

projecting tapering arm O, lips B, slots h, shoulder a and wire l, in combination with the arms D constructed with T shaped slots m, and the bracket G having the flanges n n.

No. 9298. Improvement on Boiler Furnaces.
(*Perfectionnement aux fourneaux des chaudières.*)

William M. Fisher, Cincinnati, Ohio, U.S., 30th October, 1878, for years.

Claim.—The combination of the primary longitudinal grate, the secondary transverse grate the solid transverse partition at the junction of the grates, dividing the ash-pit down to the bottom, so as to form a separate transverse air chamber for supplying the transverse grate with fresh air from the side of the furnace.

No. 9299. Improvements on Ink Distributing Apparatus. (*Perfectionnements aux appareils de distribution de l'encre*)

Charles H. Bacon, Boston, Mass., U.S., 30th October, 1878, for 5 years.

Claim.—1st. One or more series of plates B arranged on a line transverse to the axis of the roller, in combination with mechanism for vibrating the plates; 2nd. The combination of a series of vibrating plates arranged on the same line, and mechanism for vibrating the adjacent plates in contrary directions; 3rd. The series of plates B with edges which, when the plates are at the limit of their movements, coincide with the same straight line; 4th. The combination of the rock shaft H, curved ink feeder G and fountains F, operating in respect to the distributing roller E.

No. 9300. Improvements in Gas Controllers.
(*Perfectionnements aux regulateurs à gaz.*)

George W. Thompson, Thomas Whaley, Brooklyn, and Jacob Cohen, New York, N.Y., U.S., 30th October 1878, for 5 years.

Claim.—1st. The flexible and elastic box A, into which the outer air is freely admitted, suspended within a chamber B for the purpose of operating a valve by the pressure of the gas, in the said chamber, and thereby to diminish or increase the supply of gas; 2nd. The box A and pipe d, in combination with the chamber B and suitable devices for diminishing the supply of gas to the said chamber, in proportion to the degree of pressure of the gas within the said chamber; 3rd. The combination of the box A, chamber B, valve b b' and screw nuts on the rod c; 4th. The combination of the box A, chamber B, valve b b' and adjustable spring d; 5th. The chamber B, box A, adjustable valve b b' and adjustable spring d, arranged in relation to the burner tip and supply pipe.

No. 9301. Improvements on Pedometers.
(*Perfectionnements aux pedomètres.*)

Benjamin S. Church, Scarborough, N.Y., U.S., 30th October, 1878, for 5 years.

Claim.—1st. The combination with the actuating lever 10, having pallets 68 of the star wheel 4, and driving pinion 3; 2nd. The combination with the weighted actuating lever 10, of the connecting link 2 and compensating spring 15; 3rd. The combination with the registering mechanism, the weighted actuating lever 10, and compensating spring 15 of the adjusting block 16; 4th. The combination of the registering disc C, differential wheels 18 19, flanged and stepped hub 9 and spring 22; 5th. The combination of an adjustable indicator with the registering disc having a variable scale whose divisions increase in number from the innermost to the outermost, or vice versa, and which are subdivided by a unit line graduated by a scale of inches, whereby the pedometer may be set to suit the length of step of the user and record the distance travelled over.

No. 9302. Improvements on Carriage Tops.
(*Perfectionnements aux soufflets de voitures.*)

John A. Chapman, Whitewater, Wis., U.S., 30th October 1878, for 5 years.

Claim.—1st. The upright bows c D and the small bows E F, joined to each other and pivoted upon the main bows; 2nd. The two upright and two secondary horizontal bows, the latter pivoted to each other and to the main bows so as to serve the double purpose of supporting the edges of the cover and of holding the main bows and top in an extended position; 3rd. In combination with a carriage top, the arms or stays pivoted thereto and arranged to slide through the pivoted clamp blocks; 4th. The clamping blocks mounted upon the threaded arms or supports; 5th. In combination with the bows C D of the carriage top, plates c d attached thereto, and a supporting plate e, said plate being united by the pivot f whereby the top is locked in position by the act of opening and closing it; 6th. In combination with the plate e to support a carriage top, plates c d attached to the bows of the top and arranged to effect the locking of the top by the movement of the bows to or from each other; 7th. In combination with a toothed supporting plate e, and a corresponding plate c attached to a carriage top, a ratchet cam plate d arranged to cause the plates d e to interlock with each other; 8th. A carriage top provided with a clamping device to sustain it in position to be operated by the movement of the bows to or from each other; 9th. In combination with the pivoted carriage top having stays or braces pivoted thereto, arms or supports connected with the bows of the top and with the stays or braces so that they may be adjusted laterally in relation to the top, in order to adjust of the latter being applied to seats of different width; 10th. In combination with a carriage top, supporting feet g, hinged or journalled in such manner that they may be adjusted to seats or supports of different inclinations; 11th. The shifting rail having the supporting feet g journalled thereon.

No. 9303. Improvements on Machinery Lubricators. (*Perfectionnements aux graisseurs des machines.*)

Charles H. Parshall, Detroit, Mich., U.S., 30th October, 1878, for 5 years.

Claim.—1st. The steam tube E, extending up through the bottom of the condenser A, nearly to the top of it, for the purpose of holding a column of water; 2nd. The pump for forcing the water from the condenser into the oil cup or reservoir through water tube M; 3rd. The inverted syphon tube N in the oil cup or reservoir, to prevent the oil from ascending into the condenser A; 4th. The water trap U within the body of the metal top of the cup; 5th. The water trap formed within the condenser by means of syphon tube R.

No. 9304. Apparatus for Condensing, Washing and Purifying Gas. (*Appareil à condenser, laver et épurer le gaz.*)

Thomas A. Kirkham, David Hulett, Samuel Chandler, Sr and Samuel Chandler, Jr., London, England, 30th October, 1878, for 5 years.

Claim.—1st. A number of annular plates or discs of metal or other suitable material maintained in a wet condition against the surfaces of which plates the gases or other vapours to be treated are caused to impinge in their passage through the apparatus; 2nd. The combination of two or more clusters of annular plates or discs of metal, or other suitable material, mounted upon one and the same shaft, each cluster being caused to rotate in a separate chamber, containing liquid or solutions; 3rd. The general construction, arrangement and combination of apparatus for condensing, absorbing, or washing and purifying gas and other vapours.

No. 9305. Improved Horse-Shoe Bar.
(*Ebauche de fer à cheval perfectionnée.*)

Christian Moller, Hoboken, N.J. (Assignee of Louis G. Claude, New York,) U.S., 30th October, 1878, for 5 years.

Claim.—1st. The horse-shoe blank having solid calks thereon and constructed with continuous web e along its inner edge, said web extending from end to end of the blank; 2nd. The horse-shoe blank constructed with solid toe calf b and with projecting ridges h h' at its upper side.

No. 9306. Machine for Tallying Flour Barrels. (*Machine à dénombrer les barils de farine.*)

Walter N. Durant, Milwaukee, Wis., U.S., 30th October, 1878, for 5 years.

Claim.—1st. The combination of the L-shaped plate B provided with rod U and knob A, with the spring pawl G; 2nd. The gauge O provided with adjusting pin S' for regulating the stroke of the lever J; 3rd. The combination of the arm K as attached to the case A, bolt L, lever M, bar P, spiral spring O, lever J and the tallying mechanism; 4th. The combination of the tally-wheels C C₁ C₂ C₃ provided with shoulders H and ratchets D D' D₂ D₃ with the shaft B and spring pawls E G and G'; 5th. The combination of the coiled spring L, with the case A and shaft B.

No. 9307. Machine for Raising Leather from Tan Vats. (*Machine à tirer le cuir des cuves de tanneries.*)

Thomas J. Smith, (Assignee of Albert Whiting and Joseph A. Smith,) Rochester, N.Y., U.S., 5th November, 1878, for 5 years.

Claim.—1st. The rack of false bottom B made in two parts or sections hinged to each other in the centre, to adapt it to be raised at the centre into an angular position to raise and support the hides; 2nd. The combination of the two hoisting ropes C and the adjusting rope h, with the hinged sections of the rack of false bottom; 3rd. The combination of the shaft E provided with pins D, with the two hoisting ropes C and the hinged sectional rack or false bottom B; 4th. The combination of the two gear wheels G H, the shaft I and the crank J in the movable frame F with the shaft E, the hoisting rope C and the hinged sectional rack or false bottom B, all adapted to be used in connection with the vat A; 5th. The hoisting ropes C, having their lower ends unanchored to adapt them to be applied to the hinged sectional rack or false bottom B.

No. 9308. Improvements on Circular Saws.
(*Perfectionnements aux scies circulaires.*)

Joseph A. Robbins, Boston, Mass., U.S., 5th November, 1878, for 5 years.

Claim.—1st. A saw plate made concave on both sides from the teeth to the collar line, leaving a portion surrounding the eye of uniform thickness with the teeth; 2nd. The semi oval shaped reverse cutting teeth B having a bevel extending from point to base equally on both edges of the tooth; 3rd. The clearing teeth E having concave ends F, which are slightly bevelled, their bodies being formed with square faces narrower at their base than at the top; 4th. A saw provided with the semi-oval ovelled cutting teeth B and having the clearing teeth E formed with concave ends F which are slightly bevelled, their bodies being formed with square faces and narrower at their base than at the top or end, as shown, and arranged alternately with the teeth E.

No. 9309. Machine for Mixing Cakes.
(*Machine pour battre la pâte à gâteau.*)

George Constable, Toronto, Ont., 5th November, 1878, for 5 years.

Claim.—1st. The ingredient receiver A placed within a hot water or steam heating chamber B; 2nd. The combination with the ingredient receiver A, heated from an enclosing hot water or steam shell, of the oppositely rotating paddles C C'; 3rd. A beater for light varieties of cakes and confections, composed of the oppositely rotating heads D D' provided with alternating prongs

No. 9310. Improvements on Earth Scrapers.
(*Perfectionnements aux ecoueurs.*)

James H. Edmonson, Valparaiso, Ind., U.S., 5th November, 1878, for 5 years.

Claim.—1st. Earth scrapers mounted on wheels, the draught bale B secured by a loose connection to the tongue E provided with hooks a a', or equivalent devices on its ends, in its relation to the other mechanism arranged automatically to engage the catches U and hold the scraper to its work in the loam fling process and to disengage from the catches when the scraper is to have other positions; 2nd. The combination of the levers H J, connecting rod W, stirrup, tilting frame H; 3rd. The combination of the tilting frame H, lock lever F, connecting rod T and draught bale B.

No. 9311. Improvements on Mops.
(*Perfectionnements aux balais.*)

John McCarthy, Syracuse, N.Y., U.S., 5th November, 1878, for 5 years.

Claim.—1st. The combination with a mop head, of the sponge S, scraper c and brush b; 2nd. The combination of the trough-shaped head A provided with aperture a, the sponge S, scraper c and wringing block d; 3rd. The combination with a mop of a wringer hinged thereto and adapted to be either