

to engage such gear wheel, and a continuously rotating shaft and loose pinion, and friction devices to operate the loose pinion; 4th. The combination of a trimming shaft, its loose gear-wheel and clutching mechanism, to engage the wheel and rotate the trimming-shaft at suitable intervals; 5th. The combination of a trimming-shaft, a loose gear-wheel, clutching mechanism to engage them, and a pawl holding device, to hold the pawl of the clutching mechanism from contact with the loose gear-wheel; 6th. The pawl holding device, trimming shaft and its fixed arm, in combination with a stop, to arrest the motion of the trimming shaft as the pawl-holder removes the pawl from engagement with the loose gear of the trimming shaft; 7th. The continuously rotating shaft, its loose pinion, and friction devices, combined with devices to adjust and regulate the amount of friction between the friction-devices and loose pinion according to the resistance offered to the movement of the trimming mechanism; 8th. The combination with the toggle-joint, and nailing spindle, of a shouldered lever, and a connected treadle to lift it in order that the link may be operated to straighten the toggle joint; 9th. The combination with a treadle and teeth located at its fulcrum, of a gear and cam or equivalent to break the toggle joint off and lower the nailing spindle; 10th. The combination with the connecting lever located between the nailing spindle and last spindle adjusting-mechanism, of a hand lever to permit the connecting lever to be disconnected from the nailing spindle.

No. 8519. Improvements on Ticket Registers. (*Perfectionnements aux registres des billets.*)

Benjamin C. Pole, Washington, D.C., U.S., 12th March, 1878, for 5 years.

Claim.—1st. A sealed-up ticket register, provided upon its interior surface with a coating of transfer composition or its equivalent, in combination with a ticket receipt enclosed therein, having upon it a coating of transfer-composition of a different color, for recording the action of stamping, writing or marking; 2nd. A built up cover, case or sheath D folded to form a pocket prepared with transferring composition, in colors and stripes, secured to a back G and provided with a ticket receipt F which has a drawing tag or string I to draw, turn over, injure, or remove a color-check; 3rd. A writing ticket register, provided with manifold paper or transfer composition, for recording the action of writing, marking or stamping, divided into divisions A; A2 A3 or more, having perforations *a*, with gaps *a2* and *a3*, overlapping paper *a4* and *a5* folded and sealed, forming a tearing piece *a7* and ticket receipt A2 with color-check or checks; 4th. A writing ticket register provided with a double seal *d1* and *d4*, double transfer composition D3 D4, single or double ticket register F with color changing drawing strip I, eyelet G1 or equivalent, and hard back G; 5th. A writing ticket register holder, provided with tearing edges C4, gaps C3, openings C1 and C2.

No. 8520. Improvements on Anchor Catheders. (*Perfectionnements aux bossoirs d'ancres.*)

John W. Dearman, Maitland, N.S., 12th March, 1878, for 5 years.

Claim.—1st. In combination with the cathed A, the chain wheel C having peripheral ratchets D and heads E, having pawls G engaging therewith and provided with levers H mounted on a frame B, bolted to the cathed, operating the chain to hoist the anchor from the hawse hole for stowage; 2nd. In combination with frame B of the lever L operated thereto, connecting rod M and pivoted disk N having a central aperture whereby the fid J is latched and tripped; 3rd. The combination in a frame B of the ratchet chain wheel C operated by pawls and levers G H mounted on shaft F for hoisting the anchor, and a tripping device consisting of the pivoted and perforated latching disk N, connecting rod M and pivoted lever L and a chain-stopper K.

No. 8521. Machine to Facilitate the Cutting out of Dresses. (*Machine pour faciliter la taille des robes.*)

Eliza A. Godkin, Elizabethtown, Ont., 12th March, 1878, for 5 years.

Claim.—A dress model shaped as shewn, and made of card-board or other similar material lettered at different points, perforated with three rows of holes which are numbered in a dark rule, also made of card-board or other similar material, divided into inch spaces numbered, with which model and rule by following the directions printed on the model dresses may be laid out, and cut according to measurements, and the process of cutting out so as to obtain a correct fit greatly facilitated.

No. 8522. Combination of Wheels for Counting Time Past and Future. (*Combinaison de roues pour compter le temps passé et future.*)

James I. Bogue, Montreal, Que., 12th March, 1878, for 5 years.

Claim.—The combination of wheels, one or more of which being divided on both sides or edges into three hundred and sixty-five notches, the application of knobs or handles dividing the same on the face of circumference (or spherical face) thereof, the application of clasps, catches or lockers and balance weights, and also the application of words, letters, figures and rules or indicators on the face of the circumference (or spherical face) of said wheels.

No. 8523. Improvement on Plaiting Machines. (*Perfectionnement des machines à plisser.*)

James G. Brown and George T. Cooke, Stratford, Ont., 12th March, 1878, for 5 years.

Claim.—The combination of the stand A and bars B with knife C and press-board D.

No. 8524. Improvements on Steam Engine Lubricators. (*Perfectionnements aux graisseurs de machines à vapeur.*)

William Stafford, Montreal, Que., 12th March, 1878, for 5 years.

Claim.—1st. The combination of the screw C in cover e and bearing on valve *d*; 2nd. The combination of the inner vessel or filter *g* having a perforated bottom or sides *h*; 3rd. The combination and arrangement of the cup *f*, valved screw *a*, cap *e* and vessel or filter *g*.

No. 8525. Improvements on Shovel Handles. (*Perfectionnements aux manches des pelles.*)

Barnabas A. Higgins, Farmington, Me., U.S., 12th March, 1878, for 5 years.

Claim.—1st. Shaping a blank square at the portion to be separated by kerf D and below the crotch, and the portion below the same rounded previous to bending the blank in a former, to the required form; 2nd. A handle for shovels, &c., having the side portions *a b* and a portion below the crotch rectangular in cross-section, the portions *a b* bent to receive the hand bar E interveningly.

No. 8526. Improvements on Washing Machines. (*Perfectionnements aux laveuses mécaniques.*)

George Buchanan, Washington, Pa., U.S., 12th March, 1878, for 15 years.

Claim.—1st. The combination of the box A, plates or supports C C1 stirrups D D1, brackets G G and base or stool E; 2nd. The traveller consisting of the sides I I and perforated end pieces I I1, and mounted upon rollers *a*; 3rd. The removable weight J, in combination with the traveller I I1 and the rubber or other packing *b*; 4th. The plate H provided with round pin *h* and pointed pin *h1*; 5th. In combination with a rocking box, the perforated block L moving upon rollers and provided with interior removable blocks L1.

No. 8527. Art of Lining and Covering Wells. (*Art de murair et couvrir les puits.*)

Charles James, Port Colborne, Ont., 12th March, 1878, for 5 years.

Claim.—The combination of the center frames *a a* with keys *c c* and formation A A.

No. 8528. Improvements on Shovels and Tongs. (*Perfectionnements aux pelles et aux pincettes.*)

George W. Whelan, Sun Prairie, Wis., U.S., 12th March, 1878, for 5 years.

Claim.—1st. The combination of the tong arm A sliding endwise in the hollow handle D, of the shovel arm B and interposed spring *d*; 2nd. The combination of the tong A slotted as described, and provided with a guard or thumb piece C, the shovel B having a spring *d*, and the handle D having a bolt or rivet *e*.

No. 8529. Improvements on Hoists. (*Perfectionnements aux élévateurs.*)

John Beatty, Montreal, Que., 12th March, 1878, for 5 years.

Claim.—1st. The gates G counterbalanced to slide vertically in inclined grooves or ways H in the posts A, and by the rising and falling of the platform by pivoted detents O and lugs N or their equivalents; 2nd. The weights I counterbalancing the gates G sliding in inclined vertical grooves or channels J in the posts A and operated by the ascent and descent of the platform, by the detents P and lugs N, or their equivalent, for lifting the gates.

No. 8530. Improvements on Digging Machines. (*Perfectionnements aux scarificateurs d'agriculture.*)

Thomas C. Darby, Chelmsford, Eng., 12th March, 1878, for 5 years.

Claim.—1st. The combined arrangement of digging machine, consisting of a steam boiler and engine A, propelling legs G ranged along one side of the machine, movable rod H for varying the position of the fulcrums of these legs, and a series of digging forks O worked together with the legs; 2nd. The construction of steam digging machines with a row of digging spades or forks O, ranged along one of the longer sides of the implement, so that the machine when at work travels sideways ever the hand whilst it can be moved endwise when travelling over roads; 3rd. The combined arrangement of supporting and propelling legs G with movable fulcrums I and rod H for varying the position of the fulcrums for supporting and propelling agricultural implements; 4th. The combined arrangements of supporting and propelling legs G and digging spades or forks O working therewith; 5th. The construction of agricultural implements to be worked by steam power with a horizontal boiler A and engine similar to an ordinary portable agricultural engine, and arranged to be moved sideways over the land when at work, and endways when travelling over roads.

No. 8531. Improvements in Rotary Harrows. (*Perfectionnements dans les herses rotatoires.*)

William T. Nichols, Chicago, Ill., U.S., 12th March, 1878, for 5 years.

Claim.—1st. The cross-bars *e* provided with inclined lugs or arms *e1*, in combination with the spirally-wound metallic strips F; 2nd. The screw or spiral rotary scarifiers E in combination with shafts C jointed and adjustable at their inner ends; 3rd. The rotary screw-scarifiers E in combination with the slide D, shaft C jointed thereto, and stop pin *d*; 4th. The cam I attached to one end of a revolving scarifier E, in combination with the pivoted lever K provided with pin K and distributing slide of the seeder; 5th. The upright guard frame O attached to the rear of the main frame and arranged in front of the driver.

No. 8532. Improvements on Lubricators. (*Perfectionnements aux graisseurs.*)

John T. Cody, Cincinnati, Ohio, U. S., 12th March, 1878, for 5 years.

Claim.—1st. The combination of the glass-vessel A having one or more recesses or notches *a* and a circular groove *b*, the metallic screw-threaded collar C having one or more projections *c*, to fit said notch or notches, and the split ring E; 2nd. In combination with the perforated stem D of the vessel, the adjusting-screw G having an aperture *g*, a sunken screw-driver head, and an elastic gasket H under the same.