

No. 21,626. Manufacture of Anhydrous Oxide of Barium. (*Fabrication de l'Oxide de Barium Anhydre.*)

Leon Q. Brin and Arthur, Brin, Paris, France, 9th May, 1885; 5 years.

Claim.—The manufacture of anhydrous oxide of barium or baryta, free from nitric acid, carbonic acid and moisture, by heating nitrate of baryta and then cooling the same, or allowing it to cool in a vacuum or partial vacuum, or in a space or chamber from which moisture and carbonic acid are excluded, substantially as hereinbefore described.

No. 21,627. Chemical Fire Engine.

(*Extincteur d'Incendie Chimique.*)

William Morrison, Toronto, Ont., 9th May, 1885; 5 years.

Claim.—1st. In a chemical fire engine, in which the recharging tank or water reservoir is located above the cylinder, the hollow trunnions C fixed to either end of the divided cylinder B and arranged to support it horizontally, in combination with the discharge pipe D passing through the trunnions into the chambers at either end of the cylinder, and connected at their outer ends to a discharge pipe common to both. 2nd. In a chemical fire engine, in which a recharging tank or water reservoir is located above the cylinder, the hollow trunnions C fixed to each end of the divided cylinder B, and fitting into bearings formed on the main frame of the machine, so that the said cylinder may be revolved on the bearings with the trunnions as pivot-points holes being made in the side of the cylinder leading into each chamber and designed to hold the acid pot L, in combination with pipes K, provided with suitable cut-off valve or valves, through which the contents of the recharging tank are conveyed into the cylinder, substantially as and for the purpose specified. 3rd. In a chemical fire engine, the combination of a horizontal cylinder divided into two chamber, and pivoted in suitable bearings formed in the frame, and arranged to support hollow trunnions fixed to the ends of the cylinder, the discharge pipes D extending to the ends of the cylinder, the discharge pipes D extending through the hollow trunnions C into the chambers formed within the cylinder to a point near the bottom side of the said cylinder, with a discharge pipe E common to both discharge pipes D, and provided with a suitable outlet to which a hose or pipe may be connected, for the purpose of forming the discharge pipe D into syphons, substantially as and for the purpose specified. 4th. In a chemical fire engine, having a horizontal cylinder divided into two chambers, and pivoted in suitable bearings formed in the frame, and arranged to support hollow trunnions fixed to the ends of the cylinder, the discharge pipes D extending through the hollow trunnions C and arranged to connect with the discharge pipe E, in combination with cut off valve or valves, by which the communication between the pipes D and E may be regulated at pleasure. 5th. In a chemical fire engine, the combination of the divided cylinder B, the pipes D connecting with the discharge pipe E and the ends of the cylinder and provided with cut-off valves F, and the horizontal rods G and H supported by the pivoted links I, all arranged substantially as and for the purpose specified.

No. 21,628. Car-Coupling. (*Accouplage de Chars.*)

Joseph McCready, New Brighton, Pa., U.S., 9th May 1885; 5 years.

Claim.—1st. In a car coupling, the combination, with the draw head, of the spring-actuated bumper-case, the link guiding apron pivoted at its rear end to the draw-head, and the connected-rods attached at one end to the bumper-case and at their other-ends to the apron, substantially as set forth. 2nd. The combination of the draw head having longitudinal slots in its sides, the bumper-case arranged therein and having perforated lugs projected rearwardly from its opposite sides, the transverse shaft placed through the openings in the lugs, and having its ends extended through the slots in and beyond the draw-head, the spring, the apron having its forward end adapted to guide the link and hinged at its rear end to the draw-head and the rods connecting the transverse shaft and the apron, all arranged and operating substantially as and for the purpose specified.

No. 21,629. Sewing Machine Hand and Treadle. (*Table et Marche de Machine à Coudre.*)

Philip Diehl, Elizabeth, N.J., U.S., 9th May, 1885; 5 years.

Claim.—1st. In a sewing-machine stand, a cross-brace having supports for both the band-wheel and the treadle integral with said brace. 2nd. In a sewing-machine stand, a cross-brace having supports for both the band-wheel and the treadle integral with said brace and provided also with means for adjusting and taking up the wear of such band-wheel and treadle. 3rd. In a sewing-machine stand, a cross-brace adapted to connect the legs or side pieces thereof, provided at one side with bearings for the fly-wheel crank-shaft, and having a support at its base for the treadle, substantially as set forth. 4th. The combination with the cross-brace of a sewing-machine stand of a crank-shaft and a treadle, both mounted in the said brace, substantially as set forth. 5th. A cross-brace for sewing-machine stands having at its base a cross-bar, combined with a treadle mounted in said cross-bar, substantially as set forth.

No. 21,630. Button Hole Sewing Machine.

(*Machine à Coudre. Faisant les Boutonnieres.*)

James G. Green, Rochester, N.Y., U.S., 9th May 1885; 5 years.

Claim.—1st. The combination, with the reciprocating looper-carrier *g* carrying the loopers *i* and *n*, of the separately-pivoted spreaders *c* and *d*, the latter being provided with notch *e* and arm *r*, substantially as and for the purposes set forth. 2nd. The combination, with reciprocating looper-carrier *g*, provided with looper *l* and *n*, and arranged to operate the spreaders *c* and *d*, of the rock-shaft *f*, arm *c*,

connection, *G*, bent lever *D* *F* and cam-groove *a*, substantially as described. 3rd. In a mechanism for stitching button-holes, the combination of the horizontally-swinging looper-carrier *g*, provided with the looper *l* and *n*, roller *u* and the pivoted spreaders *c* and *d*, substantially as and for the purpose set forth. 4th. In a mechanism for stitching button-holes, the combination, with the reciprocating looper carrier, loopers and moveable spreaders, of a single cam-groove and suitable connecting mechanism for operating the spreaders from the looper-carrier, substantially as and for the purposes set forth. 5th. The combination, in a mechanism for stitching button-holes, of the reciprocating looper-carrier *g* having loopers *i* and *n* and roller *u*, with the spreaders *c* and *d*, substantially as and for the purposes described. 6th. The combination in a mechanism for stitching button-holes, of the spreaders *c* and *d*, provided with suitable cam-surfaces adapted to impart the proper motion thereto, with the pin or roller *u* and suitable mechanism for operating the loopers, substantially as and for the purposes set forth. 7th. In a mechanism for stitching button-holes, the combination of the single reciprocating pin or roller *u*, with the pivoted spreaders *c* and *d*, provided with cam-surfaces which actuate the spreaders at each end of the reciprocation of the roller by contact therewith, substantially as and for the purposes set forth. 8th. In a button-hole sewing-machine, a pivoted looper-carrier provided with two loopers for operating said carrier, substantially as set forth. 9th. In a button-hole sewing-machine, the combination, with two pivoted loop-spreaders, of a looper-carrier having two loopers and adapted to operate both of the said spreaders, and mechanism for operating said carrier, substantially as set forth. 10th. In a button-hole sewing-machine, employing a vertically and laterally reciprocating needle, a pivoted looper-carrier, provided with two loopers, combined with two pivoted loop-spreaders, arranged to vibrate across the line of the path traversed by the needle in its lateral movements, substantially as set forth.

No. 21,631. Ditching Machine.

(*Machine à Fossoyer.*)

Alexander McCamrel, Chesley, Ont., 9th May 1885; 5 years.

Claim.—1st. A ditching machine, constructed with a sloping shovel and sluice way having an elevator of pitched chain, or strap, provided with cups or plates thereon, which move up the sluice way and draws the clay from the mouth of the shovel along the sluice way and dumps it into a transverse spout suitably located to deliver the clay outwardly and clear of the ditch, as specified and shown. 2nd. In a ditching machine, constructed as described, with a sloping shovel, sluice way and elevator, the combination of the standards *I*, hinged angular bars *K*, an axle *L*, provided with the pulleys *O* on the ends of pulleys *N* on the elevator by means of the pulleys *O* on the ends of pulleys *J* of the elevator, a beam *T* hinged on frame *C* provided with two pulleys *T* pivoted on arms *12*, and counter weight *13* to which act as a lighter of the endless pitch chains which connect the pulleys *N* and *O* which drive the elevator, the whole constructed and arranged and operating substantially as and for the purpose set forth. 3rd. In a ditching machine, constructed as described, and the same, the combination of the frame *C* standards *A*, runner *B*, cross bars *S*, wheels *P* on cranked levers *R*, socket *e*, tongue *e*, pulley *e*, seat *E* and foot stands *e*, the plough *e* in front of the shovel, with coulters *e* and would boards *e* changeable with the cultivator tooth *e* of the rear ploughs *e* for covering in the tile when laid, the whole constructed and arranged and operating substantially as and for the purposes set forth.

No. 21,632. Letter Box. (*Boîte aux Lettres.*)

Abner S. Cook, Burlington, Iowa, U.S., 9th May, 1885; 5 years.

Claim.—A letter box *A*, provided with window *W*, perforated top *T*, lid *L* and bottom *B* hinged by strong springs, substantially as and for the purpose described.

No. 21,633. Wrench. (*Clé à Ecrrou.*)

Stephen D. Greenleaf, Stark, Me., U.S., 9th May, 1885; 5 years.

Claim.—1st. The combination, with the bar *A* and *C*, having recess *D* formed therein, of slide *E* and jaw *E*, (with recess *D*) automatically prevented from slipping, substantially as herein set forth. 2nd. The combination, with the slide *E* and jaw *E*, of the spring *G* carried in recess in bar *A*, as and for the purposes described.

No. 21,634. Hand Grenade for Fire Extinguishers. (*Grenade à Main pour Extincteurs d'Incendie.*)

John J. Harden, (Administrator of the Estate of Henry D. Harden,) Chicago, Ill., U.S., 9th May, 1885; 5 years.

Claim.—A hand grenade for fire extinguishers, consisting of two or more bottles, united into a single structure by suitable connecting devices, substantially as and for the purposes set forth.

No. 21,635. Toy and Model Horses, etc.

(*Chevaux Jouets et Patrons, etc.*)

Moritz Lindner, Berlin, Ont., 9th May, 1885; 5 years.

Claim.—A hollow top or model horse, or other animal, consisting of a flat wooden skeleton with or without ribs, having the bulky portions covered with a shell or skin moulded upon a properly-shaped model made in two halves, and consisting of cemented layers of a stiffened fabric, the slended limbs finished solid and secured to said skeleton, substantially as shown and described and for the purpose set forth.