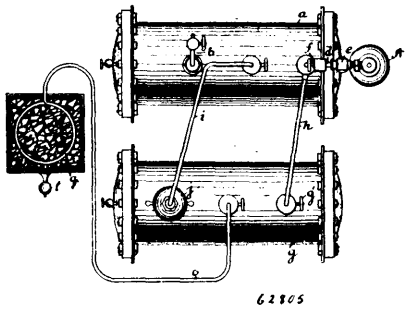
described. 5th. In self-acting mules, the combination with the pivoted rocker or frame which carries the faller leg when the mule is winding-on, of an eccentric working in said rocker or frame and imparting to it, and to the faller leg, and front faller wire, an oscillatory up and down motion for crossing and recrossing the yarn, and the means for giving rotary motion to the eccentric, substantially as set forth. 6th. In self-acting mules, a rail for supporting the rocker in its traverse with the mule carriage, having a plain level surface on one side for the crosswinding motion, and on the opposite side the inclined surface of an ordinary copping rail for the ordinary plain winding motion and provided on its lateral edges with ribs adapted to engage and rest upon a channelled bar supported on the floor, on which bar the rail is reversible, substantially as set forth. In self-acting mules, the combination with the means for building up the cops and crosswinding the yarn thereon, of a barrel secured on the same shaft as the eccentric, cords attached at one end to the barrel and secured at their opposite ends, one to a yielding spindle or bar, and the other to a lever arm at the outer end of the headstock, a catch lever carried by said lever arm, and adapted to be engaged with a fixed shoulder when the lever arm is forced outward by the quadrant on the outward traverse of the mule carriage and to be disengaged from said shoulder just before the carriage arrives at the end of its return traverse, and the means for engaging and disengaging the catch lever, substantially as set forth. 8th. In self-acting mules, the combination with the faller shafts, of levers mounted thereon, a locking pin for locking said levers together, and consequently the fallers, at the termination of each successive winding on and releasing them again after each successive drawing and spinning of the yarn, and the chain connection for restraining the initial upward movement of the counterfaller when released, substantially as set forth.

No. 62,805. Apparatus for Carbonating Liquids.

(*Appareil pour la carbonisation des liquides.*)



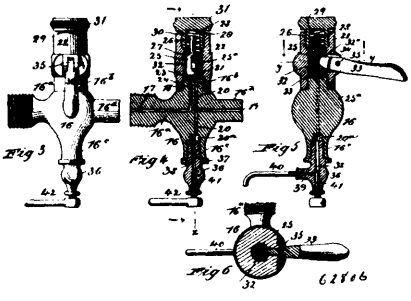
62805

Otto Waldemar Ackerman, New York City, New York, U.S.A., 6th March, 1899; 6 years. (Filed 22nd November, 1898.)

Claim.—The combination in carbonating apparatus, of the liquid and gas receiving cylinder, having suitable liquid and gas inlet connections, the cylinder for reception of the carbonated liquid, branch pipe for admitting gas to the latter cylinder, pressure-regulating cock in said branch pipe, porous percolator detachably mounted on the cylinder for reception of the carbonated liquid, and the pipe connecting the liquid-receiving cylinder with the percolator, said pipe having the drop extension in said cylinder, substantially as described.

No. 62,806. Method of Carbonating Liquids.

(*Méthode de carbonisation des liquides.*)



62806

Peter E. Malmstrom and Otto W. Ackerman, both of New York City, New York, U.S.A., 6th March, 1899; 6 years. (Filed 22nd November, 1898.)

Claim.—1st. The method of carbonating liquid, consisting in charging with gas a pair of connected cylinders or chambers, in then withdrawing the gas from one of the cylinders or chambers, in then charging that cylinder or chamber with liquid, and in then admitting gas, under increased pressure, to the cylinder or chamber containing the liquid and causing the liquid to pass to the other cylinder or chamber to commingle with the gas therein, substantially as described. 2nd. In a carbonating apparatus, the combination of two cylinders or chambers, connected together, a gas and a liquid inlet for one cylinder, both independent of the connection between the cylinders, an outlet for the other cylinder, and means to control the supply of gas to the cylinder, substantially as described. 3rd. In a carbonating apparatus, the combination of two cylinders or chambers connected together, a check valve in the passage between said cylinders, a gas and a liquid inlet for one cylinder, an outlet for the other cylinder, and means to control the supply of gas to the cylinders, substantially as described. 4th. In a carbonating apparatus, the combination of two cylinders or chambers, a coil interposed between them through which they connect, a gas and a liquid inlet for one cylinder, an outlet for the other cylinder, and means to control the supply of gas to the cylinder, substantially as described. 5th. The combination of two cylinders or chambers, a coil interposed between them through which they connect, a check valve between the coil and one cylinder, a gas and a liquid inlet for said cylinder, and means to control the supply of gas to said cylinder, substantially as described. 6th. The combination of two cylinders or chambers, a coil connected with one cylinder, a filter interposed between the other cylinder and the coil, an outlet from said cylinder, and means for admitting gas and liquid to the other cylinder, substantially as described. 7th. The combination of two cylinders, connected together, a gas inlet for one cylinder, a liquid inlet therefor, a check valve to control the supply of liquid to said cylinder, and an outlet for the other cylinder, substantially as described. 8th. The combination of two cylinders, connected together, a check valve interposed between said cylinders, a gas inlet for one cylinder, a liquid inlet therefor, a check valve to control the supply of liquid to said cylinder, and an outlet for the other cylinder, substantially as described. 9th. The combination of two cylinders, a coil interposed between and connected with said cylinders, a gas inlet for one cylinder, a liquid inlet therefor, a check valve to control the supply of liquid to said cylinder, and an outlet for the other cylinder, substantially as described. 10th. The combination of two cylinders, a coil interposed between and connected with said cylinders, a check valve between said coil and one cylinder, a gas inlet for said cylinder, a liquid inlet therefor, a check valve to control the supply of liquid thereto, and an outlet for the other cylinder, substantially as described. 11th. The combination of cylinders 1 and 2, a coil connected with cylinder 1, a check valve between said coil and cylinder, a filter connected with cylinder 2, and also connected with said coil, a gas inlet for cylinder 1, a liquid inlet therefor, a check valve to control the supply of liquid to cylinder 1, and an outlet for cylinder 2, substantially as described. 12th. The combination with a pair of cylinders or chambers connected together and provided with a gas and a liquid inlet and an outlet, of a cock connected with the gas inlet and having inlet and outlet ways a valve to control the inlet ways and independent means to control the outlet ways, substantially as described. 13th. The combination with a pair of cylinders orchambers connected together and provided with a gas and liquid inlet and an outlet, of a cock connected with the gas inlet andhaving inlet ways that lead to a common chamber, a valve in said chamber to control said ways, an outlet in said cock and independent means to control said outlet, substantially as described. 14th. The combination of a pair of cylinders or chambers connected together and provided with a gas and a liquid inlet and an outlet, of a cock connected with the gas inlet and comprising a casting having a way extending inwardly to a chamber, another way extending inwardly to said chamber, a valve in said chamber to control said ways, said casting also having an outlet means to control said way, substantially as described. 15th. A cock comprising a casting having two ways leading to a chamber, a valve in said chamber to control said ways, an outlet way, and means to control the same, substantially as described. 16th. A cock comprising a casting having two ways leading to a chamber, a valve in said chamber to control said ways, an outlet way leading from one of the other ways, and means to control said outlet way, substantially as described. 17th. A cock comprising a casting having ways 17, 18, leading to a chamber, a way 20 also leading to said chamber, a valve to control said ways, a way 19 leading to the way 20, and means to control the outlet from way 20, substantially as described. 18th. A cock comprising a casting having four hubs, ways leading through two adjacent hubs to a chamber, a way leading through two opposed hubs to said chamber, a way leading through the other hub and connected with the last mentioned way, a valve in said chamber to control the ways leading thereto, and means for controlling the outlet way, substantially as described. 19th. A cock comprising a casting having an inlet way, a way extending through the casting, a plug connected with said way and having a bore and an outlet, means to control said outlet, and means to control the inlet ways, substantially as described. 20th. A cock having a pair of ways leading to a chamber, a plunger in said chamber to control said ways, means for operating said plunger, an outlet way leading to one of said ways, and means for controlling said outlet way, substantially as described. 21st. A cock comprising a casting having inlet ways, a sleeve connected with said casting and to which said ways lead, a plunger in said sleeve, means for operating said plunger, and outlet ways in said casting, and means to control said way, substantially as described. 22nd. A cock comprising a casting