

No. 3437. JOHN H. ZIEGLER and BENJAMIN ZIEGLER, Berlin, Ont., 13th May, 1874, for 5 years: "Improvements in the Construction of Vehicles." (*Perfectionnements dans la fabrication des voitures.*)

*Claim.*—The improvement in the construction of the spring reach C, in combination with a crotch D, in the mode of attachment of the crotch D, D, to the said axle C, by means of ties F, F.

No. 3438. DAVID BRADFORD, Hamilton Ont., 13th May, 1874, for 5 years: "Improvements in Car-Couplings." (*Perfectionnements aux atelages des wagons.*)

*Claim.*—The partial revolving coupling bar D, with a row head D, secured to and in combination with the moveable buffer, B, and also provided with projection c, and spring H; 2nd. The combined moveable buffer B, with recess g and drawhead B, operated, constructed and arranged as specified; 3rd. The arrangement of the spring E, secured to the bottom of the car operating in combination with the projection c, of the coupling bar D, as specified; 4th. The moveable buffer and draw head B, B, operated by the horizontal lever K, and upright one L, as specified.

No. 3439. SAMUEL WRIGHT, Hillsborough, Mo., U. S., 13th May, 1874, for 5 years: "Self-Adjusting Step-Ladder." (*Une échelle automatique à queue.*)

*Claim.*—A step-ladder having its bracelegs secured to it by means of joints, so as to allow each leg a limited, free, and independent movement as set forth.

No. 3440. LEWIS PCND, Foxborough, Mass., U. S., 13th May, 1874, for 5 years: "Hose-Coupling Spanner." (*Clé d'assemblage des tuyaux élastiques.*)

*Claim.*—1st. In the hose coupling spanner, constructed as described and shown, viz. of two crossed levers A, B, pivoted together and provided not only with hooks c, c, and eyes a, a, disposed as explained, but with the finger opening f, between the longer arms, instead of a hole a, in each of the shorter arms, such arms may be furnished with a stud or projection to enter a corresponding hole in the coupling, provided such coupling has holes instead of studs to operate with a spanner.

No. 3441. WILLIAM J. SHILLING, Brooklyn, N. Y., U. S., 13th May, 1874, for 5 years: "Improvements in Locks." (*Perfectionnements aux serrures.*)

*Claim.*—The circular lock casing A, with the flange c, screw threads d, and cut h, in combination with the mechanism of a lock as set forth.

No. 3442. CHARLES W. WOODFORD, Montreal, Que., 13th May, 1874, for 5 years: "Manufacture of Horse Shoe Nails." (*Fabrication des clous à cheval.*)

*Claim.*—A new article of manufacture in a horse shoe nail having the black scale removed from the point and A, while it is retained in the head B, and body to that end as described.

No. 3443. GEORGE STACY, London, Eng., 13th May, 1874, for 5 years: "Revolving Hammer." (*Marteau tournant.*)

*Claim.*—1st. The hammer stock or hammer E, carried by a rotating shaft or boes C, and controlled in its centrifugal motion by a stop d, whereby the action of the hammer stock or hammer is gauged or limited; also the application of such combination with or without the addition of cutters, steel blocks or grooved surfaces to the hammers or hammer stocks to the purposes set forth; 2nd. The self-adjusting wedge or key fastening as described with reference to figure 3, and its application to hammer stocks.

No. 3444. PERLEY M. THOMPSON, Ascot, Que. (Assignee of Albert M. Putnam,) 15th May, 1874, for 5 years: "Improvements on Pumps." (*Perfectionnements aux pompes.*)

*Claim.*—1st. The combination and arrangement of the connecting rod a, arm b, shaft c, with packing d, and brake f, when used in connection with the pump body A; 2nd. The projection B, from the back portion of the pump body, A, forming a chamber i, inside to receive the shaft c, at a distance back from the centre of the diameter of the pump body A, giving length of arms in such a way as to enable the connecting rod A, to be operated in a direct manner in the centre of the pump body A, over the valves; 3rd. The semi-globular shaped cap or cover C, forming a concave air chamber inside from two to four inches deep; 4th. The brass valve seat K, inserted in the opening through the centre of the hose of the pump; 5th. The combination D, projecting on the upper surface of the spout E, to which hose or pipe may be attached to convey the water to the upper storeys of a building.

No. 3445. PETER A. RILEY, Boston, Mass., U. S., 18th May, 1874, for 5 years: "Apparatus for Supplying Water Closets with Water." (*Appareil à fournir l'eau aux cabinets d'aisances.*)

*Claim.*—The hydraulic apparatus as described consisting of the primary and auxiliary receivers A, B, the intervening diaphragm C, the valves D, E, valve opening a, a, stems E, K, float L, levers I, F, inducts O, N, and duct T, all arranged and combined in the manner specified; in the cup H, either open at top or provided with a foraminous cover d, as set forth in combination with and applied to such apparatus as specified.

No. 3446. SIMON W. FRANCE, Hamilton, Ont., 19th May, 1874, for 5 years: "Improvement in Feed Water Heater for Steam Boilers." (*Perfectionnement des chauffeurs d'eau d'alimentation des chaudières à vapeur.*)

*Claim.*—1st. The water jacket, surrounding a portion of the smoke escape flue, with the cross tubes e, e, passing through and due, in combination with the steam tube a, a, and b, h, or other equivalent means for conveying exhaust steam through said water jacket to aid in heating water therein so that the feed water shall be heated by the combined action of the smoke and heated air in escaping from the furnace, and the exhaust steam from the engine as described; 2nd. The mode of passing the water up through the heater as described; 3rd. The perforated steam pipes for the purposes described; 4th. The spiral arrangement of the cross-tubes e, e, so as to offer less obstruction to the draught; 5th. The return check valve in combination with the heater; 6th. The pipes u, u, and cone f, in combination with the water jacket for the purpose described.

No. 3447. PHILIP MUTTER, GEORGE BLACK and WALTER W. SIMS, Hamilton, Ont., 19th May, 1874, for 5 years: "Improvements in Clothes Pins." (*Perfectionnements aux épingles à linge.*)

*Claim.*—A clothes pin a, of galvanized tinued or plated wire in combination with the head b, as described and shown in figures 1, 2, 3 and 4.

No. 3448. SIMON W. FRANCE, Hamilton, Ont., 19th May, 1874, for 5 years: "Cooking Stove Boiler Attachment." (*Disposition des rocles à cuisine pour les bouilloires.*)

*Claim.*—1st. The extension attachment to a cooking stove, for supporting a boiler or hot water reservoir, provided with the channel K, K, damper e, and escape flue P, all constructed, combined and arranged to operate as described; 2nd. In combination with said channel K, K, damper e, and escape flue P, the partitions or deflectors G, G, as set forth.

No. 3449. THOMAS MILLER, New York, U. S., 19th May, 1874, for 5 years: "Fire Extinguishing System of Water Pipes and Escape." (*Système de tuyaux hydrauliques extincteurs d'incendie et appareil de sauvetage.*)

*Claim.*—1st. The application to the vertical water supply pipe or pipes D, of pins or bars J, to facilitate personal ascent or descent. 2nd. In providing the standing pipes D, with branches F, having valves operated by rods I, arranged to be accessible for operation at a convenient height from the ground; 3rd. The valve rods V, and N, arranged to operate valves as shown for the inlet and outlet of water to the pipe D; 4th. The climbing pins J, valves, and rods I, branches F, and rods V, and N, arranged and applied to a pipe or pipes D, as set forth.

No. 3450. ASBURY R. WILLIAMS and JOEL S. EDWARDS, Marshalltown, Iowa, U. S., 19th May, 1874, for 5 years: "Improvements in Kilns for Burning or Drying Bricks, Tiles and Earthenware and Mode of Setting the Material to be Burned or Dried." (*Perfectionnements aux fourneaux à cuire ou sécher les briques, les tuiles, et la poterie et manière de placer les objets à être cuits ou séchés.*)

*Claim.*—1st. The manner of constructing the front wall of the kiln in buttressed sections to support the arched roof combined with the grate furnaces projected on the face of the kiln with diminishing hot air chamber above the fire-bed opening all the way up inside as described; 2nd. The mode of setting the material to be burned or dried for the purpose of controlling the draught and distributing the heat as described; 3rd. The damper openings into horizontal flues; 4th. The damper opening in the partition wall and the damper flues from one double kiln to another; 5th. The horizontal flues at rear of kiln conducting to the chimney; 6th. The damper arrangements for closing the openings from one flue to the other and from the flues to the chimney; 7th. The mode of constructing the end of the kiln by which the same is as far as practicable and economical made permanent.