

while the two upper parts or links can be bent further beyond a straight line to form an anchorage.

**No. 41,825. Purification of Sewage.**

(*Purification des égouts.*)

Hamor Lockwood, Manchester, England, 6th February, 1893; 6 years.

**Claim.**—1st. The employment in the purification of sewage or foul water, of a mixture of the ferrous solution with the impure milk of lime herein described, supplemented when necessary by the addition of sulphuric acid, substantially as described. 2nd. The employment in the purification of sewage or foul water, of a mixture of the ferrous solution herein described, with hydrated lime, supplemented when necessary by the addition of sulphuric acid, substantially as described. 3rd. In the purification of sewage or foul liquids by means of salts of iron and lime, the use of sulphuric acid to render the resulting fluid neutral or acid, substantially as herein described.

**No. 41,826. Electric Railway.** (*Chemin de fer électrique.*)

Mark Wesley Dewey, Syracuse, New York, U.S.A., 6th February, 1893; 6 years.

**Claim.**—1st. In an electric railway, a supply conductor extending along the railway, a car to move along said railway, an electric motor to propel the car, an electric conductor on the car connected to the motor, an electric connection to conduct the current between the supply conductor and the car conductor, and suitable means on the car whereby the current for the motor may be induced by the current in the supply conductor. 2nd. In an electric railway, the combination, of a track, an exposed line working conductor extending along a portion of the track, an insulated line working conductor extending along another portion of the track, a source of alternating currents of electricity for the insulated line conductor, a car to move upon said track, a circuit on the car, a terminal for said circuit to make contact with the exposed line conductor, a second circuit on the car adapted to be completed thereon, a portion of the latter circuit arranged in inductual relation to the insulated line conductor, and a motor on the car in both of the circuits thereon, and arranged to move the car. 3rd. In an electric railway, the combination of the track, an exposed line working conductor extending along a portion of the track, a source of irregular or alternating currents for both conductors, a car to move on said track, a circuit on the car, having a terminal to move in contact with the exposed conductor, means to form a complete circuit on the car, a portion of the complete circuit in inductual relation to the insulated line conductor, and a motor on the car in the circuit thereon, and arranged to propel the car. 4th. In an electric railway, a supply conductor extending along the railway, a car to move along said railway, an electric motor to propel the car, an electric conductor on the car connected to the motor, an electric connection to conduct the current between the supply conductor and the car conductor, and suitable means on the car whereby the current for the motor may be derived from the supply conductor by induction. 5th. In an electric railway, a supply conductor extending along the railway, having one or more portions of its length exposed and one or more portions insulated, a car to move along said railway, an electric motor to propel the car, an electric conductor on the car connected to the motor, an electric connection to conduct the current between the exposed portion or portions of the supply conductor and the car conductor, and suitable means whereby the current for the motor may be derived from the insulated portion or portions of the supply conductor by induction. 6th. In an electric railway, a supply conductor extending along the railway, having one or more portions of its length exposed and suspended above the ground, and one or more portions insulated and beneath the surface of the ground, a car to move along said railway, an electric motor to propel the car, an electric conductor on the car connected to the motor, an electric connection to conduct the current between the exposed portion or portions of the supply conductor and the car conductor, and suitable means whereby the current for the motor may be derived from the insulated portion or portions of the supply conductor by induction. 7th. In an electric railway, having a conduction system for one portion and an induction system for another portion, a source of high tension current for the induction system, and a transformer to reduce the tension of a portion of the said current to supply the induction system. 8th. The combination of a car or vehicle movable along a given path, a series of stationary magnetic cores placed at intervals along a portion of said path, coils surrounding said cores and connected with a source of irregular or alternating currents, an exposed line working conductor extending along another portion of the said path, a magnetic core carried by the car in inductual relation to the stationary cores, a secondary conductor wound thereon, a movable contact connected to the secondary conductor to make contact with the exposed line conductor, an electro-magnetic motor on the car for propelling the same and connected in circuit with the secondary conductor. 9th. The combination of a car or vehicle movable along a given path, a series of stationary magnetic cores placed at intervals along a portion of said path, coils surrounding said cores and connected with a source of irregular or alternating currents, an exposed line working conduc-

tor extending along another portion of the said path and deriving current from the same source, a magnetic core carried by the car in inductual relation to the stationary cores, a secondary conductor wound thereon, a movable contact connected to the secondary conductor to make contact with the exposed line conductor, and an electro-magnetic motor on the car, and for propelling the same, and connected in circuit with the secondary conductor. 10th. The combination of a car or vehicle movable along a given path, a stationary magnetic core, extending along a portion of the path, a conductor to magnetize said core and connected with a source of irregular or alternating currents, an exposed line working conductor extending along another portion of the said path, a magnetic core carried by the car in inductual relation to the stationary cores, a secondary conductor wound thereon, a movable contact connected to the secondary conductor to make contact with the exposed line conductor, and an electro-magnetic motor on the car, and for propelling the same, and connected in circuit with the secondary conductor. 11th. The combination of a car or vehicle movable along a given path, a stationary magnetic core extending along a portion of the path, a conductor to magnetize said core and connected with a source of irregular or alternating currents, an exposed line working conductor extending along another portion of the said path, a current transformer between the said conductor connected with the source and the exposed line conductor, a magnetic core carried by the car in induction relation to the stationary cores, a secondary conductor wound thereon, a movable contact connected to the secondary conductor to make contact with the exposed line conductor, and an electro-magnetic motor on the car and for propelling the same and connected in circuit with the secondary conductor. 12th. The combination of a car or vehicle movable along a given path, a stationary magnetic core extending along a portion of the path, a conductor to magnetize said core and connected with a source of irregular or alternating currents, an exposed line working conductor extending along another portion of the said path, an inductual transformer having one of its coils in circuit with the conductor connected with the source, and the other coil in circuit with the exposed line conductor, a magnetic core carried by the car in inductual relation to the stationary cores, a secondary conductor wound thereon, a movable contact connected to the secondary conductor to make contact with the exposed line conductor, and an electro-magnetic motor on the car and for propelling the same and connected in circuit with the secondary conductor. 13th. The combination of a car or vehicle movable along a given path, a series of stationary magnetic cores placed at intervals along a portion of said path, coils surrounding said cores and connected with a source of irregular or alternating currents, an exposed line working conductor extending along another portion of the said path, a magnetic core carried by the car in inductual relation to the stationary cores, a secondary conductor wound thereon, a movable contact connected to the secondary conductor to make contact with the exposed line conductor, a current rectifier in the conductor on the vehicle, and a direct current motor on the car and for propelling the same and connected in circuit with the secondary conductor. 14th. In an electric railway having a conduction system for one portion and an induction system for other portions of the railway, the combination of a source of high tension current for one of the portions equipped with the induction system, a transformer to reduce the tension of a portion of the said current to supply the conduction system, and a transformer to increase the tension of a portion of the current of the conduction system to supply another portion of the railway equipped with the induction system. 15th. In an electric railway having a conduction system for one portion and an induction system for another portion of the railway, a source of low tension current for the conduction system, and a current transformer to increase the tension of a portion of said current to supply the induction system. 16th. In an electric railway having a conduction system for one portion and an induction system for another portion, means for supplying the conduction system with a direct current and the induction system with an alternating current. 17th. In an electric railway, a supply conductor extending along the railway, having one or more portions of its length exposed and one or more portions insulated, means for supplying the exposed portion or portions of the supply conductor with a current of lower tension than the other portion or portions, a car to move along said railway, an electric motor to propel the car, an electric conductor on the car connected to the motor, an electric connection to conduct the current between the exposed portion or portions of the supply conductor and the car conductor, and suitable means whereby the current for the motor may be derived from the insulated portion or portions of the supply conductor by induction.

**No. 41,827. Lawn Mower.** (*Faucheuse de pelouse.*)

E. C. Stearns & Co., assignee of Edward Carl Stearns, William Henry Craig and Obadiah Seeley, all of Syracuse, New York, U.S.A., 6th February, 1893; 6 years.

**Claim.**—1st. In a lawn mower, the combination, with the stationary knife, of the bed plate provided with cast bolt holes, and at the upper ends of said holes with cast flat sided recesses, screw bolts passing upwardly through the stationary knife and the holes of the bed plate, and screw nuts arranged in said recesses, and with which the screw bolts engage, substantially as set forth. 2nd. In a lawn mower, the combination, with the side frames and the rotary cutter, of the adjustable bed plate supported between the side frames, and