

G H, with tube X Y and diaphragm D. 3rd. The combination of the diaphragm D provided with passages J T, trunk C, tube I K. 4th. The combination of reservoir A, diaphragm D, trunk C and reservoir E. 5th. The combination of tube M, glass cages N O, packing P P and oil reservoir E. 6th. The trap or escape valve consisting in angular passage g communicating from the interior to the exterior of the reservoir, by an upward horizontal and downward course adapted to form a siphon current and discharge the water and sediments from the oil reservoir provided with valve V. 7th. The combination of the peculiar-shaped tube K, diaphragm D and glass tube M, tube K being arranged and adapted to communicate with reservoir A and conduct the heated water therefrom, in a downward and upward course, through the reservoir E and discharge the same into tube M.

No. 11,928 Improvements in Extension Tables (*Perfectionnements aux tables à rallonge.*)

Oliver S. Garretton, Buffalo, N. Y., U. S., 2nd November, 1880; for 5 years.

Claim.—A table slide made in the form of a cross and constructed with ribs *g* on its upper and lower sides in the angles of its wings.

No. 11,929. Method of Decorating Wood. (*Méthode d'ornementation du bois.*)

Seth K. Devereux, Fredericton, N. B., 2nd November, 1880; for 15 years.

Claim.—The method of producing pictures, &c., on wood, which consists in producing the outlines of the pictures' design, letter, or figure desired, by making indentations, which cut the fibres of the wood, by means of sharp cutting edges being upon or a part of tools, rollers, plates, dies or other suitable articles, and the gilding or coloring in these indentations.

No. 11,930. Improvements on Machines for Scouring and Polishing Grain. (*Perfectionnements aux machines à nettoyer et polir les grains.*)

David M. Richardson, Detroit, Mich., U. S., 2nd November, 1880; for 5 years.

Claim.—1st. The ratchet faced segments *a* extending quite, or nearly, to the advancing edge of the blades of the spider A, in combination with the V-shaped and ratchet or serrated faced spurs *e*. 2nd. A spider A provided with blades, the advancing or front edges *b* of which are bevelled in curved lines upon their face sides. 3rd. The spider A provided with blades which are provided with segments *a* extending quite or nearly to the bevelled edge of the face side of the blade and with the V-shaped spurs *c*. 4th. The spider A provided with blades which are provided with devices, whereby a series of enlarged chambers and smaller throats are made.

No. 11,931. Improvements on Boots and Shoes (*Perfectionnements aux chaussures.*)

Alexander Gemmell and Alexander Boyd, Toronto, Ont., 2nd November, 1880; for 5 years.

Claim.—A boot or shoe having holes pierced in its quarters, immediately below the instep and suitably protected to prevent them from closing, the said holes being situated for the purpose of permitting the ingress and egress of the air pumped in and out by the action of the foot.

No. 11,932. Improvements on Car Wheels and Springs. (*Perfectionnements aux roues et aux ressorts des chars.*)

John Findlay, Montreal, Que., 2nd November, 1880; for 5 years.

Claim.—1st. The combination of the axle H having spring G attached therewith, as described, plate K and annulets or wheels A having springs D attached therewith. 2nd. The combination of the axle H, hubs E having recesses F, spring G, plate K and annulets or wheels A having recesses C. 3rd. The combination of the wheel A with the hub E having a perfectly empty annular space I between them and with springs D G.

No. 11,933. Self-Levelling Dining Table for Vessels. (*Table à manger suspendue pour les vaisseaux.*)

John H. Laskey and Isaac F. Dobson, Boston, Mass., U. S., 2nd November, 1880; for 5 years.

Claim.—1st. The combination of the oblique chains *a a*, the spreader or hanger A, the drop rods *b b* and a dining table, all constructed and attached as described, whereby both the lateral, and the fore and aft motion of the vessel is compensated. 2nd. The combination of the table and chairs, the oblique chains *a a*, the spreader A and the drop rods *b b*. 3rd. The combination of the table and chairs, the oblique chains *a a*, the spreader A, drop rods *b b*, the bell crank lever F and slide *f* with its spring.

No. 11,934. Improvements in Clay Pipes, Tiles, &c. (*Perfectionnements aux tuyaux, tuiles, &c., en terre.*)

Nathan W. Walker, Wellsville, Ohio, U. S., 2nd November, 1880; for 10 years.

Claim.—A pipe section having inter-locking edges, such as tongues and grooves (either or both) set at an angle with each other to adapt the section to lock against lateral displacement, when the section is joined with its counterpart.

No. 11,935. Improvements in Sleighs. (*Perfectionnements aux traîneaux.*)

Thomas Buckingham, Ste. Cunégonde, Que., 6th November, 1880; for 5 years.

Claim. The combination, in the runners of a sleigh, of the turned-up ends F formed at their extremities into eyes G, with bolts H.

No. 11,936. Improvements on Grain Binders.

(*Perfectionnements aux lieuses à grain.*)

Ole O. Storie, Milwaukee, Wis., U. S., 7th November, 1880; for 5 years.

Claim.—1st. The combination of a clamping mechanism adapted to clamp the cord at two points, a looping mechanism adapted to form a loop from that portion of the cord held between the two clamps, the loop being formed around the inner clamp or next to the gavel, and a device adapted to draw the cord through the loop and from the knob before the clamp next the gavel releases the cord. 2nd. A combined clamp and looping mechanism consisting of two concentric cylinders or tubes, with gear mechanism adapted to impart both simultaneous and independent and rotary motion thereto, and a guide or shield, the devices combined in the manner specified. 3rd. A knot tier for grain binders consisting of an outer tube D₁ and an inner tube D, which clamp the cord or twine between them, and a hook to draw the bow through to form the knot. 4th. The combination of the inner tube D and the outer D₁ having both simultaneous and independent rotary motion, and the spindle *d* rotating with the inner tube and movable up and down therein. 5th. The combination of the tubes D D₁, gears *f f*, with delays *e e*, and the reciprocating segment B provided with the rack *h* cut away at its ends and provided with delay surfaces K K₁. 6th. The finger R operated by means of the stud and roller *i* and the segment B, with track *a* and hook *h*, in combination with the tubes D D₁. 7th. The combination of the segment B, bracket J, arm and cord holder K L. 8th. The slide M arranged in the arm L and provided with the cutter *t* holding pin *u* and pin *z*, in combination with the double cam Q. 9th. The combination of the cam O₁, arm O, rocking shaft *y*, arm P with stud and roller *z*, and the segment B having track *a* with raised surface *b*. 10th. The combination of the spindle *d* with collars *n n*, tube *m* with web *p*, guide rod F, stud and roller *r* and the eccentric guide H on the segment B.

No. 11,937. Improvements in Hoisting and Conveying Machines. (*Perfectionnements aux machines à monter et transporter.*)

Alexander E. Brown, Cleveland, Ohio, U. S., 7th November, 1880; for 5 years.

Claim.—1st. A carriage frame adapted to be supported and to travel on a cable or railway, and composed of a system of levers, such as described, that the weight of the suspended load exerts a tendency to retain the parts in each of the two conditions they must assume to retain, and to release the suspension of the hoisting block and load. 2nd. A carriage frame for supporting, and adapted to release the suspended load so made and operating that in arriving at the down grade—stop, the momentum will gradually be absorbed, either in the effort of lifting the load which has to be made in order to effect its release from the suspending hooks of the carriage, or partially by such effort and partially by the pull of the hoist rope on the carriage in a reverse direction, by the release of the load. 3rd. In combination with the carriage provided with any suitable means of engagement with the block to be suspended, a hoist block—having the lugs or other devices—designed to be held by such means of engagement located about coincident with the axis of the hoist block sheave. 4th. In combination with the carriage, a down grade stop device, and means on the carriage for engaging therewith, the combination being and operating so that the combined action of the carriage and stop devices effect, first, the operation of the weight suspending mechanism and arrest or partial arrest of the carriage's travel, and second, the retention of the carriage against the pull of the hoist rope. 5th. The combination, with the carriage frame provided with load retaining and releasing devices, and an up grade-stop frame provided with a fixed abutment for the carriage, of a means for operating the releasing mechanism, which does not interfere with either the subsequent operation of said mechanism in re-engaging the load or subsequent return movement of the carriage and all its attachment. 6th. The combination, with a cable way or track, adapted for use in a conveying or hoisting and conveying apparatus, and a stop frame adapted to be applied thereto, of means for effecting a security to, and a release from, said cable of said stop, which may be operated at a distance from the cable. 7th. The combination, with the carriage frame and load carrying receptacle or bucket attached thereto, in a conveying apparatus, of an automatic dumping mechanism composed of devices operating as described.

No. 11,938. Improvements on Blind Hinges.

(*Perfectionnements aux pentures des persiennes.*)

Richard Troy, Oshawa, Ont., 7th November, 1880, for 5 years.

Claim.—1st. A window-blind hinge constructed with the chamber E for protecting the wheel H. 2nd. The lock ring N, and knob O. 3rd. The combination with the hinges as constructed with the chamber E, the flexible joint K, lock ring N, and knob O.

No. 11,939. Improvements on Cigar-Holders.

(*Perfectionnements aux porte-cigares.*)

Edward S. May, Detroit, Mich., U. S., 7th, Nov. 1880; for 5 years.

Claim.—1st. A metallic shell formed of coils of wire strips or strands, the whole being subsequently cemented into a solid surface by a coating of tin, rubber, or other suitable substance. 2nd. A mouthpiece and holder for a cigar or cigarette, made together of a metallic shell formed of coils of wire, strips or strands, the whole being suitably shaped for the lips, and cemented into a solid surface by a coating of tin, rubber, or other suitable substance. 3rd. A holder for a cigar, said holder provided with ribs or threads upon the interior of its mouth to engage with a cigar. 4th. A cigar mouthpiece and holder, the mouthpiece formed of metallic wire strands or strips, wound, cemented and embellished upon the exterior by plating or otherwise. 5th. A cigar or cigarette holder made in the form of a surface or shell screw threaded upon its interior and exterior. 6th. A cigar holder formed of tubular wire wound and cemented.

No. 11,940. Improvements on Dry Goods Measures. (*Perfectionnements aux mesures de draps.*)

Albert M. Guyton, Oriskania, Pa., U. S., 7th November, 1880; for 5 years.

Claim.—1st. The reel A on shaft B journaled in housings C C, in com-