

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Covers damaged/
Couverture endommagée

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Cover title missing/
Le titre de couverture manque

Coloured maps/
Cartes géographiques en couleur

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Bound with other material/
Relié avec d'autres documents

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Additional comments: / Various pagings.
Commentaires supplémentaires:

Coloured pages/
Pages de couleur

Pages damaged/
Pages endommagées

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Pages detached/
Pages détachées

Showthrough/
Transparence

Quality of print varies/
Qualité inégale de l'impression

Continuous pagination/
Pagination continue

Includes index(es)/
Comprend un (des) index

Title on header taken from: /
Le titre de l'en-tête provient:

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison


Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The Canadian Patent Office

RECORD

Vol. VII.—No. 6.

JUNE, 1879.

Price in Canada \$2.00 per An.
United States - \$2.50

CONTENTS.

INVENTIONS PATENTED.....	\$5
INDEX OF INVENTIONS..	LXLIH
INDEX OF PATENTEES ..	LXLIH
ILLUSTRATIONS	93

INVENTIONS PATENTED.

- No. 9942. Improvements on Spring Beds.**
(*Perfectionnements aux lits a ressorts.*)
Henry Whiteside, Jr., Ottawa, Ont., May 1st, 1879 (Extension of Patent No. 3397), for 5 years.
- No. 9943. Apparatus for Supporting, Lowering, Attaching and Detaching Ships Boats.** (*Appareil pour suspendre, abaisser, attacher et detacher les canots des navires.*)
James Carpenter, Southampton, Eng., 3rd May, 1879 (Extension of Patent No. 3404), for 5 years.
- No. 9944. Improvements in Furnaces.**
(*Perfectionnements dans les fourneaux.*)
Robert D. Ewing, Toronto, Ont., 7th May, 1879 (Extension of Patent No. 3412), for 5 years.
- No. 9945. Improvements on Bed Springs.**
(*Perfectionnements aux ressorts des lits.*)
Henry B. Clark (Assignee of Moses C. Clark, Ingersoll, Ont.), 7th May 1879 (Extension of Patent No. 3423), for 5 years.
- No. 9946. Improvements on Step-Ladders.**
(*Perfectionnements aux echelles a queue.*)
Jacob A. Bucher (Assignee of Samuel Wright, Hillsboro Mo., U.S.), 8th May, 1879 (Extension of Patent No. 3439), for 5 years
- No. 9947. Improvements on Row-Locks.**
(*Perfectionnements aux tolets.*)
John W. McLean, Mahone-Bay, N. S., 12th May, 1879, for 5 years
Claim.—1st The row-lock A having pin B, provided with shoulder C and stop I. 2nd The row-lock socket D provided with longitudinal slot and brackets F F with screw holes, the plate E, clamp block G, clamping cushion J, screw H, pins K K, stop L, groove M
- No. 9948. Improvements on Refrigerators.**
(*Perfectionnements aux garde-manger.*)
Louis Laiselle, Valleyfield, Que., 12th May, 1879, for 5 years.
Claim.—1st The doors E formed in two wings and having their edges rebated. 2nd. The combination of the doors E, composed of two wings with two pivots a and shelves b. 3rd The drawer H having its sides perforated. 4th The combination of the perforated ventilators g and air pipes h, with the non-conducting material D between the outer and inner casings. 5th The lid or cover J, having the chamber K, air passages f and ventilating holes c; 6th The drip pipe L, in combination with the water dish M, having the central pipe s and vent holes j.
- No. 9949. Improvements on Seed Planters.**
(*Perfectionnements aux traceurs-bulleurs.*)
Priaque Malhot, St. Alexis, Que., 12th May, 1879, for 5 years.
Claim.—1st. In a seed planter, the combination of the manure reservoirs L with the seed reservoirs N. 2nd. The combination and arrangement of

the reservoirs L, N with the slide valves l, spindles P, c, manure dividers M seed wheels O, manure spouts g and seed spouts h; 3rd The combination and arrangement of the reservoirs L and N manure spouts g and spouts H, with the drill frame D, drill shares E, coverers F, suspension rods G and H, cranks I, shaft J, handle K and loop m.

- No. 9950. Improvements on Band Saws.**
(*Perfectionnements aux scies a contourner.*)
Charles Stout, Bootle, and William P. Thompson, Liverpool, Eng., 12th May, 1879, for 5 years
Claim.—1st. The combination of the fence G, or its mechanical equivalent, the series of holes and pins H with the revolving table or quadrant E and saw D, in a machine for sawing boards for barrel heads and other disks. 2nd The mode of manufacturing disks in separate segments interchangeable one disk on other by placing them against a fence, on a revolving support turning on an axis situated at a distance of the radius of the circle to be cut from the saw blade; 3rd. The segments of disk heads and other disks sawn without marking out so as to be interchangeable with similarly situated segments of similarly sized heads by cutting them when resting against a fence on a revolving table, revolving on an axis at a regulated distance from a band saw. 4th In a machine for cutting out barrel heads and other disks, the combination of the revolving table E, with screw B, regulating its distance from saw D, with screw F, on which is fence G, or with holes H, in which pins can be set to form a fence.
- No. 9951. Improvements on Rope Fasteners.**
(*Perfectionnements aux taquets des cables.*)
Léon Laurent, Montreal, Que., 12th May, 1879, for 5 years.
Claim.—1st. In a rope or chain fastener, the body A having the hole a ridges d d, notches e e and cap g. 2nd. In a rope or chain fastener, the arrangement and combination of the body A having the hole a, ridges d d, notches e e and cap g, with the eye bolt B, having the screwed shank b and thumb nut c.
- No. 9952. Improvements on Brick Machines.**
(*Perfectionnements aux machines a brique.*)
David Darvill, London, Ont., 12th May, 1879, for 5 years.
Claim.—1st. The combination of bevelled wheel E, cog wheels J G, pinions B C I, and centre shaft F. 2nd The combination of the connecting rod M and lever N, segments O and plunger H.
- No. 9953. Improvements on Pumps.**
(*Perfectionnements aux pompes.*)
Charles Tyson, Philadelphia, Pa., U. S., 12th May, 1879, for 5 years.
Claim.—A force pump consisting of a barrel A, with induction at or near top and eduction B at or near bottom, a piston C, movable on the piston rod D, and having a valve seat E, on its upper face, and the piston rod with a valve E and stop b on opposite sides of the piston
- No. 9954. Improvements on Metallic Washboards.** (*Perfectionnements aux planches metalliques a savonner.*)
James M. Davies, Hamilton, Ont., 12th May, 1879, for 5 years
Claim.—1st As an improved article of manufacture, a metallic wash board having a sheet metal frame A, bent to a tubular form mitered and soldered at the head, and stayed by the tubular bars B B and the rubbing surface of sheet zinc plain and corrugated having its side and top edges interposed and held fixedly by edges of the tubular frame A, and the lower edge reinforced by the tubular bar c secured at the ends to the frame A. 2nd. The metallic frame A, having a metallic rubbing or washing surface d, suitably corrugated or crumpled.
- No. 9955. Improvements on Metallic Hubs.**
(*Perfectionnements aux moyeux metalliques.*)
William F. Sawdon, Henry North and William G. Cragg, Dresden, Ont., 12th May, 1879, for 5 years.
Claim.—1st. A metallic hub, consisting of the pipe box A, having a fixed flange B with a corresponding removable disc C and a collar E, and cap F

screwing reversely for clamping the spokes; 2nd. The tubular cap H, sleeved over the end of the pipe box A, and secured thereto by radial screws e, for receiving internally the shoulder d of the axle, when the arm is inserted in the pipe box.

No. 9956. Improvements in Waggon.

(*Perfectionnements aux voitures de roulage.*)

Thomas Seaman, Listowel, Ont., 12th May, 1879, for 5 years

Claim.—1st. The combination, with the rear axle and reach pole of a wagon, of the metal socket bracket E and bolt E₂. 2nd. The adjustable reach D, provided with the coupling bars E₁ E₃, in combination with the front axle and king bolt F. 3rd. The combination, with the front axle and tongue of a wagon, of the metal socket bracket G. 4th. The counter balance spring H fastened to the axle, in combination with the socket bracket G, provided with the bearing piece G₁. 5th. The hollow tapering metal cap stake H, provided with the cap base H₁ and ring H₂, in combination with and fastened to the reduced ends of the bolsters by a joint bolt.

No. 9957. Improvements on Hoisting Buckets.

(*Perfectionnements aux godets elevateurs.*)

William T. Warner, Plattsburgh, N. Y., U. S., 12th May, 1879, for 5 years.

Claim.—1st. In combination with an elevator bucket and its belt, the hooks H projecting from the bucket, and formed with the sharp edges a on the inner side, and the corresponding edges b on the back of the bucket and clasping the belt; 2nd. The combination of the elevator bucket A B C, the solid metallic band D with sharp edge b, and the hooks H H₁ having sharp edges a on the under sides.

No. 9958. Improvements on Washboards.

(*Perfectionnements aux planches à savonner.*)

Ezra B Eddy (Assignee of George H. Millen), Hull, Que., 12th May, 1879, for 5 years.

Claim.—A washboard, plate B, of sheet metal, having angular corrugations b c in parallel waved lines transversely.

No. 9959. Improvement in Sewing Machines.

(*Perfectionnement aux machines à coudre.*)

Oliver H. Taylor, Brooklyn, N. Y., U. S., 12th May, 1879, for 5 years.

Claim.—1st. The belt driving wheel D with slotted spoke d, in combination with the side frame B, the pitman E and wrist pin d₂; 2nd. The wrist pin d₂, in combination with the slotted spoke d and pitman E. 3rd. The pitman E, in combination with the wrist pin d₂, the sleeve e, with slot e₂ and the bolt e₃; 4th. The rubber rim e₆ and m, in combination with the sections E E₁ of the pitman, and the pins f and d₂. 5th. The two pieces f₁ with a₁ and slots f₂, in combination with the pitman E, and treadle F with slot f₆ and the bolt f₄. 6th. The adjustable treadle F; 7th. The treadle F with slot f₆, in combination with the slotted toe piece f₂, bolt f₅, slotted supporting piece g, bolts h h and rod G; 8th. The slotted supporting piece, in combination with the treadle F, rod G and bolts h h. 9th. The rod G with treadle F, in combination with the supporting bars H, slots h h₂; 10th. The supporting bars H H with slots h h₂, in combination with the side frames B H₁, slots h₅, bolts h h₃ and rod G.

No. 9960. Improvements on Conveyors.

(*Perfectionnements aux vis sans fin.*)

Charles E. Hovey and Edward D. Macpherson, Clinton, Ont., 12th May, 1879, for 5 years.

Claim.—1st. A screw conveyor, for threshers, elevators or mills, composed of spiral sections, each having a hub a cored to sleeve on a polygonal shaft c, by which the conveyor is operated; 2nd. The spiral sections B, constructed with a hub a, cored to sleeve on a shaft.

No. 9961. Knitting Machine.

(*Machine à tricoter.*)

Dona Bickford, New York, U. S., 13th May, 1879, (Extension of Patent No. 3454), for 5 years.

No. 9962. Compound and Process for the Cure of Cancers, &c.

(*Composé et procédé pour guérir les cancers, &c.*)

Levi J. Dart, Albion, Cal., U. S., 13th May, 1879, for 5 years.

Claim.—1st. A compound composed of the constituents of the bark of the Fraxinus reduced to ashes, and then leached and concentrated to a syrup; 2nd. The process of applying the compound of the fraximus, and afterwards a poultice for the removal of excrescences.

No. 9963. Improvements on Reaping Machines.

(*Perfectionnements aux moissonneuses.*)

Thomas S. Marshall, Millbrook, Ont., 13th May, 1879, for 5 years.

Claim.—1st. The combination of the lock ratchet lever D, with the chain end or flexible cable E running over shears F and connected by rod G. 2nd. The combination of the universally coupled shaft C between main driving shaft and wheel B, driving rake and knife gear M and N.

No. 9964. Improvements on Egg Carriers and Testers.

(*Perfectionnements aux machines à transporter et mirer les œufs.*)

Charles H. Wyman, St. Louis, Miss., U. S., 13th May, 1879, for 5 years.

Claim.—1st. The carrier and tester A, having the pockets b b b perforated only at the sides of said pockets. 2nd. The carrier and tester A consisting of the parts B and C, and having the pockets b b b which are inclosed, saving the perforations g e in the sides thereof.

No. 9965. Improvements in Railway Switches.

(*Perfectionnements aux aiguilles des railroads.*)

Edwin Gordon, Hyde-Park, and John A. Duggan, Quincy, Mass., U. S. 13th May, 1879, for 5 years.

Claim.—A combined rotating switch and guard rail a, hung and rotating upon journals c c.

No. 9966. Portable Sawing Machine and Tree Feller.

(*Scierie et abateur portatifs.*)

William H. Smith, San Francisco, Cal., U. S., 13th May, 1879, for 5 years.

Claim.—1st. The guides G, having the cross-head H moving upon them and connected with the saw D by the rod E, which passes through the cross bar F, said guides having their rear ends journalled upon the driving shaft which forms a centre, about which the saw moves while making its cut. 2nd. The guides G with their cross-head H, saw D, connecting rod and crank shaft V, in combination with the frame A having the steadying forks B and the holding dogs C; 3rd. The saw D, with the guides and cross-head journalled to move about the operating crank shaft, in combination with the feeding device consisting of the racks O, gears N N₁, shaft P, the pawl and ratchet Q and the operating lever S, so fitted as to be moved at each revolution of the crank. 4th. An adjustable sawing device, consisting of the saw, supporting and directing guides and cross-head journalled to move about the driving crank axle V, which turns in boxes at one end of a frame A said frame being provided with the steadying forks B and holding dogs C, whereby the machine may be set at any angle, and an automatic feeding device by which to feed the saw forward.

No. 9967. Method of Manufacturing Gas.

(*Mode de production du gaz.*)

Pavel P. Timofeeff, St. Petersburg, Russia, 13th May, 1879, for 5 years.

Claim.—1st. The production of illuminating gas, by the carbonization of hydrogen, or of a gas capable of burning as for instance, in oxide of nitrogen in the same apparatus in which the formation of the aforesaid gas takes place this gas during the process of carbonization, passing either (1st) immediately and instantly after its formation, through a layer of carbonizing liquid; or (2nd) through a material moistened by a carbonizing liquid. 2nd. The construction of apparatus serving for the production and immediate consumption of illuminating gas, intended to replace candles, lamps and ordinary gas light, or, if desired, to serve merely as gas generators, from which the gas can be conducted by a system of pipes to the places where it is employed; 3rd. The combination of the described portable illuminating gas generators with a galvanic element for self-ignition.

No. 9968. Suspender Clamp.

(*Crochet de bretelle.*)

Charles E. Ramage, Toronto, Ont., 13th May, 1879, for 5 years.

Claim.—A piece of sheet metal B, having teeth or their equivalent at each end and folded so that the ends shall come opposite to each other, and provided with a metallic band C, or its equivalent, in combination with the metal hook D attached to the suspender E, and fitting over a hook or into the hole made in B.

No. 9969. Improvements on Tellurions.

(*Perfectionnements aux globes terrestres.*)

Gideon McBride, Dover-Hill, Ind., J. S., 13th May, 1879, for 5 years.

Claim.—1st. In a tellurion, the combination with the stand A, provided with the elliptic recess C and elliptic gear i, and fitted with a revolving arbor b, of the slotted disk e, arm F and gear wheel I upon arm F, whereby the arm F, and its attached mechanism, is caused to move in an eccentric path. 2nd. In a tellurion, the combination with the arm F, fitted to revolve in an elliptic path around centre-post E, of the earth supporting post G, gear wheels P and I and gear i, whereby the earth K is maintained at the proper inclination to the sun S throughout its revolution; 3rd. The combination with the arm F, fitted to move in an elliptic path and carrying the earth supporting post G, that is formed at its upper end with an inclined plane a, of the sleeve l, jointed arm m, pinion H, gear wheels J and L and gears r, whereby the rotation of moon M and its ascension and descent is obtained; 4th. The combination and arrangement, with the earth supporting post G and earth K, of the rotating sleeve l formed with an enlarged upper rim b, on which earth K rests and its diurnal rotation obtained. 5th. In a tellurion, the wires s supported by arms o. 6th. The combination, with the wheel P fitted upon the arm F so as to move with the arm round the centre-post E, and having the backward motion, of the fixed index r projecting from arm F.

No. 9970. Improvements on Curd Agitators.

(*Perfectionnements aux menoles.*)

Edward Tyhurst, Chatham, Ont., 16th May, 1879, (Extension of Patent No. 9868), for 5 years.

No. 9971. Improvements on Curd Agitators.

(*Perfectionnements aux menoles.*)

Edward Tyhurst, Chatham, Ont., 17th May, 1879, (Extension of Patent No. 9868), for 5 years.

No. 9972. Improvements on Matching Machines.

(*Perfectionnements aux machines à allumettes.*)

Patrick Cardiff and Jonathan M. Adams, Marshfield, Oregon, U. S. 17th May, 1879, for 5 years.

Claim.—1st. The guide C composed of parts b b₁, which, when placed together and secured by bolt E to bed plate A, form a groove, adjacent to the matcher head, to receive the grooving knives a a₁, in their movement. 2nd. The guide C provided with a groove in the end, adjacent to the matcher head, that enables it to be moved up to the edging knives a a₁ so as to just clear the same when the machine is in operation, whereby support is afforded to the board, so that there is no liability of the edges being split or broken by the knives.

No. 9973. Improvements on Spiral Springs.

(*Perfectionnements aux ressorts spiraux.*)

George E. Gray and Chester W. M. Smith, San-Francisco, Cal., U. S., 17th May, 1879, for 5 years.

Claim—1st. A spiral spring, constructed of any suitable material, of a conoidal form, with the diameters and pitches of the different coils and the cross section of the material used, of such size and so proportioned to each other that a sliding and expanding action of the coils upon and within each other takes place when the spring is compressed. 2nd. In a spiral conoidal spring, the arrangement of the coils one above the other, in such position that the outer surface of one coil shall be over and in line with the inner inclined surface of the next larger coil below, whereby when compression takes place these two surfaces shall come in contact and the larger coil shall be expanded by the smaller one next above or within it. 3rd. In combination with the spiral conoidal spring A, the conoidal bed plate B of the shaft.

No. 9974. Composition for Preserving Meat, etc. (*Composé pour conserver la viande, &c.*)

Theodore A. Ellis, Frederickton, N. B., 19th May, 1879, for 5 years.

Claim.—A compound of calcined alum, sugar, sal-soda, nitrate of potash, bicarbonate of soda, salt, alcohol and water, the whole mixed.

No. 9975. Medical Compound for Hog Cholera. (*Composé médical pour le cholera des porcs.*)

George S. Williams, Eggleston's Springs, Va., U. S., 26th May, 1879, for 5 years.

Claim—A decoction of peach leaves and smart-weed leaves, soft soap, coppers, sulphur and spirits of turpentine.

No. 9976. Improvement in Plush Goods.

(*Perfectionnement aux étoffes peluchées.*)

Thomas Goodall, Sanford, Me., U. S., 26th May, 1879, for 5 years.

Claim—The nap or plush fabric, formed from loosely twisted yarns or threads and having the fibres that form the nap or plush held in place, by means of a coating of adhesive cement applied to the back of the fabric.

No. 9977. Improvements in Cider Mills.

(*Perfectionnements aux moulins à cidre.*)

Thomas Cuthbertson, Bright, Ont., 26th May, 1879, for 5 years.

Claim.—1st. The combination of the apple hopper, grinding cylinder and pulp conveyor; 2nd. The conveyor D and band D, in combination with one or more pairs of spring pressure rolls. 3rd. The corrugated pressure rolls, arranged in mesh with each other and adjustably mounted in connection with springs, in such manner that as the apple pulp is fed between them, it will be subjected to pressure and a grinding action; 4th. The corrugated pressure rolls provided with hies c; 5th. The combination of the frame springs G, bearing pieces H H, bolts J, and the pressure rolls; 6th. In combination with the pressure rolls and conveyors, the hoppers collecting vat F provided with rock F; 7th. The conveyor L, in combination with the cone or D; 8th. The combination of the hopper B, cylinder C, conveyor D, band D, spring pressure rolls E E and the vat F, for the purpose of extracting cider from apples in one continuous operation.

No. 9978. Combination Table and Box.

(*Table et boîte combinées.*)

James E. W. Currier, Ottawa, Ont., 26th May, 1879, for 5 years.

Claim—1st. The combination of the boards G H I J with hinges, together with the application of the dove tail B B and stiffening bars C C. Also the cleats A A for holding end of box. 2nd. The device D D D, having two slots and two inclines opposite each other, for holding the legs of table in position through the action of the pin M; 3rd. A box composed of the parts G H I J hinged together, having dove-tail cleats B B, across the centre, and cleats A A at each end, and folded up and provided with ends E E, inserted in the cleats A A; 4th. The inside box which can be used instead of the ends E; 5th. A leg for table, composed of the part K fitted with ferrule L and pin M.

No. 9979. Mill for removing the Germ and Mill of Wheat. (*Moulin pour enlever le germ et les particules du blé.*)

Samuel Potts, Minneapolis, and Arvid Parson, Stillwater, Min., U. S., 26th May, 1879, for 5 years.

Claim—1st. The mode of preparing wheat for flour making, by removing the germ and the fuz from the ends of the kernels before grinding; 2nd. Mill-stones made of the rock known as hard heads or boulders; 3rd. A mill-stone dress formed by boring holes in the face of the stone. 4th. The combination, with the upper stone or runner B, of a three armed driver D rigidly attached to the spindle C.

No. 9980. Method and Apparatus for Preventing Colliery Explosions. (*Méthode et appareil pour empêcher les explosions dans les houillères.*)

William Young, Belfast, Ireland, 26th May, 1879, for 5 years.

Claim—1st. Coating the surfaces of the coal or cuttings in coal mines, and the surfaces of the wood supports and lining therein, with a wash of alum and clay or other equivalent non inflammable coating; 2nd. The construction and employment of the improved instrument, for ascertaining the presence and proportion of gas in coal mines, by means of a vertical column of gas from the mine contained in a pipe up the shaft of the mine.

No. 9981. Apparatus for Dressing Middlings.

(*Blutoir à broses pour les gruaux.*)

Abraham Cumbtree, Bacup, England, 26th May, 1879, for 5 years.

Claim.—1st. The combination, with a revolving silk or cylinder, of an internal revolving beater, propelled at a greater rate of speed than said cylinder, and a flat revolving brush for cleaning the outside of the silk; 2nd. The revolving cylinder, constructed with any suitable number of rims connected together by longitudinal bars or rods h h and having the silk s stretched thereon by inserting its outer edges in annular grooves formed in the end rims g g, these edges being first tied and then secured in place by hoop k k drawn tight by means of screws, the inner edges being provided with eyelet holes laced together and the joint covered; 3rd. The internal revolving beater, constructed with a series of narrow drums or wheels l l having the beaters or distributors m m, attached on their circumference at an angle to the shaft with their outer edges bent again on an angle; 4th. The flat revolving brush n n.

No. 9982. Improvements on Hanger Bolts for Fire-Escapes. (*Perfectionnements aux crochets pour les sautoirs d'incendie.*)

Daniel F. Gallaher, Stanstead, Que., 26th May, 1879, for 5 years.

Claim 1st. The larger bolt A, passing through the pipe e transversely inserted in the wall, and carrying the nut d, hook c and hook b; 2nd. The combination of the pipe e with a bolt A.

No. 9983. Improvements on Machines for Cleaning Straw. (*Perfectionnements aux machines à nettoyer la paille.*)

James Coleman, Hollis, Ont., 26th May, 1879, for 5 years.

Claim.—The upper and lower series B C, perforated and connected together and suspended by the hangers D to the frame A.

No. 9984. Improvements on Rock Drills.

(*Perfectionnements aux forêts de mines.*)

Jonathan Neff, Petersburg, Ont., 26th May, 1879, for 5 years.

Claim—1st. The steam passage O and grooves G G; 2nd. The valve cushion H, sleeve M and screw V.

No. 9985. Manufacture of Boots and Shoes.

(*Fabrication des chaussures.*)

Elbridge Mann, Milford, Mass., U. S., 26th May, 1879, for 5 years.

Claim—Making up the boot or shoe from uncurried leather and then bringing the leather to a curried and finished condition during the subsequent operation of treading.

No. 9986. Improvement in Drying Rolls for Plush Goods. (*Perfectionnement aux rouleaux de séchage pour les étoffes peluchées.*)

Thomas Goodall, Sanford, Me., U. S., 26th May, 1879, for 5 years.

Claim.—The shafts c c c with their pulleys, the pulley e, pulley f, friction pulleys g and pulleys h with their feeding shaft i and with the band d.

No. 9987. Improvements on Clothes Driers.

(*Perfectionnements aux sècheurs à l'usage.*)

Richard E. Rye, Mount-Pleasant, Mich., U. S., 26th May, 1879, for 5 years.

Claim.—The cylindrical recessed cap G, and the pulley i and its shaft, the latter having its bearing in opposite sides of said cap, in combination with the hollow cylindrical post A having open slots a a which the pulley shaft enter i and traverses when the cap is applied to the post the revolving frame H I, annular bearing m n, rope h and winding drum F.

No. 9988. Improvements in Snow-Shoes.

(*Perfectionnements aux raquettes.*)

Everett Smith, Portland, Me., U. S., 26th May, 1879, for 5 years.

Claim.—1st. The combination of a snow-shoe and slipper, 2nd. In combination with a snow-shoe, the slipper A and swivel.

No. 9989. Improvements on Bakers' Ovens. (*Perfectionnements aux fourneaux des boulangeries.*)

George Grieve, Palmyra, N. Y., U. S., 26th May, 1879, for 5 years.

Claim.—1st. The air passages o through the crown of the furnace, a rod damper plate D provided with the apertures ot, ribs r and lug l, rod h and screw e. 2nd. The combination of the air passages o, damper plate D, having apertures ot, ribs r and lug l, regulating rod h and screw e with the furnace F, walls B and door way R.

No. 9990. Improvements on Harvesters.

(*Perfectionnements aux moissonneuses.*)

Henry A. Howe, Detroit, Mich., U. S., 26th May, 1879 (Extension of Patent, No. 3509), for 5 years.

No. 9991. Improvements on Thrashing Machines. (*Perfectionnements aux machines à battre.*)

James Bradley and James Nicholas, Gomer, Ohio, U. S., 26th May, 1879 (Extension of Patent, No. 3504), for 5 years.

No. 9992. Improvements in Heating Stoves. (*Perfectionnements aux poêles de chauffage.*)

John W. Elliott, Toronto, Ont., 26th May, 1879 (Extension of Patent, No. 3479), for 5 years.

No. 9993. Horse Shoe Nail Machine. (*Machin
à clou à cheval.*)

Walworth M. Mooney (Assignee of John B. Wills), Montreal, Que., 27th May, 1879 (Extension of Patent, No. 3490), for 5 years

No. 9994. Machine for Cutting Rubber.

(*Machin à tailler le caoutchouc.*)

Franklin Bayles, New-York, U. S. 27th May, 1879, for 15 years.

Claim.—1st. The combination of a supporting and carrying roll or other surface, for supporting and carrying forward the web or sheet to be cut, and the cams and connections adapted to move the cutter in the direction of the movement of the web to be cut, and at right angles to that direction; 2nd. The combination of the supporting and carrying roll with the cutter, slide cams and connections adapted to move the cutter over the surface of said roll, both parallel with its axis and at right angles thereto, for the purpose of cutting any desired shape in the sheet or web of material while under motion; 3rd. The combination of the supporting and carrying roll, the cutter spindle and slide, and one or more cams with suitable connections, and the swinging frame provided with a guiding plate for turning the cutter to the angle of the shape to be cut; 4th. The combination of the supporting roll, the swinging frame provided with a guiding plate, the swinging frame provided with the cutter, slide ways and cutter slide, and the cams and connections

No. 9995. Improvements on Screw Machines.

(*Perfectionnements aux machines à vis.*)

Charles D. Rogers, Providence, R. I., U. S., 28th May, 1879, for 15 years.

Claim.—1st. The combination, with a pair of revolving gripping jaw spindles A A, capable of intermittent rotation on an axis common to both, of threading dies w and a milling tool h which, in operating upon a blank, positively secures its axial adjustment in the jaw of one of the spindles, whereby when the spindles change position, the blank is presented to the threading dies truly coincident with the axis of the spindle and the centre of the die; 2nd. The combination, with revolving gripping jaw spindles A A, in an intermittingly revolving yoke frame A₂, a₆, a₇, a₈, and the threading dies w, of the counter shaft E, two cam sleeves E₂ E₃ thereon, driven by it intermittingly, a clutch n k for each sleeve and mechanism by which the clutches are connected with, and controlled by the threading dies, whereby the cam sleeves, alternate in their movements and in regular order, cause the jaw of one spindle to open and close, the threading dies to close and advance, open and retreat, and the spindles to change with reference to the threading dies; 3rd. A pair of jaw spindles A A, mounted rotatively at one end in a circular head plate A₁, which revolves in an annular bearing, and is connected to a yoke a; and axis a₈ which supports the rear end of the spindles, the same constituting an improvement in a yoke frame, whereby the spindles are placed closely side by side, and a smooth and easy change of position effected; 4th. A pair of continuously revolving jaw spindles A A, mounted in a yoke frame A₂ a₆ a₇ a₈ which intermittingly revolves, in combination with an intermediate sleeve a₄ on the axis of the frame, which is geared to both spindles and continuously driven; 5th. The combination, with the spindle A containing the jaws J, thrusting levers L, and sliding sleeve d, of cam levers u which bear upon the rear ends of the thrusting levers with yielding pressure whereby the jaws may be closed upon and made to hold the heads of blanks of various sizes, without liability of injury to the jaw operating mechanism; 6th. The combination, with the jaws J, thrusting levers L, sliding sleeve d and yielding cam levers u, of the springs U, for the cam levers which are adjustable to varied pressure; 7th. The combination, with the jaws J, thrusting levers L, sliding sleeve d and yielding cam levers u, of a parting block v which secures the proper relation of the thrusting levers to each other and the jaws; 8th. A four sided sectional threading die w, inwardly bevelled at each edge, centrally drilled and provided with threaded recesses; 9th. The combination, with threading dies w mounted on jaws w₁ attached to a tail rod g₁, of a die holder g enclosing the die jaws and provided with wedge blocks w₂ for closing the dies, of adjustable wedge blocks z for causing the dies to approach more or less closely to each other, without affecting the relations of the tail rod and holder, and the time of opening or closing the dies; 10th. The combination, with threading dies w mounted on jaws w₁ sliding within a die holder g and connected with a tail rod g₁, of a cam g₂ attached to the holder, a gear and cam g₃ on the tail rod and vibrating lever g₄ provided with a segmental toothed plate, whereby the holder is advanced independently of the tail rod and the dies closed; 11th. The combination, with the die holder g, the dies w, the tail rod g₁, its cam g₃ and geared lever g₄, of the cam h on sleeve E₂, the sliding bar h₅ with spring finger h₆ and lever h₇ connecting with the tail rod, whereby the dies, after being closed, are advanced with yielding pressure; 12th. The combination, with the threading dies w, the main shaft D, the counter shaft E, the two cam sleeves E₂ E₃ and their clutches n k, of the cam S loosely mounted on the main shaft, the clutch lever s₁, the clutch r keyed to the main shaft, the bell crank lever g and the sliding rod o₁ controlled by the threading dies, whereby the dies, at the terminal forward movement, rotatively connect one of the sleeves to the counter shaft, which sleeve, in turn, causes the spindle to change position, and the jaws of one spindle to open and close, disconnect said sleeve from the counter shaft and connect said shaft with the second sleeve; 13th. The combination, with the counter shaft E and the two cam sleeves E₂ E₃, of the clutch k which connects sleeve E₂ with the shaft, a spring shipper bar l which engages with the clutch, and is moved longitudinally by a cam l₁ on said sleeve, for opening the clutch, a spring lever or catch m which holds the shipper when thus moved, and a catch controlling device m₁ on sleeve E₃, for permitting the shipper to again close its clutch, and thereby connect sleeve E₃ with the counter shaft; 14th. The combination, with the threading dies w, of the clutch r, on the main shaft controlled by the forward terminal movement of the dies, the cam p on main shaft driven by the clutch, and the sliding rod O₁ which engages with the die holder g, whereby the dies are opened and the die holder or block moved backward after the threading operation.

No. 9996. Improvements on Curtain Fixtures.

(*Perfectionnements aux montures des rideaux.*)

Chauncey Buckley and Ludovick L. Sawyer, Meriden, Ct., U. S., 28th May, 1879, for 15 years.

Claim.—1st. The combination of the tubular roll, the spindle, the spring

thereon, with a cam loose on the said spindle, to engage with the inner surface of the roll, and a bearing for the inner end of the spindle; 2nd. In a curtain fixture, the combination of the winding roll, stationary shaft, winding spring and a frictional device between said shaft and roll, consisting of a ratchet, loose on said shaft, but with friction applied thereto, and a pawl in connection with the roll, and so as to revolve freely round the ratchet in one direction, and engage the said ratchet in the opposite direction; 3rd. The combination of a toothed ratchet in a strap around said ratchet, with a pawl upon the inner side of said strap to engage said ratchet in one direction, but so as to allow the said strap to revolve in the opposite direction, without engagement with said ratchet; 4th. In a curtain fixture, the combination of the winding roll, stationary shaft, spring between said shaft and roll, a ratchet stationary upon said roll, a strap and a pawl around said ratchet, but in connection with said shaft; 5th. The combination, in a curtain fixture, of the spindle constructed at its bearing end, in substantially T-shape, but preserving the cylindrical outline at its extremities, and a bracket having a seat formed therein of a diameter corresponding to the diameter of the spindle and so that the T-shaped end will revolve therein with an opening for the introduction of the spindle, and a notch downward from the seat to receive the part of the T, when it is turned into line therewith; 6th. The central perforated cup E₁, with its concentrically perforated block F; 7th. The concentric perforated cap, combined with a collar to bear upon and hold the cap to the roll; 8th. The method for attaching the slat to a curtain consisting in a longitudinal slit in the slat, with an enlargement below the surface the doubling the lower end of the curtain around a reed, or its equivalent and passing it longitudinally through the slit

No. 9997. Improvements on Garden Sprinklers. (*Perfectionnements aux arroseurs de jardin.*)

Joseph H. Bond, Almonte, Ont., 28th May, 1879, for 5 years

Claim.—1st. The can A, having a fixed bail B, provided with a stay K and the bottom with external branch tubes D E, and internally with a distributor J, within a perforated cone L, and valve rod H, sliding through its apex and stay K; 2nd. The ring M, connected to the valve rod H by bars L, for agitating the liquid solution from the bottom of the can by the operation of the valve rod.

No. 9998. Refrigerator. (*Garde-manger.*)

James G. Malcolm, Toronto, Ont., 28th May, 1879, for 5 years

Claim.—1st. An ice-box or refrigerator, composed of chambers A B separated by a corrugated metallic partition C, provided with a suitable rack; 2nd. A refrigerator in which the heated or vitiated air is conveyed from the cooling chamber into a space O, formed within the wall of the air chamber, and allowed to escape from there through a hole K; 3rd. A refrigerator having a flue formed between its outside and inside sheeting to carry away any warm air admitted into the chamber R when the door is opened; 4th. Rubber packing N, glued or otherwise fastened around the stops of refrigerator doors, or other openings.

No. 9999. Improvements on Potato-Diggers.

(*Perfectionnements aux arrache-patates.*)

William C. Smallwood, Charlottetown, P.E.I., 28th May, 1879, for 5 years.

Claim.—1st. The combination of the land-side N, having share O with the disc V; 2nd. The land side N, having share O, provided with wing P in combination with the disc V; 3rd. The land-side N, having share O and adjusted lever Q, in combination with the disc V.

No. 10,000. Improvements on Telephones.

(*Perfectionnements aux téléphones.*)

George Moore, Toronto, Ont., 28th May, 1879, for 5 years.

Claim.—1st. The combination of the ring R, with the parchment P and the wires leading to the point B and marked K K K, for the purpose of collecting the sound and transmitting it to the wire N; 2nd. The combination of the ring R with the parchment P, as a means of securing the wire to the parchment; 3rd. The combination of the turnbuckle T P, the weight Y, the wheel W and the cord S₁, for the purpose of forming a self adjusting tension; 4th. The combination of the mica tongue C with the parchment P; 5th. The combination of the funnels H H₁, placed over the parchment; 6th. The combination of the weight L, the cord F, the pulley I and the insulator Q for securing tension; 7th. The combination of the latch D with the wire N for the purpose of forming a cut off; 8th. The combination of a soundboard with the instrument, the instrument being placed thereon instead of securing it directly to the wall, as shown by the dotted lines Z Z Z Z, for the purpose of increasing the transmitting power of the instruments.

No. 10,001. Improvements on Saw-Mill Dogs.

(*Perfectionnements aux clameaux des scieries.*)

William J. Butters, St. Vincent, Ont., 28th May, 1879, for 5 years

Claim.—1st. The upper dog g₁, having slot G, curved tooth F and notches H, in combination with the lever I, having pin J, and with sector M and pawl L; 2nd. The dog g₁, having slot G, and curved tooth F and notches H, in combination with lower dog O and projection Q

No. 10,002. Improvements on Gypsum Kilns.

(*Perfectionnements aux fours à gypse.*)

William H. Merritt, St. Catharines, Ont., 28th May, 1879, for 5 years.

Claim.—1st. In a steam generator A₃, provided with tubes B in combination with a gypsum kiln C, having tubes C₁ open or perforated on the lower side; 2nd. The process of calcining gypsum by the escape heat of a steam generator passing through the tubes B, in the boiler from the combustion chamber, and from thence into the tubes C₁, and out from the opening C₂ into the kiln.

No. 10,003. Improvements in Reaping Machines. (*Perfectionnements aux moissonneuses.*)

Edwin R. Whitney and John H. Paugman, Montreal, Que., 28th May, 1879 for 5 years

Claim.—1st. The combination, with one of the driving wheels of a rock shaft receiving motion therefrom and imparting vibratory motion to the cutter bar. 2nd. The combination, with a rock shaft imparting vibratory motion to the cutter bar, of a transverse shaft, operating, when rotated, to disengage from the corrugated driving wheel the dogs or projections mounted on said rock shaft.

No. 10,004. Improvements on Paper Boxes.

(*Perfectionnements aux boites en papier.*)

Richard T. Steele, Brockville, Ont., 28th May, 1879, for 5 years

Claim.—1st. A blank of pasteboard or other stiff paper for forming paper boxes cut and creased to fold rectangularly in the ordinary manner, the sides having the doubling elongated sides 9 and 10 to form end pockets, and the tops 3 having the elongated portions 11, for insertion in said pockets. 2nd. The tubular lining 12, of thin paper combined with a blank forming the outside of the box, to close the ends of the package by folding; 3rd. As an improved article of manufacture, a paper box constructed of a blank folded rectangularly, having a lining of thin paper or other suitable material folded to close the ends of the package, said lining being made and attached to the box in the knock-down form or otherwise.

No. 10,005. Improvements in Logging Sleds.

(*Perfectionnements aux traîneaux a bois de sciage.*)

David Bartlett, Midland, Mich., U. S., 28th May, 1879, for 10 years

Claim.—1st. The flattened or uneven surface of the concave saddle C, in which rests the rounded end of the beam D. 2nd. Raising the concave saddle C clear off the runner A, by means of the uprights B.

No. 10,006. Improvements in Lock Nuts.

(*Perfectionnements aux arrets-noix.*)

Haas Svenkerud and Alexander Brobery, Ottawa, Ont., 28th May, 1879, for 5 years.

Claim.—1st. The grooves C C keys D D, separately and in conjunction with one another. 2nd. The manner of locking a nut by turning up a shaving of the iron against the nut. 3rd. The stop F in conjunction with the washer.

No. 10,007. Improvements on Car Springs.

(*Perfectionnements aux ressorts des wagons.*)

Carlos French, Seymour Ct., U. S., 28th May, 1879, for 5 years

Claim.—Several spiral springs arranged with their axis parallel to each other, and each in connection with the next adjacent spring combined with a spiral spring surrounding and enclosing the said several springs, and so as to bind them firmly together.

No. 10,008. Improvements in Buttons and Fastenings. (*Perfectionnements aux boutons et chainons.*)

Alexander McMillan, London, Ont., 28th May, 1879, for 5 years.

Claim.—In combination of button a, having projecting neck-b, hole c, slots d et and catch e, with fastener g.

No. 10,009. Improvements on Wringers.

(*Perfectionnements aux essoreuses.*)

Wm. Copeland, Brockton, Mass., U. S., 28th May, 1879, for 5 years.

Claim.—1st. In a wringing machine, the combination of the roll K, having one of its ends in a fixed bearing and the other in a yielding bearing, with the roll H, having one of its ends in a fixed bearing and the other in a yielding bearing, the yielding bearings of the said rolls being at alternate ends. 2d. The combination of the rolls H K, having alternate free bearings, with the compound spring D D, loop L and movable housings E H. 3rd. The combination of the rolls H K, having alternate free bearings, with the system

of gears K; M; N; N₁; H; crank shaft M and shaft N₁; 4th. The spring metal tension clamping strip R, provided with reinforced or duplex shield portions R₁ R₂, in combination with the end pieces A A, thumb-screws G Q; and a suitable supporting strip A₁; 5th. In a wringing machine, the combination of the two squeezing rolls K H with the combined feed roll and crank shaft M and crank, said crank shaft M being located on either side of the lower squeezing roll, whereby the crank shaft performs the double purpose of driving the machine and acting as a feed roll. 6th. In a wringing machine, the combination of the squeezing rolls K H, and the gear K, on the shaft of the upper roll R, with the feed roll T located on either side of the lower squeezing roll and its gear T.

No. 10,010. Improvements on Machine Guns.

(*Perfectionnements aux canons à répétition.*)

DeWitt C. Farrington, Lowell, Mass., U. S., 28th May, 1879, for 5 years.

Claim.—1st. The combination of the shifting devices and the barrel supporting disks and rings, whereby the barrels may be readily shifted at the will of the operator. 2nd. The nozzle supporting disk working in a ring mounted on trunnions which, while permitting the group of barrels to be rotated also permits them to be readily tilted as occasion requires. 3rd. The feeding mechanism, composed of the grooved cartridge holder provided with springs attached to its rear side, for holding the cartridges in place and of the grooved hopper or feed tube provided with arms or equivalent devices, projecting inwardly, for releasing the cartridges from the holder or case. 4th. The automatic traverse consisting of an adjustable eccentric operated from the main shaft, and combined with suitable abutments. 5th. In combination with the adjustable eccentric and suitable abutments, the swivelled traverse-block which supports the breech of the gun; 6th. The combination, in a machine gun, of an elevating screw, a sword plate, or equivalent device, and an intermediate plate supporting the gun proper and the screw; 7th. The combination of a transverse pivot, and an axis of motion at right angles thereto for regulating the plane of the traverse.

No. 10,011. Improvement in Spoke-Shaves.

(*Perfectionnement aux planes.*)

Horace A. Lathrop, Sharon, Mass., U. S., 28th May, 1879, for 5 years.

Claim.—1st. The shoe shave stock provided with the overlapping flat projections b b c c arranged with the arms and intermediate part. 2nd. The shoe shave stock provided with the overlapping projections b b c c and the clamp plates f f arranged with each other and the knife B, and having clamp and edge setting screws i i k k. 3rd. The stock having its overlapping projections b b recessed as shown at e e provided with shoulders d d arranged as represented to serve as support for the clamp plates. 4th. The knife notched or recessed at its ends, as shown at n n in combination with the stock provided with the notched clamp plates and the overlapping projections, fastening and adjusting screws.

No. 10,012. Improvements in Steam Boilers.

(*Perfectionnements aux chaudières a vapeur.*)

George Kratz, Evansville, Ind., U. S., 28th May, 1879 for 5 years.

Claim.—In an upright boiler, the combination with a smoke box of a central tube disposed within said box, and having suspended from its lower end an inverted cup shaped deflector or baffle plate, whereby the whole may be readily removed.

No. 10,013. Improvements on Mop Wringers.

(*Perfectionnements aux essoreuses a torchons.*)

John Paul, Rock Island, Que., 28th May, 1879, for 5 years.

Claim.—1st. In a mop wringer, the guard a, of the frame A, made substantially in the form shown, and combined with the arm c, forks b b and clutch d; 2nd. In a mop wringer, the clutch d, made substantially in the form shown, in combination with the frame A and its connections. 3rd. In mop wringer a clutch d, pivoted to the frame A at the point

No. 10,014. Improvements in Balling Irons.

(*Perfectionnements aux fers a châtner.*)

Edward A. A. Grange, Guelph, Ont., 28th May, 1879, for 5 years

Claim.—A divided bit C, pivoted to the hinged bars A in combination with a notched plate D

List of Patents issued up to 24th June, 1879, but not yet Officially published in the Patent Office Record.

- No. 10,015. Jas. Lowth, Chicago, Ill., U. S. A., "Whip Holder," 24th May, 1879.
- No. 10,016. A. S. Walbridge, Mystic, Que., "Fire Engine," 28th May, 1879.
- No. 10,017. E. C. Fitch, New York, U. S. A., "Dust Proof Watch Case," 28th May, 1879.
- No. 10,018. H. F. Howell, Sarula, Ont., "Process and Apparatus for Purifying and Deodorizing Crude Petroleum and other Oils," 28th May, 1879.
- No. 10,019. E. C. Quimby and E. Baldwin, Stourport, England, "Emmelled Cast Iron Ware," 28th May, 1879.
- No. 10,020. W. P. and C. E. Clark, Belmont, N. Y., U. S. A., "Hay Rake," 28th May, 1879.
- No. 10,021. F. Blake, jr., Weston, Mass., U. S. A., "Telephone," 28th May, 1879.
- No. 10,022. H. H. Beach, Rome, N. Y., U. S. A., "Preparation of Peas," 28th May, 1879.
- No. 10,023. P. H. Cooney, Erie, Penn., U. S. A., "Wash-bench and Wringer Combined," 28th May, 1879.
- No. 10,024. A. W. Blye, Syracuse, N. Y., U. S. A., "Wood Incused Barrel," 28th May, 1879.
- No. 10,025. G. Jennings and John L. Robellaz, New Albany, Ind., U. S. A., "Stone Sawing Machine," 28th May, 1879.
- No. 10,026. W. B. Mack, Boston, Mass., U. S. A., "Injector," 28th May, 1879.
- No. 10,027. G. B. Carnell, Chicago, Ill., U. S. A., "Bush Wrench," (Extension of Patent No. 3,681), 28th May, 1879.
- No. 10,028. G. N. Bourque, Sherbrooke, Que., "Carriage Spoke and Fellow Clip," 28th May, 1879.
- No. 10,029. G. M. Beard, Angola, Ind., U. S. A., "Wind Mill Pump," 28th May, 1879.
- No. 10,030. J. W. Plewes, Lynedack, Ont., "Churn," 28th May, 1879.
- No. 10,031. T. A. Edison, Menlo Park, N. Y., U. S. A., "Electric Light," 28th May, 1879.
- No. 10,032. E. A. C. Pew, Welland, Ont., and Hon. R. W. Scott, Ottawa, Ont., "Electric Gas Apparatus," 28th May, 1879.
- No. 10,033. John G. Mole, Batavia, Ill., U. S. A., "Ball Target Thrower," 28th May, 1879.
- No. 10,034. A. Kline, Middleton, Ont., "Bag Truck," 7th June, 1879.
- No. 10,035. P. Williams, London, Ont., "Mower and Resaper Knife Sharpener," 7th June, 1879.
- No. 10,036. E. Parker, New Britain, and H. R. Jones, Hartford, Conn., U. S. A., "Screw Machine," 7th June, 1879.
- No. 10,037. John Burns, Ottawa, Ont., "Sickle Grander," 7th June, 1879.
- No. 10,038. M. Rousseau, St. Michel, Que., "Washing Machine," 7th June, 1879.
- No. 10,039. H. W. Sprang, Reading, Penn., U. S. A., "Lightning Conductor," 7th June, 1879.
- No. 10,040. E. J. Malera and J. C. Cebrían, San Francisco, Cal., U. S. A., "Motor Engine," 7th June, 1879.
- No. 10,041. E. J. Malera and J. C. Cebrían, San Francisco, Cal., U. S. A., "Pumping and Cooling Systems," 7th June, 1879.
- No. 10,042. E. J. Malera and J. C. Cebrían, San Francisco, Cal., U. S. A., "Screw Motor Engine," 7th June, 1879.
- No. 10,043. C. C. Johnson, Springfield, Ver., U. S. A., "Multiple Tap," 7th June, 1879.
- No. 10,044. John H. Graves, Rochester, N. Y., U. S. A., "Cooking and Heating Apparatus," 7th June, 1879.
- No. 10,045. John Law and D. Darville, London, Ont., "Sink," 7th June, 1879.
- No. 10,046. J. Williams and J. P. Fanning (Assignees of John Fanning), Brooklyn, N. Y., U. S. A., "Lemon Squeezer," 7th June, 1879.
- No. 10,047. J. H. Davis, J. C. Davis, J. D. Cook and J. A. Haigh (Assignees of J. N. Stevens), Toledo, Ohio, U. S. A., "Water Filter," 7th June, 1879.
- No. 10,048. E. Bishop, Cote Park (Assignee of B. Britten), Red Hill, England, "Manufacture of Flag Glass," 7th June, 1879.
- No. 10,049. L. H. Bellamy, North Augusta, Ont., "Spring Sole Expanding Horse Shoe," 7th June, 1879.
- No. 10,050. W. Farrell (Assignee of P. Dillon and John Cleary), Sherbrooke, Que., "Soldering Machine," 7th June, 1879.
- No. 10,051. John H. Seaman, Chicago, Ill., U. S. A., "Slave Jointing Machine," 7th June, 1879.
- No. 10,052. T. Robertson, Toronto, Ont., "Lozenge Machine," (Extension of Patent No. 3620), 7th June, 1879.
- No. 10,053. D. T. Winter and C. E. Teague, Peabody, Mass., U. S. A., "Measuring and Weighing Machine," 7th June, 1879.
- No. 10,054. S. Shepherd and E. D. Whitcomb, Nashua, N. H.; T. A. Coolidge, Malabar, and H. Rogers, Boston, Mass., U. S. A., "Shoe Nailer," 7th June, 1879.
- No. 10,055. S. E. Smith (Assignee of C. C. Skinner), Eau Claire, Wis., U. S. A., "Grading and Ditching Machine," 7th June, 1879.
- No. 10,056. John Abell, Woodbridge, Ont., "Spark Extinguisher," 7th June, 1879.
- No. 10,057. O. B. Thompson, Jersey, Ohio, U. S. A., "Adjustable Ring Axle," 7th June, 1879.
- No. 10,058. J. S. Turner, Rockland, Mass., U. S. A., "Welt Shoe Machine," 7th June, 1879.
- No. 10,059. J. M. Williams, jr., Hamilton, Ont., "Gas Regulator," 7th June, 1879.
- No. 10,060. E. Rees, Merced, Cal., U. S. A., "Boot and Shoe Fastener," 7th June, 1879.
- No. 10,061. G. R. Hamilton, Wayneville, Ohio, U. S. A., "Car Coupling," 7th June, 1879.
- No. 10,062. J. Holmann, New York, U. S. A., "Concentric Strip Feeding Hat," 7th June, 1879.
- No. 10,063. J. S. Stephenson, Ashburnham, Ont., "Rib Boat," 7th June, 1879.
- No. 10,064. J. D. C. Bassett, Toronto, Ont., "Improved Threshing Machine," 7th June, 1879.
- No. 10,065. E. S. Higgins, Ottawa, Ont., "Oatmeal Machinery," 7th June, 1879.
- No. 10,066. John S. Cantelo, Grand River, P. E. I., "Potato Digger," 7th June, 1879.
- No. 10,067. C. Huehn, Berlin, Ont., "Root Cultivator," 7th June, 1879.
- No. 10,068. J. Kearney, Woodstock, Ont., "Churn," 7th June, 1879.
- No. 10,069. A. McDonald, Halifax, N. S., "Piston Packing," 7th June, 1879.
- No. 10,070. J. T. Hough, A. A. Hough, and S. J. Barclay, Pittsburgh, Penn., U. S. A., "Grain Transfer Machine," 7th June, 1879.
- No. 10,071. D. Curtis, Madison, Wis., U. S. A., "Horse Collar Pad Cap," 7th June, 1879.
- No. 10,072. A. C. Harrison, Philadelphia, Penn., U. S. A., "Regulator for Steam Boilers, &c.," 7th June, 1879.
- No. 10,073. L. S. Starrett, Athol, Mass., U. S. A., "Try Square," 7th June, 1879.
- No. 10,074. J. L. McKeever, New York, U. S. A., "Bed, Cradle and Crib Combined," 7th June, 1879.
- No. 10,075. F. B. Davis, Johnstown, Penn., U. S. A., "Nut Lock," 17th June, 1879.
- No. 10,076. D. H. Burrell, J. H. Ives, R. S. Whitman and D. H. Burrell Little Falls (Assignees of Jas. Naylor, Jr., Rochester, N. Y., U. S. A.), "Strip Cutting Machine," 7th June, 1879.
- No. 10,077. J. Vandler Schaeff, Bowmanville, Ont., "Improved Mower and Reeper," 7th June, 1879.
- No. 10,078. J. C. Tallman, New York, U. S. A., "Corset and Bosom Pad," 7th June, 1879.
- No. 10,079. M. J. Matthews, Boston, Mass., U. S. A., "Mechanical Musical Instrument," 7th June, 1879.
- No. 10,080. J. H. Hills, Burlington, Ver., U. S. A., "Car Coupling," 7th June, 1879.
- No. 10,081. D. Marble, Detroit, Mich., U. S. A., "Folding Table," 17th June, 1879.
- No. 10,082. M. J. Matthews, Boston, Mass., U. S. A., "Mechanical Musical Instrument," 7th June, 1879.
- No. 10,083. M. J. Matthews, Boston, Mass., U. S. A., "Mechanical Musical Instrument," 7th June, 1879.
- No. 10,084. M. Schultz, Cincinnati, Ohio, U. S. A., "Steam Pump," 7th June, 1879.
- No. 10,085. H. C. Archibald (Assignee of H. R. Heye), Philadelphia, Penn., U. S. A., "Suppository Mould," 7th June, 1879.
- No. 10,086. R. S. Whitman, D. H. Burrell & W. W. Whitman (Assignees of G. L. Freeman), Little Falls, N. Y., U. S. A., "Cheese Hoop," 7th June, 1879.
- No. 10,087. A. W. Lanphere, New York, U. S. A., "Portable Grain and Coal Elevator," 7th June, 1879.
- No. 10,088. W. E. Sawyer, New York, and A. Mao, Brooklyn, N. Y., U. S. A., "Electric Lamp," 7th June, 1879.
- No. 10,089. J. M. Allen, Marion, Mass., U. S. A., "Process of Making Paper Pulp and Paper" (Extension of Patent No. 3569), 13th June, 1879.
- No. 10,090. C. C. Barnes, Sneekville, N. B., "Rotary Pump" (Extension of Patent No. 3559), 13th June, 1879.
- No. 10,091. N. B. Coffin Jr., Newton, Mass., U. S. A., "Capstans and Windlasses" (Extension of Patent No. 3707), 13th June, 1879.
- No. 10,092. D. N. B. Coffin, Jr., Newton, Mass., U. S. A., "Screws for Imparting Motion to Machinery" (Extension of Patent No. 3650), 13th June, 1879.
- No. 10,093. H. E. & W. A. Susand, Berlin, Ont., and J. H. Baker (Assignees of T. Craney), Bay City, Mich., U. S. A., "Saw Mill Dogs" (Extension of Patent No. 4781), 13th June, 1879.
- No. 10,094. J. H. Gowen, Carson City, Nevada, U. S. A., "Cut Wheel Grinding Machine," 13th June, 1879.
- No. 10,095. R. S. Whitman, D. H. Burrell and W. W. Whitman, Little Falls, N. Y., U. S. A. (Assignees of D. H. Burrell, Little Falls and J. Taylor, jr., Rochester, N. Y., U. S. A.), "Hoop Machine," 13th June, 1879.
- No. 10,096. S. A. Fuller, Cleveland (Assignee of J. F. Byers), Ravenna, Ohio, U. S. A., "Oatmeal Machine," 13th June, 1879.
- No. 10,097. T. G. Rice, Montreal, Q., "Animal Trap," 13th June, 1879.
- No. 10,098. J. A. Lamb and W. Shoolbred, Ottawa, Ont., "Clothes But-toner," 13th June, 1879.

- No. 10,099. G. A. Coulter, Omaha, Neb., U. S. A. "Hamo Fastener." 13th June, 1879.
- No. 10,100. N. W. Flanders, North Grantham, N. H. U. S. A. "Synthe Pasteur." 13th June, 1879.
- No. 10,101. W. F. Honey, Oshawa, Ont., "Screen for Fanning Mills," 13th June, 1879.
- No. 10,102. H. B. Warren, Montreal, Que., "Ice Cutter," 13th June, 1879.
- No. 10,103. C. F. W. Salbach, Berlin, Germany. "Collar and Muff Bag Combined." 13th June, 1879.
- No. 10,104. J. N. Havers and R. G. G. sch, Bradford, England. "Method and Apparatus for Cur'ing Chenille Cloth," 13th June, 1879.
- No. 10,105. W. H. Tocom, Selkirk, Ont., "Farm Gate," 13th June, 1879.
- No. 10,106. F. Callard, Gananoque, Ont., "Self-raising and Closing Gate and Door Hinge," 13th June, 1879.
- No. 10,107. D. H. Holmes, Arlington, N. J., U. S. A. "Cake Machine," 14th June, 1879.
- No. 10,108. H. Watkeys, Syracuse, N. Y., U. S. A. "Throttle Valve," (Extension of Patent No. 3,578), 16th June, 1879.
- No. 10,109. T. D. Jones, Syracuse, N. Y., U. S. A. "Perforated Wash-board" (Extension of Patent No. 3,329), 16th June, 1879.
- No. 10,110. J. A. Grant, Halifax, N. S., "Fish Pass," 16th June, 1879.
- No. 10,111. W. Gowen, Wausau, Wis., U. S. A. "Saw Mill Set Works," (Extension of Patent No. 3,588), 18th June, 1879.
- No. 10,112. S. R. King, Alaledon, Mich., U. S. A. "Frame Erectors," 23rd June, 1879.
- No. 10,113. H. Aylmer, Melbourne, A., "Refrigerator Tank," 23rd June, 1879.
- No. 10,114. S. D. Castle, Bridgeport, Conn., U. S. A., "Fur Manufacture," 23rd June, 1879.
- No. 10,115. H. L. Howse, San Francisco, Cal., U. S. A., "Cooking Stove," 23rd June, 1879.
- No. 10,116. S. J. Ingalls, Dunham, Que., "Milk Creamer," 23rd June, 1879.
- No. 10,117. H. Merz, Milwaukee, Wis., U. S. A., "School Desk and Seat," 23rd June, 1879.
- No. 10,118. Jno. Forbes, Jr., and J. F. Thomas, Plainwell, Mich., U. S. A., "Box Locks," 23rd June, 1879.
- No. 10,119. J. Scully, Meridian, Miss., U. S. A., "Weather Strip," 23rd June, 1879.
- No. 10,120. S. P. M. Tasker, Philadelphia, Pa., U. S. A. "Anti-Friction Bearing for Shafting," 23rd June, 1879.
- No. 10,121. C. S. Westland, Providence, R. I., U. S. A. "Safety Lamp," 23rd June, 1879.
- No. 10,122. S. J. Hayes, E. T. Jeffery and H. Shlacks, Chicago, Ill., U. S. A., "Filter and Lime Catcher," 23rd June, 1879.
- No. 10,123. M. Bray, Newton, Mass., U. S. A., "Shoe Stud Setting Machine," 23rd June, 1879.
- No. 10,124. G. M. & A. L. Rice, Worcester, Mass., U. S. A. "Process of Treating Mixed Fibrous Materials for Separation, &c," 23rd June, 1879.
- No. 10,125. W. T. Battershill and W. McCormick, London, Ont., "Butter Pressing Machine," 23rd June, 1879.
- No. 10,126. C. E. Kennedy, Hatley, Que., (Assignee of G. A. Kennedy, Coaticook, Que.), "Milk Can," 23rd June, 1879.
- No. 10,127. R. Campbell, Montreal, Que., "Baking Powder," 23rd June, 1879.
- No. 10,128. A. D. Budgett and H. C. Rowell, Berlin Falls, N. H., U. S. A., "Churn," 23rd June, 1879.
- No. 10,129. J. H. W. Biggs, Liverpool, England. "Salt Plant," 23rd June, 1879.
- No. 10,130. W. W. Giles, Cincinnati, Ohio, U. S. A. "Sawing Machine," 23rd June, 1879.
- No. 10,131. N. M. Bowen, Knightstown, and N. W. Keontz, Greenborough, Ind., U. S. A., "Whillietree Hook," 23rd June, 1879.
- No. 10,132. S. P. M. Tasker, Philadelphia, Pa., U. S. A. "Continuous Rolling Mill," 23rd June, 1879.
- No. 10,133. V. Lannad (Assignee of U. J. Robillard, Beauharnois, Que.) "Sieve," 23rd June, 1879.
- No. 10,134. W. H. Hurt, New Britain, Conn., U. S. A., "Hinge," 23rd June, 1879.
- No. 10,135. H. H. Ham, Jr., and E. G. Pierce, Jr., Portsmouth, N. H., U. S. A., "Marine Clock," 23rd June, 1879.
- No. 10,136. R. W. & G. D. Gillett, Jersey City, N. J., U. S. A. "Refrigerator," 23rd June, 1879.
- No. 10,137. C. Goodyear, Jr., New York, (Assignee of C. Dancel, Brooklyn,) and A. Eppler, Jr., Lawrence, N. Y., U. S. A. "Sole Sewing Machine," 23rd June, 1879.
- No. 10,138. T. W. Kirby, Grand Haven, Mich., U. S. A., "Concave Nail Fastening for Ships," 24th June, 1879.
- No. 10,139. W. R. Park, Philadelphia, Pa., U. S. A. "Hydro-Carbon Lamp," 24th June, 1879.
- No. 10,140. W. Buck (Assignee of R. W. Chamberlin,) Brantford, Ont., "Sud Iron," 24th June, 1879.
- No. 10,141. J. W. & A. C. Williams, Chagrin Falls, Ohio, U. S. A., "Cold Handle Sud Iron," 24th June, 1879.
- No. 10,142. T. Gallway and J. Larsen, Oshawa, Ont., "Broadcast Seeder, Cultivator and Grain Drill," (Re-issue of Patent No. 8,179), 24th June, 1879.
- No. 10,143. C. A. Mahle, Corry, Pa., U. S. A., "Brush Block Boring Machine," 24th June, 1879.
- No. 10,144. G. T. Fisher, Fowlerville, Mich., U. S. A., "Heel Stiffener," 24th June, 1879.
- No. 10,145. J. Krehbiel, Willamsville, N. Y., U. S. A., "Vehicle Spring," 24th June, 1879.
- No. 10,146. C. Cowdery, Newent, Gloucestershire, England, "Knife Cleaning Machine," 24th June, 1879.
- No. 10,147. C. C. Lane, Westminster, B. C., "Cans for Hermetically Sealing Goods," 24th June, 1879.
- No. 10,148. J. H. Ellis, A. Scott and E. S. Edmondson, Goderich, Ont., "Mill Stone Conveyor and Ejector," 24th June, 1879.
- No. 10,149. B. J. Greely, Boston, Mass., U. S. A., "Suspenders," 24th June, 1879.
- No. 10,150. D. Conby, Uxbridge, Ont., "Adjustable Seat Rail for Carriage Tops," 24th June, 1879.
- No. 10,151. H. Killam, Waterford, Ont., "Gang Plow and Potato Digger Combined," 24th June, 1879.
- No. 10,152. C. A. Butler (Assignee of B. Butler, St. Johnsbury, Vt.) U. S. A., "Pulverizing and Smoothing Harrow," 24th June, 1879.
- No. 10,153. H. Flowers, Halifax, N. S., "Diagonal Reefing Sail," 24th June, 1879.
- No. 10,154. J. Robertson, Montreal, Que., "Water Tap," 24th June, 1879.
- No. 10,155. J. S. Abel, New Dundee, Ont., "Baby Tender," 24th June, 1879.
- No. 10,156. R. Watkinson, Manchester, England, "Pipe Joints and Screw Connections," 24th June, 1879.

INDEX OF INVENTIONS.

INDEX TO PATENTEES.

Agitator, curd E. Tyhurst9970
 Beds, spring, H. Whiteside, Jr9942
 Boats, apparatus for supporting ships, J. Carpenter9943
 Boilers, steam, G. Kratz10,012
 Bolts for fire-escapes, hanger, D. F. Gallaher9982
 Boots and shoes, E. Mann9985
 Box and table, J. E. W. Currier9978
 Boxes, paper, R. T. Steele10,004
 Buckets, hoisting, W. T. Warner9957
 Buttons and fastenings, A. McMillan10,008
 Cancers, cure of, L. J. Dart9982
 Cholera, compound for, G. S. Williams9975
 Cider mills, T. Cuthbertson9977
 Clamp, suspender, C. E. Ramage9968
 Colliery explosions, preventing, W. Young9980
 Conveyors, C. E. Hovey et al9900
 Curd agitators, E. Tyhurst9970
 Curtain fixtures, C. Buckley et al9996
 Dogs, saw mill, W. J. Butters10,001
 Driers, clothes, R. E. Rye9987
 Drills, rock, J. Nell9984
 Egg testers, C. H. Wyman9964
 Explosions, preventing colliery, W. Young9980
 Feller, tree, W. H. Smith9966
 Fire-escapes, hanger bolts for, D. F. Gallaher9982
 Furnaces, R. D. Ewing9944
 Gas manufacturing, P. P. Timofeef9967
 Guns, machine, D. C. Farrington10,001
 Gypsum, kilns, W. H. Merritt10,002
 Hanger bolts for fire-escapes, D. F. Gallaher9982
 Harvesters, H. H. Howe9990
 Hoisting buckets, W. T. Warner9957
 Hubs, metallic, W. F. Savdon et al9955
 Iron, balling, E. A. A. Grange10,014
 Kilns, gypsum, W. H. Merritt10,002
 Knitting machines, D. Beckford9961
 Ladders, step, J. A. Bucher9916
 Lock nuts, H. Svenkerud et al10,006
 Matching machines, P. Cardiff et al9972
 Meat preserving, T. A. Ellis9974
 Medical compound, G. S. Williams9975
 Middlings, dressing, A. Crabtree9981
 Nail machine, W. M. Mooney9973
 Nuts, lock, H. Svenkerud et al10,006
 Ovens, bakers', G. Grievie9989
 Planters, seed, P. Malblot9949
 Plush goods, T. Goodall9976
 " " " "9986
 " " " "9999
 Potato diggers, W. C. Smallwood9953
 Pumps, C. Tyson9953
 Reaping machines, E. R. Whitney et al10,003
 " " T. S. Marshall9963
 Refrigerators, J. G. Malcolm9998
 " " L. Loiselle9948
 Rolls, drying, T. Goodall9986
 Rope fasteners, L. Laurent9951
 Row-locks, J. W. McLean9947
 Rubber cutting, F. Baylies9991
 Sawing mac ine, W. H. Smith9966
 Saw-mill dogs, W. J. Butters10,001
 Saws, band, C. Stout et al9950
 Screw machines, C. D. Rogers9985
 Sewing machines, O. H. Taylor9959
 Shave, spoke, H. A. Lothrop10,001
 Sleds, logging, D. Bartlett10,005
 Snow-shoes, E. Smith9988
 Springs, bed, H. B. and M. C. Clark9945
 " car, C. French10,007
 " spiral, G. E. Gray et al9973
 Sprinklers, garden, J. H. Bond9997
 Stoves, heating, J. W. Elliott9992
 Straw, cleaning, J. Coleman9983
 Suspender clamp, C. E. Ramage9968
 Switches, railways, E. Gordon et al9965
 Table and box, J. E. W. Currier9978
 Telephones, G. Moore10,000
 Tellurions, G. McBride9969
 Thrashing machines, J. Bradley et al9991
 Waggon, T. Seaman9956
 Washboards, E. B. Eddy9958
 " J. M. Davies9954
 Wheat, germ removing, S. Potts et al9979
 Wringers, J. Copeland10,009
 " J. Paul10013

Adams, J. M., et al., matching machines9972
 Bartlett, D., logging sleds10,005
 Baylies, F., rubber cutting9994
 Beckford, D., knitting machine9961
 Bond, J. H., garden sprinklers9997
 Bradley, J., et al., thrashing machines9991
 Brobery, A., et al., lock nuts1,006
 Bucher, J. A., step-ladders9916
 Buckley, C., et al., curtain fixtures9948
 Butters, W. J., saw-mill dogs10,001
 Cardiff, P., et al., matching machines9972
 Carpenter, J., apparatus for supporting ships' boats9943
 Clark, H. B. and M. C., bed springs9945
 Coleman J., straw cleaning9983
 Copeland J., wringers10,009
 Crabtree, A., dressing middlings9981
 Cragg, W. G., et al., metallic hubs9955
 Currier, J. E. W., table and box9978
 Cuthbertson, T., cider mills9977
 Dart L. J., cure of cancers9962
 Darvill, D., brick machines9952
 Davies, J. M., washboards9954
 Duggan, J. A., railway switches9965
 Eddy, E. B., washboards9958
 Elliott, J. W., heating stoves9992
 Ellis, T. A., meat preserving9974
 Ewing, R. D., furnaces9944
 Farrington, D. C., machine guns10,010
 French, C., car springs10,007
 Gallaher, D. F., hanger bolts for fire escapes9982
 Goodall, T., drying rolls9986
 " " plush goods9978
 Gordon, E., et al., railway switches9965
 Grange, E. A. A., balling irons10,014
 Grievie, G., bakers' ovens9959
 Hovey, C. E., et al., conveyors9960
 Howe, H. A., harvesters9990
 Kratz, G., steam boilers10,012
 Laurent L., rope fastener9951
 Loiselle, L., refrigerators9943
 Lathrop, H. A., spoke shave10,011
 McBride, G., tellurions9969
 McLean, J. W., row-locks9947
 McMillan, A., buttons and fastenings10,008
 Macpherson, E. D., et al., conveyors9960
 Malcolm, J. G., refrigerators9995
 Malhot P., seed planters9949
 Mann, E., boots and shoes9985
 Marshall, T. S., reaping machines9963
 Merritt, W. H., gypsum kilns10,002
 Milten, G. H., washboards9958
 Mooney, W. M., nail machine9993
 Moore, G., telephones10,000
 Nell, J., rock drills9984
 Nicholas, J., et al., thrashing machines9991
 North, H., metallic hubs9955
 Paugman, J. H., reaping machines10,003
 Parson, A., removing wheat germ9979
 Paul, J., mop wringers10,013
 Potts, S., et al., removing wheat germ9979
 Ramage, C. E., suspender clamp9968
 Rogers, C. D., screw machines9985
 Rye, R. E., clothes driers9937
 Sawdon, W. F., et al., metallic hubs9959
 Sawyer, L. L., et al., curtain fixtures9996
 Seaman, T., waggons9958
 Smallwood, W. C., potato diggers9989
 Smith, C. W. M., et al., spiral springs9973
 " E., snow-shoes9988
 " W. H., sawing machine9966
 Steele, R. T., paper boxes10,004
 Sto it, C., et al., band saws9950
 Svenkerud, H., et al., lock nuts10,006
 Taylor, O. H., sewing machines9959
 Thompson, W. P., et al., band saws9950
 Timofeef, P. P., gas manufacture9967
 Tyhurst, E., curd agitators9970
 Tyson, C., pumps9953
 Warner, W. T., hoisting buckets9957
 Whiteside, H., Jr., spring beds9942
 Whitney, E. R., et al., reaping machines10,003
 Williams, G. S., medical compound9975
 Wright, S., step-ladders9946
 Wyman, C. H., egg testers9964
 Young, W., preventing colliery9980

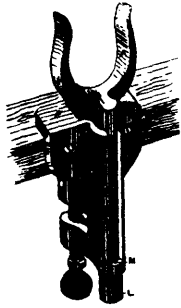
CANADIAN PATENT OFFICE RECORD.

ILLUSTRATIONS.

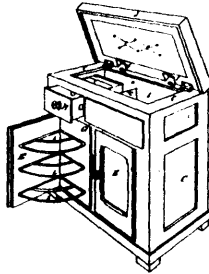
Vol. VII.

JUNE, 1879.

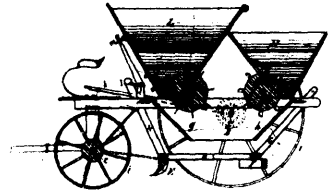
No 6.



9947 McLean's Improvements on Rowlocks.



9948 Loisselle's Improvements on Refrigerators.



9949 Malbiot's Improvements on Seed Planters.

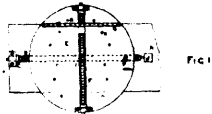


Fig. 1

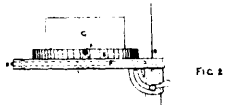
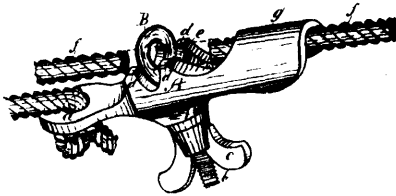
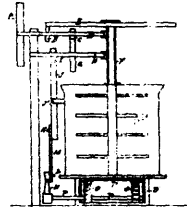


Fig. 2

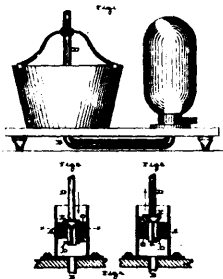
9950 Stout & Thompson's Improvements on Band Saws.



9951 Laurent's Improvements on Rope Fasteners.



9952 Darvill's Improvements on Brick Machines.



9953 Tyson's Improvements on Pumps

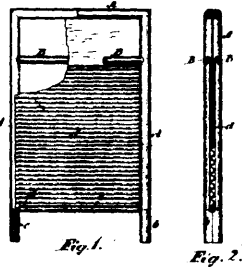
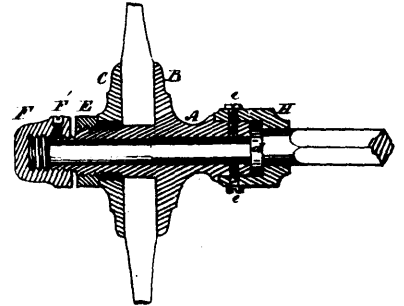


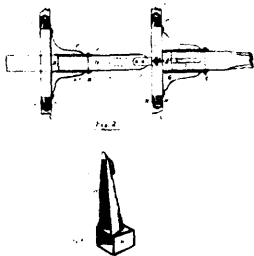
Fig. 1.

Fig. 2.

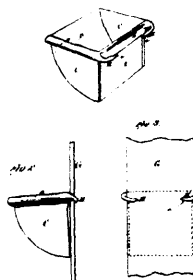
9954 Davies's Improvements on Metallic Washboards.



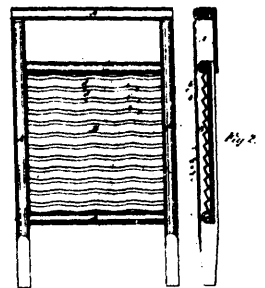
9955 Sawdon & North's Improvements on Metallic Hubs.



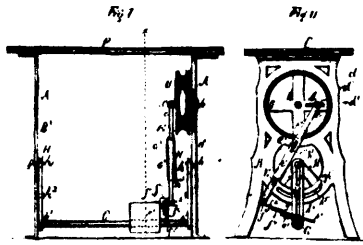
9956 Seaman's Improvements in Waggon's



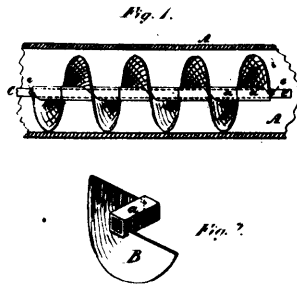
9957 Warner's Improvements on Hoisting Buckets



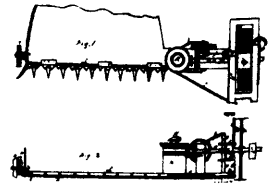
9958 Millen's Improvements on Washboards.



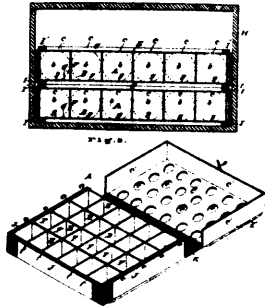
9959 Taylor's Improvement in Sewing Machines.



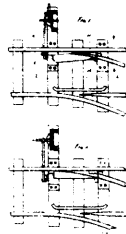
9960 Hovey & Macpherson's Improvement on Conveyors.



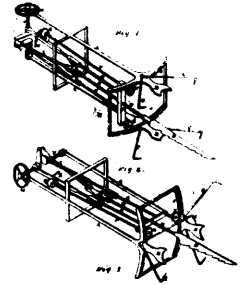
9963 Marshall's Improvements on Reaping Machines.



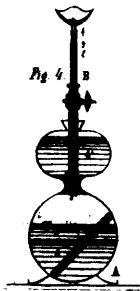
9964 Wyman's Improvements on Egg Carriers and Testers.



9965 Gordon & Dugzan's Improvements in Railway Switches.



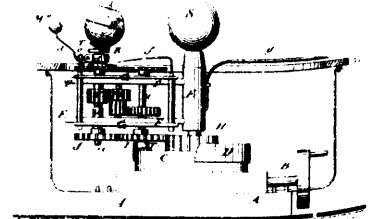
9966 Smith's Portable Sawing Machine and Tree Feller.



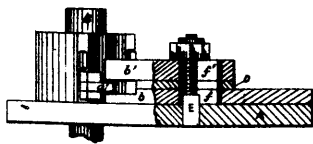
9967 Timofeev's Method of Manufacturing Gas.



9968 Ramage's Suspender Clamp.



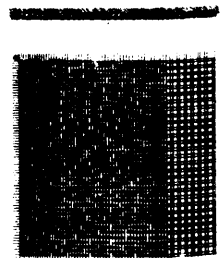
9969 McBride's Improvements on Tellurions.



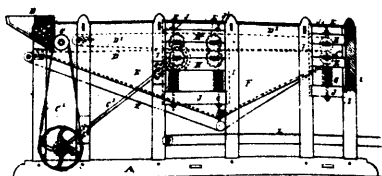
9972 Cardiff & Adams's Improvements on Matching Machines.



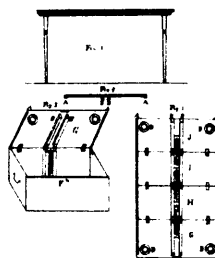
9973 Gray's Improvements on Spiral Springs.



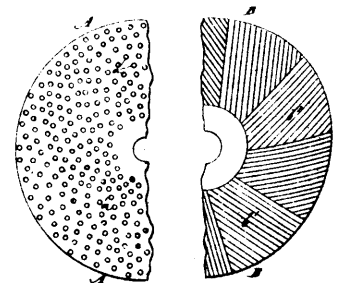
9976 Goodall's Improvements in Plush Goods.



9977 Cuthbertson's Improvements in Cider Mills.



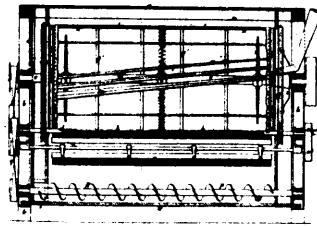
9978 Currier's Combination Table and Box.



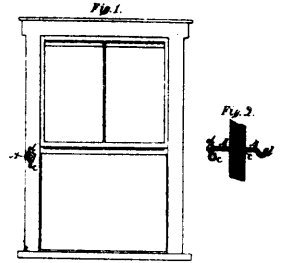
9979 Potts & Parson's Mill for Removing the Germ and Luz of Wheat.



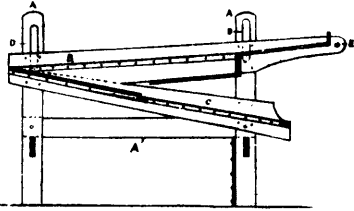
9980 Young's Method and Apparatus for Preventing Colliery Explosions



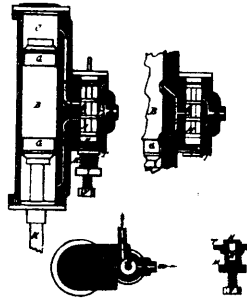
9981 Crabtree's Apparatus for Dressing Middlings.



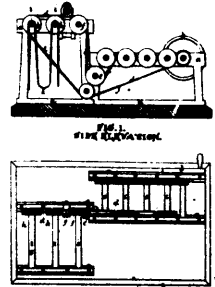
9982 Gallaher's Improvements on Hanger Bolts for Fire-Escapes



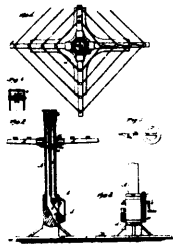
9983 Coleman's Improvements on Machines for Cleaning Straw



9984 Neff's Improvements on Rock Drills.



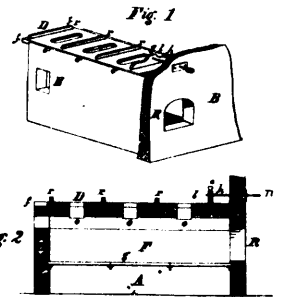
9986 Go-dall's Improvements in Drying Rolls for Plush Goods.



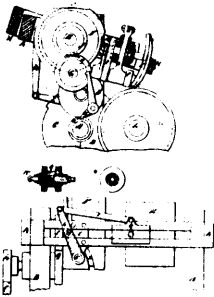
9987 Rye's Improvements on Clothes Driers.



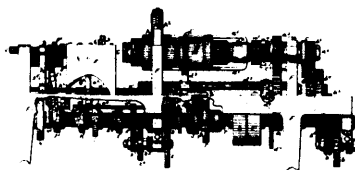
9988 Smith's Improvements in Snow-Shoes



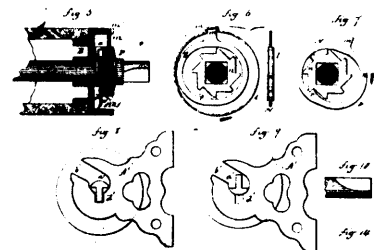
9989 Grieve's Improvements on Bakers' Ovens.



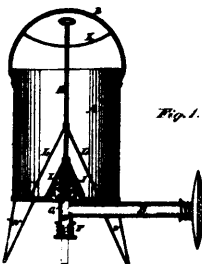
9994 Baylies's Machine for Cutting Rubber.



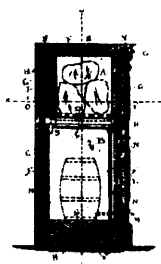
9995 Rogers's Improvements on Screw Machines.



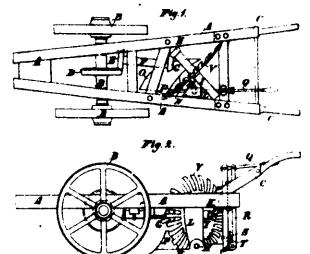
9996 Buckley & Sawyer's Improvements on Curtain Fixtures.



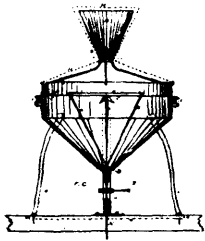
9997 Bond's Improvements on Garden Sprinklers.



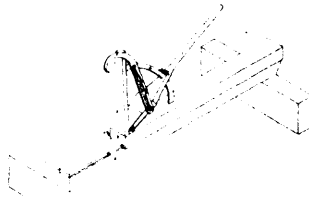
9998 Malcolm's Refrigerator



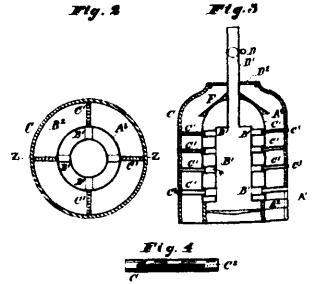
9999 Smallwood's Improvements on Potato Diggers.



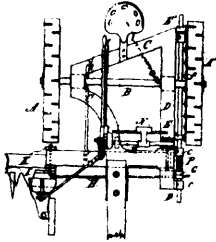
10000 Moore's Improvements on Telephones.



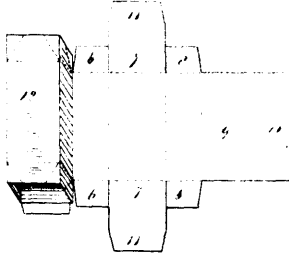
10001 Butters's Improvements on Saw-Mill Dogs.



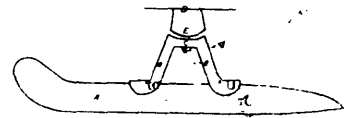
10002 Merritt's Improvements on Gypsum Kilns.



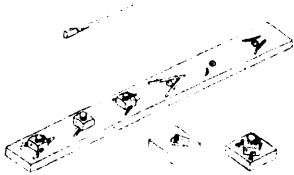
10003 Whitney & Pangman's Improvements in Reaping Machines.



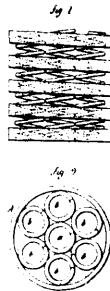
10004 Steele's Improvements on Paper Boxes.



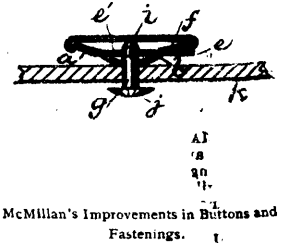
10005 Bartlett's Improvements in Logging Sleds.



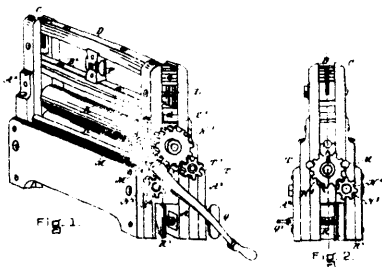
10006 Svenkerud & Brobery's Improvements in Lock Nuts.



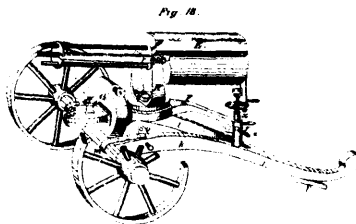
10007 French's Improvements on Car Springs.



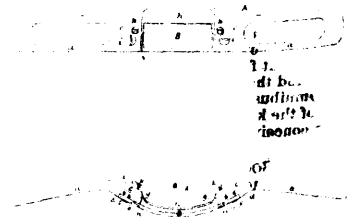
10008 McMillan's Improvements in Buttons and Fastenings.



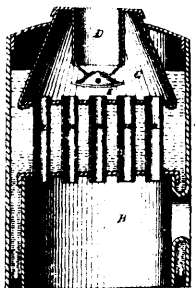
10009 Copeland's Improvements on Wringers.



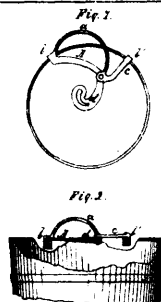
10010 Farrington's Improvements on Machine Guns.



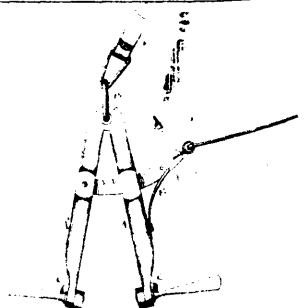
10011 Lothrop's Improvement in Spoke-Shaves.



10012 Kratz's Improvements in Steam Boilers.



10013 Paul's Improvements on Mop Wringers.



10014 Grange's Improvements in Balling Irons.