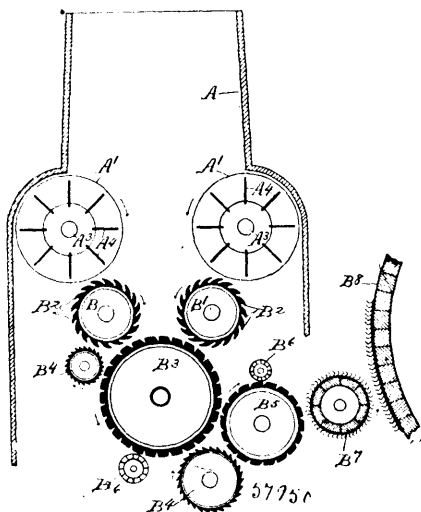


vaporizing apparatus, substantially as described. 4th. In a gas-producing apparatus, a generator consisting of a main chamber provided with suitable inlets for steam and fuel and outlets for gas, an oil-vaporizing apparatus with zigzag steam-pipes contained therein and located so that the sections of the zigzags of adjoining pipes alternate under each other, means for supplying oil to the surface of the pipes, and a fixing retort, and connections for mixing the gases from the main chamber and from the oil-vaporizing apparatus and passing them through the fixing retort, substantially as described. 5th. In a gas-producing apparatus, a generator consisting of a main chamber provided with suitable inlets for steam and fuel and outlets for gas, and means for passing steam through the main chamber to produce water-gas, and oil-vaporizing apparatus with zigzag steam-pipes contained therein and located so that the sections of the zigzags of adjoining pipes alternate under each other, each section having a groove formed in its upper side which will permit the oil to drop from one groove to another until vaporized, and an oil-inlet for dripping oil into the upper grooves, and a fixing retort, and connections for mixing the gases from the main chamber and from the oil-vaporizing apparatus in suitable quantities and passing them through the fixing retort, substantially as described. 6th. In a gas-producing apparatus, a water-gas generator consisting of a main chamber with inlets for air and steam at one end and outlets for the products of combustion and water-gas at its opposite end, in combination with a steam boiler connected with and heated from the main chamber, a steam-jet located in the outlets for the products of combustion, a steam-jet located in the inlet into the fire chamber, and means for changing the steam exhaust from the jet in the outlet to the jet in the inlet into the fire chamber, substantially as described. 7th. In a gas-producing apparatus, an oil-vaporizing chamber, in combination with a series of zigzag steam-pipes contained therein and located so that the sections of the zigzags of adjoining pipes alternate under each other, and an oil-inlet for dripping oil onto the zigzag pipes, substantially as described. 8th. In a gas-producing apparatus, an oil-vaporizing chamber, in combination with the zigzag steam-pipes contained therein and located so that the sections of the zigzags of adjoining pipes alternate under each other, each section being provided with a groove on its upper side which will permit the oil to drop from one groove to another until vaporized, and an oil-inlet for dripping oil into the upper grooves, substantially as described.

No. 57,950. Feeding Mechanism for Carding Machines. (*Mécanisme d'alimentation pour machines à carder.*)

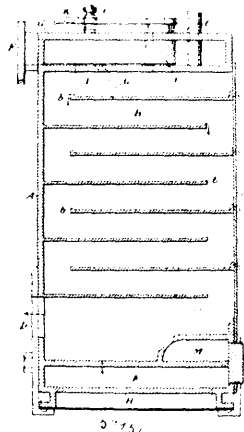


James Hogg, Amsterdam, New York, U.S.A., 2nd November, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. In a feeding mechanism for carding machines, the combination with a gravity-feed chute, of a toothed drafting roll, and one or more pairs of co-operating resisting rolls interposed between the drafting roll and the chute-outlet, the individual rolls of each pair being located on opposite sides of such outlet, substantially as described. 2nd. In a feeding mechanism for carding machines, the combination with a gravity-feed chute, a pair of rotary feed-regulators oppositely disposed at the outlet of the chute, and a pair of subjacent toothed resisting rolls, of a toothed drafting roll co-operative with the resisting and regulating rolls, and means for imparting rotary movements to the regulators and rolls, the speed of the rotary movements being greatest in the rolls farthest removed from the chute, substantially as described. 3rd. In a

feeding mechanism for carding machines, the combination with a gravity-feed chute, and a series of drafting rolls, of a pair of feed-regulators co-operating with the drafting rolls and rotary in the outlet of the chute, one on one side of the chute and the other on the opposite side, substantially as described.

No. 57,951. Carburetor. (*Carbureteur.*)



Daniel Best, San Leandro, California, U.S.A., 2nd November, 1897; 6 years. (Filed 21st July, 1897.)

Claim.—1st. An apparatus for producing an explosive vapour from hydrocarbons, consisting of a rectangular chamber having trays or shelves extending from side to side in one direction and having openings or passages at alternate ends in a direction at right angles thereto, a passage by which hydrocarbon oil is admitted upon the uppermost of the trays, an exterior passage extending continuously down upon the two sides of the chamber against which the sides of the trays abut, and beneath the bottom of the chamber, having one end in communication with the exhaust from the engine and the opposite end communicating with the interior of said chamber, whereby the liquid and air will move in the same direction from top to bottom of the apparatus, and a passage at the bottom through which the vapour is withdrawn. 2nd. An apparatus for producing an explosive vapour from hydrocarbons, consisting of a rectangular chamber having trays or shelves with passages that alternate at opposite ends, a passage by which hydrocarbon oil is admitted upon the uppermost of the trays, a continuous passage surrounding the chamber on two of its sides and bottom, said passage communicating at one of said sides with the exhaust from the engine and at the opposite side with the interior of the chamber, whereby the hot products from the engine are carried around the vaporizing chamber and are then delivered into the same to mix with the liquid, and a passage below the lowermost tray from which the mingled air and vapour are withdrawn. 3rd. An apparatus for producing an explosive vapour consisting of a rectangular chamber having shelves or trays with passages that alternate at opposite ends, openings through which hydrocarbon liquid and air are delivered upon the uppermost of the shelves, a passage below the lowermost shelf from which the mingled air and vapour are withdrawn, a continuous passage surrounding the chamber on two of its sides and bottom, having one end connecting with the exhaust from the engine and the opposite end with a discharge passage following the course of the exhaust passage and whereby the hot products from the engine are carried around the vaporizing chamber, and an exterior passage through which the air admitted to the interior chamber passes in contact with the exhaust passage so as to be heated thereby. 4th. An apparatus for the production of an explosive vapour, consisting of a rectangular chamber having shelves or trays arranged from top to bottom with openings at alternate ends, a passage by which the hydrocarbon liquid and air are admitted above the uppermost shelf, a passage below the lowermost shelf through which the vapour thus produced is withdrawn, a passage surrounding the sides and the bottom of the chamber, one end of said passage connecting with the discharge and the other receiving the exhaust products from the engine, an exterior passage enclosing this heat passage, one end of which connects with the interior vaporizing chamber and the other is open to the outer air, whereby the air is drawn in and heated before being admitted to the vaporizing chamber, a damper arranged within the exhaust passage and adapted to divert the hot exhaust products around the generator, or directly to the discharge passage, or partially in each direction.