

section A² and of a lid B; 2nd. The combination of the case A having guide slots and pivot hooks C with side trunnions of the can to support the same in raised position (tilting); 3rd. The combination of the can D, having side trunnions, outer section A² having side slots and pivot hooks C, inner section A¹ attached to can, and lid B having staples for entrance of locking hooks to secure case firmly to can.

No. 7682. Improvements on Car-Couplings.
(*Perfectionnements aux attelages de wagons.*)

James M. Keen, Digby, N. S., 25th July, 1877, for 15 years.

Claim.—1st. The draw head A having neck d and slot b c. 2nd. The improved coupling pin consisting of body B, having button C and bevelled flange D; 3rd. The draw head A having neck d and slot b c, in combination with the coupling pin B having button C and bevelled flange D.

No. 7683. Improvements in Horse-powers.
(*Perfectionnements aux moteurs.*)

Thomas E. Adams, North Evans, N.Y., U.S., 25th July, 1877, for 15 years.

Claim.—1st. The combination of the upright shaft A, of the band wheel B made vertically adjustable thereon so as to be lowered to the floor or ground; 2nd. The wheel B provided with one or more spaces H for the draft animals and having the draft staples g arranged, one in the rim c and one in the brace f, in a line drawn through, the centre respectively of the wheel and spaces H so as to apply the draft; 3rd. The combination with the wheel B, provided with one or more spaces H, of the U shaped pusher or draft device K arranged upon the wheel and secured with its forward ends respectively to the rim and brace of the wheel, at or near the middle of the space H; 4th. The combination with the wheel B provided with square hub d and space H for the draft animals, of the flat shaft A and wedges b.

No. 7684. Improvements on Car Axle Boxes.
(*Perfectionnements aux boîtes d'essieux de wagons.*)

Alexander Calder, London, Ont., 25th July, 1877, for 5 years.

Claim.—1st. In combination with the box A having extensions B B for seating rubber springs, the spiral spring C and stop block D; 2nd. The friction saddle E, grooved longitudinally to receive the journal K and having pivotal and rocking motion within the box A; 3rd. The working of the box A together with the extensions B B and spiral spring C without friction pedestals on the side of the box as is usual in street and railway cars; 4th. The combination of the box A in conjunction with the extensions B B and rubber springs thereon together with the spiral spring C and stop block D, and saddle of brass or other suitable metal grooved longitudinally to receive the journal K.

No. 7685. Galvanic Sheating for Ships.
(*Blindage galvanique de navires.*)

Joseph Betteley, London, Eng., 25th July, 1877, for 5 years.

Claim.—1st. The galvanic sheating composed of one half surface quantity of iron to that of zinc; 2nd. The employment of paper, felt, or other fibrous body, between iron and zinc used as a sheating for ships for producing a galvanic action in sea water.

No. 7686. Improvements on Hame Fasteners.
(*Perfectionnements aux attache-attelles.*)

George Jeffrey, Bramford, Ont., 25th July, 1877, for 5 years.

Claim.—The bar C provided with the ridge m when so arranged as to shut into the slotted bar B, and in connection with the latter to swing its inner end through the bar A, and so moving m side the line of draught as to make itself self-locking.

No. 7687. Improvements in Fire Escapes.
(*Perfectionnements aux appareils de sauvetage d'incendie.*)

Sarah L. McKee and Benjamin F. McKee, (Assignees of George W. McKee) Brooklyn, N.Y., U.S., 27th July, 1877, for 5 years.

Claim.—1st. A metal tube G sliding on a rope as a means of escape from fire; 2nd. A metal tube G provided with eccentric H, brake K attached and operated conjointly by links L, L, for braking or locking the device on the rope; 3rd. In combination with the tube G, of the lower metal tube P and provided with lever brakes R R, rods or chains T T, rollers e e, rods or chains W W, foot board V, seat U; 4th. In combination with the tubes G of the ring N and belt O; 5th. In combination with the tube G of the hand brake M; 6th. The combination of the hooked brackets A, metallic tubes G P with their brakes H K M R R, belt O, seat U, rods or chains T T, Q Q, pulleys e e, chains W W, foot board V, cord X and pulleys A, all constructed to form a fire escape; 7th. In combination with the fire escape the sack Y attached to hooks f f of the rods or chains T T.

No. 7688. Improvements on Paddle Propellers.
(*Perfectionnements aux propulseurs a aubes.*)

William Davenport, Philadelphia, Pa., U.S., 27th July, 1877, for 5 years.

Claim.—Two or more parallel cranks having vertical paddles B suspended from one shaft and braced from the other.

No. 7689. Improvements on Force Pumps and Fire Engines.
(*Perfectionnements aux pompes foulantes et aux machines a incendie.*)

Walter Scott, Richmond, Que., 27th July, 1877, for 5 years.

Claim.—1st. The cylinder a, piston b, passages c d g, valves e h in combination with box k, passage n and valves h m; 2nd. The combination of the piston rod q, yoke r, links s t and lever p.

No. 7690. Improvements on Button Machines.
(*Perfectionnements aux machines a boutons.*)

Charles Radcliffe, Newark, N. J., U. S., 27th July, 1877, for 5 years.

Claim.—1st. The combination of a hopper F, tube E and vibrating brush f; 2nd. The tilting hopper H arranged with a depression in and extending across the bottom for receiving and arranging simultaneously a series of metal faces for buttons or similar articles; 3rd. The combination of a hopper F, vertical tube E, vibrating brush f and the revolving plate; 4th. The combination of the tilting hopper with its slot like depression, the reciprocating bar K and the revolving plate; 5th. The combination of the revolving plate and revolving brush and guide for conducting articles to be stamped or punched, to depressions in the edge of said revolving plate; 6th. The combination of the tilting hopper, revolving plate, rotating brush and guide; 7th. The combination of the hopper F, the tilting hopper H and revolving plate; 8th. The combination of the hopper F, vibrating brush f, tilting hopper H, vibrating brush l, reciprocating bar K and revolving plate; 9th. The combination of the tilting hopper, reciprocating bar, revolving plate and one or more punches; 10th. The combination of the tilting hopper, reciprocating bar, revolving plate, revolving brush, and one or more punches; 11th. The combination of the hopper F, tilting hopper H, revolving plate, revolving brush and one or more punches; 12th. The combination of one or more vertical tubes for conveying fillings or faces, the revolving plate and one or more punches; 13th. The combination of the vibrating brush f, reciprocating bar K and punches, all operated from the same sliding frame; 14th. The combination of the tilting hopper and reciprocating bar operated by the same cam wheel.

No. 7691. Apparatus and Process for the Separation and Treatment of Oils.
(*Appareil et procede de separation et de traitement des huiles.*)

Hermann Frasch, Philadelphia, Pa., U. S., 27th July, 1877, for 5 years.

Claim.—1st. Causing the oils to pass in thin films over pipes or other heated surfaces, and at the same time exposing them to a confined draft of air; 2nd. Causing the oils to pass in thin films, over heated pipes or other surfaces in contact with an air draft in an air flue, and passing the said draft and separated light oils afterward through suitable condensers and receivers; 3rd. A series of horizontal heating pipes, whose lower edges are respectively provided with serrated drip plates, and a feed pipe, the same being relatively arranged within an air flue having a draft opening at either extremity whereby the liquid under treatment may be subjected to a confined draft of external air; 4th. The combination with a vertical series of horizontal heating pipes, the latter constructed with drip plates, of an upper feed pipe constructed to draw into the liquid over the length of the said series of pipes and an air flue having a draft opening at either extremity within which latter the former parts are exposed to a vertical draft of air; 5th. The combination with the serrated pipes A, the feed pipe C and the air flue D of one or more condensers and receivers P.

No. 7692. Improvements in Cigars.
(*Perfectionnements dans les cigares.*)

James H. Campfield, Ottawa, Ill., U. S., 27th July, 1877, for 5 years.

Claim.—A cigar provided near its mouth end with a porous substance saturated with tannic acid.

No. 7693. Machine for Making Horse Shoe Nails.
(*Machine a fabriquer le clou a cheval.*)

James D. Sumner, Lexington, Mass., U.S., 27th July, 1877, for 5 years.

Claim.—1st. The moveable stamper l, in combination with the stationary blocks or dies m n and the projections n m on the block m, or vice versa; 2nd. In combination with the moveable stamper l and its stationary dies m n of the movable punch or punches f with its stationary die t; 3rd. In combination with the moveable stamper l, its stationary dies or blocks m n, the movable punch or punches f and die t, of an intermittent feeding mechanism; 4th. The combination of the moveable stamper l and dies m n with the intermittent feeding mechanism, and the oscillating tunnel y z, with its adjusting screws 3 4 4, movable cover l, and spring 5 5 6; 5th. In combination with the stationary dies m n, projections n m, the adjustable guides q q with their regulating screws p p s s; 6th. In combination with the movable punch or punches f, its stationary die t, guide pieces u u with their lips or projections r and regulating screws w w.

No. 7694. Improvement on Rigging Ratlines.
(*Perfectionnement des enfile-harts de hauts.*)

John C. Knowlton, Rockport, Mass., U.S., 27th July, 1877 for 5 years.

Claim.—1st. The combination of the clasp A, bolt D and nut E, with the hook F all constructed and adapted to operate with relation to the shroud and ratlin; 2nd. The combination of the clasp, bolt, nut and hook adapted to secure the middle of the ratlin to the central shroud with the clasp, bolt, nut and thimble applied to the outer shrouds and the eyes of the ratlin ends.

No. 7695. Improvements in Organ Stop Actions.
(*Perfectionnements aux jeux d'orgues.*)

John A. Kydd, Bowmanville, Ont., 27th July, 1877, for 5 years.

Claim.—1st. The stop levers J connected to the notes H by the rods G resting upon the hinged plates E, provided with the arms D and connected to the pivoted lever B by the rods C C, in combination with the key pedal A; 2nd. The hinged plates E provided with the vertical lanced plates F b tating against the end boards N, in combination with the springs I; 3rd. The plates K hinged to the top of the instrument and provided with arms L resting upon the stop levers J, in combination with the stops M.

No. 7696. Improvements on Pea Harvesters.
(*Perfectionnements aux moissonneuses a pois.*)

William Boyd and William Bentley, Strathroy, Ont., 27th July 1877 for 5 years.

Claim.—1st. The rakes A, B, frames C D outer frame F chains G J standards H K, main bar I, tongues P Q, bar R, standards S U and lever T in combination with wheels L M and studs N O; 2nd. In combination with the above, the foot board V and chains X N.