

No. 22,591. Conductor Pipe Hook.*(Gâche pour Tuyau de Gouttière.)*

John Leadly, Detroit, Mich., U.S., 6th October, 1885; 5 years.

Claim.—1st. A hook for securing conductor pipe, consisting of an open hook or rest A, provided with a tang for securing it to a building, and a gate C, for retaining the pipe in position, substantially as and for the purposes described. 2nd. As a article of manufacture, a conductor hook, consisting of the part A, provided with the tang a, arms b, c, and gate B, when constructed, arranged and operating substantially in the manner and for the purposes specified.

No. 22,592. Method of producing from Kerosene Oil light and heat without a wick, and apparatus therefor.*(Art de produire la lumière et la chaleur au Moyen de la Kérosine sans mèche, et appareil pour cet objet.)*

William Barraclough, Balmain, N.S.W., 6th October, 1885; 5 years.

Claim.—1st. An improved construction of apparatus for burning kerosene oil without a wick, involved in the following particulars:—The application of heaters constructed hollow placed over the flame for the purpose of bringing the air or induced currents of air to a high temperature prior to the same becoming mixed with the kerosene vapor in the mixing tube. The construction of the tap, as shown in the accompanying drawing, the same dispensing, with any packing as required in taps for the ordinary construction for similar apparatus and preventing the leakage which arises therefrom. The filling of the packing tube with pieces of glass, as a non-heat conducting substance. 2nd. A new and improved method of producing from kerosene oil of any density, a smokeless flame giving a brilliant white light and heat (emitted through a burner) without the aid of any wick for use as a lamp or in stoves, by means of the admission into the tube on which the burner is fixed, of air, or currents of air, raised to a high temperature, and so constructing the packing tube of the apparatus and the adjacent parts thereof, as not to apply such a heat to the kerosene whilst in the packing tube, as to decompose the oil, but only so much as is necessary to convert it into vapor, so as to prevent the formation of cinder or tar in the packing tube, and so as to produce from the combination of vapor from kerosene oil, of any density, and heated air, a white powerful flame free from smoke, and of great force and intensity.

No. 22,593. Heating Apparatus. (Calorifère.)

Solomon N. Carvalho, New York, N.Y., U.S., 6th October, 1885; 5 years.

Claim.—1st. In an apparatus for heating air, steam or like medium, one or more retorts or chambers c, provided with ribs, partitions or diaphragms and coils, whereby the internal heating surface is greatly increased, substantially as described. 2nd. In an apparatus for heating air, steam or like medium, one or more retort or return bends, provided with caps or guards constructed of two or more pieces, applied to the exposed portions of such retorts, substantially as and for the purposes specified. 3rd. In an apparatus for heating air, steam or like medium, the combination of one or more retorts provided with ribs, partitions, diaphragms, or wire coils for increasing the heat receiving or distributing surface, a bed plate to which such retorts are attached, one or more receiving pipes or reservoirs, as set forth. 4th. In an apparatus for heating air, steam or like medium, an intercommunicating pipe or duct, provided with a valve or gate, whereby communication is opened between the inlet pipes, ducts or reservoirs, and the outlet pipes, ducts or reservoirs, substantially as and for the purposes specified. 5th. In an apparatus for heating air, steam or like medium, the combination of a furnace or combustion chamber, one or more retorts provided with ribs, partitions, diaphragms or wire coils, a bed plate to which the retorts are attached, caps or guards for retorts, one or more receiving chambers, pipes or ducts, and one or more distributing chambers, pipes or ducts, substantially as and for the purposes specified. 6th. In an apparatus for heating air, steam or like medium, the combination of a furnace or combustion chamber, one or more retorts C, a bed plate G, one or more receiving chambers, pipes or ducts, one or more delivery chambers, ducts or pipes, and intercommunicating pipes or ducts M, substantially as and for the purposes specified. 7th. In an apparatus for heating air, steam or like medium, the combination of a furnace or combustion chamber A, retorts or return bends C, caps or guards D, bed plate G, receiving chambers or ducts I, distributing chambers or ducts K, intercommunicating pipes or ducts M, and delivery pipes or ducts L, substantially as and for the purposes specified. 8th. In an apparatus for heating air, steam or like medium, the combination of one or more inlet pipes or ducts I, one or more outlet pipes, ducts or chambers K or L, and one or more intercommunicating pipes or ducts M, provided with valves or gates o, whereby the temperature of the heated air or steam may be lowered to required temperature, substantially as set forth.

No. 22,594. Casing for Pipes.*(Envelope pour Tuyaux.)*

James F. Wood and John F. Wood, Wilmington, Del., U.S., 6th October, 1885; 5 years.

Claim.—In a casing for pipes, the combination, with disks fitting on the pipes, of tubular casings made in sections and fitted around the disks, substantially as herein shown and described. 2nd. In a casing for pipes, the combination, with the disk A, of the open tubular casing sections E, each having one edge creased to form a pocket F, along the edge, which pocket is to receive the other edge, substantially as herein shown and described. 3rd. In a casing for pipes, the combination, with disks A, of the tubular casing sections E, having pockets F, formed along the open edges, and having pockets H,

formed at the end edges, substantially as herein shown and described.

No. 22,595. Chemical Engine.*(Machine Chimique.)*

George Asher, Balsall, and John Buttress, Sparkbrook, Eng., 6th October, 1885; 5 years.

Claim.—1st. In a motor, the application and use of nitric and sulphuric acids with turpentine or ayodiphenyl-diamine or chloride of kakodyle for causing explosions as herein described. 2nd. The combination in a motor, of a vessel H₁, having an outlet or outlets I₁, I₃, and a vessel H₂, having an outlet or outlets I₂, I₄, communicating with each other and with a cylinder containing a piston, as and for the purposes set forth. 3rd. In a motor, operated by the explosive combination of the liquid substances hereinbefore described, a cylindrical plug or valve K₁, having at one side thereof a groove or recess k₅ arranged to operate as and for the purpose specified. 4th. In such a motor, a plug or valve K₁, having a slot k₇, arranged to operate as and for the purpose specified. 5th. In such a motor, a pair of plugs or valves K₅, K₆, connected together and having severally a slot k₇, k₈, arranged to operate as and for the purpose specified. 6th. In such a motor, a cylindrical plug or valve K₃ having two grooves or recesses k₅ arranged to operate as and for the purpose specified. 7th. In a motor, the combination of a cylinder and piston with a pair of plugs or valves K₁, K₂, or their equivalent, arranged to continuously rotate or oscillate so as to intermittently bring together portions of certain liquids from general supplies, to cause successive explosions to act upon the said piston, as herein set forth. 8th. In a motor, the combination of a cylinder and piston with two pairs of plugs or valves K₁, K₂, and K₃, K₄, or their equivalent, arranged to continuously rotate or oscillate so as to intermittently bring together portions of certain liquids from general supplies, to cause successive explosions alternately on one side of the said piston, as herein set forth. 9th. In a motor, the combination of a cylinder and piston with a pair of plugs or valves K₁, K₂, or their equivalent, each having a slot K₇, K₈, arranged to slide longitudinally so as to intermittently bring together portions of liquids from general supplies, to cause successive explosions alternately on one side of the said piston, as herein set forth. 10th. In a motor, the combination of a cylinder and piston with two pairs of plugs or valves K₁, K₂, and K₃, K₄, or their equivalent, each having a slot k₇, k₈, arranged to slide longitudinally so as to intermittently bring together portions of liquids from general supplies, to cause successive explosions alternately on either side of the said piston, as herein set forth. 11th. In a motor, operated by the explosive combination of suitable substances, a pair or pairs of plugs or valves K₁, K₂, having grooves or recesses k₅, k₆, in combination with a lever P, or its equivalent, and a screw and hand wheel p₁, or their equivalent, so as to be adjustable longitudinally to regulate the quantity of the explosive liquid or liquids used in each explosive, as herein set forth. 12th. In such a motor, a pair or pairs of plugs K₁, K₂, having grooves or recesses k₅, k₆, in combination with a lever P, or its equivalent, and a governor S, or its equivalent, so as to be automatically adjustable longitudinally, to regulate the quantity of the explosive liquid or liquids, used in each explosion, as herein set forth. 13th. In such a motor, a pair or pairs of plugs or valves K₁, K₂, having slots k₇, k₈, and receiving vibratory motion by means of levers P, and a slotted lever P₁, or their equivalent, in combination with a governor S, or its equivalent, so as to automatically obtain an increased or diminished length of travel of the plugs of valves, as and for the purposes specified. 14th. In such a motor, the combination of a governor with the plugs or valves, so as to automatically regulate the quantities of the explosive substances used in each explosion, as herein set forth.

No. 22,596. Cash Carrier. (Coulisse à Monnaie.)

Fred J. Hazard, Belleville, Ont., 6th October, 1885; 5 years.

Claim.—1st. The ways A, A₁, having grooves a, a₁, and formed so that the carrier D has its bearing upon the outer edges of the said ways, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the ways A, A₁, having grooves a, a₁, and the cylindrical carrier D, as and for the purpose hereinbefore set forth. 3rd. The cylindrical carrier D, having a flange F, rubber bands G, and pin projections from its ends, all adapted to travel on said ways, substantially as and for the purpose hereinbefore set forth. 4th. The combination of the cylindrical hollow carrier D, detachable end H, springs v, v₁, disks e, f, pins b₁ and slots c₁, substantially as and for the purpose hereinbefore set forth. 5th. The combination of the metal plate S, adjustable staff t, lever w₁, tongue q, and means for connecting said lever and tongue, all adapted to be operated by the cylindrical carrier D, substantially as and for the purpose hereinbefore set forth. 6th. The metal plate S, adjustable staff t, lever w₁, tongue q, and means for connecting said lever and tongue, in combination with the ways A₁, B₁, and cylindrical carrier D, substantially as and for the purpose hereinbefore set forth. 7th. The check E to be operated by the receiver and means for holding it, in combination with the way B₁, and carrier D, substantially as and for the purpose hereinbefore set forth. 8th. The combination of the check E, receiver k, as described, cords m and n, and weight o, as and for the purposes hereinbefore set forth. 9th. The stop g, in the elevator, for the purpose hereinbefore set forth. 17th. The combination of the slides e, plates d₁, curved pieces d, and stop g, to be worked on the rods b, as and for the purpose hereinbefore set forth.

No. 22,597. Gate. (Barrière.)

James N. Buckner, Windsor, Ont., 6th October, 1885; 5 years.

Claim.—1st. A gate, adapted to be opened and closed by mechanism, as described, coming in contact with the wheels of the passing vehicle, such contact causing the track which supports the gate to tilt in one direction to allow the gate to open by gravity, and then tilt in the opposite direction to allow the gate to close by gravity, substantially as specified. 2nd. In combination with a gate and a gate frame, consisting of the posts A, B, C, and girt D, a track pivot