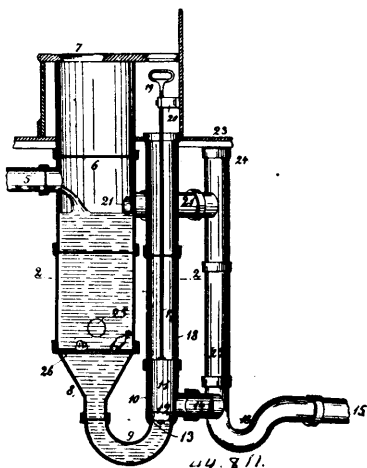


9, a valve 11, which controls the outlet, a valve rod 17, whereby the valve is operated, a bearing 20, which keeps the valve rod in proper position, a pipe 18, leading up to the surface, through which the



valve may be removed and access gained to parts below and an overflow 21, 22, all as substantially shown and described. 3rd. In a catch basin water-closet, the combination of a seat 7, a catch basin below it, a water supply pipe 5, a hopper 8 below the catch basin, a combined trap and outlet pipe 9, a valve 11, which controls the outlet, an outlet 14, 15, which leads to the sewer, a trap 16, and an overflow 21, 22, connecting the catch basin with the sewer outlet, the upright portion 22, leading to the surface and provided with the hand hole opening 24, through which access to trap 16 may be had, all as substantially shown and described. 4th. In a catch basin water-closet, the combination of a seat 7, a catch basin below it, a water supply pipe 5, a hopper 8 below the catch basin, a grate above the hopper, a combined trap and outlet pipe 9, terminating in its rising branch into a valve chamber 10, a narrow ridged valve seat 13, within this valve chamber, and a rubber or leather seated valve 11, all as substantially shown and described. 5th. In a catch basin water-closet, the combination of a seat 7, a catch basin below it, a water supply pipe 5, a hopper below the catch basin, a combined trap, outlet pipe and valve chamber 9, 10, a valve 11, provided with a valve rod 17, a pipe 18, leading to the surface and permitting access to the valve chamber and parts below, a sewer outlet 14, 15, a trap 16, provided in the same and an overflow 21, 22, connecting the catch basin with the sewer outlet, its upright portion 22, leading to the surface and having hand hole opening 24, by which access to trap 16, is had, all as substantially shown and described. 6th. In a catch basin water-closet, when arranged in series, the combination of the seats 7, catch basins below them, pipes 25, connecting all the catch basins, hoppers below the catch basins, outlet pipes 9, connecting to the hoppers, valves 11, controlling the passage from outlet pipe 9, sewer outlets 14 and 15, provided with traps 16, a water supply pipe 5, connecting to one of the series of catch basins, and an overflow connecting the series with one of the sewer outlets, all as substantially shown and described. 7th. In a catch basin water-closet, the combination of a seat 7, a catch basin below it, a water supply pipe 5, a hopper 8, below the catch basin, a combined trap and outlet pipe 9, a valve 11, located externally from the catch basin and connected with it by pipe 9, and an overflow, all as substantially shown and described. 8th. In a catch basin water-closet, the combination of a seat 7, a catch basin below it, a water supply pipe 5, a hopper 8 below the catch basin, a combined trap and outlet pipe 9, a valve 11, located externally from the basin and connected with it by a pipe 9, an external passage 18, reaching up to the surface, and an overflow, all as substantially shown and described.

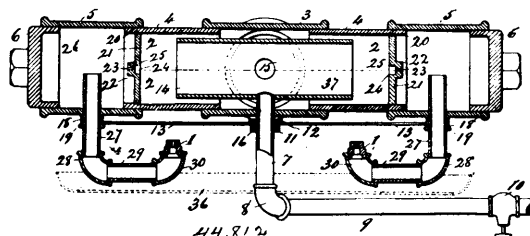
No. 44,812. Hydro Carbon Burner.

(Alimentateur à hydro-carbure.)

Emmet B. Raymond, St. Louis, Missouri, U.S.A., 4th December, 1893; 6 years.

Claim.—1st. The improved oil vaporizer and burner made up of screw-threaded pipe and fittings, with a single generating chamber 2, and separate exit nozzles 1, applied one adjacent each end of said generating chamber, and a supply pipe 7, communicating with said generating chamber at a point intermediate of the connections of said exit nozzles therewith, substantially as herein specified. 2nd. In a burner, the generating chamber 2, having within it a horizontal tube 14, the opposite ends of which are open, in combination with an oil supply pipe projecting within said chamber and supporting said tube 14, substantially as herein specified. 3rd. A burner, having a single generating chamber composed of a cross-shaped coupling 3, pipes 4, threaded into said coupling, a supply pipe connected to said generating chamber, and separate burners having

exit nozzles and applied one beneath each of said pipes 4, substantially as herein specified. 4th. In a burner, generating and super-



heating chambers locate on opposite sides of a supply pipe connection and formed of T-couplings 5, having nipples 18 upon their lower sides, said nipples having annular projections 19, adjacent their lower ends, exit nozzles connected to said nipples so as to discharge flame upward beneath said chambers and the spreaders 12 and 13, having terminal recesses 17, engaging said nipples, and supported intermediate of their ends by the oil supply pipe of the burner, substantially as herein specified. 5th. In an oil burner, the exit nozzle 1, having a restricted discharge orifice 32, terminating at one end in an enlarged recess 33, and said nozzle having a screw-threaded exterior, substantially as herein specified. 6th. In an oil vaporizer and burner, the combination of a generating chamber a superheating chamber, a burner applied to said superheating chamber to heat both chambers, and a partition separating said generating chamber from said superheating chamber, and provided with a restricted discharge orifice, substantially as herein specified.

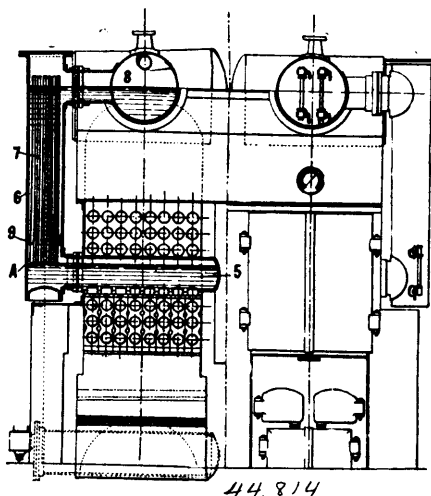
No. 44,813. Electric Smelting of Refractory Ores. (Procédé pour la fonte des minerais réfractaires par l'électricité.)

Thomas Leopold Willson, Leakville, North Carolina, U.S.A., 4th December, 1893; 6 years.

Claim.—1st. The process of reduction of a pulverized metallic compound, which consists in first impregnating it with a reducing agent by saturating it therewith while the latter is in liquid condition, and then subjecting the impregnated compound to the heating action of the electric current. 2nd. The process of reduction of a pulverized metallic compound, which consists in first impregnating it with a reducing agent by boiling it therein, and then subjecting the impregnated compound to the heating action of an electric current. 3rd. The process of reduction of a pulverized metallic oxide, which consists in first impregnating it with a reducing agent in the nature of a hydrocarbon, which is liquid when heated by introducing the oxide into a heated bath of the reducing agent until sufficient of the latter has been absorbed by the metallic compound, then drying the latter by heat, and finally subjecting the impregnated compound to the heating action of an electric current. 4th. The process of reduction of a pulverized metallic oxide, which consists in introducing it into boiling coal tar, drying it by heat to expel the volatile constituents of the tar, and then subjecting the tar impregnated oxide to electric smelting.

No. 44,814. Steam Generator. (Générateur à vapeur.)

FIG. 3



Paul Dubiau, of Marseilles, France, 4th December, 1893; 6 years.

Claim.—1st. In a steam generator, an apparatus or means for collecting or accumulating the whole or part of the steam generated