectors, air compressor, blower ring, etc. (*See Fountain*)

CAGE/ CONDUCTOR'S CAGE Caboose.

CALF UNIT Diesel powered engine without a control cab, controlled from another unit.

CALIFORNIA SUNDAY That day of the week when fewer trains arrive at a terminal because fewer were loaded in California on the previous Sunday.

Traveling time to a certain location determines the day on which California Sunday falls at that location.

CALL BOY/ PERSON Person who calls employees and crews to work, relaying requested information about time called, train, crew, or other information if requested and available.

CALL BOX Locked telephone box placed at strategic locations for communication with the train dispatcher.

CALLED ON THE CARPET Called to the supervisor's office for discipline or consultation (*a chewing out*).

CALL LIGHT Light at a call box indicating the dispatcher wishes to talk to someone at that location.

CAMP CAR A living car for track gangs.

CAMEL LOCOMOTIVE A locomotive built in 1848 by Ross Wynans for the B.& O. became a type because of the sloping rear end.

CAN Tank car.

CANNED Fired. Dismissed from a job.

CANNONBALL Mixed train carrying passengers, freight, and mail.

CANT The inward tilt of a rail on a curve accomplished by using a tapered tie-plate. The undesirable and dangerous outward tilt of a rail or tie-plate on the outside of a curve.

CANT HOOK A long-handled tool with a hinged hook near the end used to turn ties, timbers, logs, and poles.

CANTILEVER SIGNAL MAST Track-side tower with an arm extending over the track, holding signals.

CANTRAIL The horizontal stringer on the top of caboose walls on which the carlines rest. Top plate of the wall frame.

CAPACITY/ NOMINAL CAPACITY The load capacity of a car in multiples of one thousand pounds but not to exceed the load limit.

CAPTAIN'S CHAIR Conductor's desk chair in a caboose.

CAR Any railroad conveyance carrying passengers, freight, or equipment. (*See Car Types, Appendix 2*)

CAR-BARN Shed or housing for street railway cars.

CARBODY The cover of a locomotive or railcar including the cab.

CAR-BODY LOCOMOTIVE A diesel locomotive with a high front cab and full-width engine shroud.

CAR HAND Yard brakeman. (*Switchman/ helper*.)

CARLINE/ CARLING A transverse stringer (*rafter*)

across the ceiling of a caboose holding the roof boards.

CARLOAD The minimum tonnage required for a carload rate shipping fee.

CARLOAD RATE A lower shipping fee rate than for transport of goods shipped in Less-than-Carload quantities.

CARLOADINGS Carloadings per time period is used to describe the relative health of the railroad industry as a whole. When used for a single company, it is of less use if a significant portion of their revenue may be derived from transportation of goods for other companies. (*See Bridge Traffic.*)

CARMAN An employee trained in the inspection and repair of railway cars and the static testing of train brakes.

CAR-MILE Statistical term. The movement of a railroad car for a distance of one mile. (*See Ton-mile.*)

CAR MOVER A wooden-handled lever with a small attached swiveling fulcrum for moving rail cars a small distance by placing the steel end of the lever under the trailing side of a wheel with the fulcrum foot on the rail and pressing down on the lever.

CAR NUMBER Alphabetic owner code (*Reporting Mark*) and individual identifying number of each car.

CAR PULLER A device to pull a car into or thru a location such as a repair facility by means of a motorized winch.

CAR RETARDER An electro-pneumatic, pneumatic (*air pressure*) or hydraulically (*fluid pressure*) operated shoe which presses against the sides of freight car wheels to slow the car during a hump yard switching operation.

CARRIER The transportation company.

CARRY-ALL A large passenger van with seats on both sides facing the center, used to ferry crews to and from trains or work locations.

CARRY-ALL An earth-mover used for excavating and filling while building road-beds.

CARRY IRON steel bar or strap which supports a moveable member. Examples: drawbar carry iron or draft gear carry iron.

CAR SHOP REPAIR AREA A track or other area where inspections, evaluations, or repairs are made under the control of the mechanical department.

CAR TOAD Carman. Employee trained in freight car inspection and repair.

CAR WHACKER/ KNOCKER Carman. From the action of changing brake shoes or hitting a steel wheel to hear the ring of a sound wheel. Some defective wheels will return a dull or frayed sound.

CATENARY The overhead wires of an electric rail-

way. Connected in a series of linked members.

CAT-WALK Walkway on tops of cars. Any narrow elevated walkway.

CENTER PLATE The center of the truck bolster upon which the car bolster rides and through which the center pin protrudes to provide a swivel for the truck.

CENTER PLATE LUBE A heavy, almost solid graphite lubricant that is manufactured as pellets, patties, or donuts.

CENTER PLATE WEAR LINER A circular steel plate not more than one fourth inch thick with a hole for the center pin, placed between the car and the bolster center plate.

CENTER SILL A box beam, an I-beam or paired I-beams through the center line of a car, carrying the weight of the car between truck assemblies at each end.

CENTRALIZED TRAFFIC CONTROL A signal system of traffic control with the signals controlled over a designated portion of the railroad by a control operator from a central control station.

CENTRIFUGAL DIRT COLLECTOR A device between the trainline (*brake pipe*) and the controlling valve into which air is introduced at such an angle that it forms a vortex. Dirt migrates to the center, slower moving air and drops into a chamber at the bottom from which it may be removed by removing a plug. The faster moving air climbs and exits through a hole in the top.

CERTIFICATE OF SERVICE MONTHS AND WAGES An annual report to employees by the Railroad Retirement Board showing total months worked and amount of wages taxed for retirement purposes. This form is also used as proof of eligibility for sickness and unemployment benefits.

CHAFING IRON/ CHAFING PLATE A replaceable plate applied wherever wear may reduce the working life of a device such as between the bolster gib and side frame column.

CHAIN A CAR Applying a heavy chain to a rail car with the coupler pulled out in preparation for moving it to a repair facility.

CHAIN GANG Crews (*Chain gang turns*) working first-in first-out and called in succession like the links of a continuous chain. A crew arriving at a terminal will be marked up behind all other crews currently on the available list (*Crew board*).

CHAIN OF COMMAND Every railroad has its own terminology for its officers, but a hypothetical example with semi-independent branches may be: (*semi-colons separate levels of authority*) Board of

Directors; President or General Manager; Vice presidents in charge of Departments, Chief Financial Officer, Chief Engineer, Master Mechanic; Division Superintendents; Chief Dispatcher, Roadmaster, Trainmaster, General Yardmaster; Dispatcher, Yardmaster; Foreman/ Conductor; Crew members. The duties of the various officers may be these: After the highest executive levels overseeing the entire operation; the Financial Department would be in charge of marketing and sales, payroll and the disbursement of other operating funds. The Engineering Department would be in charge of surveying, obtaining, or abandoning rights-of-way, engineering track and structures, devising of new methods and machinery, and communications and signals. Maintenance of way and structures may be a separate subdivision of the Chief Engineer's office. The Mechanical Department may be in charge of the maintenance and service of rolling equipment, including fuel and parts. The employees from the Division Superintendents on down in the example given would be in charge of or otherwise involved in the operation of trains. These employees would include operators, clerks, and other station forces. All department heads must be involved in decisions affecting that department. In all departments and at all levels, the most important interconnection is the rapid communication of needed information.

CHAIR CAR A passenger car without sleeping facilities.

CHANNEL One of 90 channels from 7 to 97 on the radio selector dial representing an assigned frequency in the PBS2 range from 140 mHz (*megahertz*) to 180 mHz.

CHARGING STATION A steam generating facility for charging fireless locomotives.

CHARIOT Caboose.

CHARTER A right, granted by the various states, to build and operate a railroad in that state. A franchise, not necessarily exclusive, to provide services (*transportation of goods and people*) in a particular area.

CHASING THE RED Returning to the caboose from flagging a train. (*Protecting against a following train.*)

CHASSIS A rubber-tired assembly onto which containers are loaded for highway use.

CHASSISRAILER A highway chassis equipped with deployable steel guide wheels and rubber tires, and a means of coupling to another Chassisrailer or a Roadrailer car. A removable freight container can be loaded on the chassis. The Chassisrailers and Roadrailers can be hauled as a train eliminating conventional rail cars in some instances.

CHAUFFEUR A hump motorcar operator. One who shuttles yard brakemen and skatemen in a hump yard.

CHEATER (1) Long-handled hand-operated fulcrum type car mover.

CHEATER (2) A block placed so as to depress the independent brake valve bailing feature during an automatic brake application to prevent an application of the engine brakes. This practice is against the rules in most operations.

CHEATER BAR Pinch bar or buggy bar.

CHECK A TRAIN Ascertain that car numbers agree with a prepared list or make a new list.

CHEEK PLATES The contact surfaces of an under-frame draft sill in a railway car.

CHILL An area around the perimeter of a cast iron or cast steel wheel including half of the flange which is cooled as the metal is poured, causing the carbon to remain in combination with the steel. The rest of the wheel cools more slowly, allowing part of the carbon to separate into graphitic form. This causes the Chill to have a Brinell Hardness of 400 to 440.

CHILLER A steel band machined to the contour of the tread and half of the flange of a steel wheel and incorporated in the mold for railway wheels. The rest of the mold is standard sand cast.

CHIMNEY POT A cast-iron T-shaped chimney above the roof of a caboose. (*The T-shape is oriented across the direction of travel to avoid back pressure into the stove while moving.*)

CHOCK/ CHUNK A piece or pieces of wood placed under the down-hill side or both sides of a wheel to prevent movement.

CHONGO Rail anchor. From the way it clings to the bottom of the rail. Spanish slang word or colloquialism for monkey.

CHORD ANGLE Reinforcing angle iron on the top of gondola sides.

CINDER DICK A Special Agent. A railroad detective. Company police usually having powers of arrest of state or local police.

CINDER POCKET A chamber below the smoke box to catch and hold cinders from the firebox. Also called the spark pocket.

CINDER POUNDER A yard switchman or train brakeman. (*Firebox cinders were used as ballast and walkway material between tracks in switch yards and volcanic cinders are sometimes used as ballast on roadbeds.*)

CINDER CHEWER/ CINDER SNAPPER A passenger who rides the open platform of an observation car.

CIRCUIT The path of electrical current from origin to a working device and back to the originating device or a common neutral ground (*Generator, Alternator, Battery, etc.*).

CIRCUIT BREAKER A protective device which will interrupt the flow of electricity if the flow exceeds the capacity of the circuit breaker, thereby preventing damage to a working device.

CIRCULATE To run around another train headed in the same direction.

CLACK A one-way valve between the feed-water injector and steam locomotive boiler. Held closed by boiler pressure, it is open only when the injector is being used.

CLASP BRAKE An arrangement in which two brake shoes are used opposite to each other on each wheel.

CLASS A term used to describe the relative priority of movement of a train according to type. A passenger train has the right of class over a freight.

CLASS Job classification. Job title or description.

CLASSIFICATION A list of the assignment of types to goods for the purpose of applying class rates.

CLASSIFICATION YARD A switching yard for sorting freight cars by type or destination.

CLASS LIGHTS Colored lights carried by trains to indicate superiority over other trains. The colors are White- Train with no following sections, Green- First Class train with a following section, Off- Yard Engine or Extra Train, Red- Rear of locomotive consist. A marker light with red showing to the rear indicates the rear of a train. Trains observing a green class light or green flag while waiting for a superior train must also wait for any following sections.

CLASS ONE RAILROAD One described as generating more than an amount of gross annual revenue set by the Interstate Commerce Commission.

CLASS RATES Transportation rates charged for a particular class of goods hauled.

CLAW BAR Spike remover. A long bar with heavy claws similar to a claw hammer.

CLEAR Point in a track where another train may pass on another track.

CLEARANCE CARD Form allowing or giving permission for a train to leave a station.

CLEARANCE NOTICE The notification by bulletin, timetable, or other means, that a sign or structure will not clear a man riding the side of a car.

CLEARANCE POINT A point in a track at which a man riding the side of a car, train, or engine will clear a car on an adjacent or diverging track. A point on controlled track beyond which a train must not pass

until permission is obtained from the control station. Permission may be given by block signal, train order or other written form of permission, Track Time and Limits, or oral permission to pass such point given in a specified format which clearly identifies the person or train obtaining permission and the location. In some locations, the clearance point coincides with the track circuit limits and may be marked with a yellow stripe painted on both rails.

CLEAR ASPECT The appearance of a signal indicating track is not occupied ahead and a train or engine may proceed.

CLEAR STACK Steam engine smoke stack clear of soot or the fire in the firebox is burning hot and clean, without black smoke.

CLERESTORY ROOF The roof of a passenger car in which the center is raised to allow the installation of windows along each side of the raised portion to allow for additional light. (*Also called the Pullman roof.*)

CLEVIS A U-shaped piece of steel with holes in the two ends to accept a pin. Used on brake rods, wire cable ends, etc..

CLIC Car Location Identity Code. (*See CLIC Book*)

CLIC BOOK Booklet of maps of a specific geographical area (*A subdivision or yard.*) divided into zones, tracks, and spots with instructions and procedures for the work order document system.

CLIC LIST List of train showing car numbers, car type, lading, weight, destination, and special car handling instructions.

CLICKER BOX Receiver for telegraph signals.

CLINKER Fused material (*residue*) in a coal-burning stove or steam engine firebox.

CLINKER RAKE A long-handled rake for breaking up clinkers in a firebox for better combustion or for removing clinkers from the firebox sheets. (*See Honeycomb*)

CLOSED SHOP (*Agency Shop, Union Shop*) An organization with a labor contract agreement to require union membership as a requisite for employment.

CLUB A wooden club used as an aid in tying hand brakes.

CLUB WINDER Brakeman.

COACH A passenger car without beds.

COACH KEY Large key for opening coaches, Pullman sleepers, cabooses, etc.

COAL Decomposed, compressed, carbonized plant matter. Briquette (*Pressed powdered coal and pitch.*), Anthracite (*hard, high carbon, low sulphur coal*), Bituminous (*soft coal, containing hydrocarbons such as tar or asphalt*), Lignite (*brown coal*), Peat (*partially*

decomposed plants, usually mosses, dried, compressed, and carbonized), Balloon (*Contains waxes and oils which swell when heated and give off excessive amounts of soot*). Ecology friendly coal is a low sulfur content fuel. (*See also Lump Coal, Culm, Slack.*)

COAL BUCKET shallow bucket with a large pouring lip, a bail type carrying handle, and a handle on the side opposite the lip to aid in emptying the bucket into a firebox. Coal Scuttle.

COAL BUNKER The compartment in the front of the tender where coal is loaded for use in the locomotive.

COAL CHUTE Coal hopper and chute for loading engine tenders or coal cars.

COALING TOWER A structure similar to a grain elevator in which coal is elevated to a large storage hopper and dispensed through a chute to locomotive tenders.

COAL OIL A petroleum lamp oil. Kerosene. (*Not made from coal.*)

COAL SCHOONER A Coal Bucket or a coal car.

COAL SCOOP A large flat-bottomed shovel used by a fireman to stoke a fire.

COAL SLURRY Coal which is ground fine and blown dry into a firebox or mixed with water so it may be pumped through a pipeline.

COFFIN CAR car for carrying cucumbers in brine from a collection point to the factory for pickling. The car's top cover opens like a coffin lid, and nets are used to dip the cucumbers from the car.

COLD SHOT Small pellets of iron or steel imbedded in the surface of cast parts as a manufacturing defect.

COLLECTIVE AXLE DRIVE An arrangement where one set of wheels is driven by the source of power and other wheels are driven by side rods connected to the powered wheels.

COLLECTIVE BARGAINING Representatives of a labor union and company management working on a contract agreement for wages, benefits, or working conditions.

COLLECTOR A rotating or sliding contact to pass electrical current from a source to a device such as an electric turntable motor.

COLOR LIGHT SIGNAL A train control signal whose color indicates its purpose. Green, yellow, red, etc.

COLOR POSITION LIGHT SIGNAL A train control signal whose color and position indicate its purpose.

COLUMN The vertical pieces of a railcar's truck side

frame which serve as a guide for the truck bolster ends (*Gibs*).

COMBINATION/ COMBINE CAR A car carrying passengers and mail or baggage.

COMBINATION JOURNAL BOXES The journal boxes on a geared locomotive. They also hold and lubricate the bearings of the line shaft.

COMBINATION STAND A manifold on top of a boiler to provide steam to auxiliary devices. (*See Fountain, Cab Turret.*)

COMBINE To delay one's on-duty time by dropping to the bottom of the board (*crew list*) without marking off.

COMBINED BOARD A roster of employees made up of employees from two job rosters in a particular class, for instance, conductors and brakemen or engineers and firemen. Another type of Combined Board is made up of employees from two different terminals or districts, combined by a run-through agreement or a seniority district merger.

COMBY SPOT (*Brake Burn Comby*) A spot on a wheel where the surface of the tread has sluffed off or shelled out. Combyness is caused when Brake Burn Cracks become interconnected into a rough honey-comb pattern and the crystalized metal begins to fall out. (*See Shelled tread.*)

COMMISSARY CAR A car carried on passenger trains in which passengers could buy sandwiches, drinks, magazines, newspapers, and other items to make a long trip more enjoyable.

COMMON CARRIER A company hiring to the general public, without prejudice, for the transportation of goods and/ or people, as opposed to a private or contract carrier.

COMMODITY RATE Transportation fees charged for the movement of a particular commodity which may have handling problems not normal for it's class or fewer problems because of bulk handling or for marketing strategies. More often than not, the latter was the case and the rate was lower. At one time, most of the freight moving on U.S. railroads was carried at special commodity rates.

COMMUNICATIONS COORDINATOR An employee who takes messages and information from other employees and relays the messages to the proper recipient and when necessary enters information into a computer data base.

COMMUTATOR The segmented sliding contacts of DC motor or generator rotor windings. Current is passed through contacts called brushes. Opposed segments terminate the two ends of the rotor winding.

The role of a comutator is to reverse the wiring terminal connections during a rotation thereby maintaining the direction of current flow through the winding and thus the polarity of the magnetic field. Multiple windings maintain an essentially continuous magnetic attraction and repulsion between the continuously changing rotor coils and the never-changing field coils which are of opposite polarity to each other.

COMPANY NOTCH The notch on the Johnson Bar (reverser lever) quadrant at which a steam engine uses the least steam to maintain speed, and therefore the least fuel, saving money for the company.

COMPOUND LOCOMOTIVE A steam locomotive with both high and low pressure cylinders. Steam is used in the high pressure cylinder then routed to the low pressure cylinder, sometimes through a receiver, where it drives the piston and then is exhausted to the atmosphere. Steam is used twice in compound gear and only once in simple gear. In simple gear, high pressure steam is introduced to the larger low pressure cylinders. Tractive effort is greater in simple gear up to about twenty-five miles per hour, but steam consumption is much greater.

COMPOUND PIT Pit for dumping foam retardant (*usually soda ash*) and hard water residue when cleaning steam engine boilers.

COMPRESSED AIR BRAKES Brakes which are applied by compressed air fed to an actuating cylinder. (*See Air Reduction Brake System*)

COMPRESSED AIR LOCOMOTIVE A switch engine which uses compressed air instead of self-generated steam for power in locations where fire would be prohibited, such as sugar mills and mines.

COMPROMISE BARS Angle bars designed to connect different weights of rails, maintaining the proper height and alignment.

COMPROMISE CAR A freight car with extra wide wheels which allows running on different gauge tracks in interchange when the gauge is only inches different.

CONCENTRICITY A condition where every point on the edge of a circle is an equal distance from the center. Railway wheels must be nearly concentric within specified limits.

CONCOURSE A large open space in a passenger terminal.

CONDEMMED CAR A freight car past it's useful life or one which has been damaged beyond repair Usually sold for scrap or for use as storage buildings.

CONDITIONING TRACK A track where freight cars are cleaned and reconditioned for carrying a particular freight or repaired.

CONDUCTOR Employee in charge of train. Does the paperwork (*reports*), oversees or does the work between terminals. Is jointly responsible with the engineer for the observance of train restrictions and work orders. Big ox, Drummer, Motorman (*Trolley conductor*), Ticket chopper, Trainman, Yard conductor.

CONNECTION The arrival of a train at a station in time for a passenger to board another train.

CONSIGNEE The person, firm, or other entity to whom or which a load of freight (*consignment*) is being delivered for unloading.

CONSIST Identification list of cars or engines in a train. (*Train or Power*)

CONTAINER Freight box with a means of attachment to cars, bogies, or other containers in stacked configuration.

CONTAINER CHASSIS A highway running gear (Bogie) for removable containers.

CONTINUITY Continuous radio communication with remote radio devices. A loss of continuity may mean a loss of information from rear end devices or a loss of control in remote control equipment. An electrical circuit without open or shorted locations.

CONTINUOUS RAIL Welded rail without joints or electrically continuous jointed rail within blocks.

CONTINUOUS TIME Time on duty during consecutive tours without sufficient rest time under the hours-of-service law. A rest of less than four hours counts the same as work time. With a rest of four hours or more, actual work time is aggregated (*Added together*) to arrive at total time on duty. (*See Aggregated Time, Hours of Service Law*)

CONTROL CABLE (*Jumper cable, 26 point*) Detachable cable between locomotives providing control continuity in multiple unit consists.

CONTROLLED SIDING A siding within CTC or Interlocking limits where a signal indication authorizes the use of the siding.

CONTROLLED SIGNAL An absolute signal controlled by a control operator.

CONTROL OPERATOR An employee authorized to operate CTC or Interlocking control machinery or grant track permits.

CONTROL POINT The location of absolute signals controlled by a control operator.

CONTROL SIGNAL The signal at the entrance to a block controlling movement into and within that block.

CONTROL STAND Stand at engineer's station with engine and train control and monitoring devices.

CONTROL VALVE A device on engines or cars

which will change valve routing positions to charge reservoirs or apply and release the brakes in response to a change in brake pipe pressure.

COOLER COCK A faucet in the side of a tender where a hose may be attached for cooling an overheated journal. Also called Flood Cock or Keeley.

COON IT To shinney (*SW U.S.- climb fast*) up a ladder or walk the walkway on top of a car.

COOPER A CAR To apply patches and caulking to a car to seal against leakage of bulk products.

CORNER A CAR To hit the corner of a car that doesn't quite clear another track.

CORN-FIELD MEET A head-on collision between two trains on a mainline track between stations.

CORRIDOR A route or area designated for routes between two metropolitan entities.

COUNTER WEIGHT A weight cast into steam engine drive wheels to offset or counterbalance the weight of crank pins and side rods.

COUNTER WEIGHT A weight built into engine crankshafts to offset the weight of cranks, connecting rods, pistons, rings, bearings, and pins.

COUPLER Device to temporarily attach cars or engines to other cars or engines.

COUPLER BUTT The inboard end of the coupler neck.

COUPLER CARRIER IRON Replaceable wear plate at the bottom of the buffer casting (*coupler housing*) on which the coupler neck rides.

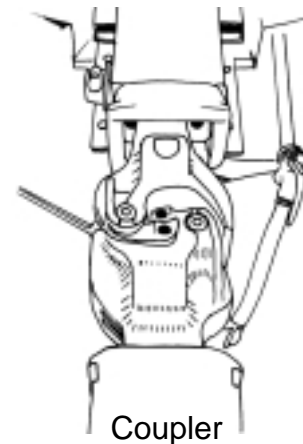
COUPLER HORN A lug cast into the coupler which rides against the top of the buffer face-plate when the draft gear is fully compressed.

COUPLER YOKE A strap-like U-shaped pocket attached to the coupler. Surrounding the draft gear, it transmits and dampens the forces of drafting (*drawing or pulling*) and slack action through the draft gear to the center sills.

COUPLING SHADOWS Using the shadows of cars to make a joint between cars. (*See Long joint.*)

C.O.T. & S Clean, oil, test, and stencil a car during periodic inspections of air brake equipment. (*See Air Date.*)

COVERED WAGON A nickname for EMD (Electromotive Division of General Motors Corp.) "E"



Coupler

and “F” units.

COW CAGE A stock car.

COW CATCHER Plow-shaped device on the front of engines designed to divert livestock to the side of the track and prevent derailments.

CRADLE CASTING The cradle holding the end of a cylindrical tank car.

CRAFT Job department, i.e. clerical, engine service, mechanical department, train service, etc.

CRANK A pin or shaft offset from the center of rotation. Usually providing a means of changing reciprocal motion to rotary motion or vice versa.

CRANKING The rotation of a crankshaft when an engine is being started.

CRANKCASE A protective case at the bottom of an engine with space in which the crank may rotate. On most engines it also serves as a reservoir for lubricating oil.

CRANKCASE OVER-PRESSURE Combustion gasses blowing by the piston rings of a diesel engine sometimes build up in the crankcase creating a dangerous over-pressure. Sensors will detect this condition and activate relays to shut down the engine. The engine must not be restarted until these gasses have had a chance to dissipate or be blown out (*Purged*), otherwise a crankcase explosion may result.

CRANK PINS The connection point for side rods on steam engine drive wheels. The crank pins on opposite ends of an axle are set ninety degrees apart so when one side is pulling, the other is pushing or going past dead center. This eliminates the possibility of both being on dead center where neither would pull.

CRATER CAP Traction motor pinion gear inspection and lubrication port cover.

CRATER COMPOUND Heavy grease used as lubricant for engines and other heavy equipment.

CREEP (1) The tendency of rails to move in the direction of continuous train travel or the direction of the forces induced by the deceleration of braking.

CREEP (2) Movement of the rails due to temperature induced shrinkage or expansion.

CREEP (3) The carefully controlled movement of a work train locomotive when working with certain track equipment.

CREEPER Rail anchor.

CREW A group of workers, working together as a unit.

CREW BOARD A list of crews available for work.

CREWS ARE TIGHT There sufficient crews available for the trains due, but time-on-duty or rest period constraints may be a problem. (*See Hours-of-Service*

Law)

CRIB The spaces between crossties which may or may not contain ballast.

CRIBBER An on track machine which removes the ballast from between the outer ends of the ties in preparation for insertion of rail anchors by a ‘Boxer’.

CRIPPLE A car with a defective running gear.

CROCODILE A slave unit (*remotely controlled engine*) with a longer than normal short hood end to hold the extra remote control radio equipment. (*Also called snoot*)

CROPPING SAW A gasoline engine powered saw which clamps to the rail and cuts it with a slow turning, carbide tipped, circular saw blade. (*Rail saw.*)

CROSS-BUCK Railroad crossing sign. Shaped like a cross-buck. (*The ‘X’ shaped stand used to hold fire-wood logs for cutting with a cross-cut (buck) saw.*)

CROSS HEAD Sliding connection point between steam engine piston rods and main driving rods.

CROSS-HEAD GUIDE Parallel rails on which the cross-head slides.

CROSSING Place where highways or other railroads cross a railroad. The latter is called a railroad crossing at grade.

CROSSING AT GRADE A crossing where one track crosses another at the same level.

CROSSING CIRCUIT An electric circuit which detects an approaching train and activates the crossing warning devices.

CROSSING GATE A movable arm, usually with lights, protecting highway crossings.

CROSSING PLATE Wooden or rubber plates that raise a highway crossing surface even with the tops of the rails.

CROSS KEY A flat key with a head on one end and a hole in the other. Inserted horizontally, the cross-key holds the draw-bar in the coupler yoke or sliding sill.

CROSS KEY RETAINER A T-shaped pin inserted in the hole in a cross key and held in place by a flat cotter key or a keeper.

CROSS KEY RETAINER KEEPER A flat steel T-shaped piece inserted through the bottom of the cross key beside the cross key retainer and bent over the top of the retainer or a flat cotter key inserted through a slot in the bottom of the retainer.

CROSSOVER A track connection between two adjacent tracks.

CROSS-TIES Wooden beams used as a base on which the rails are laid to spread the weight of the equipment and hold the rails an equal distance apart.

CROWN BRASS The brass bearing for steam loco-

motive axles.

CROWN HIM To attach a caboose to a train after it is made up.

CROWN SHEET The flat steel boiler plate comprising the top of the firebox.

CROW'S FOOT Device to help raise a journal box without raising the wheel when changing the brass. A flat steel plate with an offset at one end. The offset portion fits over the wheel rim and the flat part lies under the jack which lifts the journal box.

CRUMMY Caboose.

CULM SLACK The finest screenings of coal. Too fine for use in locomotive fireboxes, clean culm can be used in fluidized coal beds. (*See Coal*)

CUPOLA Seating area with windows on a caboose, elevated above the roof for better visibility.

CURFEW A period of time at a specified location when no trains are run, imposed by the maintenance-of-Way Department.

CURRENT A flow of measurable dimension. Movement in a specific direction. The movement of a stream. A flow of electric charge in a circuit.

CURRENT OF TRAFFIC Movement on a designated main track on which the movement is in one specified direction only. For Double Track, movement on the other track will be in the opposite direction. For Two Or More Tracks, there is no current of traffic unless specified by rules, train orders, or track warrants.

CURVE GREASE Grease applied to wheel flanges prior to entering curves to reduce wear on rails and flanges.

CUSHION UNDERFRAME A shock absorber to control slack and coupling forces in freight cars and cabooses. The use of cushion underframes in cabooses made good engineers of otherwise slack-happy throttle jockeys.

CUT Group of two or more cars, coupled, in a switching move.

CUT To detach cars or engines. To "make a cut".

CUT Passageway cut into the crest of a hill. Material removed is used as 'fill' in low spots.

CUT LEVER The hand lever used to lift the coupler pin to separate rail cars or engines.

CUT OFF Removed from a list of active personnel in a force reduction. Laid off.

CUT-OFF A new trackage route that eliminates curves or switch-backs and shortens the route.

CUTOFF The point at which steam is cut off from a locomotive drive cylinder and allowed to expand for the balance of the stroke. See Reverser, Johnson Bar,

Company Notch.

CUT-OUT COCK Device to cut out the feed valve on the lead unit while making a brake-pipe leakage test or on trailing units being controlled by the lead unit.

CUT THE BOARD To reduce the number of employees on a list of active personnel.

CUT THE CROSSING To separate a stopped train and pull the front portion off a public crossing to allow vehicles to cross.

CYCLE A start and return to the starting point. An electrical cycle in alternating current starts at zero potential or voltage and rises to maximum where maximum current may flow in one direction, then returns to zero. Potential then changes to cause current to flow in the opposite direction at full potential and returns to zero. Having completed two alternations, the cycle is complete, and a new one may then start. 60 cycle AC current changes direction 120 times per second.

CYCLE (*See Business Cycle.*)

CYCLE BRAKING To make a series of brake sets and releases without allowing the reservoirs to recharge. If the cycling is continued too long, the engineer will run out of enough air to control the train.

CYLINDER A round pressure vessel to contain compressed air or other gasses.

CYLINDER A round pressure vessel containing a sliding piston connected to a rod which transmits the force of steam under pressure or burning fuel-air mixtures to do work.

CYLINDER COCKS Valves that the engineer can open from the cab to blow condensed water from steam locomotive driving cylinders prior to moving the locomotive to prevent hydraulic incompressibility failure of the cylinders.



DAMAGE FREE A freight car especially designed to prevent damage to a specific cargo or class of freight.

DAMPER A device to cause a spring to act more slowly or to control rebound. A Damper may consist of a restriction of gas, air, or hydraulic pressure release; friction between parts; a spring of varying contour; or a combination of spring sizes. Some devices are also called shock absorbers. Used extensively in railcar suspension gear and sway control. (*See Harmonic Damper*)

DAMPER A moveable plate used to control combus-