

for decomposing steam into permanent gases, of an annular chamber G, perforated with holes, for the delivery of steam in jets, into such retorts; 4th. The arrangement for superheating steam to be decomposed into permanent gases, of passages H, I, constructed in the wall W, of the oven which heats the retorts on the outside of the fire-brick lining K, through which the steam-pipes F, pass, constructed, arranged and operating as set forth.

No. 2119. THOMAS C. TILLINGHAST, Belleville, Ont., 1st March, 1873, for 5 years: "Machine for Ironing the Bottoms of Trouser Legs." (Machine à repasser le bas des jambes des pantalons.)

Claim.—The block A, the hinge C, the wedge D, the iron E, the foot of the block F, the pin-hole G, the pin in the foot and H, the pin below the hinge connecting the two pieces of the block.

No. 2120. LEONARD D. HOWARD, St. Johnsbury, Vt., U. S., 1st March, 1873, for 5 years: "A Rein-Holder." (Un porte-guide.)

Constructed of brass or other metal and attached to the dasher of a carriage. It consists of a pair of serrated jaws pivoted to a plate and geared together so as to operate in unison and combined with springs which cause them to grip the reins.

Claim.—The plate G, serrated jaws A, with cams I, cases L, pins C, C, lugs B, B, and springs J, J, in the slotted spur K, button M, with button-screw N, clasp O, with clamping-screw P, and clasp-screws R, R.

No. 2121. OEL B. AUSTIN, Potsdam Junction, N. Y., U. S., 1st March, 1873, for 5 years: "A Horse Rake." (Un rateau à cheval.)

Consists in the construction and arrangement of the thimbles holding the teeth and the mode of securing the same thereto; the devices for raising and lowering the teeth to adapt them to different surfaces; the dumping apparatus, and the gauge-bar for keeping the teeth in proper position.

Claim.—1st. The thimbles D, having the shank A, with oblique grooves a, communicating with openings a', in the sockets a'; 2nd. The weighted lever G, link H, and J, shaped lever e, in combination with the flexible connection F, bar F, and teeth E; 3rd. The adjustable connection F, in combination with the adjustable teeth E, bar F, and weighted lever G, 4th. The combination of the rod A, thimble D, adjustable standard C, teeth E, arms I, and adjustable gauge K.

No. 2122. PITT W. STRONG, Farmersville, Ont., 1st March, 1873, for 5 years: "Milk Weighing Can and Conveying Spout." (Boite à peser le lait, avec siphon.)

Claim.—1st. A milk-chamber or can A, when constructed with a concave or funnel-shaped bottom B, converging towards the outer edge and having a cylindrical discharge pipe C, or its equivalent; 2nd. The application to the discharge pipe C, of a stop valve D, within the can A, and operated by a rod and handle G; 3rd. The conductor pipe E, when constructed with an inwardly tapering elbow to receive the discharge pipe C, in combination with the can A; 4th. The arrangement and application of the hook H, and spring I, for securing the pipe E, in the discharge pipe C.

No. 2123. EBENEZER B. COLBY, Franklin, N. H., U. S., 1st March, 1873, for 5 years: "An Ice Creeper." (Grappin à glace.)

Claim.—The combination of the box or case A, the serrated spur D, and the cam b, and arbor c; in the combination of either or both the lips B, C, with the box or case A, and the serrated spur D, provided with mechanism for operating it as described.

No. 2124. DAVID G. CONGER, Chicago, Ill., U. S., 1st March, 1873, for 5 years: "Machine for the Manufacture of Artificial Roofing." (Appareil pour la fabrication d'une composition à toiture.)

Claim.—1st. A bed A, having parallel side rails E, in combination with a carriage H, adapted to run on said rails and to distribute cement and a sheet of paper or other similar material; 2nd. Combination with the above rollers K, for pressing and uniting through the cement the sheets of paper to the sand; 3rd. The combination with the carriage H, of two or more cement distributing hoppers and a corresponding delivery of paper or other sheets; 4th. The roller K, grooved as shown at o; 5th. The roller K, provided with a flange o, to bear outside of the rails E; 6th. The rails E, having cutting edges and secured by slot and set-screw to and along the sides of the bed; 7th. The hooks A, or their equivalent arranged in combination with the bed for securing the ends of the paper sheets from dragging; 8th. The transverse cutting edges R; 9th. The hoppers L, made of the shape described and provided with a closing slide M.

No. 2125. JULIUS S. SHAILER, Boston, Mass., U. S., & JOHN C. FORD, Montreal, Que., 3rd March, 1873, for 5 years: "A Knitting Machine." (Une machine à tricoter.)

Consists of an adjustable guard arranged to keep the loops formed by the machine close down upon the top of the cylinder and clear of the latch, which by this means is free to form the next loop, thus ensuring with certainty the formation of the stitch.

Claim.—1st. The guard i, with bevelled edge; 2nd. The combination of the flange g, arm p, curved rod h, guard i, and set screw k; 3rd. The cam groove m, in combination with the diagonal sliding die n; 4th. The plate r, with two notches s and t.

No. 2126. JOHN F. WEBSTER, Hamilton, Ont., 7th March, 1873, for 5 years: "A Sewing Machine Treadle." (Une marche de machine à coudre.)

It consists of an oscillating walking-beam pivoted at the point to a brace which projects from the treadle-bar.

Claim.—1st. The treadles a, a, having projections or points b, at the toe; 2nd. The arrangement of the universal joint c, in combination with the walking-beam f, connecting rod h, and treadles a, a.

No. 2127. AARON VAN GUYSLING, West Albany, N. Y., U. S., 7th March, 1873, for 10 years: "Railroad Chair." (Coussinet de rail de chemin de fer.)

Claim.—The railroad-chair A, having the fixed lip B, the detachable lip c, and the key-bolt or pin D, as described.

No. 2128. AARON VAN GUYSLING, West Albany, N. Y., U. S., 7th March, 1873, for 10 years: "Railroad Chair and Support." (Coussinet et support de rail de chemin de fer.)

Claim.—1st. The railroad chair-support, consisting of the supports A, both separate and connected by the tube B, the chair C, having the fixed lip C, and the detachable lip C, the key-bolt or pin D, the rubber or wooden block G, the wooden or rubber block F, and the connecting bar E, said chairs being slotted to receive the bent ends of the connecting bar and for the passage of the wooden blocks; 2nd. The chair C, fitting over the hollow supports A, having the fixed lip C, detachable lip C, and the key-bolt or pin D, and provided with an opening in its side for the introduction of the rubber block G, which is kept in place by the sliding door H; 3rd. The combination of the horizontal metallic bar or tie B, with the vertical hollow supports A.

No. 2129. JACOB P. TIRRELL, Charlestown, Mass., U. S., 7th March, 1873, for 5 years: "Gas Electrical Lighting Apparatus." (Appareil électrique pour allumer le gaz.)

Claim.—1st. The combination with a burner of an electro-magnet and an armature which carries the circuit-breaker, and is otherwise constructed, disposed and arranged to turn the gas on and off, and to automatically break and establish the circuit; 2nd. The combination with a burner of an electro-magnet and an armature which carries the circuit-breaker to automatically establish and break the circuit and has the circuit-breaker so located as to emit its spark at the burning point of the burner; 3rd. The combination in one apparatus of all the features of the two preceding claims; 4th. The arms o, Q, sector-wheels f, n, pins l, l, m, m, wires M, magnet E, lever H, carrying armatures G, circuit-breaker J, pawl S, and ratchet-wheel R, all combined, arranged and applied to a burner for operation.

No. 2130. MICHAEL J. STEIN, New York, U. S., 7th March, 1873, for 5 years: "Boot and Shoe Sewing Machine." (Machine à coudre les chaussures.)

Relates to the feeding of the work, to the presenting of the work to the needle, to the combined operation of the awl and needle in punching and making the stitch and to the method of using it with a last of ordinary construction even where a straight needle is employed.

Claim.—1st. The combination with a vertically reciprocating straight awl A, of a vibratory rotary curved needle h, supported on a stock i, having a reciprocating sliding movement towards and away from the awl in a path at an angle to the path of movement of the latter, so that the awl shall enter the work from one side, and the needle shall then be caused by the sliding movement of its stock to penetrate the same from the opposite side until it meets or nearly meets the awl and then to complete its course by its rotating movement, following the aperture made by the awl which with the awl as the needle advances; 2nd. The combination of the awl A, and needle h, constructed and operated as specified in the preceding clause, with the looper as described; 3rd. The combination of the awl A, and edge-bender I, moving together laterally to and fro and operating to grasp the work and effect the feed; 4th. In combination with the awl A, and edge-bender I, operating together as described, the channel guide W, moving to and fro laterally with the same during the feed movement and pressed alternately tightly and with a yielding pressure on the work; 5th. The combination for the purpose of bending the edge or outside