

to convert the bromide into bromine and form solvents for the precious metals, and re-converting the bromine into bromide, substantially as specified.

REPORT ON PATENTS.

(Specially Reported for the MINING RECORD by Dr. Oscar Nagel, New York.)

762,753.—Apparatus for magnetic separation. Clarence Q. Payne, Stamford, Conn.—A transversely-laminated separating carrier provided with a plurality of contracting magnetizable laminae whose outer edges are wholly out of contact with those of their adjacent laminae, in combination with two opposing magnetic surfaces both placed external to said carrier and between which said carrier is arranged to travel, and means for feeding the material to be separated.

762,774.—Apparatus for the concentration of minerals by means of oil. James W. Van Meter and Martin P. Boss, San Francisco, Cal.—An apparatus comprising a channel through which the oil flows, means for supplying pulp and water to the oil at the head of said channel, means in said channels at intervals for drawing off the settled gangue and water, means at the foot of said channel for separating the relatively upper and lower portions of the oil, and means for returning said separated upper portions of oil to the head of the channel.

762,967.—Ore separator. Henry A. Allen, Chicago, Ill.—An apparatus in which is combined a stationary circular closed receptacle, an inlet pipe arranged tangentially thereto, discharge openings above and below the level of the inlet openings, and a series of spirally-inclined ledges arranged with the forward end of one ledge above the rear end of the next succeeding ledge, the lower end of one ledge being below the level of the inlet opening, whereby the material fed to the receptacle may be directed upwardly upon the inclined ledges while the heavier particles may be free to fall between said ledges.

763,019.—Ore sizer and concentrator. Ansel H. Phinney, Turner, Mich.—An ore sizer and concentrator comprising a vat having a discharge element at one end, means at the opposite end to supply material, suspended in liquid, to the vat, a plurality of hoppers below the level of the discharge element and forming a series of water chambers, and a screen forming a false bottom extending over the hoppers, and having longitudinally-disposed laterally spaced screen elements extending below the water level of the vat, said screen elements serving to form a series of straight girdling channels opening at the bottom into the hoppers and extending from the feed to the discharge ends of the device.

763,197.—Ore slimer. Ira F. Monell, Boulder, Colo.—An ore slimer comprising a main frame, a belt frame supported in the main frame, rollers at the end of said belt frame, the said rollers being tapered from their centres outward, small rollers arranged between the first named rollers, and tapered from their centres outward, and endless belt movable over the several rollers, and means for distributing stock onto the belt.

762,869.—Apparatus for Treating Ores. Henry A. Allen, Chicago, Ill.—An apparatus comprising a continuous closed separating system in which is combined a main circular separating vessel, means for introducing thereto the materials to be separated, a pipe system each having an inlet at or near the bottom and an outlet at or near the top, a pump for inducing a circulation, heating means interposed in said pipe system, and a normally closed outlet at the bottom of said separating vessel, whereby a vertical whirl may be imparted to the material and fluids in said separating vessel while the heated fluid may be used over and over.

763,260.—Separation of the metallic Constituents of ores from gangue. Arthur E. Cattermole, Highgate, London, England.—A process which consists in agitating a mixture of powdered ore and water with oil in emulsion in water containing an alkaline emulsifying agent, so as to agglomerate the oil-coated particles into granules, and subjecting the mixture to classification to remove the small non-coated particles from the granules.

763,533.—Continuous kiln. Peter L. Youngren, Milwaukee, Wis.—The combination of inclosing walls, forming a series of brick-receiving compartments; a gas-producing oven for each compartment, communicating with a distributing flue in the side wall of the compartment; said wall having branch flues leading downwardly from the distributing flue and communicating with the lower portion of the compartment, and corresponding branch flues leading upwardly to the exterior and provided with suitable removable covers.

763,783.—Concentrating table. Gustave A. Overstrom, Anaconda, Mont.—A concentrating table, in combination with means for imparting a reciprocatory movement thereto, said table having an unobstructed tailings delivery edge said edge being inclined away from the line of reciprocatory movement from the head end of the table toward the opposite end thereof, and riffles arranged in diagonal relation with respect to said table.

763,662.—Apparatus for use in certain processes of extracting sulphides from ores. Guillaume D. Delprat, Broken Hill, New South Wales, Australia, assignor to Broken Hill Proprietary Company, Limited, Melbourne, Victoria, Australia, a company registered under the laws of Victoria, Australia—An apparatus in which the concentrates are floated to the top of a body of liquid, a pan having an inclined impermeable bottom down which the ore slides, means to feed liquid to the pan, a sump at the lower edge of the bottom for tailings, a discharge for concentrates at the liquid-level of the pan, a baffle-plate between the sump and pan extending from the discharge to near the lower edge of the inclined bottom to maintain a quiescent body of liquid in the sump and at the same time maintain a flow of liquid from the pan through the discharge.

764,044.—Process of smelting and reducing metals. Christian Diesler, Cablentz, Germany.—A process consisting in mixing the materials to be treated with carbonate of lime and carbon, placing the mixture in an air-tight retort, exhausting the air from the retort, subjecting the mass to the action of an electric current within the retort, and to the action of the gas generated therein in excess of five atmospheres of such gas, and exhausting such resultant gas after it has acted on the materials treated.

764,568.—Dump Car. Alfred Ellis, Passaic, N.J.—A dump car, a truck, a car-body pivotally supported thereby, a side-board having arms at its opposite ends connected to the car-body, links having each one end supported by a stationary pivot and its other end loosely connected with the corresponding arm, and rigid supporting arms or braces carried by said links adapted to contact with the truck.

764,979.—Ore Concentrator. Samson Beer, Butte, Mont.—An ore-mill, a pan, a driving shaft extending vertically through the pan, a hub surrounding the shaft a cap on the hub, a screw operating in said cap and engaging the top of the shaft for moving the hub vertically, a cylindrical part attached to the hub and having side openings, check-pieces extended outward from the sides of the openings, bearing-boxes mounted to rock in said check-pieces, and rollers having their shaft-bearings in said bearing-boxes.

765,013.—Magnetic Ore Separator. Frederick J. King, Croydon, England.—A magnetic separator comprising a set of magnet-bars for sorting the material, and another set of curved magnet-bars at right angles to the first set and overlapping the lower end of said first set for the purpose of separating the sorted material.

765,042.—Ore Concentrator. Fred N. Rogers, Denver, Colo.—The combination with a plurality of independent classifying concentrating surfaces arranged for progressive concentration, of means for independently shaking the respective concentrating surfaces to impart classifying movement to the pulp particles, and a conveyor adapted to convey and deliver desired portions of the more or less classified pulp in a sheet from one concentrating surface, without substantially intermingling or disturbing the existing classification thereof, to a succeeding concentrating surface, thereby effecting a progressive concentration over the successive concentrating surfaces.