

No. 10,295. Improvements in Bridges.*(Perfectionnements aux ponts.)*

Philip Jarvis and Josiah Cochran, Mount Avt. Iowa, U. S., 23rd July, 1879, for 15 years.

Claim.—A bridge having the truss formed by passing tri-rod from each end of each cross beam to the points on the arch where the vertical suspension rods are attached.

No. 10,296. Improvements on Horse Detach-ers.*(Perfectionnements aux palonniers des voitures.)*

John Carr, Boston, Mass., U. S., Francis O'Donohue and John L. Douglas, Toronto, Ont., 23rd July, 1879, for 5 years.

Claim.—The combination of the body A, bolts C C, springs H H and cords or straps E, connected to a ring or plate G¹ and guide pin or bar G², on which the said plate slides.

No. 10,297. Steel Tempering Furnace.*(Fourneaux à recuire l'acier.)*

John B. Armstrong, Guelph, Ont., 23rd July, 1879, (Extension of Patent No. 4,034), for 5 years.

No. 10,298. Method of Utilizing the heat of Boiler Furnaces.*(Mode d'utiliser la chaleur des fourneaux des chaudières.)*

Obadiah Marland and John J. Cilley, Boston, Mass., U. S., 26th July, 1879 for 5 years.

Claim.—1st. The combination of a furnace and abstracter with a mechanical exhauster; 2nd. The combination of an air forcing device, furnace abstracter and a mechanical exhauster; 3rd. An abstracter composed of plates or sheets of conducting material formed into chambers a b, alternately arranged for passage of air and volatile products of combustion, and removable filling pieces, the abstracter being combined with the discharging end of a furnace and with the furnace space over the grate bars; 4th. An exhauster and an abstracter with passages a b, in combination with the discharging end of a furnace and, by means of a suitable passage, with the space under the grate-bars; 5th. An exhauster and an abstracter with passages a b, in combination with the discharging end of a furnace, and by means of a suitable passage, with the combustion chamber at or beyond the first bridge wall; 6th. An abstracter composed of metal plates or sheets, placed with relation each to the other to form chambers a b, and of removable filling pieces to permit the abstracter to be cleaned; 7th. A heating chamber, or chambers, located within the combustion chamber and above the grate bars of a furnace, and arranged to receive air, to heat the same and to deliver it, highly heated, in fine streams, to mingle with and perfect the combustion of the gases escaping from the fuel; 8th. The combination, with a furnace provided with chambers c₁ c₂, or both, located within the combustion chamber of an abstracter and exhauster to operate as described.

No. 10,299. Process of Refining and Deodorizing Petroleum.*(Procédé pour épurer et désinfecter le pétrole.)*

Edward Hodgens, London, Ont., 26th July, 1879, for 5 years.

Claim.—The mode of refining and deodorizing benzine and other products of petroleum, before issuing from the still, by the introduction of caustic soda in solution charged with litharge or other oxides of lead, the impurities being separated by distillation.

No. 10,300. Improvements in Ventilating Apparatus for Stoves.*(Perfectionnements aux appareils de ventilation pour les poêles.)*

Donald McPhie, Hamilton, Ont., 26th July, 1879, for 5 years.

Claim.—1st. In combination with a stove, the air chamber B and tubes D; 2nd. The combination of the air chamber B, pipes D and air duct F; 3rd. The combination of the air chamber B, tubes or pipes D, air duct F and ventilators J.

No. 10,301. Improvements on Pipe Tonges.*(Perfectionnements aux tenailles à tuyaux.)*

Henry Baister, Erie, Pa., U. S., 26th July, 1879, for 5 years.

Claim.—1st. The pipe or blacksmith's tongs having, in connection with the vertically slotted body B, the jar C forming a box bearing e, the transversely slotted body a of the main jaw A, and the centrally squared pivot pin D, having the cylinder end journals g h, and fitting by its squared portion n neatly in the slot of the main jaw through which it passes; 2nd. The jaw C, having a holding head E opening toward the main jaw, and perforated in its top and base, and the reversible and rotary adjustable prismatic gripping block G, confined in the head by the axis pin extending in the direction of the length of the jaw, and enabling the gripping edges of the block to be presented to the work by rotation thereon.

No. 10,302. Improvements in Harvesters.*(Perfectionnements aux moissonneuses.)*

Christopher C. Bradley, Syracuse, N. Y., U. S., 26th July, 1879 (Re-issue of Patent No. 5,990).

Claim.—1st. In a harvester, a spherical cutter-bar head, cast or formed hollow; 2nd. In a harvester, a hollow spherical cutter-bar head to contain lubricating material; 3rd. In a harvester pitman, the combination of a detached socket clasp F, a fixed socket clasp E, a bolt and nut lock G and an elastic cushion K, the whole forming an elastic socket joint.

No. 10,303. Improvements on Glazed Structures.*(Perfectionnements aux constructions vitrées.)*

William E. Rendle, London, Eng., 26th July, 1879, for 5 years.

Claim.—1st. The construction of bars X with groove or channel A, slots D and holes E, also the construction of bars Y with groove or channel B and holes I; 2nd. The construction of bars Z with groove or channel A, groove or channel B, slots D and holes E I; 3rd. The construction of the bars Z X with a gutter G; 4th. The construction of bent sheet metal bars K, for holding the side edges of the panes of glass of glazed structures; 5th. The employment of bars X, in combination with bars Y, for receiving and holding the top and bottom edges of the panes of glass of a glazed structure; 6th. The employment of the bars X, in combination with the bars Y Z, for receiving and holding the top and bottom edges of the panes of glass of glazed structures; 7th. The employment of bars K, for holding the side edges of the panes of glass, in combination with bars X Y, or bars X Y Z, for holding the top and bottom edges of the panes of glass.

No. 10,304. Improvements on Mitring Machines.*(Perfectionnements aux machines à onglets.)*

William E. Eastman, Boston, Mass., U. S., 26th July, 1879, for 5 years.

Claim.—1st. A reciprocating knife, having a guiding projection, in combination with a guide provided with a curved slot; 2nd. The triangular carrier and knives pivoted thereto, in combination with the guides having the curved slot, whereby a partial rotation, as well as a drawing cut, is given to the knives; 3rd. The combination of the triangular carrier, the pivoted knives, the slotted guides and the front guide; 4th. The boring tool y, in combination with reciprocating cutting knives, when all are operated simultaneously by the same mechanism.

No. 10,305. Apparatus for Preventing the Entrance of Water into, and for Ventilating Boats.*(Appareil pour empêcher l'eau de s'introduire dans les bateaux, et pour les ventiler.)*

Sir James L. Foulis, Clinton, Scotland, 26th July, 1879, for 5 years.

Claim.—The valves or flaps b, arranged in combination with opening a.

No. 10,306. Improvements on Clothes Wringers.*(Perfectionnements aux essoreuses à linges.)*

Charles B. Camp, White Pigeon, Mich., U. S., 26th July, 1879, for 5 years.

Claim.—1st. The equalizing cross-bar H, having descending journal seat arms h for the upper wringer roller playing in ways z of the standards, and centrally pivoted to the fixed cross-bars B₂; 2nd. The cross bar H, having ascending journal seat arms h for the lower roller playing in ways z of the standards, and a pressure connection I extending downward to the suspended lever J; 3rd. The combination, with a lower wringer roller supported by a cross-bar H and a lever connection to produce an upward pressure thereon, of an upper wringer roller bearing against a centrally pivoted equalizing cross-bar; 4th. The combination, with the supporting cross-bar H, the lever J and pressure connection I, of the lever L, below lever J and the connection k; 5th. The combination, with a pair of swinging rollers, of the lever J hung upon the bail K attached to frame A with strap k, connected to the lever L having projections m and the leg c with ratchet n; 6th. The cross-bar H, supporting, by its arms h, the lower roller and carrying the drip pan P; 7th. The drip pan or spout P, having the small roller P raised above its bottom, and adapted to hold the goods passing to said rollers clear of the bottom of the pan; 8th. The combination of the wringer frame A B C and the front basket rack or shelf N, having a leg y and hinged to the front of said frame to fold underneath the same.

No. 10,307. Improvements on Systems of Lighting.*(Perfectionnements aux systèmes d'éclairage.)*

Eusebius J. Molera and John C. Cebrían, San Francisco, Cal., U. S., 29th July, 1879, for 5 years.

Claim.—1st. The combination, with a generator of electricity and electric connections, of devices adapted to subdivide the main body of light into different beams, respectively composed of parallel rays and included passages which conduct said beams through them, together with devices adapted to be adjusted within said passages, so as to apply the light in greater or less volume at desired points; 2nd. The combination, with a generator of electricity and electric connections, of devices which subdivide the main electric light into beams, respectively having parallel rays and included passages which conduct said beams through them, together with adjustable prisms, or their equivalent, fitted in said passages, and devices fitted in the egress ends of the passages adapted to pass the beams out in diverging or converging pencils of light; 3rd. The combination, with a generator of electricity and electric connections, of devices which enclose the main body of the electric light and divide it into beams, respectively having parallel rays, together with included passages which conduct the beams through them, and devices adapted to be adjusted within said passages, to change the course and size of said beams; 4th. The combination, with a generator of electricity and electric connections, of devices which subdivide the main electric light into beams, respectively having parallel rays, and included passages which conduct said beams through them, together with prisms, or their equivalent, adjustable within said passages, which colour or modify the beam light; 5th. The combination, with an electric machine and an hydraulic motor for actuating the same, of a reservoir located above the motor and connected therewith by a pipe, and a pumping engine adapted to elevate the water that passes through the motor to the reservoir, whereby said motor is supplied with a constant fall of water, to actuate the electric machine in an unvarying rate of speed and maintain the electric light at any pre-determined candle power; 6th. The combination, with an electric candle, of a float stem secured directly to the lower end thereof, and formed as a tube having a closed top and an open bottom provided with a detachable cap, the sam-