

vacuum-creating mechanism and connecting pipes, substantially as and for the purpose specified. 4th. The combination of a series of dynamo-electric machines, having their armatures enclosed in vacuum boxes, with pipes I, main J, and vacuum pump N, substantially as and for the purpose specified. 5th. The combination of a series of dynamo-electric machines, having their armatures enclosed in vacuum boxes, with pipes I, valves I₁, main J, and vacuum pump N, substantially as and for the purpose specified. 6th. A dynamo-electric machine, provided with an air-tight case enclosing the armature in which a partial vacuum is maintained, and a removable cover or door to said case, substantially as and for the purpose specified. 7th. The combination in a dynamo-electric machine, of field magnet poles B, armatures C, shaft Cr, vacuum case D, metallic ring L, insulator disc J, and wires K passing to the commutator, substantially as and for the purpose specified.

No. 22,409. Portable Letter Press and Letter Book. (*Livre de copies de lettres et Presse à copier.*)

Angus MacGregor and Andrew Greig, Toronto, Ont., 7th September, 1885; 5 years.

Claim.—1st. In a roller letter-press, the hollow semi-cylindrical rollers A, I, having projections provided with holes B and screws F, as shewn and described. 2nd. In a roller letter-press, the hollow semi-cylindrical rollers A, I, having ridges C, holes D, and spikes E, as shewn and described. 3rd. In a roller letter-press, the letter-book B, I, having holes G, in combination with the hollow semi-cylindrical roller A, I, having spikes E and holes D, as shewn and described. 4th. In a roller letter-press, the rounding off of the upper semi-cylindrical roller on the side on which the letter-book B, I is placed, between the semi-cylindrical rollers, as shewn and described.

No. 22,410. Tag. (*Etiquette.*)

Clinton F. Webster, Brocton, Mass., U.S., 7th September, 1885; 5 years.

Claim.—1st. In a folding tag, the combination of the following instrumentalities, to wit: a body, an envelope cemented, or attached, to the inner side of said body, a flap and a socket adapted to receive and protect the free ends of said body and flap, the free end of the body being inserted in the socket and secured to the under side, or bottom thereof by an eyelet, and the upper side or top of said socket and also the free end of the flap being respectively provided with eyelets, all of which eyelets register when the ends of the flaps and body are inserted in the socket, substantially as described. 2nd. In a folding tag provided with a socket, an envelope having one of its ends secured to the free end of the body of the tag, and to the bottom portion of the socket, substantially as and for the purpose specified. 3rd. The improved folding tag herein described, the same consisting of the body A, flap B, envelope D, socket C and eyelets *h, r, z*, constructed, combined and arranged to operate, substantially as set forth.

No. 22,411. Drag Saw. (*Scie trainante.*)

John J. Parker, Aitkin, Min., 7th September, 1885; 5 years.

Claim.—1st. In a sawing-machine, substantially as described, the combination, with a main frame comprising two standards, as Q, with extension legs, as B, of a clamp, as I, carried upon the upper cross-bar of said frame, and a rod having an end to be engaged to the tree, and a shank to be engaged by the clamp, whereby the proper position of the machine may be obtained and the tree used as a support, as set forth. 2nd. The combination, with a main frame and an inner frame, as C, centrally pivoted therein, of a reciprocating carrier supported on the inner frame and a swing-frame pivoted within the frame C having connections with the saw, whereby horizontal and vertical movements is obtained by lever D₁, as set forth. 3rd. In a sawing machine, substantially as described, a swinging segment, as D, *d*₁, pivoted in a horizontally-oscillating frame, as C, and supported over, and in close proximity to, a reciprocating saw-carrier working in guides in said frame C, in combination with such carrier and with elastic straps securing the segment to the carrier and running in opposite directions from their points of attachment to the carrier to opposite sides of the segment, as set forth. 4th. The combination with the carrier F supported in an oscillating frame, as C, of a swinging frame pivoted centrally in said frame C over the path of the carrier and having a segment supported against the carrier, an opening-lever for moving the frame D upon its pivots in a vertical direction and the frame C upon its pivots in a horizontal direction and flexible straps securing the segment to the carrier, as set forth. 5th. The combination with the carrier F and the saw, of the pivoted oscillating frame D having segment *d*₁, the straps *d*₂ arranged near the outer edges of the carrier and connecting its rear portion with the opposite side of the segment, and the strap *d*₃ arranged reversely between the straps *d*₂, to apply uniform central force to the carrier in each direction of its stroke as set forth. 6th. The combination with the frame A, B, supported upon one side of the tree being operated upon by an adjustable bar, as F, and with a felling-saw and its carrier reciprocating in said frame, of a spiral spring H having a fastening device, as *h*, secured at one end to the free end of the felling-saw and at the other end to the side of the tree opposite the frame, as set forth. 7th. In a sawing-machine, substantially as described, the combination with a saw-carrier having a longitudinal track, as L, of a spring-arm M attached to the supporting-frame of the saw and having a friction-roller *n* engaged with said track and a dog for holding the arm in a strained position in the direction of the works, as set forth. 8th. The combination with the frame A, B, and brace rod for connecting the said frame to the tree being operated upon of a horizontally-oscillating frame, as C, supporting the saw-carrier, a vertically-swinging frame having a segment connected to the carrier and a spring-arm for holding the saw to the work, as and for the purpose set forth.

No. 22,412. Machine for Jointing Compressed Bent Staves. (*Machine à jointoyer les Douves.*)

Edward M. Jewett, Buffalo, N.Y., U.S., 7th September, 1885; 5 years.

Claim.—In a machine for jointing compressed bent staves, a stave-rest having the top curved to fit the bend in the stave to be jointed, substantially as specified, and the side curved to give the proper shape for forming the bilge, as and for the purposes described.

No. 22,413. Window Sash Lock.

(*Arrête-Croisée.*)

Thomas R. Nichols, Lynn, Mass., U.S., 7th September, 1885; 5 years.

Claim.—The duplex sash lock, substantially as described, consisting of the support-plate provided with the slide and bolt-guides, the two bolts having studs, as described, and one of the two obliquely-grooved bolt slides, and their impelling knobs and retracting springs, all being arranged and applied essentially as set forth.

No. 22,414. Drill Seeder and Grain Cultivator. (*Semoir-Traceur et Cultivateur.*)

James W. Rogers, Kingsmill, Ont., 7th September, 1885; 5 years.

Claim.—1st. The forked upright D, guiding wheel E, and shaft Er, in combination with the collar or flange F, formed with mortises F₁, collar G, formed with studs G₂, handles H, H, and frame C, substantially as shown and described and for the purpose specified. 2nd. The forked upright D, guiding wheel E and shaft Er, in combination with collar G₁, formed with studs G₃, tongue Jc, cap J, formed with mortises J₁, shoulder or collar X, dog H₂, spring J₃, handles H, H, rods H₆ and levers H₁, or their equivalent, substantially as shown and described and for the purpose specified. 3rd. The cog segment H₉, brace H₇ formed with flanges H₈, J₈, and handles H, H, in combination with the levers H₃, or their equivalent, rods H₅, spring bolt H₄, formed with flange J₄ and spring J₇, substantially as shown and described and for the purpose specified. 4th. The draw bar K, pivotally secured to the frame of the machine, in combination with the connecting rods N, N, hangers N₁, N₁, and draw bar L, substantially as shown and described and for the purpose specified. 5th. The bar G, formed with slot O₁, in combination with the bolt O, draw bars L, K, and O₄, rod O₂, chains O₂ and O₇, or their equivalent, rods N, N, hangers N₁, shaft O₅, pivotal arms G₃, and draw bars O₆, substantially as shown and described and for the purpose specified. 6th. The combination of the draw bars O₆, tooth holder O₈, socket arm Q, braces Q₁, elliptic spring Q₃, bracket Q₄, block Q₅, flange piece Q₇, with the drill teeth S₃, or cultivator teeth S, or S₁, substantially as shown and described and for the purpose specified. 7th. The guide strip P₂, rigidly secured to and suspended from the machine between each of the draw bars O₆, substantially as and for the purpose specified.

No. 22,415. Food Compound.

(*Composition Alimentaire.*)

John L. Bray, Hopewell, N.B., 7th September, 1885; 5 years.

Claim.—A compound or meal composed of equal parts of wheat, hulled barley and rice, to be used as an article of food for domestic use, as hereinbefore set forth.

No. 22,416. Locomotive Engine.

(*Machine Locomotive.*)

Madison L. Johnson, Galena, Ill., U.S., 7th September, 1885; 5 years.

Claim.—The combination with a locomotive engine, of the pipe E, constructed as shown, leading from the smoke-box downwardly and rearwardly, adjacent to the drive wheels and track-rails, and the steam-pipe F, leading from the boiler forwardly and rearwardly through the lateral opening *e*₁, of the pipe F, to near its discharge end, whereby the particles of combustion may be driven by a blast of steam against the rails and drive-wheels of an engine, substantially as and for the purposes specified.

No. 22,417. Embroidering Machine.

(*Machine à Broder.*)

Peter Whittle, Mount Forest, Ont., 8th September, 1885; 5 years.

Claim.—1st. In an embroidering machine, the needle B, having the groove or channel *a*, formed in its face side, substantially as and for the purpose described. 2nd. In an embroidering machine, the metallic plate E attached to the inner or rubbing face of one of the main parts, and having the slots *b, b*, formed in it, substantially as and for the purpose set forth. 3rd. In an embroidering machine, the spring part D having a part of it, F, made removable, substantially as shown and for the purpose set forth.

No. 22,418. Driving Check. (*Rêne à Cheval.*)

Erastus Lovell, Metcalf, Franklin, Mass., U.S., 8th September, 1885; 5 years.

Claim.—1st. The combination of the nose-band and its forks, provided with the cross-bars and friction rollers, as described, with the two rein straps extending in opposite directions between the forks, and crossing each other, and each connected with one and going through the other of such forks, all being substantially and to operate as and for the purpose as set forth. 2nd. The combination of the nose-bow, framed essentially as described, with two straps fastened to it near its end, and extending in opposite directions across and through it, and crossing each other in their passage across it, so as when used to bear against the rear of a horse's head, all being substantially as set forth.