

- 771,454.—Apparatus for Extracting Gold from Auriferous Sand, etc. Robert Blake, Madison, N.J., assignor to Eliza Blake, Madison, N.J. The combination with a tank adapted to contain a lower body of mercury, and having a discharge located in a relatively elevated plane of a horizontal cylinder transversely within said tank, and adapted to have its lower portion immersed in the mercury, provision for supplying material to the tank, in front of the cylinder, a pivotally-suspended arm depending within the upper portion of the tank at the rear of the horizontal cylinder and between the latter and the discharge, said arm provided with a series of teeth extending transversely across the tank, the length of the arm and teeth conjointly being such that the teeth in their lowest position will be above the mercury, and means for actuating said cylinder for immersing the material in the mercury and causing said material to pass beneath the cylinder, and for oscillating the arm for causing the teeth to move back and forth in the path of an arc solely above the plane of the mercury surface.
- 771,646.—Process of Obtaining Metals. Franz von Kugelgen, Holcombs, Rock, Va., and Heinrich Danneel, Breslau Germany, assignors to the Willson Aluminum Company, New York, N.Y., a corporation of New York. A process which consists in electrolyzing a haloid of an alkali in the presence of an oxid of metal, thus obtaining the metal, an oxid of the alkali and the halogen, and maintaining a supply of the haloid and the oxid by adding fresh quantities thereof as they are decomposed.
- 771,684.—Dumping Car. Swan F. Swanson, Pueblo, Colo. The combination of a car body provided with an outlet, a door closing said outlet and carrying a stiffening-strip having extended portions, sliding pivoted catches to engage said extended portions to hold the door closed, a crank shaft for actuating said catches, and means for actuating the crank shaft.
- 771,438.—Conveyor. Thomas McDonald and Willie McKee, Youngstown, Ohio. A conveyor, two movable frames, each frame having a set of supports for the material being conveyed, and means for effecting a curved movement of each frame for the purpose of giving a positive forward motion to the material being conveyed.
- Oct. 11, 1904.
- 771,994.—Drying Apparatus. Frederick Meyer, Chicago, Ill. A drier comprising a rotary drum having two annular rows of shelves secured within same, one of said rows being disposed nearer to the centre of the drum than the other, the inner row having two alternating sets of shelves, the shelves in one of said sets being disposed radially of the drum, and the shelves of the other set being disposed tangentially, the shelves in the outer row being spaced from the shelves in the inner row to permit the contents of the drum to be dropped from the outer shelves to the inner shelves and to return to the outer shelves through the revolution of the drum.
- 771,872.—Furnace for the Manufacture of Steel. Gustav Glin, Paris, France. A furnace structure, and a hearth inclosed by and movable relatively to said furnace structure, the hearth having two non-carbon electrodes to connect it with a source of electrical energy and having an open channel in which the iron is placed to be treated while at rest, the electrodes being the terminal points of the channel.
- 771,857.—Pneumatic Gold-Separator. William Broadbent, Salt Lake City, Utah. The combination with the tank of two side casings with feed openings therein, a depression provided with an opening and closure therefor in the bottom of each side casing, a shaft extending through the side casings and tank carrying adjustable conveyor-blades within the side casings, sprocket-wheels on said shaft for driving it from a second shaft, and carrying perforated buckets, and means for delivering short puffs of air within the side openings near the bottom of the depressions.
- 771,909.—Mineral or Ore Washing Jig. Charles J. Hodge, Houghton, Mich. The combination of a driving shaft, a pair of eccentrics through which said shaft passes, and which are adjustable transversely of said shaft, a fly-wheel mounted on said shaft between said eccentrics and a crank connection between said fly-wheels and each of said eccentrics.
- 772,152.—Coal Mining Machine. Joseph F. Joy, New Eagle, Pa. A mining machine, a stationary frame comprising channel-beams and angle irons arranged there below, and frames connected to said beams and irons, a frame slidably mounted on said stationary frame composed in part of centrally arranged angle irons, the bases of which slidably engage said end frame and the webs of which form supports for the means whereby the same may be driven.
- 772,041.—Dump Car. Frank K. Hoover and Arthur City, Mo. The combination with a truck and an inclined track or way mounted thereon, of a car body, and a single pair of wheels journaled on opposite sides of said car body respectively and in the same vertical plane transversely of the truck, said wheels being mounted and arranged to travel on said track or way and forming a moving pivot on which the car body may tilt.
- 771,833.—Apparatus for Mercurial Alkaline Processes. Charles W. Roep-per, Germantown, Pa., and Willis E. Harmon, Mechanics Falls, Me., assignors to American Electrolytic Company, a corporation of Delaware. The combination of an amalgamating compartment; a demalgamating compartment; a main partition between the two, and a passageway under the partition; the bottom of the amalgamating compartment sloping downwardly from this passageway toward its other end.
- Oct. 18, 1904.
- 772,846.—Gas Seal for Metallurgical Furnaces. Samuel Stewart, Brighton, and Harry Hughes, Woodward, Ala. A gas seal for metallurgical furnaces, comprising a plurality of sliding gates tapered at the ends to fit snugly together when in the closed position, a series of shafts geared together, and a crank on each shaft pivotally connected to one of said gates, and means for rocking one of said shafts.
- 772,699.—Ball Grinding Mill. Meter J. Davidsen, Copenhagen, Denmark. A ball grinding mill, consisting of a drum provided at some distance from its ingoing end with a row of openings, a screen extending beyond said row of openings and beyond the opposite end of the drum, a deflector on the shaft of the drum adjacent to the head of the same, apertures in said head adjacent to the deflector for returning the tailings for regrinding them in the end of the drum opposite to the ingoing end without mixing them with the material fed at the ingoing end of the drum.
- 772,472.—Filter-Press. James W. Neill, Salt Lake City, Utah. The combination of a cylinder adapted to contain the material to be filtered, a plunger working therein, means for reciprocating the plunger, means for reciprocating the cylinder, a valve controlling the passage of the material to be filtered to the interior of the cylinder and means actuated by the plunger for opening and closing said valve.
- 772,569.—Conveyor. Orlando Kling, Denver, Colo., assignor of one half to Herbert George, San Francisco, Cal. A conveyor, in combination, moving trucks or supports, receptacles movable independently of and mounted upon said supports or trucks, means for automatically tilting the receptacles while moving, and means co-operating with the bodies of the moving trucks or supports during their travel to prevent tilting thereof during the tilting movement of the receptacles.
- 772,723.—Blast Furnace. Andrew Latto and James C. Callan, Braddock, Pa. The combination with a blast furnace, of a conduit communicating with the blast furnace near the top thereof, and a dust-collector composed of a curved elbow, a downwardly-extending tube, angularly disposed plates arranged in said elbow and having spaces between the plates communicating with the open air.
- 772,389.—Ore Drainage and Leaching Tank. Jean F. Webb, Denver, Colo. A metallurgical filter, an outer imperforate tank separated by an annular space from an inner drainage and leaching tank with perforated sides and bottom covered with suitable filters, and having within its circumference the perforated lower end of a hollow compartment or stand-pipe, through which liquids or compressed air may be introduced into said tank and forced by pressure to pass outwardly through the filters and perforations thereof, and having pipes through which the flow of such liquids or compressed air may be reversed from the said hollow compartment or stand-pipe into the said annular space and be forced by pressure to pass inwardly through the perforations and filters of said tank.

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