

No. 23,794. Wire Fence Tool.*(Machine à Clôture en Fil de Fer.)*

James B. Barron, Brunswick, John B. Winslow, Standish, James A. Winslow and Albert G. Winslow, Bath, Me., U. S., 10th April, 1886; 5 years.

Claim.—1st. The combination, with the stock A extended to form a handle B and having a transverse groove across its face, of the jaw C, pivoted at c to the stock, and having a slot at its lower end, the screw D hinged to the stock to enter the said slot at, and a nut E adapted to clamp the jaw C over the wire groove in the stock, substantially as set forth. 2nd. A combined fence wire stretcher, cutter and twister, consisting essentially of the stock A, having a handle B and a transverse wire groove in its side face, the jaw C pivoted to swing over said groove and slotted at its lower end, the screw D hinged to the stock to enter the slot, a hand nut E adapted to clamp the jaw over the transverse groove, the spring cutter H, A on the end face of the stock, the twisting-bar I having holes J and K, and the loop L, over which the stock for holding the splicing tool in place, substantially as set forth.

No. 23,795. Stuffing Box for Steam Engines.*(Boite d'Etoupe pour Machines à Vapeur.)*

Solby C. Berry, Williamstown, W. V., and J. B. Waters, Marietta, Ohio, U. S., 10th April, 1886; 5 years.

Claim.—1st. The combination, with the cylinder head, of a flanged adjustable stuffing box, which has a sliding movement upon the cylinder head, so as to adapt itself to the movement of the piston rod, substantially as shown. 2nd. The combination of a perforated cylinder head, the flanged stuffing box, and a ring which secures the stuffing box in position upon the cylinder head, substantially as described. 3rd. The combination of the perforated cylinder head, the movable stuffing box, the ring which holds the stuffing box in position, the clamping screws and the gland, substantially as specified.

No. 23,796. Manufacture of Hollow Axles.*(Fabrication des Essieux Creux.)*

Walter Gillespie and Pillaus S. Stevenson, Montreal, Que., 10th April, 1886; 5 years.

Claim.—1st. The art of forging hollow axles on a mandrel by forming them in such mandrel in shaping dies, and then turning them constantly on a flat surface while under the impact of a hammer of like shape operating at right angles thereto, thereby spreading the axle and loosening the mandrel so that it can be drawn out, all substantially as herein set forth. 2nd. A hollow axle forged in a mandrel, as herein set forth.

No. 23,797. Hub Boring Machine.*(Machine à Percer les Moyeux.)*

Andrew B. Jardine (Assignee of Cyrus Bechtel), Hespeler, Ont., 10th April, 1886; 5 years.

Claim.—1st. In a hub boring machine, the combination, with the carriage F, of the pivoted tool-bar G, spring L and adjustable carriage J, provided with a mould-board K, as set forth. 2nd. In a hub boring machine, the combination, with the pivoted tool-bar G, of the adjustable carriage J having mould-board K, stop bar M and spring L, as set forth. 3rd. In a hub-boring machine, the combination, with the adjustable carriage J, having a mould-board K, of the pivoted tool-bar G and spring L, as set forth. 4th. The combination of the pivoted tool-bar C, having cam I, and carriage J having mould-board K, as set forth.

No. 23,798. Boiler Tube Cleaner.*(Nettoyeur de Bouilleur de Chaudière.)*

Frank M. Clark, Tilton, N. H., Frederick R. Low, Chelsea, Mass., and Charles F. Hunt, Worcester, Mass., U. S., 10th April, 1886; 5 years.

Claim.—1st. In a tube-cleaning device, the combination of a curved tubular guide suitably supported outside the fire-box, and longitudinally slotted near the outer end, with an internal flexible connecting-rod carrying a scraper at its end, with an external sleeve fastened to said connecting-rod through said slot, and adapted to be reciprocated longitudinally on said guide-tube and to reciprocate the connecting-rod longitudinally of said slot, substantially as described. 2nd. The combination of the curved guide-tube and the interior flexible connecting-rod carrying at one end the scraper II, and at the other end to a handle whereby said connecting-rod may be reciprocated to and fro along the axis of said guide-tube, substantially as described. 3rd. The combination of a curved guide-tube, the ribbon connecting-rod, the tube-scraper and the foot for supporting the guide-tube, all substantially as described.

No. 23,799. Truss. (Bandage Herniaire.)

Adeline M. L. Armstrong (Assignee of James L. Armstrong), Ottawa, Ont., 10th April, 1886; 5 years.

Claim.—1st. A truss, consisting of a round steel wire band having sliding extensions attached by tubular couplings, and a sectional pad carried detachably by a spiral spring, applied torsionally and adjustably secured to the band by a movable collar. 2nd. The combination of the band A, tubular couplings a, extension A', loops A'', collar B, spiral spring C and pad D, Di, Du. 3rd. The combination of the band A, extensions A', tubular couplings a, series of holes a', set screws a'', collar B, eye b, set screw b1 and eye b11. 4th. The combination of the band A, A', collar B, spring C and pad D, Di, Du. 5th. The combination of the pad D, rim D1, staple d1, plate D1, pin d, post d1, set screw d11 and spring stem c1. 6th. The combination of the collar B, eye b, set screw b1, eye b11, spring C, end c and stem c1, all substantially as shown and described and as and for the purpose set forth.

No. 23,800. Lime Kiln. (Four à Chaux.)

David D. L. McCulloch, Gardiner, Me., U. S., and The Dudswell Lime and Marble Company, Sherbrooke, Que., 10th April, 1886; 5 years.

Claim.—1st. In a lime kiln having a number of fire arches on one side, with their flare inward to embrace the sides of the cupola, a lesser number of fire arches on the other side with their flare to the centre of the cupola, as shown and described for the purposes set forth. 2nd. In a lime kiln, having a number of fire arches on one side, with their flare towards the centre of the cupola, a greater number of fire arches on the opposite side with their flare towards the sides of the cupola, as shown and described and for the purposes set forth. 3rd. The combination, with a lime kiln, of a series of water boxes on the sides of the ash pits, or other suitable position, as shown and described and for the purposes set forth. 4th. In a lime kiln, a draw, with draw-plate lining the upper surface, and having a lip or groove on its outer edge to receive the upper edge of the door, having an internal cylindrical face and axially pivoted and provided with arms lever, and handle or other suitable means to open the same, all as shown and described and for the purposes set forth.

No. 23,801. System of Heating Buildings and Houses by Gas. (Système de Chauffage des Edifices et Maisons par le Gaz.)

Cyrille Duquet, Quebec, Que., 14th April, 1886; 5 years.

Claim.—1st. In a steam or hot water furnace, the draft tubes F provided with sliding valves F', substantially as and for the purpose hereinbefore set forth. 2nd. In a steam or hot water furnace, a crown sheet D, an inner cylinder shell rivetted thereto, a series of drop tubes D, and draft tubes F, substantially as and for the purpose hereinbefore set forth. 3rd. In a steam or hot water heating furnace, a gas burner H, in combination with draft tubes F and valves, substantially as and for the purpose hereinbefore set forth. 4th. In a steam or hot water heating furnace, the draft tubes E, gas burner H, and controlling draft tubes F', substantially as and for the purpose hereinbefore set forth. 5th. In a steam or hot water heating furnace, boiler C provided with steam pipes B, in combination with pipes G, I and E, substantially as and for the purpose hereinbefore set forth. 6th. In a steam or hot water heating furnace, the double casing A having pipe B, and fitted through with pipes, and tubes K, G, I and B, substantially as and for the purpose hereinbefore set forth. 7th. In a steam and hot water heating furnace, a series of tubes in an inner shell, provided with draft tubes F, a steam or water space having draft tubes E, and steam pipes B and B1, a hot water space having controlling draft tubes F, cold water and return tubes G and I, and a gas burner J for mixed gas and air, all for the purpose of heating buildings and dwellings by gas, as described, and for the purpose hereinbefore set forth.

No. 23,802. Toboggan. (Tabogganne.)

Camillo Goutesse, Montreal, Que., 14th April, 1886; 5 years.

Claim.—1st. The novel construction in a toboggan, of the wood formed of a double curved configuration, substantially as described. 2nd. The novel construction in a toboggan, of the rail formed of two heights o and p, substantially as described. 3rd. The novel construction in a toboggan, of the underside formed with grooves k, having the under part of the fasteners arranged therewith, substantially as shown and described.

No. 23,803. Communicating to and from Railway Vehicles by Electricity. (Communication entre les Voitures de Chemin de Fer par l'Electricité.)

Lucius J. Phelps, New York, N. Y., U. S., 14th April, 1886; 5 years.

Claim.—1st. The combination, substantially as described, of a line conductor, a vehicle movable in a direction parallel with the same, and conductor upon the vehicle, substantially parallel with and in inductive proximity to the line conductor, the ends of said vehicle conductor being joined in closed electric circuit. 2nd. The combination, in a system of electric transmission or transfer to and from a moving vehicle, of a line conductor, one or more strands of conductor placed upon the vehicle, and arranged substantially parallel with but in suitable inductive proximity to the line conductor, and return connections of said strands removed as far as practicable from close inductive proximity to the line. 3rd. The combination with a line conductor extending along a track, of a coil of wire (as B C) carried upon a vehicle moving over said track, and having its portion B parallel or substantially parallel with the line conductor. 4th. The combination, with a line conductor extending along a railway, of a coil of wire suspended beneath a car or vehicle, and having one portion (as B) parallel or substantially parallel to the line conductor. 5th. The combination, substantially as described, of the line conductor, the vehicle conductor, and the containing pipe or conduit suspended beneath the car, and connecting with depending pipes or conduits (as O), as and for the purpose described. 6th. The combination, with the line conductor, of the vehicle conductor having its return portions carried to one side out of plane with the line conductor. 7th. In a system of electric induction, transmission or transfer to and from a moving vehicle, the combination of a line conductor, a vehicle conductor, and a polarized relay in closed circuit in the vehicle conductor. 8th. The combination, substantially as described, of a line conductor, a vehicle conductor, a transmitting apparatus for sending currents through the closed circuit of the vehicle conductor, and a polarized relay connected with the line conductor. 9th. The combination, with the line conductor, of a closed circuit conductor upon the vehicle, a generator and circuit breaker upon the vehicle, and a polarized relay connected to the line conductor. 10th. The combination, in a system of transmission by induction to and from a moving vehicle, of a transmitter, a relay, and contact points controlled by the transmitter for momentarily closing a shunt around