

tion of apparatus in connection with the injector or feed pump for supplying hot water to the boiler; 6th. The use and application of an extra combining cone in connection with the injector inserted above the ordinary lowest cone of the injector.

No. 6199. Improvements on Volta-Electric Appliances.

(*Perfectionnements aux appareils electro-voltaiques.*)

John E. Hetherington, Cincinnati, Ohio, U. S. (Assignee of Isaac L. Pulvermacher), 12th June, 1876, for 5 years.

Claim.—1st. In voltaic bands formed of wire spun upon edge cords, the combination of a series of insulating buttons placed at intervals upon one face and a groove or indentation A, in the other face; 2nd. The construction of voltaic bands formed of wire spun upon edge cords, the gutta percha strips or cords B, B; 3rd. The construction of voltaic band formed of wire spun upon edge cords, the arrangement of two gutta percha cords or strips B, B, near the said edge cords and a third at the centre, or near the center of the width of the belt bearing pieces of porous absorbent material C, C; 4th. The pole plate consisting of two cheeks D, D, a tie C, and suitable hinge loops d, adapted to be folded and secured to the end of the band.

No. 6200. Improvements on Grates for Stoves and Furnaces.

(*Perfectionnements aux grilles de poeles et de fourneaux.*)

George W. Sweet, Julius F. Quimby and Samuel W. Perry (Assignees of William Morand), Troy, N. Y., U. S., 16th June, 1876, for 5 years.

Claim.—1st. The combination with the supporting bar B, of the stirrup B₁, and pivot block C, supported by trunnions from said stirrup, and having a central hole for supporting a grate; 2nd. The supporting bar B, screw thread bush D, supported from said bar directly or indirectly, and having a central opening n, for the pivot of the grate and recesses m, m, permitting a play of feathers n, of the pivot of the grate; 3rd. The grate A, having a central pivot for its rotation, and radial feathers z, z, with holes or recesses b, or their equivalents made with its outer rim, screw-threaded bush D, provided with its recesses m, pivot block C, supported by trunnions from the supporting bar B; 4th. The combination with the pivot block C, pivoted with the stirrup B₁, of the stops a, o; 5th. The combination with the pivot block C, pivoted from the stirrup B₁, of the stop r.

No. 6201. Improvements in the Art of and in the Apparatus for Transmitting Musical Sounds Telegraphically.

(*Perfectionnement dans l'art et les appareils de transmission des sons musicaux télégraphiquement.*)

Elisha Gray, Chicago, Ill., U. S., 16th June, 1876, for 15 years.

Claim.—1st. The art of transmitting musical sounds telegraphically by reproducing such sounds at the receiving end of the line by means of a vibrating reed and a sounding box of corresponding pitch; 2nd. The combination of an electro-magnet, a vibrating reed and a sounding box of corresponding pitch united at the receiving end of an electric circuit; 3rd. The combination with an electric circuit of a series of electro-magnets, a series of vibrating reeds producing musical tones of different pitch and a series of correspondently tuned, sounding boxes, whereby each box is caused to sound its own note while rejecting all others; 4th. The vibrating reed constructed with parallel sides and recesses near its fixed end whereby its tendency to vibrate in unison with tones other than its own is prevented; 5th. The combination of an electro-magnet, a vibrating reed a sounding box of corresponding pitch and a local circuit breaking apparatus actuated by the vibrations of a column of air in said sounding box; 6th. The combination of a sounding box, the column of air contained in which is thrown into vibration by tones transmitted through an electric circuit, an adjustable box or chamber across which a diaphragm is stretched and a local circuit breaking mechanism mounted on said adjustable section; 7th. The combination of a sounding box, a diaphragm, a local circuit and a circuit breaking lever vibrating more slowly than the diaphragm, by which said local circuit is controlled.

No. 6202. Improvements on Driving Reins.

(*Perfectionnements aux guides de harnais.*)

Peter Nerney, Attleborough, and Benjamin S. Wright, Boston, Mass., U. S., 16th June, 1876, for 15 years.

Claim.—1st. The slide A, consisting of the frame a, the two small end bars b, b, and the thick or large central bar c; 2nd. In combination with the slide A, provided with cross-bars b, b, c, the rein B, looped or doubled on itself and passed through said slide.

No. 6203. Machine for Making Wires for Soda Water and other Bottles.

(*Machine à faire les fils métalliques pour les bouteilles à eaux gazeuses et autres.*)

Leonard Perrin, London, Ont., 16th June, 1876, for 5 years.

Claim.—The combination of points B, jaws E, E, arm F, threaded G, metallic spring H, jaws I, sliding jaws K, bits L, and levers C, D, J.

No. 6204. Improvement in Sash-holders.

(*Perfectionnement des arrêto-croisées.*)

Henry Lear and James F. Wilson, Simcoe, Ont., 16th June, 1876, for 5 years.

Claim.—The combination of the spring D, and the lever C.

No. 6205. Improvements on Advertising Devices.

(*Perfectionnements aux appareils de publicité.*)

Cullen W. Reed, Chagrin Falls, Ohio, U. S., 16th June, 1876, for 5 years.

Claim.—1st. The combination in a cylindrical frame supported upon a fixed axis, of a series of side panels tangentially connected with the frame for receiving and displaying characters, advertisements, &c.; 2nd. The com-

bination of a series of buckets for receiving currents of air with the cylindrical frame constructed for displaying characters, advertisements, &c. and a central axis or standard for supporting the frame; 3rd. The combination with a cylindrical or polygonal shaped frame-work for displaying characters, advertisements, &c., of a rotary guard for conducting currents of air upon surfaces or buckets projecting laterally from the frame-work; 4th. The guard constructed with a concave receiving and conducting face and with a guide vane in combination with a cylindrical or polygonal shaped frame constructed for displaying characters, advertisements, &c.

No. 6206. Improvements in Steam Boilers.

(*Perfectionnements dans les chaudières à vapeur.*)

Joseph H. Killey and Walter Muirhead, Hamilton, Ont., 16th June, 1876, for 5 years.

Claim.—The combination of the receiver A, the circulating pipes B, and the collecting funnels C.

No. 6207. Improvements in Lamps.

(*Perfectionnements dans les lampes.*)

Grenville M. Stevens, Deering, Me., U. S., 16th June, 1876, for 5 years.

Claim.—A lamp made up and composed of the base d, stock e, the wooden cup or bowl f, the wooden top h, and metal receptacle a, the said receptacle a, being attached to the cover or top h, by the metallic neck c, held suspended in the cup f, from said wooden cover h, and removable from the cup f, with said top.

No. 6208. Sap Spout.

(*Tuyau de sucrerie.*)

Hiram A. Lawrence, East-Farmham, Que., 16th June, 1876, for 5 years.

Claim.—1st. A sap spout having its holding or fastening point above, in rear of, and independent of the channel whereby weight of bucket suspended to it will not only retain the spout in position but restore it to place when dislodged; 2nd. In combination with any sap spout a purchase hook to secure it to the tree; 3rd. In combination with any sap spout the purchase hook D, having longitudinal edge or heel d₁, and transverse upper edge or horn d₂; 4th. A sap spout having its rear end provided for three-fourths of its circumference with a sharp edge arranged to slightly enter into the bark of the tree for the purpose of preventing leakage; 5th. The combination of the trough A, the turned up end B, and purchase hook D.

No. 6209. Mechanism for Propelling Wheeled Vehicles and Boats.

(*Appareil de propulsion des voitures à roues et des bateaux.*)

Marmaduke Mathews, Toronto, Ont., 16th June, 1876, for 5 years.

Claim.—1st. The toothed quadrant plates E₁ and D₁, pivoted on the standards B₁, or at any other convenient point and provided with the levers E₂ and D₂, in combination with the toothed wheels F, loosely mounted on the axle or shaft A; 2nd. The toothed wheels F, provided with the spring pawl H, in combination with the ratchet wheel G, on the axle or shaft B; 3rd. The axle or shaft A, constructed in two pieces and provided with the clutch coupling A₁.

No. 6210. Portable Bath.

(*Baignoire portative.*)

Arnold Seligberg, New-York, U. S., 16th June, 1876, for 5 years.

Claim.—1st. A bath tub composed of a flexible body A, and a skeleton supporting frame B, C, D, E; 2nd. The combination with the flexible body A, of the head and foot braces B, C, and interposed side braces D; 3rd. The combination with the side props or supports E, of the cross heads or T-pieces G, for the connection of the upper frame of the bath tub with said props; 4th. The combination with the flexible folding tub body A, and its head brace B, of the air cushion or pillow N.

No. 6211. Improvements in Nailing Machines.

(*Perfectionnements aux machines à clouer.*)

Charles T. Brandon, Toronto, Ont., 16th June, 1876 for 5 years.

Claim.—1st. The face plate D, provided with the side flanges D₁ and D₂, and adjustable bevelled stops D₃, in combination with the hammer B; 2nd. The form E, provided with the adjustable gauge pieces F, F, and filling piece E₃; 3rd. In combination with the form E, and hammer B, the sliding blocks G, E₁, and strap E₂; 4th. The pivoted clamping irons K, K, with pressure bar K₁, in combination with the form E, provided with the adjustable set screws L, and springs L₁; 5th. The dies G₂ finished with a bevelled face on the underside to correspond with cap of the wash-board; 6th. The stop brackets I, in combination with the die boxes G₃; 7th. The spring cap holder M, in combination with the bevelled dies G₂, and stop-brackets I; 8th. Punch-blocks J₂, provided with the projecting arm J₃, and fitted with the punches J₄, whose points are finished on a bevel to correspond with the cap in combination with the double die boxes G₂, and bar G₁; 9th. The combination of the spring cap holder M, with spring N, and pressure bar K₂; 10th. The combination of the hammer B, with face plate D, and notched table B₁, form E, sash C, clamping irons K, die boxes G, and G₃, and punch blocks J, and J₂.

No. 6212. Improvements on a Churn.

(*Perfectionnements à une barille.*)

William H. Hoyt, St. John, N. B., 16th June, 1876, for 5 years.

Claim.—1st. The combination of the dasher and air tube C; 2nd. The combination with the dasher and air tube C.

No. 6213. Improvements in Gang Ploughs.

(*Perfectionnements aux charrues à socs multiples.*)

Archibald Filshie, Elora, Ont., 16th June, 1876, for 5 years.

Claim.—1st. A plough head provided with a double tenon B, B, having projecting side flanges B₁, B₂; 2nd. The filling rib or web piece A₁ projecting forward of the usual position of the head of the plough; 3rd. The combination and arrangement of the bars E, E₁, and E₂, braces F, F₁, F₂, and tenons B, B; 4th. The pivoted lever J, connecting rods I, and I₁, in combination with the crank shafts G₂, G₃, provided with the radial arms H, H.