

No. 7514. Improvements on Snow Ploughs.

(*Perfectionnements aux charrues à neige.*)

James Anderson Gouverneur, N.Y. U.S. and John R. Middlemiss, Montreal, Que., 1st June, 1877, for 5 years.

Claim—1st The combination of the series of rotating breakers D the series of elevators G and the fans H, 2nd. A cur A containing machinery for operating the breakers, elevators and fans, having a point B whose lower section slides over the upper section b; 3rd. The series of elevators G having hoods or elbows H changeable to throw the snow in the direction desired; 4th. The shoe 25 secured to the foot of the incline plane C for its protection.

No. 7515. Improvements on Motive Powers.

(*Perfectionnements aux moteurs mécaniques.*)

James S. Nelson, Bradford, Iowa, U.S., 1st June, 1877, for 5 years.

Claim—The combination of the shafts C G, balance wheel L, ratchet wheel K, pawl M, bolts F I treadle E and spring J, whereby the shaft C is rotated in one direction continuously by the operation of the treadle.

No. 7516. Sickle Grinding Machine.

(*Machine à remouler les faucilles.*)

William S. Ingraham, Waukegan, Ill., U.S., 1st June, 1877, for 5 years.

Claim—1st. The sickle holder G composed of a lower and an upper frame between which the sickle bar is held. 2nd. The pivoted arms G, connected together by the pieces *tt l* and provided with the grooves *d* and lugs *s*, in combination with the clamping frame H having recesses *n*, lugs *m*, handle H₁, perforated projection *o* and set screws *f*; 3rd. The upright frame E, fulcrumed near its lower end to bearings attached to the frame A in combination with the gears D D₁, connecting rod E, sickle holder G and grindstone B, the mechanism for operating the parts being arranged above the grindstone frame.

No. 7517. Improvements on Ventilators.

(*Perfectionnements aux ventilateurs.*)

Charles R. Hicks, Troy (Assignee of Andrew J. Robinson,) N.Y., U.S., 1st June, 1877, for 5 years.

Claim—1st The domes A and B and shield E. 2nd The top and bottom domes A B, provided with flanges projecting from the edges thereof, 3rd. The combination of the domes A B and shield E with the brackets.

No. 7518. Improvements on Churn Dashers.

(*Perfectionnements aux batte-beurres.*)

David N. Ellsworth, London, Ont., 1st June, 1877, for 5 years.

Claim—The combination of rod D, bridge F and thumb screw E.

No. 7519. Improvements in Whiffletrees.

(*Perfectionnements aux palonniers.*)

William Shannon Colborne, Ont. (Assignee of Ambrose B. Coleman) 1st June 1877, for 5 years.

Claim—The combination of the crooked draw levers A A, the strengthening straps B B and the straight draw lever C.

No. 7520. Still for Distilling Petroleum and Other Oils.

(*Alambic pour distiller le pétrole et autres huiles.*)

Thomas Cochran, Petrolia, Ont., 7th June, 1877, (Extension of Patent No. 1520), for 5 years.

Claim—The construction of an oil still, for distilling petroleum and other oils, with one or more horizontal tubes C through it of any diameter.

No. 7521. Wire Fence Barb.

(*Defense de clôture en fil métallique.*)

Jacob Haush, DeKalb, Ill., U.S., 7th June, 1877, for 5 years.

Claim—1st. The double pointed barb B in combination with the strands *a* of a twisted wire fence rail, 2nd. A double pointed wire fence barb made from a single piece of wire, bent at its centre laterally, so that all its parts lie in the same plane, in the form of the letter S, forming two loops adapted to clasp both strands of the twisted wire.

No. 7522. Improvements on Boots and Shoes.

(*Perfectionnements aux chausures.*)

William S. Childs, Montreal Que., 7th June, 1877, for 5 years.

Claim—1st. The combination of the parts *a* of the mould having dovetail slide *i*, with the part of the mould *d* having pin *m*; 2nd. The part of the mould *a* in combination with the slide *l*; 3rd. The part of the mould *a* having projection *h* and reduced recess *i*; 4th. In the manufacture of boots and shoes' heels and shanks, the combination of the cover *p*, shank *fi*, heel piece *ai*, plate *bi* with a piece of india rubber and cloth web for web No. 2 placed between the parts *ai* and *bi* and covering the sides of *ai*, and a heel tap of the same material placed below the metal plate *bi* and a piece of the same material placed on the under side of the shank *as* at *az*; 5th. The combination of the piece of material *p*, plate *d* having openings *ax* with pieces of material *ai*, whereby the union of material forming the parts *p* and *d* takes place in the openings *ax*; 6th. The combination of the shank *fi* with the plates *t*; 7th. The curved and tongued joint K whereby the leverage of the parts over the joints is reduced and a longer joint given, 8th. The heels and

shanks constructed of the parts *ai bi ti*, with the parts or covering of rubber and cloth which are then put into a mould and the rubber vulcanized; 9th. The formation of an outer casing or cover of canvas and rubber vulcanized in a mould *a b*, whereby the rubber is rendered plastic during the process *ai* assume the shape of the mould, and afterwards hardened; 10th. The combination of the heel piece *ai* with plate *bi* having projections *ci* and *di*; 11th. The combination of the heel plate *ai* having covering of web No. 2, plate *bi* and lower heel tap of web No. 2, the rubber parts being vulcanized.

No. 7523. Improvement on Churns.

(*Perfectionnement des barattes.*)

Eliza Brough, Greenville, Michigan, U.S. 7th June 1877 for 5 years.

Claim—1st. The combination of the rockers *et* and the danged platform A with the churn body E. 2nd. The combination of the interum pins B and the notched lugs, plates or flanges *ac*, with the rockers *et* of the churn E and with the platform A; 3rd. The combination of the pivoted connecting rod F and the crank shaft D provided with a crank wheel *d* and a crank *di* with a churn body E provided with rockers *et*; 4th. The combination of the hollow cylinder G with the churn body E. 5th. The combination of one or more flanges *h ij* and the crank *gt* with the hollow cylinder G and the churn E.

No. 7524. Improvements on Animal Traps.

(*Perfectionnements aux pièges.*)

Sylvester Snell, Watertown, N.Y., U.S., 7th June, 1877 for 5 years.

Claim—1st The box A having trap-doors U and doors C, shaft E, crank F, connecting rods F₁, arms G and rods H, 2nd. In combination with the trap, the pit B having tubular cage K provided with a trap-door I and bars M.

No. 7525. Process for Refining Iron and Steel.

(*Procédé pour affiner le fer et l'acier.*)

Charles G. Patterson, Boston, Mass., U.S., (Assignee of John E. Sherman), 7th June, 1877, for 5 years.

Claim—1st. The treatment of iron with iodine in connection with chlorine. 2nd. The treatment of iron with bromine in connection with chlorine. 3rd. The treatment of iron with iodine, bromine and chlorine, in connection with each other. 4th. The treatment of iron with iodine, bromine, chlorine and antimony, in connection with each other. 5th. A composition for treating iron containing iodine and chlorine in the proportion stated. 6th. A composition for treating iron containing bromine and chlorine in the proportion stated. 7th. A composition for treating iron containing iodine, bromine and chlorine in the proportions stated. 8th. A composition for treating iron containing iodine, bromine, chlorine and antimony, in the proportions stated.

No. 7526. Improvements on Washing Machines.

(*Perfectionnements aux machines à laver.*)

Lewis Cooley, Appleton, Wis., U.S., 7th June, 1877, for 5 years.

Claim—1st. The circular false bottom Band the rubber B₁, severally provided with the radial ribs *a b* and hubs *c et* projecting beyond the planes of said ribs; 2nd. The combination of the movable bottom B having the radial ribs *a* and the hub *c* and its face covered entirely with sheet metal, the rubber B₁ provided with the radial ribs *b* the hub *c* and sheet metal covered face, the standard C and handle C₁.

No. 7527. Improvements on Musical Reed Instruments.

(*Perfectionnements aux instruments de musique à anches.*)

Alexander R. Koerber and James Sheridan, Toronto, Ont., 7th June, 1877, for 5 years.

Claim—1st. A musical reed instrument in which the central or accompaniment notes are connected with an independent subdivided section of the reed chamber, subdivided to correspond with the central or accompanying notes, and closed by a variable swell valve, which valve can be operated to open or close one or more, or all, of the subdivisions at the will of the performer. 2nd. The combination with the reed chamber B provided with the subdivided central section B₁ of the variable slide valves D; 3rd. The pivoted knee lever F, cord F₁, differential roller E and cords D₁, in combination with the valves D; 4th. The differential spring roller G₁ and cords G₂, in combination with the valves D; 5th. The valves D with wedge shaped ends H, in combination with the bass swell valves I; 6th. The indicating pointer K K₁ attached to the valve D.

No. 7528. Machine for Gumming and Sharpening Rotary Saws.

(*Machine à évider et affûter les scies rondes.*)

Samuel Freeze, Doaktown, and John Farley, Ludlow, N.B., 7th June, 1877, for 5 years.

Claim—1st. The frame in which the emery wheel runs. 2nd. The combination of the lever K, wire L, rope F, pulley and weight G.

No. 7529. Improvements on Lamp Extinguishers.

(*Perfectionnements aux éteignoirs des lampes.*)

Charles L. Girard Montreal, Que. (Assignee of Martin P. Flanders), 7th June, 1877, for 5 years.

Claim—1st. The combination of the arc-and burner *b* pivoted cap *fc* having bar *l* attached thereto. 2nd. The combination of the flat burner *a* having pivoted cap *gt* attached thereto, with the weight *dt* having plates *et*