

No. 1744. JOHN KRUMMENAUER, New York, U. S., 11th November, 1872, for 15 years: "An animal trap." (Une ratière.)

The principle of this invention is that each animal when caught in passing from a dark into a light compartment in its efforts to escape re-sets the trap.

Claim.—1st. The combination of the vibrating yoke or lever F, with a door or doors D, and with a spring retainer G; 2nd. The combination of the vibrating platform H, carrying the bait, its arm e, and the spring retainer G; and 3rd. The combination of the trap door h, its arm i, and the yoke or lever F.

No. 1745. CHARLES STORER, Montreal, Que., 11th November, 1872, for 5 years: "Metal Pavement." (Pavage en métal.)

So constructed as to allow of excavations being made without disturbing the pavement. Means are also adopted to render the pavement less liable to disarrangement from the settling of ground beneath it or from upheaval by frost in winter.

Claim.—1st. The plate a, in combination with scantlings c; 2nd. The plate b, and scantlings a, in combination with plate c; 3rd. The plates b, and c, with flanges i, and with or without flanges k; and 4th. The plates b, with beadwork d, in combination with cement on their surfaces.

No. 1746. JOHN SMITH, Brantford, Ont., 11th November, 1872, for 5 years: "Fire Grates and Stoves." (Grille de foyer et poêle.)

Claim.—1st. Open or closed fire-grates, the curved or oval-shaped metal back B, and the arrangement and use of perforated fire-plates F, whereby a passage is formed at the ends and back of the grate or either of them to be supplied with cold air, from beneath the fire-basket; 2nd. Close stoves, the arrangement and use of perforated fire-plates F, and duct Y, for the introduction and distribution of heated air to the fire-box; 3rd. The combination and arrangement of the sheet smoke flues E and H, air heating sheet flues C and K, air heating chamber L, provided with inlet apertures O, P, Q, outlet passages N, B and M, J; and 4th. In combination with the arrangement of smoke flues E, H, air flues C, K, chamber L, and duct U, the arched recess in chimney breast with plate S, provided with slides T, collar W, and connecting pipe R, plate X, and warm air ducts V, V, V.

No. 1747. TIMOTHY E. CHAMBERLAIN, Knowlton, Que., 11th November, 1872, for 5 years: "A manure cart." (Un distributeur de fumier.)

The manure is reduced to small particles before it leaves the cart and is spread in a thin even layer over the ground as the cart moves along.

Claim.—1st. The cart A, with spikes G, frame A', roller F, and spikes G, on spindle E, pinion wheel E, and spur-wheel D, in combination with wheel C; 2nd. In the combination of the cart A, with spikes G, and roller F, with spikes G; 3rd. The lever K, link I, and arm H, or their equivalents in combination with the spindle E; and 4th. The slide L, with arm L', pivoted lever M, and band N, or their equivalents in combination with cart A.

No. 1748. CHAS. F. PIKE, Providence, R. I., U. S., 11th November, 1872, for 15 years: "A Spark Arrestor and Consumer." (Appareil pour détourner les étincelles et les rejeter dans le fourneau.)

The object of this invention is to arrest and convey back to the furnace or combustion chamber the sparks, cinders and gases which are ordinarily emitted from the smoke-stack of locomotive engine-boilers, or marine, or stationary boilers, and to utilize same.

Claim.—1st. The combination of the chimney provided with the smoke-arch C, artificial draught or blower N, engines O, O, pipes or flues P, P, and H, H, furnace or combustion chamber B, boiler A, of a locomotive; 2nd. The combination and arrangement of the chimney, provided with smoke-arch C, register G, artificial draught or blower N, engines O, O, pipes or flues P, P, and H, H, furnace or combustion chamber B, and boiler A; 3rd. The combination of the ash-pan W, with the pipes or flues P, P, and H, H, artificial draught or blower N, engines O, O, smoke-arch C, register valve G, chimney and the boiler A; 4th. The arrangement of the chimney provided with the smoke-arch C, register G, with the artificial draught or blower N, reservoir M, pipes or flues P, P, and H, H, furnace or combustion-chamber B, boiler A, auxiliary engines O, O, exhaust pipes K, and I, in a locomotive; 5th. The combination of the chimney having a smoke-box or arch C, the artificial draught, device or blower N, the pipes or flues P, and H, the furnace or combustion-chamber B, and the boiler A.

No. 1749. A. D. CAMPBELL, Ind., & J. MCKENZIE, Inverness, Que., Assignees of J. Peters, St James, Mo., U. S., 11th November, 1872, for 5 years: "A Tanning Process." (Procédé de tannage.)

The compound for bating hides consists of wheat-bran, sulphuric acid and buttermilk. The ingredients forming the tanning solution are gambier, saltpetre and sulphuric acid, and the finishing mixture is composed of tanners oil, melted tallow and lye.

Claim.—1st. The compound for bating hides; 2nd. The compound for tanning leather; 3rd. The compound for finishing leather of the materials and in the proportions described.

No. 1750. CHARLES F. PIKE, Providence, R. I., U. S., Assignee of George H. Griggs, White-stone, N. Y., U. S., 11th November, 1872, for 15 years: "Spark Arrestor and Consumer." (Appareil pour arrêter les étincelles et les rejeter dans le foyer.)

Claim.—1st. In the method of controlling, driving and finally utilizing as fuel, the unconsumed products of combustion which are driven from a smoke-pipe or smoke-arch by a forced blast, discharged thereon, by combining a continuous return flue, connecting the smoke-stack with the fire chamber, with a compound blast-pipe and by arranging the mouth of the return flue, at the stack adjacent to and coincident with the exit aperture of the blast-pipe whereby a portion of the compound blast, composed generally of steam, air, gas, smoke and cinders may be discharged into, and be driven through the return flue, into the fire chamber by the force and presence of succeeding portions of the blast; 2nd. The combination of the compound blast-pipe with a spark or return flue, communicating with the fire chamber, provided with a bell-shaped mouth, which is located above, adjacent to, and coincident with the exit aperture of the blast-pipe; 3rd. The combination of the compound blast-pipe, the spark or return flue, provided with a bell-shaped mouth and a guiding plate located adjacent to, or within the mouth of the return flue and coincident with the exit aperture of the blast-pipe; 4th. The combination within a smoke-stack of the compound blast-pipe, the bell mouth of the spark flue, and the barrel netting connecting the two.

No. 1751. ARTHUR W. LAWTON, Rochester, N. Y., U. S., 11th November, 1872, for 15 years: "A Harness." (Un Harnais.)

Relates entirely to the draft portion of the harness which fits the horse's breast, and is intended to supersede the tugs, traces and straps, &c., in ordinary use.

Claim.—1st. The combination of the removable cross-bar B, draft yoke C, breast strap D, or its equivalent hames D', D; 2nd. The method of securing the cross-bar B, by the hook and eye a, b, at one end, and the sliding pin f, at the other, or their equivalent; 3rd. The combination with the pin f, and cross-bar B, of the cord r; 4th. The socket Q, and bearing r, uniting the cross-bar and draft yoke; 5th. The combination of the swinging hames D', D, with the cross-bar B; 6th. The attachment of the hames to the curved arms G, G, which are centrally jointed to the cross-bar; 7th. The combination with the hames D', D, and curved arms G, G, of the shoulders Y, Y; 8th. The combination with the hames D', D, of the adjusting brace rods w, and 9th. The combination of the swivelled end z, with the stationary part z', of the pole-tip.

No. 1752. NATHANIEL T. WORTHLEY, Brunswick, Me., U. S., 11th November, 1872, for 5 years: "A Mechanical Motor." (Un moteur mécanique.)

So constructed as to impart a vortical reciprocating and intermittent rotary motion to an upright shaft.

Claim.—1st. The combination of the rotary shaft H, wheel K, spring I, pitman G, and crank-shaft E; 2nd. The rod F, head block a, screw k, pitman G, and shaft E, in combination with the shaft H, provided with the toothed wheel K, and loose collar K; 3rd. The treadle M, hinged to a, B, and connected to the collar a', by the rod N, in combination with the shaft E, pitman G, and rod F.

No. 1753. NATHANIEL T. WORTHLEY, Brunswick, Me., U. S., 11th November, 1872, for 5 years: "A Washing Machine." (Machine à laver.)

Consists in the construction and arrangement of an oscillating frame, sustained by spiral springs, and carrying two or more small feed rollers used in connection with a large corrugated roller.

Claim.—The oscillating frame consisting of the rockers D, and connecting bar D', and carrying the rollers d, d, in combination with the grooved or corrugated roller C, and springs F.

No. 1754. OLIVER T. SPRINGER, Wellington Square, Ont., 11th November, 1872, for 5 years: "A Wind Power." (Un moteur à vent.)

A cam and levers working on the shaft and arms of the wind power so that the sail attached to the arms can be set full or slanted in any degree or laid off when stoppage of motion is required. This invention is also adapted to pumping water from wells or streams.

Claim.—The combination and arrangement of the several parts, namely: the cam c, working in the shaft A, worked by means of the clutch M, and segment N, and lever U, in connection with the levers D and F, for moving the arms that set the sails; also in the levers L, and the connections for turning the sails, together with the guides x, attached to the arms in which the sail arms work.

No. 1755. JOHN WELLBY, Kingsclear, N. B., 11th November, 1872, for 10 years: "A Railway Dust Preventer." (Un garde-poussière de chemin de fer.)

A slanting side screen or frame with adjustable roller and blind covering the wheels.

Claim.—The arrangement of the side screen A, and D, roller and blind B, as specified.