

J. Arend, New York, N.Y., and John Bernstrom, Stockholm, Sweden. A process which consists in causing a mixture of comminuted ore and solution chemically active to dissolve said precious metal to descend by gravity centrifugally agitating the same during said descent and thereafter centrifugally separating said enriched solution from said ore.

775,414—Apparatus for extracting precious metal from ores. John J. Berrigan, East Orange, N.J., assignor to Francis J. Arend, New York, N.Y., and John Bernstrom, Stockholm, Sweden. An apparatus for extracting precious metal from ore by a solution chemically active to dissolve said metal, means for mixing said ore in comminuted form with said solution, means for agitating said mixture, means for centrifugally separating the enriched solution from said ore, and means for conducting said ore and solution from said mixing device and from said agitating device to said separator.

775,948—Ore-washer. Albert H. Stebbins, Little Rock, Ark. The combination of a frame, a concentrating-surface arranged upon said frame, said concentrating-surface being provided with perforations, said perforations being disposed to direct currents of fluid over or parallel to the concentrating-surface against the flow of material thereon, a series of riffles extending across the frame and disposed above the concentrating-surface, and means for introducing a blast of fluid through said perforations.

775,945—Ore-concentrator. Albert H. Stebbins, Little Rock, Ark. The combination of a chamber, a perforated concentrating-surface arranged above said chamber, a series of cutting and conveying boards arranged at an incline to said concentrating-surface, the upper edge of one cutting and conveying board projecting above the lower edge of the next adjacent board, said boards being perforated and means to produce an intermittent blast through the concentrating-surface and cutting and conveying boards.

776,113—Gold-saving apparatus. Horace O. Clark, San Francisco, Cal. The combination of a revoluble, foraminous cylinder, a trough below a cylinder and provided with parallel riffles arranged substantially concentric with the cylinder, and scrapers on the cylinder each operating in one of the spaces between adjacent mercury containing riffles and adapted to remove the material from said space for advancement to the succeeding mercury-containing riffle.

775,145—Process of separating metals from sulfid ores. Charles V. Potter, Balaclava, Victoria, Australia. A process which consists in adding to same an acid solution which is a non-solvent of the precious metals, then applying heat to the same, and removing the sulfids from the surface of the solution.

775,965—Dry separator. Thomas A. Edison, Llewellyn Park, N.J. The combination of a blast-tube substantially uniform in cross-area, means for producing an air-blast through said tube, a screen pressure-equalizing diaphragm across the whole area of the tube, a second and finer screen-diaphragm placed farther from the blast-inlet and at a distance beyond the first-mentioned diaphragm sufficient to form in the tube a pressure-equalizing chamber, a feed-opening in the top wall of the tube immediately in the rear of the finer screen and extending across the tube, means for feeding pulverulent or granular material in a thin, uniform, vertical sheet falling across the whole area of the tube, and receptacles for the grades produced.

775,947—Concentrating Machine. Albert H. Stebbins, Little Rock, Ark. The combination of a frame, a perforated concentrating surface supported thereby and a fluid chamber beneath the surface, said concentrating surface comprising sections arranged in different planes, means for introducing blasts of gaseous fluid beneath the said space for advancement to the succeeding mercury-containing riffle.

777,020—Dumping Car. Joseph D. Hampton, Hazleton, Pa. A dumping car having fixedly-held sides and ends and a gate

at one end, a movable bottom, means for automatically moving said bottom endwise to release said gate and carry the load there through to dump the same for the purposes specified.

12,293—Fuel Burner. Emer F. Gwynn, Pittsburgh, Pa. The combination of a hollow tube constituting a mixing chamber and provided with circumferentially-arranged openings passing through walls of the tube tangentially thereto, and terminating at the inner surface of the tube and discharging directly thereinto, with a separate sleeve or fitting mounted on said tube and provided with an annular recess communicating with said openings, a fluid inlet pipe in communication with said recess and means for controlling the quantity of fluid admitted to the recess.

776,531—Mine Car Coupling. Marshall G. Moore, Johnstown, Pa. A car coupling comprising links and clevises or their equivalent, one or more of said members being twisted about the longitudinal axis thereof, whereby said coupling works freely into its slack position, thus forming a short hanging loop.

776,662—Concentrator. Henry E. Horn, Denver, Colo., assignor to the Brush Belt Concentrator Company, Denver, Colo. A concentrator provided with an endless travelling belt or apron and adjustable means engaging the belt or apron from above to form a transverse valley or depression therein, comprising a shaft, vertically-adjustable boxes in which the latter is journaled, and a number of separated wheels mounted on the shaft and engaging the upper part of the belt from above between the head and tail extremities of the belt, the latter being mounted to give its upper portion a downward inclination from the head of the machine and actuated to cause it to travel upwardly.

777,472—Dumping Coke Car. Frank S. Ingoldby and Joseph R. Bowling, St. Louis, Mo., assignors to the Ingoldby Automatic Car Company, St. Louis, Mo., a corporation of West Virginia. A coke car, sides having trusses comprising upper and lower chords, a metal sheathing secured to the lower portion of said trusses, and slats completing the sides above the sheathing.

777,247—Concentration of Mineral from Ores. Arthur E. Cattermole, Henry L. Sulman and Hugh F. Kirkpatrick-Pickard, London, England. A process which consists in mixing the ore-pulp with a soap solution and a mineral acid so as to liberate from the soap the organic acid which coats the desired mineral particles but not the gangue, agitating the mixture so as to agglomerate the coated mineral particles into granules and separating the granules from the non-coated gangue.

777,233—Amalgamator. Elizabeth P. Wilkins, Baltimore, Md. The combination with a receptacle of a cylinder adapted to rotate therein, a stand-pipe rigidly engaged in and projecting below the bottom of said cylinder, a worm conveyor in said stand-pipe projecting below the bottom thereof, inwardly-directed beaters on the bottom and sides of said receptacle and outwardly directed beaters on the bottom and sides of the cylinder arranged staggering therewith.

777,498—Blast Furnace. John Coyne, Allegheny, Pa. The combination of a blast furnace having an outlet for the normal escape of gas, an explosion chamber connected to the furnace and means within said chamber for separating the gases from dust.

771,171—Conveyor. Lawrence Abraham, New York, N.Y. The combination with a travelling conveyor, of frames secured to said conveyor, a plurality of shelves movably secured to each of said frames, means for causing said shelves to discharge their contents at predetermined points, and a connection between two shelves carried by the same frame for causing one of said shelves to act as a stop to limit the movement of the other shelf at the moment of discharge.

777,112—Apparatus for Cleaning the Gases of Blast Furnaces, Generators, etc. Emil Kratochvil, Kralup, Dvur, Austria-Hungary. The combination of a suitable casing, a hori-