small quantities under pressure from a storage tank, an air compressor and feed-pipe, a connection from said air-feed pipe into the carburetor, and a pressure valve in said connection, substantially as described. 2nd. The herein described process for manufacturing gas, the same consisting of a carburetor into which hydro-carbon oil is diffused or sprayed, and brought into intimate contact with compressed air, a storage tank from which the hydro-carbon is fed automatically in small quantities into the carburetor, an air-feed pipe receiving compressed air from a suitable air-compressor, a connection from said air-feed pipe into the top of the storage tank, a check valve in said connection for maintaining a constant pressure of air on the oil in the storage tank, a connection from said air-pipe into the carburetor, and a pressure valve in said connection, substantially as described. 3rd. In an apparatus for manufacturing gas, a carburetor provided with an oil-feeding connection into the top from which the oil is automatically fed in small quantities under pressure, an air-feeding connection into the bottom, and a vertical series of spiral planes forming an interrupted spiral path adapted to diffuse and spray the oil by the air current flowing in an opposite direction, substantially as described. 4th. In an apparatus for manufacturing gas, the same consisting of a carburetor, a storage tank from which the hydro-carbon oil is automatically fed into the carburetor in small quantities regulated by a feed valve, an air compressor, a feed-pipe and connections with the storage tank, a pressure valve in the air-feed connection with the carburetor, a purifier, a valve controlled connection between said purifier and the air-feed pipe, and an exhaust pipe from said purifier, all arranged to operate, substantially as described. 5th. In an apparatus for manufacturing gas, the same consisting of a carburetor into which the oil is automatically fed in small quantities under pressure, a feed-valve regulating the feed of the oil, an air compressor, an air-feed pipe having an automatic pressure valve through which the air passes into the carburetor, a gasometer, a belt-shifting device operated by the extreme rise and fall of the bell of the gasometer, and an automatically operating connection between said belt-shifter and the oil-controlling feed-valve on the carburetor, substantially as described.

No 35,349. Machine for Insulating Electrical Conductors. (*Machine à isoler pour conducteurs d'électricité.*)

Charles T. Stetson, Hanson, Massachusetts, U.S.A., 4th November, 1890; 5 years.

Claim.—1st. A machine for weaving insulated wire covering, provided with heddle mechanism, consisting of independent vertically reciprocating continuously movable heddle rods actuated by a continuous rotary crank-and-connecting-rod motion, substantially as described. 2nd. In a machine for weaving insulated wire covering, a heddle mechanism consisting of independent vertically guided heddle rods coupled in pairs, connecting rods pivoted to the couplings of each pair of heddle rods, and continuously revoluble shafts arranged, whereby each shaft actuates by a continuous rotary crank motion a pair of said connecting rods, substantially as described. 3rd. In a machine for weaving insulated wire covering, the combination, with vertically movable reciprocating heddle rods having eyes for receiving the warp threads of stationary arrests, above and below each warp thread to stop the motion of the said warp thread before the heddle reaches the end of its stroke, thereby forming a still spot, substantially as and for the purposes described. 4th. In a machine for weaving insulated wire covering, the combination, with reciprocating heddle rods provided with eyes, of shuttle tracks, and guard provided with slits for guiding the warp threads, whereby the ends of the slits arrest the motion of the said threads before the end of the stroke of the heddle rods, thereby forming a still spot at each end of the stroke, substantially as and for the purposes described. 5th. In a machine for weaving insulated wire covering, a shuttle frame provided with wheels i^1, in combination with a circular track provided with the circular flanged guard E^1, secured to the outer circumference of said track, whereby the said shuttle frame is prevented from rising, substantially as described. 6th. In a machine for weaving insulated wire covering, a shuttle frame provided with a guard wheel i^6, in combination with a shuttle driving frame provided with the piece d^2, whereby the inner end of the shuttle frame is prevented from leaving the track, substantially as described. 7th. In a machine for weaving insulated wire covering, wheels F, each of which is provided with a pair of connecting rods N^1, N^2, pivotally connected therewith, in combination with couplings n, n^1, pivoted to said connecting rods, and heddle rods N, arranged in pairs and connected by said couplings, substantially as described.

No. 35,350. Brush. (*Brosse.*)

Louis Strickel, Detroit, Michigan, U.S.A., 4th November, 1890; 5 years.

Claim.—1st. The herein described brush head, provided with grooves and sockets communicating with said grooves to receive the stock, substantially as described. 2nd. The herein described brush head, beveled on its under surface at the ends, and provided with longitudinal grooves, each having angularly-extended sockets, communicating therewith at the ends of the groove, substantially as and in the manner described. 3rd. The improved brush, herein described, formed with a head provided with longitudinal grooves, each having angularly extended end sockets communicating therewith, said head having, in combination, the stock or fibre, a binder for each said groove, and its communicating end sockets, said stock and binder forced into said groove and its communicating end sockets, all substantially as and in the manner described. 4th. The improved brush, herein described, consisting of a head bevelled on its lower surface at the ends and provided with longitudinal grooves, each having angularly extended end sockets communicating therewith, said head having, in combination, the stock, a single binder for each said groove and its communicating end sockets, the ends of the binder bent into said sockets, and nails D, to hold the binder in place, the margins of said head being intact, substantially as described. 5th. The improved brush, herein described, formed with a head provided with longitudinal grooves, each having end sockets communicating therewith, said head having, in combination therewith, the stock or fibre, a binder for each of said grooves and its communicating end sockets, said stock and binder forced into said groove and its communicating end sockets, all substantially as and in the manner described. 6th. In a brush, a head formed in a single integral piece and provided with a longitudinal groove, having end sockets communicating therewith, and in combination therewith, the stock or fibre, a single binder for said groove and its communicating end sockets, said stock and binder forced into said groove and communicating end sockets, the extremities of said binder bent into said end sockets, substantially as set forth.

No. 35,351. Oil Burner. (*Bruleur d'huile*)

John Krehbiel, Kalamazoo, Michigan, U.S.A., 4th November, 1890; 5 years.

Claim.—1st. In an oil burner, a wick, composed of an inner and outer tube forming an annular space between them, the lower portion of which is filled with a textile fabric, and the upper portion with refractory material, substantially as described. 2nd. In an oil burner, a wick, composed of an inner and outer tube, forming an annular space between them, the lower portion of which is filled with a textile fabric, and the upper portion with refractory material molded into shape and joined with an annular meeting face on top of the textile portion, substantially as described. 3rd. In an oil burner, a wick, composed of an inner and outer tube forming an annular space between them, and detachably secured together by means of spacing pins secured to the inner tube, of a textile fabric secured in the lower portion of the annular space between the tubes, and molded refractory material in the upper portion of the tube, and an angular meeting face between the upper and lower portion of the wick, substantially as described. 4th. In an oil burner, the combination, with the fount C, of the vertical tubular extension, the inner concentric air tube F, and a wick consisting of an inner and outer metallic tube detachably and concentrically secured together by means of spacing pins H, secured to the inner tube, and textile fabric secured in the lower portion of the annular space between the two tubes, and a refractory material in the upper portion of the annular space in the tube, said wick being adapted to slidingly engage between the extension D and the air tube E, substantially as described.

No. 35,352. Process of Tempering Steel and of Carburetting Castings and Steel. (*Procédé pour tremper l'acier et carburer la fonte et l'acier.*)

Martin F. Coomes and Arunah W. Hyde, both of Louisville, Kentucky, U.S.A., 4th November, 1890; 5 years.

Claim.—1st. In the manufacture of steel, the process of carburizing malleable cast-iron and low carbon steel, which consists in placing the metal raised to a white heat in a bath, composed of water, a sugar chloride of sodium and chloride of ammonium, substantially as described. 2nd. As a tempering and carburizing bath, the triple saturated solution of water, sugar, chloride of sodium and chloride of ammonium, substantially as described.

No. 35,353. Process of Tempering Fluids for Treating Steel. (*Procedé pour la trempe et le traitement de l'acier.*)

Byron M. Pickett, New York, State of New York, U.S.A., 4th November, 1890; 15 years.

Claim—1st. A tempering fluid for treating steel, the same consisting of a diluent, such as water or oil, and a base containing a metallic ingredient or ingredients, such as an oxide, or a carbonate, or both, an oxide, and a carbonate of a metal of the so-called iron group, and an organic ingredient, such as glucose, with or without a small quantity of sulphuric or other acid. 2nd. The herein described process of treating steel, which consists in heating it to a red heat, and then plunging it into a previously prepared bath, consisting of a diluent, such as water or oil, and a base, containing a metallic ingredient or ingredients, such as an oxide, or a carbonate, or both an oxide and a carbonate, of a metal of the so-called iron group, and an organic ingredient, such as glucose, either with or without a small quantity of sulphuric, or other acid, substantially as set forth.

No. 35,354. Method of Placing Glass in Windows. (*Posage des vitres de chassis.*)

William Babit, Levis, Quebec, Canada, 4th November, 1890; 5 years.

Résumé.—1o. La combinaison des baguettes et la rainure, telles que décrites à et pour les fins designées. 2o. La combinaison des bandes de caoutchouc sur le rebord de la rainure a l'extérieur, telles que decrites, à et pour les fins ci-dessus designeés.

No. 35,355. Steam Warping Scow.

(*Grelin pour chaland à vapeur.*)

John Ceburn West and James Peachey, both of Simcoe, Ontario, Canada, 5th November, 1890; 5 years.

Claim.—1st. A scow A, provided with steel-covered runners B, substantially as and for the purpose specified. 2nd. A boiler C, pivoted in a scow A, on suitable trunnion bearings D, a jointed steam pipe I, in combination with an arm E, nut F and screw G, substantially as and for the purpose specified. 3rd. A drum K, hav-