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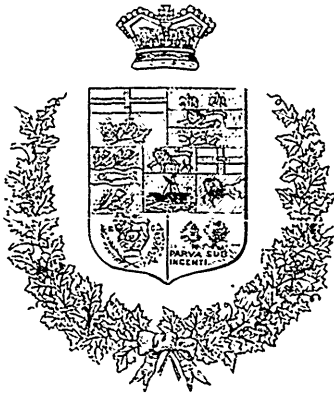
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“ joint, J. Walker.....	12,015	“ portable, J. Hall et al.....	10,889
“ pipe, W. J. Stevens.....	10,875	“ rotary, G. Murray, jr.....	11,967
“ screw threading, I. S. Schuyler.....	11,476	“ “ H. Thibaut et al.....	11,645
“ shaft, J. Walker.....	11,916	“ “ L. J. Baker.....	11,217
Cover, refrigerating, A. North.....	11,269	“ “ W. N. Degroot et al.....	10,935
Crayon holder, J. Reckendorfer.....	10,772	“ steam, A. B. Wood et al.....	11,880
Cream collector, P. G. Feltzer.....	10,977	“ “ G. B. Dixwell.....	11,828
“ obtaining apparatus, W. E. Lincoln.....	11,778	“ “ G. H. Babcock et al.....	11,712
Creamer, milk, F. H. McIntosh.....	11,830	“ “ H. Fairgrieve et al.....	11,734
Crimping machine, pipe, F. F. Packham.....	11,662	“ “ J. Haggert et al.....	11,828
Crusher, ore, F. A. Huntington.....	11,920	“ traction, C. F. Cooper.....	11,207
Cultivator, B. B. Small.....	11,187	“ treble cylinder, F. A. Gardner et al.....	11,417
“ E. Appleton.....	11,799	Envelope, E. O. Blecknell.....	11,555
“ J. Forbes.....	11,168	“ machine, D. M. Lester.....	11,176

Evaporator, E. R. Witney et al.....	11,195	Furnace, for extracting metals, A. C. Tichenor.....	10,917
“ and drier, J. S. Bowen et al.....	11,785	“ hydrocarbon, W. D. Dickey.....	12,011
“ “ ssp, D. McLehau.....	11,118	“ puddling, W. Stubbiebin et al.....	10,999
Excavating apparatus, R. Stone.....	11,183	“ regulator, C. H. White et al.....	10,856
Excavator, earth, J. F. Parlow.....	11,911	“ smoke consuming, W. Gray.....	11,090
Exhibitors, carpet, A. Peterson.....	12,001	Garments, A. N. Horner.....	11,589
Expander, tube, P. Fitzgibbon.....	11,905	“ cutting, S. J. Smith.....	11,388
Explosion, preventing boiler, D. T. Lawson.....	11,687	Gas apparatus, G. Ransdell.....	11,528
Explosive compound, A. Monnier.....	11,815	“ “ H. Lange.....	11,216
“ “ G. M. Mowbray.....	11,298	“ carburetter, W. M. Jackson.....	11,795
“ “ J. Pattison.....	11,193	“ burner, C. J. Livesey et al.....	10,561
“ “ M. Tscherner.....	11,872	“ burner, J. N. Chamberlain.....	10,911
“ “ W. H. Stanley.....	11,049	“ governors, P. Birch.....	11,236
Extinguisher, fire, A. Stoner.....	10,986	“ illuminating, C. W. Isbell.....	11,694
“ “ C. Barnes.....	11,531	“ machine, F. Pincus.....	11,844
Extractor, stump, J. Whitfield.....	11,998	“ manufacture, H. Y. Attill et al.....	10,906
“ “ W. Armstrong.....	11,295	“ process, J. Stoneman et al.....	11,949
Eye glass, A. C. Blethen.....	10,925	“ “ O. Lugo et al.....	10,865
Fabric, textile, D. C. Sumner.....	11,241	“ regulators, A. Parsons.....	10,923
Fanning mill, G. Brooks.....	11,846	“ “ G. S. Woodruff.....	11,808
“ “ J. Herson.....	11,559	“ “ J. E. Birch.....	11,002
“ “ J. R. Mitchell.....	10,801	“ “ W. B. Malcolm.....	10,802
“ “ W. McKenzie.....	11,876	“ retorts, charging coal, A. Q. Ross.....	10,997
Fastener, blind, H. M. Wells.....	11,633	“ “ discharging, “ “.....	11,403
“ glove, A. Riddell et al.....	11,442	Gate, C. Kennedy.....	11,021
“ “ R. R. Rae.....	11,962	“ G. J. Alford.....	10,781
“ “ W. H. Storey.....	11,191	“ J. H. Smyth et al.....	11,240
“ sash, J. Harley et al.....	11,105	“ J. S. Henshaw.....	10,881
“ “ J. Warren.....	11,292	“ W. G. Alexander.....	11,172
“ “ W. G. and J. L. Rawbone.....	11,373	“ W. J. Watson.....	10,868
“ bolt, E. Leslie.....	11,662	“ and door, G. W. Simons.....	11,853
“ carriage spring, R. McLaughlin.....	11,771	“ farm, F. J. Lee.....	11,003
“ for garments, C. E. Brush.....	10,819	“ “ W. Brown.....	11,201
“ seythe, G. W. Pressley.....	11,765	“ “ W. Claypool.....	11,250
“ window, J. Grant.....	11,695	“ fence, S. F. Fenn.....	10,726
Fatty matters, refining, L. G. Bertram.....	11,743	“ hanglogs, A. D. Cox.....	11,588
Faucet, T. F. Conklin.....	11,606	“ lock, T. Millette.....	11,535
“ W. M. Sack.....	11,009	“ shutter, A. Wright.....	11,297
“ beer, C. C. Redmond et al.....	11,276	“ yard or garden, R. H. Hudgins.....	11,690
“ or cock, C. A. Blessing.....	11,357	Gauge, marking and sifting, C. Kinney et al.....	11,285
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Feeder, carding machine, W. C. Bramwell.....	11,243	“ water, The Extension Water Gauge Co.....	12,018
Feeding apparatus, boiler, S. G. Colnfield.....	11,847	Generating electricity, C. F. Brush.....	11,631
“ device, L. A. Dodge.....	11,470	Generator, electric, W. W. Griscom.....	11,583
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“ hats, J. T. Waring.....	11,371	“ “ S. T. Hyde.....	11,025
“ hat bodies, J. T. Waring.....	11,376	“ “ W. A. Green.....	11,255
“ machine, hat, J. T. Waring.....	11,411	Gilding process, L. Lawrence.....	11,617
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“ J. Elliott.....	11,246	“ “ R. R. Rae.....	11,962
“ barbed, E. M. Crandall.....	11,079	“ “ W. H. Storey.....	11,191
“ barbing machine, D. Cary.....	11,525	Gluten, Indian corn, I. J. Bennett et al.....	11,686
“ field, G. Merritt.....	11,803	Gold depositing, E. N. Dickerson, jr.....	11,618
“ post, P. Coughlin.....	11,507	“ extraction from ore, P. G. L. G. Desgnolles.....	11,600
“ wire, J. Westgarth.....	11,879	Goods waterproof, rendering, D. M. Lamb.....	11,127
“ “ The Washburn and Moen Manufacturing Company.....	11,453 11,451	Governors, gas, P. Birch.....	11,236
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Ferrule, tool, J. McMurphy.....	11,771	Grain conveying machine, H. D. Stover.....	11,396
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Fibre, cleaning, F. Threlfall.....	11,505	“ preparing process, J. Cornwall.....	11,855
“ decoloring, J. J. Sachs.....	11,900	“ scorers, S. T. and W. D. Elliott.....	11,462
Fibrous substances, treating, W. Courtney.....	11,570	“ scoring, D. M. Richardson.....	11,930
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“ paper, D. W. Lapham.....	11,209	“ “ J. Bennett.....	11,341
“ “ J. S. Shannon.....	11,657	Grate, Daniel Richmond.....	11,010
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“ escape, C. Harlow.....	10,836	“ grain, J. Stevens.....	11,668
“ “ C. Granville et al.....	11,939	“ hollow-ware, W. W. Lake et al.....	11,218
“ extinguisher, A. Stoner.....	10,986	“ machine, knife, J. D. McEachren.....	11,098
“ “ C. Barnes.....	11,531	“ “ wood, A. Fickett.....	11,379
“ place and furnace, R. Muller.....	11,151	“ “ J. Jones et al.....	11,746
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“ preserving, T. F. Wilkins.....	10,991	“ “ J. Dreisgaker.....	10,747
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		“ tugs, G. K. Sutngley.....	11,613

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" " spring, E. P. Fowler	11,062	" " J. Beam, et al.	11,027
" " " O. I. Bergeron	10,874	" " J. B. Robertson	11,197
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" " grain, W. M. Dight	11,287	" " J. L. de Wolfe	11,407
" " tailor's, R. G. McLellan	11,750	Oatmeal machine, J. Quayle	10,840
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" " extraction from ore, P. G. L. G. Desgignolles	11,600	" " treating, D. B. Cattamach	10,797
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" " E. Berliner et al.	11,777	Ore - chlorinating, J. H. Mears	10,834
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" " " J. H. Redfield	11,340	" " metal extraction from, P. L. G. Desgignolles	11,600
" " " J. Russell et al.	10,883	" " pulverising apparatus, L. S. Chichester	11,484
" " " T. B. O-borne et al.	10,983	" " separator, J. H. Pallock	11,742
" " separator, J. W. Pyne	10,703	" " smelling iron, D. Adams	10,844
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" " cream from, W. E. Lincoln	11,778	" " treatment, G. Durycce	11,100
" " creamer P. H. McEntee	11,830	" " washing machine, J. H. Wilhelm	10,984
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" " cushion, S. Keltch et al.	11,733	" " " J. E. Treat	11,974
" " dress, W. C. Hale	11,697	" " " W. Bell et al.	11,048
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" " shuttle, The N. Y. Silk Manuf'g Co.	11,007	" " apparatus, F. W. and G. F. H. Bartlett	10,717
" " transmitting, C. L. French	10,051	Package, fruit, H. J. Doyle	11,791
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" " W. S. Colwell	10,809	" " piston, J. A. Osgood, et al.	11,532
" " and apparatus, W. S. Colwell	10,820	Pad for carpets, H. M. Small	10,784
" " electric, W. W. Griscom	11,583	" " " horses' hoofs, A. J. Lockie et al.	11,519
" " for locomotives, W. S. Colwell	10,815	" " " " D. C. Baker	11,173
" " machinery, J. Williams et al.	11,236	" " medicated, H. E. Hunter	10,905
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" " meters applicable to, J. Lewis	10,805	Padlock, W. H. McDonald et al.	11,773
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" " car wheel, Z. S. & L. W. Washburne	11,760	Paint, enamel, H. Baines	11,900
" " casting, G. Ward	11,803	" " roof proof, H. Hall	11,004
" " for making steel, G. Cowling	11,022	" " sira, J. Butler	11,076
" " turbine, J. C. Wilson et al.	11,690	Painting roofs, P. Butler	11,043
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" " " sugar, C. H. Hersey	11,159	" " dust, G. Pierce	11,640
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" " " C. Hammelmann	11,957	" " calendaring, M. Newton	11,591
" " " D. Abrey	11,602	" " drying apparatus, N. Kaiser	11,683
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" " " T. W. Easton	11,034	" " " sand, C. M. Lothrop	11,170
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" " sharpening, P. Williams	11,058	" " " from wood, C. B. Carter	11,130
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" " " J. E. Thomas	11,345	Pens, separator for, N. Hebert et al.	11,372
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" " " The American Automatic Organ Co	11,085	" " marking, J. W. Stokess	11,095
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" " cutting machine, W. Wickersham	11,722	Pencil sharpener, M. C. Stone	11,240
" " feeding apparatus, W. Briggs	11,887	Percolator, coffee, W. G. Peary	10,062
" " " device, L. A. Dodge	11,170	Petroleum, deodorising, M. J. Woodward	11,726
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" " " feeding, W. Briggs	10,741	" " plates for, G. Eastman	10,903
" " plate, iron, T. Miller	11,885	Piano forte, C. Carothers	11,032
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" " newspaper holder, W. G. Fitch, et al.	11,874	Pile, iron box, T. Miller	11,888
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" " T. Richardson	10,916	Range, cooking, G. R. Prowse	11,894
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" " electric, " " "	11,627	" " " furnace, C. H. White et al	11,583
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" " " F. Berrhanime	11,273	Regulus treating process, W. Henderson	10,802
" " " J. "	11,272	Reins, H. B. Powell	12,007
" " " P. K. Dederick	11,551	Resin, refining, L. G. Bertram	10,892
" " tincture, J. G. Baker	11,181	Rest, head, H. McConnell	11,713
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" " " chromatic, G. M. Wright	11,000	Rivet, I. E. Packard	11,496
" " stamping and embossing, J. J. Sachs	11,409	" " setting machine, M. Bray	10,775
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" " " J. W. Cogswell	11,422	Roaster and drier, H. W. Booth	11,100
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INVENTIONS PATENTED.

No. 10,694. Improvements in Threshing Machines. (*Perfectionnements aux machines à battre.*)

Florens Kitten, Ferdinand, Ind., U. S., 22nd November, 1879, for 5 years.

Claim.—1st. A straw conveyer composed of successive sections, each section vibrating from a pivotal line located above its front on receiving end, thereby serving the double capacity of straw conveyer or shaker; 2nd. The combination of a straw conveyer composed of successive sections, each section vibrating from a pivotal line located above its front or receiving end and mechanism, whereby the sections are simultaneously operated for conveying the straw from one section to another; 3rd. The combination of a straw conveyer composed of successive sections, each section vibrating from a pivotal line located above its front or receiving end, a carrier suspended under said conveyer and intermediate connecting mechanism, whereby said straw conveyer and carrier are simultaneously moved in opposite directions; 4th. The combination of the shakers E suspended by the rocking shaft C, at their front ends, and connected to the rod U with the carrier H, connecting rods R S and double crank shaft P; 5th. The combination, with the rear shaker E, of the series of the vibrating and pivoted shouldered prongs and fingers O, for discharging or ejecting the straw from the machine; 6th. The carrier H, provided with transverse inclined recesses or grooves and lattice work and having the pivoted shouldered prongs or fingers O, in its rear end, just beyond the lattice work, so as to discharge or eject the straw; 7th. The shakers and straw conveyers E, arranged in successive sections and suspended, at their front ends, by the rocking shafts C and connecting to the rods U, in combination with the operating mechanism, whereby they are adapted to receive simultaneous upward tilting and vibrating movements.

No. 10,695. Improvements on Hand Trucks. (*Perfectionnements aux camion à bras.*)

Moses Johnson, Lockport, N. Y., U. S., 27th November, 1879, for 5 years.

Claim.—1st. The longitudinal base or support A, slotted standards C and clutch B; 2nd. The base or support A, shouldered standard e, slotted standard C and clutch B; 3rd. The slotted standards C C for reception of clutch bar *cc*, for adjusting the length of the clutch; 4th. The combination of clutching points *cc*, lugs *cc* and handles or standards F F; 5th. The clutch B having lugs *cc*, orifices *dd* and longitudinal pieces A A with orifices *dd*, and lugs *a* supported on standards *e*, united by the adjustable bolts *aa*, for regulating the leverage; 6th. The longitudinal pieces A A, supported by standards *e* and handle standards F F of clutch B, by means of transverse adjustable bolts *aa*.

No. 10,696. Improvements on Sewing Machines. (*Perfectionnements aux machines à coudre.*)

Samuel Y. Love, Philadelphia, Pa., U. S., 27th November, 1879, for 5 years.

Claim.—The combination of the needle bar having a frame D, needle carrying slide *a*, pivoted dog M and arm or lever F having finger *f*.

No. 10,697. Improvements in Churns. (*Perfectionnements aux barattes.*)

John Shaw, Toronto, Ont., 27th November, 1879, for 5 years.

Claim.—1st. The swinging dasher E in combination with the box A forming a churn; 2nd. The rocking shaft C pivoted upon the standards B, in combination with the perforated dash boards E, arms F, and bars *e* forming a swinging churn dash; 3rd. The rack H supported from the cover G by the bridges I J, in combination with the swinging dash E.

No. 10,698. Machine for Whitening Gilt Mouldings. (*Machine à blanchir les moulures dorées.*)

William E. Eastman, (Assignee of Frank P. Baker,) Boston, Mass., U. S., 27th November, 1879, for 5 years.

Claim.—1st. In a machine for whitening and coating mouldings, the endless friction band C composed of rubber, or rubber and other material combined, in combination with two or more pulleys B; 2nd. The yielding pressure rolls A, composed wholly or partly of rubber or other soft material, in combination with the springs F for pressing the mouldings upon the friction feed band C; 3rd. The combination of the pressure rolls A with the endless friction band C; 4th. The combination, with two or more pressure rolls A and two or more feed pulleys B, of the drum E enclosed by and operating the said pulleys B, by means of the endless band C and belts *cc*; 5th. The combination, with the parts A B C, of the tightener G.

No. 10,699. Improvements in Painting Brushes. (*Perfectionnements aux pinceaux.*)

Charles W. Meakins, Hamilton, Ont., 27th November, 1879, for 5 years.

Claim.—1st. A brush tool constructed with the hole B, in the end of the handle A, and the plug D to be inserted in the said opening in the handle; 2nd. The combination of the handle A, opening B in handle, pin or plug D, ferrule C and hair or bristles E.

No. 10,700. Improvements on Car Roofs. (*Perfectionnements aux toits des wagons.*)

John C. Wands, Louisville, Ky., U. S., 27th November, 1879, for 5 years.

Claim.—The combination, in a wooden roof, of adjoining boards, tongued and grooved into each other, having a recess under their joint, in their under sides, and an angular drip point extending downward into said recess, and a trough or gutter fitting into said recess under the drip point out of contact therewith.

No. 10,701. Improvements on Gate Rollers. (*Perfectionnements aux roulettes des barrières.*)

William Schwendler and Daniel Frerice, Appleton, Wis., U. S., 27th November, 1879, for 5 years.

Claim.—1st. The flanged discs *a b* united together upon a ball that is carried by a supporting pin or screw, and having a washer G clamped between the two parts of the roller; 2nd. The combination of the flanged roller A, ball *a* and pin or screw *e*, the ball being placed loosely upon the pin and retained in place.

No. 10,702. Improvements in Bakers' Ovens. (*Perfectionnements aux fourneaux de boulangerie.*)

Thomas Hunter, Toronto, Ont., 27th November, 1879, for 5 years.

Claim.—In combination with a baker's oven, a furnace D set within the oven, but below the sole A

No. 10,703. Improvements in Spark Arresters. (*Perfectionnements aux arrêtés-flamme-chs.*)

Elijah Leonard, (Co-inventor with Robert Angus,) and Frank E. Leonard and Charles W. Leonard (Assignees), London, Ont., 27th November, 1879, for 5 years.

Claim.—1st. The hood D, in combination with the smoke box of a horizontal boiler; 2nd. The partition plate G and slats I, in combination with deflectors F H and hood D, arranged within the smoke box of a horizontal boiler.

No. 10,704. Improvements in Door Fasteners. (*Perfectionnements aux fermatures des portes.*)

William H. Garlock, Denison, Texas, U. S., 27th November, 1879, for 5 years.

Claim.—The combination, with the rear edge of the door and the bolt *b* and stud *d* below the lower edge of said door, of the slotted endwise movable

rotating wedge plate C adapted, when turned in one direction on the bolt, to engage the door edge and stud and, when turned in the other, to swing below the lower edge of the door, so that the latter can pass above it freely.

No. 10,705. Improvements on Electric Telephones. (*Perfectionnements aux téléphones électriques.*)

Alexander M. Bell, Brantford, Ont., and Charles Williams, jr., Boston, (Assignees of Alexander G. Bell, Cambridge,) Mass., U. S., 27th November, 1879, for 5 years.

Claim.—1st. The method of producing currents of varying intensity in a circuit, the same consisting in altering the electric resistance of said circuit by the movement in frictional contact of electric conductors; 2nd. The method of transmitting speech, the same consisting in throwing upon a line electric undulations, by increasing and diminishing the resistance of the circuit by the movement in frictional contact of electric conductors, in accordance with the vibrations of a diaphragm responding to atmospheric vibrations; 3rd. The combination, with an elastic vibration diaphragm, of a vibrating conductor attached thereto, and a conductor in frictional contact with said vibrating conductor; 4th. The combination, with two or more conductors in frictional contact with each other, of an elastic vibratory plate or diaphragm, arranged to cause a movement past each other of said conductors, in accordance with the vibrations of the diaphragm; 5th. The combination, with an electric circuit, of two or more conductors resting in contact and forming part of said circuit, so that the current passes through the point or points of contact of a vibratory plate or plates, for effecting a movement past each other of said conductors; 6th. The combination, with an electric circuit, a source of electricity and a receiving instrument for reproducing sounds from the currents passing through said receiving instrument, of a transmitting instrument, composed of an elastic vibratory plate or diaphragm, and two or more conductors, resting in frictional or sliding contact with each other and forming part of aforesaid circuit, one or more of said conductors being attached to, and vibrating with said diaphragm; 7th. In a magnet, one or more coils surrounding its pole or poles, an elastic inductive plate or diaphragm located in front of said poles, a vibrating conductor attached to said plate and a separate conductor in contact with said vibratory conductor; 8th. The combination, in an electric circuit in which a receiving instrument of ordinary or suitable construction is placed, of a magnet and associated coils, an electric inductive plate or diaphragm in front of said poles, a vibrating conductor attached to said diaphragm, a conductor fixed with reference to said vibratory conductor and in contact therewith, and electrical connections for forming an electric circuit through said coils and through said conductors from one to the other, through their point of contact; 9th. A transmitting instrument or telephone composed of an elastic vibratory diaphragm secured in a frame, a perforated conductor fixed to said frame, a conductor attached to said diaphragm and free to move in the aperture in said perforated conductor, and devices or means for connecting the said instrument with an electric circuit, so as to form a part thereof; 10th. The method of producing undulatory currents of electricity by the friction of conductors placed in an electric circuit.

No. 10,706. Improvements in Long-Legged Boots. (*Perfectionnements aux bottes à longes tiges.*)

Robert Church, St. Lambert, Que., 27th November, 1879, (Re-issue of Patent No. 10,371).

Claim.—1st. A long-legged tongue boot, having the leg made of a single piece with the seam immediately in front; 2nd. The leg piece A, having its lower edge cut concave and its upper side cut down at the meeting edges; 3rd. The leg piece A, with concave lower and cut-away upper edges and having projections for side linings; 4th. The single leg piece A cut up the back, as at b, in combination with the outside counter; 5th. The combination with a long-legged boot, of the separated top piece D having its ends concealed by the straps E E.

No. 10,707. Improvements on Closets. (*Perfectionnements aux cabinets.*)

Amos Mallory, Mystic Bridge, Ct., U. S., 29th November, 1879, for 5 years.

Claim.—1st. The combination, with the seat B, of the guide frame E E; E₂, slide F, connecting rod G, crank H and knob or button I.

No. 10,708. Improvements on Copying Apparatus. (*Perfectionnements aux appareils à copier.*)

Willy Wallach, New York, U. S., 29th November, 1879, for 5 years.

Claim.—1st. A jelly roller with flanges; 2nd. A jelly roller with flange and index; 3rd. A jelly roller with flanges and a raised support.

No. 10,709. Improvements in Horse Collars. (*Perfectionnement aux colliers de cheval.*)

Sylvester J. Bowers, Canandaigua, N. Y., U. S., 29th November, 1879, for 5 years.

Claim.—1st. The two portions adapted to fit upon the free ends of a collar, one of which is provided with a groove A, the other having a tenon B of such size and shape as to fit neatly into the said groove A; 2nd. The groove A and tenon B tapered and dove-tailed so as to fit and lock tightly together; 3d. The two portions, each of which is riveted to the collar by a single rivet; 4th. The groove A having one end splayed or widened out; 5th. The combination of the tongue B with the stop cap C; 6th. The arrangement and combination of the groove A and pocket b with the tongue B, stop cap C and spring latch D having the catch a and knob c.

No. 10,710. Process and Apparatus for Cooling Oil in Tempering Steel. (*Procédé et appareil pour refroidir l'huile en recuisant l'acier.*)

John B. Armstrong, Guelph, Ont., 29th November, 1879, for 5 years.

Claim.—1st. Drawing the heated oil from the bath and forcing it through a coil of pipin, or through a chamber or chambers exposed to the cooling

action of water, and returning it to the bath again; 2nd. In combination with the oil bath, the pump B, pipes B₁ B₂ B₃ B₄ B₅, water tank D and coil C; 3rd. The combination, with the oil bath, of the pipes B₄ B₅ perforated as described.

No. 10,711. Art of Preparing and Tanning Hides and Skins. (*Art de préparer et tanner les peaux.*)

James Foley, Montreal, Que., 29th November, 1879, for 5 years.

Claim.—In the process of preparing hides and skins for tanning, sulphide of barium, alkali waste and sulphide of sodium, for unhairing and removing the hair, wool and epidermis from hides and skins and for soaking them, washing hides and skins after the hair is removed by centrifugal force, plumping hides and skins with an aqueous solution of sulphurous acid, bi-sulphite of lime or potash, softening flint and dry salted hides and skins with sulphate or carbonate of soda, bating or paring hides and skins with chloride of magnesium and calcium or carbonate of ammonia, and, in tanning the prepared hides and skins, the addition of ground fustic or a solution of fustic to tanning ooze or liquor as an assistant in the process of tanning, and to modify the color given to leather; also in combination with the above process, the extracting of the tanning liquor from sunnec infusions by centrifugal force, and removing the spent or impoverished liquid from the pores of hides and skins by centrifugal force or expression.

No. 10,712. Improvements on Car-Couplers. (*Perfectionnements aux attelages des wagons.*)

John R. Forsyth, Brussels, Ont., 29th November, 1879, for 5 years.

Claim.—1st. In connection with a railway car, the metal box B with an open bottom and groove for lever of latch; 2nd. In connection with a railway car and in combination with the box B, the latch and lever passing through said box; 3rd. In combination with said latch C and connected thereto by the links D, the short lever E, supported from the body of the car by the arm F and connected, by the rod H, to the chains D D, which also connect same to the main lever K and the supporting arm J, and the draw rod M with the handle N; 4th. In combination with the box B, the latch C connected by the links D₁ to the main lever E, the supporting arm F attached to block on end of truck car, the resting arm G which keeps said lever E in position when the cars are coupled; 5th. The latch A, with its long lever arm C carrying the weighting ball D, to keep the latch in firm position, and the pinion B, passing horizontally through the latch and securing it in the metal connecting box, and having a slight projection at each side to obviate friction through the length of the lever against the sides and groove of the box B; 6th. The guide bar A L with projecting shoulders or catches C C, on the inside, to keep the lever K in position, when elevated or depressed, and also the spring B to keep said lever locked on said shoulders or catches C C; 7th. In combination with the aforesaid, the improved form of coupling link, the same being made with straight sides, rounded ends and bevelled edges on the ends.

No. 10,713. Improvements on Shower Baths. (*Perfectionnements aux appareils à douches.*)

Daniel Deshon, Bucyrus, Ohio, U. S., 29th November, 1879, for 5 years.

Claim.—1st. The water tank A, divided into compartments, by means of partitions a b provided with openings o o, in combination with the tilting platform E provided with cleats i i whereby the bather can re-use the water or not, at will.

No. 10,714. Improvements on Lamp Reflectors. (*Perfectionnements aux réflecteurs des lampes.*)

The American Street Light Reflector Co'y., Boston, (Assignees of Charles Robinson, Cambridgeport), Mass., U. S., 29th November, 1879, for 5 years.

Claim.—1st. A lamp or gaslight reflector composed of a series of individual concave reflectors B B arranged around and below the burner A; 2nd. In combination with the burner A and reflectors B B, the coiled spring D by which the said reflector is suspended from the said burner.

No. 10,715. Improvements on Grain Separators. (*Perfectionnements aux séparateurs des grains.*)

Francis M. Bissell, Coldwater, Mich., U. S., 29th Nov., 1879, for 5 years.

Claim.—1st. In combination with the hopper, the fluted feed roller M; 2nd. The shoe C hung upon hangers a and capable of receiving a vibratory side-shaking motion its entire length; 3rd. The shoe C and hangers a, in combination with the bell crank lever F and shaker rod E, operated by the fan shaft; 4th. The lower shoe G resting upon brackets and friction rollers, and capable of receiving a shaking motion, in the direction of its length, and also a vertical shaking motion; 5th. The shoe G in the lower end of which is formed the opening o and spout n, together with discharge openings in the bottom thereof, and capable of separating and discharging grain into separate compartments; 6th. In combination with the lower screen c, the friction wheels d, brackets g J, laterally projecting arms h and shaker rods H H, operated by the fan shaft; 7th. The uneven surface of the face of the metal plates, on the lower end of the lower shoe, passing over friction rollers and causing a vertical and jarring shake to agitate the grain and prevent the screws from clogging.

No. 10,716. Improvements on Fence Posts. (*Perfectionnements aux pieux des clôtures.*)

Henry M. Beecher, New Haven, Ct., U. S., 29th November, 1879, for 5 years.

Claim.—1st. A fence post, the feet of which are formed of angle iron and curved in opposite directions; 2nd. The feet formed of curved angle iron and having a portion of one of its flanges turned over into the same plane as its fellow flange; 3rd. The two curved feet, placed side by side, crossing each other, pivoted together and adapted for driving into the ground; 4th. An upright and curved foot, formed rigidly thereon, and a shorter foot crossing the same and pivoted to one side thereof, and having its upper end adapted

to receive the first blows in the act of driving the planks into the ground; 5th. The eyes formed in side projections at the edge of the post, said projections being of a reduced thickness and of one and the same piece with the post.

No. 10,717. Improvements on Ozone Apparatus. (*Perfectionnements aux appareils à ozone.*)

Frederick W. Bartlett and George F. H. Bartlett, Buffalo, N. Y., U. S., 29th November, 1879, for 5 years.

Claim.—1st. The platform *d*, attached wooden rod *D*, and glass rod *D*, the two joints *e* or hinged in any suitable manner; 2nd. The glass-holder *E* having the circular wall *f* and radial arms or wings *e e e*, from which or between which the phosphorus may be suspended or attached in any suitable manner; 3rd. In combination with the dome *C* and rod *D*, the hollow stopper *b* closed at the top, the collar *a* at and metal clasps *c c c*; 4th. In combination with a base *A* and eliminating chamber *B*, the top or dome *C*, when its walls or outer circumference deviate from the vertical, from the top downward and outward, thereby preventing acid and other accumulation; 5th. In combination with a water-containing vessel, and provisions for slow admission of air and the discharge of ozone, the yielding supports *g g*, each adapted to immerse its quantity of phosphorus on the generation of any considerable heat; 6th. The ring or rings *F*, of fusible metal or chemically treated yarn or twine, acting as phosphorus supports or as frames on which to hang or attach phosphorus; 7th. The phosphorus sticks moulded upon or otherwise attached to the yielding supports *g g*; 8th. In combination with the fusible metal rings supports *F g*, a coating of varnish or lacquer, for the purpose of preserving them from the effects of ozone or acids; 9th. A glass-holder *E* constructed in sections or parts, each with wings, arms or partitions, so as to give greater generating capacity to large machines.

No. 10,718. Improvements on Land Rollers. (*Perfectionnements aux rouleaux d'agriculture.*)

John A. Kappheim, Dundas, Ont., 29th November, 1879, for 5 years.

Claim.—The combination of the angular faced rollers *R* and shafts *S S*; 2nd. The combination of frame *A*, shafts *S S*.

No. 10,719. Method of, and Apparatus for, Reproducing Writing, Drawings, &c., in one or more Colors. (*Méthode et appareil pour reproduire l'écriture, les dessins, etc., en une ou plusieurs couleurs.*)

Albert Ungerer, Vienna, Austria, 29th November, 1879, for 5 years.

Claim.—1st. The apparatus consisting of substances specified under the head 1 to 6 and *a* to *f*, formed into masses or blocks together with the inks and colors for reproducing writings, drawings and the like, in any number of colors at once on any substance, by a dry method; 2nd. The method and materials described for the manufacture of colored paper, leather and the like; 3rd. The use of polychromes and the colors specified, either singly or mixed or combined in the manner and for the purposes specified.

No. 10,720. Improvements in Car Ventilators. (*Perfectionnements aux ventilateurs des wagons.*)

William P. Williamson, Quincy, Ill., U. S., 29th November, 1879, for 5 years.

Claim.—1st. A device for ventilating and cooling cars composed of an air admitting pipe, a tank *B* and a deflector *C* located in rear of the tank *B* and of an inclined deflector beneath the tank, the deflectors having surfaces of cloth, or equivalent material and being provided with spraying pipes; 2nd. The combination of the pipe *A*, the tank *B* and the deflector *C D F*; 3rd. In combination with the evaporating surfaces of the deflectors, the spray pipes and their water supplying connections.

No. 10,721. Improvements in the Manufacture of Boots and Shoes. (*Perfectionnements dans la fabrication des chaussures.*)

Joseph Hogue, St. Jean, Que., 29th November, 1879, for 5 years.

Résumé.—1o. La manière d'ajouter à la chausure la partie formant la languette *C*; 2o. La méthode de cambier le devant et la derrière d'une chausure d'un seul morceau et par une seule opération 3o. La substitution de boutons *d d* au lieu de la languette bouclée.

No. 10,722. Improvements in Buggy Tops. (*Perfectionnements aux couvertures des voitures.*)

Thomas Smith, Westminster, Ont., 29th November, 1879, for 5 years.

Claim.—1st. The lever *E*; 2nd. The combination of the flanged plate *A* having foot *B*, inner plate *C*, lever *E* with jaws *D*, extension piece or wings *G*, spring *I* and bows *H H J J*.

No. 10,723. Machine for Making the Inner Soles of Boots and Shoes. (*Machine à faire les semelles intérieures des chaussures.*)

Mary A. C. Holmes, Boston, (Assignee of Francis D. Ballou, Marlboro'), Mass., U. S., 5th December, 1879, for 5 years.

Claim.—1st. The combination of a stationary and a rotating cutter and an intermittently rotating feed; 2nd. The combination of a stationary and a rotating cutter, a vibrating awl carrying arm and an intermittently rotating feed; 3rd. The combination of a vibrating awl carrying arm, and an intermittently rotating feed; 4th. The combination of a rotating and stationary cutter, an intermittently rotating feed and the adjustable work support.

No. 10,724. Improvements on Paper Boxes.

(*Perfectionnements aux boîtes en papier.*)

Charles M. Arthur, Albert Smart, Ellsworth Smart and Benj. C. Shepherd, Brockville, Ont., 5th December, 1879, for 5 years.

Claim.—1st. The sides *A B C D* with their respective projections to form the ends, the ends of one side cut *t* to form a notch, as at *a*, on each edge, the ends of the opposite sides constructed with a diagonal cut *H*, the bottom of said cut corresponding to the notched parts of the other end; 2nd. A paper box blank cut so as to be folded into a complete box combined with a thin paper lining, to form a lining for the box when complete.

No. 10,725. Improvements on Electric Signals for Railways. (*Perfectionnements aux signaux électriques pour les chemins de fer.*)

Joseph J. Conklin, New York, U. S., 5th December, 1879, for 5 years.

Claim.—1st. In combination with the electro-magnet signal and shaft *e*, the armature lever *d*, arms *i b r*, segment *o* and latch lever *l*; 2nd. The combination of the electro magnet, armature *a*, lever *d*, latch *l*, pusher *k*, shaft *e* and signal; 3rd. The combination, with the signalling instruments, of the circuit closers and circuit wires; 4th. The circuit closing lever *w* pivoted to the rail, in combination with the clip *x* and spring circuit closer, resting upon the flange of the rail.

No. 10,726. Improvements on Fence Gates. (*Perfectionnements aux barrières.*)

Silas T. Fenn (Assignee of Henry H. Allen), Oxford, Mich., U. S., 5th December, 1879, for 5 years.

Claim.—The loop or strap *A B* in connection with any fence gate.

No. 10,727. Improvements on Door Hangers. (*Perfectionnements aux pentures des portes.*)

Edwin Prescott, Hampton Falls, N. H., and George W. Gregory, Boston, Mass., U. S., 5th December, 1879, for 5 years.

Claim.—1st. A post lever and door lever connected as described, whereby the opposite ends of each lever are made to move past opposite sides of the other lever; 2nd. The post and door levers pivoted together at a point, one side of the centre of their length, and adapted to move one lever beyond the other, at opposite ends upon opposite sides; 3rd. A lever *a* and truss-shaped lever composed of parts 23 and fulcrum piece 4, the lever *a* passing through an opening or recess in lever *e*.

No. 10,728. Improvements on Saw Mill Head Blocks. (*Perfectionnements aux poupées des scieries.*)

Benjamin E. Sergeant, Greensboro, N. C., U. S., 9th December, 1879, for 5 years.

Claim.—1st. The combination, with the head block slide *B* having rack bar *C*, of the shaft *F*, loose pinion *D*, spring *d*, clutch *G* feathered on the shaft, and the lever *H*; 2nd. The lever rod *L*, with movable set *h*, in combination with the setting lever *J*; 3rd. The combination of the ratchet wheel *I*, lever *J*, weighted double acting dog *K* and sliding counter balance *O*; 4th. The combination of the adjustable pin *e* having set nut *e¹* with the frame having slot *e²*, and with the lever rod *L* and slotted set *h*.

No. 10,729. Improvements on Threshing Machines. (*Perfectionnements aux machines à battre.*)

Robert R. Monteith and John Hunner, Eau Claire, Wis., U. S., 9th December, 1879, for 5 years.

Claim.—1st. The combined straw carrier and screen composed of the rectangular frame *c*, longitudinal toothed bars *e h*, transverse bars *f*, wire screen *g* and transverse rods *i* arranged in front of said screen *g*; 2nd. The combination, with the straw carrier and screen *E*, suspended at its rear end by its operating crank shaft *l*, and the shoe *H*, suspended at its rear end by the link *l*, of the walking beams *m* pivoted to the sides of the machine, and connecting and suspending the straw carrier and screen and the shoe near their front ends, whereby the straw carrier or screen is adapted to receive an upward, backward, downward and forward motion, and the shoe a free swinging motion in an opposite direction, by the motion imparted to said carrier and screen; 3rd. The combination, with the straw carrier and screen *E*, the shoe *H* and the suspended spouts *o q*, of intermediate connecting mechanism, whereby said straw carrier and screen, the shoe and spouts are simultaneously vibrated in different directions through the medium of the mechanism for operating the straw carrier and screen; 4th. The combination, with a vibrating shoe, of transverse spouts *o q* loosely suspended from the frame of the machine, and connecting mechanism between said shoe and spouts, whereby the spouts are vibrated transversely by the motion of the shoe without moving with it; 5th. The combination, with the vibrating straw carrier and screen *E*, the thrashing cylinder and concave *C* and vibrating shoe provided with grain board *L*, of the inclined grate or riddle *F*, extending over the forward end of carrier or screen and under the concave; 6th. The combination, with the vibrating shoe *H* having the spout *q*, riddle or riddles *n* and transversely grooved grain floor *I*, of the longitudinal rods or wires *S* connected to the rear end of said grain floor and projecting or extending backward up over the riddle or riddles *n*; 7th. The tailings elevator having a V-shaped floor or trough *R* in cross sections, and correspondingly V-shaped buckets *S* mounted on an endless chain *St*, whereby the inclination of the sides of the floor or trough prevents the tailings from adhering thereto, and thus obviating choking or clogging of the elevator.

No. 10,730. Improvements on Harness. (*Perfectionnements aux harnais.*)

Charles S. Piersons, Charles Ferris and William Warren, Sandy Hill, N. Y., U. S., 9th December, 1879 (Re-issue of Patent, No. 9627).

Claim.—1st. The combination, with a metallic plate provided with a recess on one side, of a strap fitted in the recess, a clamping plate which

secures the strap therein, and a fastening device which maintains said clamping plate in position; 2nd. The combination, with a metallic plate provided with a longitudinal groove and two adjacent straps fitting in the latter, of a clamping plate which secures said straps in position, and studs which project from the plates through the straps; 3rd. The combination, with a metallic plate secured longitudinally to a collar and provided with a trace fastening device, of a shoulder strap fitting in a loop formed in the forward upper portion of said plate; 4th. The combination, with a breeching and a hold-back strap, of a metallic plate secured longitudinally to the outer side of the breeching, and provided with a fastening device, at its forward end, which connects with said hold-back strap; 5th. The combination, with a rigid thill carrier whose annular groove is formed with transverse recesses, respectively in its top and side, of a buckle and loop which fit respectively in said recesses and a carrier strap which secures them therein; 6th. The combination, with a metallic plate secured to a strap and provided with a transverse recess having a central hole, of a buckle whose tongue bar fits in the recess and whose tongue projects through the hole, said plate being further provided with an imperforate transverse recess within which a strap loop fits.

No. 10,731. Art of Ruling Paper. (*Art de régler le papier.*)

Daniel Mortimer, Ottawa, Ont., 9th December, 1879, (Extension of Patent No. 4,140), for 5 years.

No. 10,732. Improvements on Bean Pickers. (*Perfectionnements aux trieurs de fèves.*)

Thomas Barnes, Harwich, Ont., 9th December, 1879, for 5 years.
Claim.—The tapered tube A having a portion of its sides split into sections or springs A', terminating in an orifice, with turned-up ends D and maintained in place by smaller tube E attached internally thereto.

No. 10,733. Improvements on Self-Oilers for the Journals of Railway Cars. (*Perfectionnements aux graisseurs automatiques pour les essieux des wagons de chemins de fer.*)

Harmon Gilmore, Simcoe, Ont., 9th December, 1879, for 5 years.
Claim.—The combination and arrangement of roller C, hung or supported by springs D D, in the oil box or reservoir attached to railway car trucks, and revolved through the oil in oil box by friction with the car journal, for the purpose of supplying the journal with oil for lubricating it.

No. 10,734. Improvements in Anti-Friction Journal Boxes. (*Perfectionnements aux boîtes des tourillons à anti-friction.*)

Russell Brewer, New York, U. S., 10th December, 1879, for 5 years.
Claim.—The guide wheels D D, formed with the grooves *d* and flanges *d'* of unequal diameter, in combination with the journal C having disc or flange *a* on its end.

No. 10,735. Improvements in Horse Rakes. (*Perfectionnements aux râteliers à cheval.*)

Augustus C. Kaiser and Hans H. Stangard, St. Charles, Ill., U. S., 10th December, 1879, for 5 years.
Claim.—The bisected axle box C C, bolted to the support D, with the bolt extending in an upwardly inclined position, with or without the flange C'; 2nd. The rake head hinge consisting of the clip *e* having an axis *e*, passing through an eye-bolt *e'*, secured in place by jam nuts *e''*; 3rd. The clutch K K' on the driving or transporting wheel axle, the part K' having an adjustable cam and a lever L, and the part K provided with a projection and a lever J, in combination with the jointed, pivoted and locking levers and the rake head; 4th. The combination, with the lever J on the axle A, of the adjustable cam M, to limit the throw of the rake head.

No. 10,736. Improvements on Churns. (*Perfectionnements aux barattes.*)

John Campbell, Almonte, Ont., 11th December, 1879, (Extension of Patent No. 4,177), for 5 years.

No. 10,737. Improvements in the Manufacture of Paper Dishes. (*Perfectionnements dans la fabrication des plats en papier.*)

Chalmers Ingersoll, Bellot, Wis., U. S., 13th December, 1879, for 5 years.
Claim.—1st. A dish made of a single sheet of paper with the edges turned up to form sides with corrugations decreasing in depth towards, and vanishing at the periphery of the bottom; 2nd. The dies for the manufacture of dishes of paper and like unmaluable materials, the same having at the sides corrugations vanishing at the periphery at the bottom; 3rd. The mode of forming flanged articles of unmaluable material, the same consisting in softening a sheet of the material by moisture, then turning up the edges to form the sides and simultaneously bending said sides to form corrugations, vanishing at or near the periphery of the bottom.

No. 10,738. Improvements on Chains for Transmitting Power. (*Perfectionnements aux chaînes pour la transmission du mouvement.*)

William N. Whitoley, Springfield, Ohio, U. S., 13th December, 1879, for 15 years.
Claim.—1st. A chain composed of a series of links formed so that each link is an exact counterpart of the others; 2nd. The chain link composed of the plates or bars A A connected together, at one end, by the ferrule B and opened, at the other end, to clasp the closed end of the next succeeding link, to which it is attached by the bolt C; 3rd. A chain composed of a series of

links formed and connected together so that the joints constitute a continuous weaver bearing the full length of the chain; 4th. A chain composed of interchangeable links connected together by bolts or rivets C, so that one or more links may be removed or inserted when the chain is taut.

No. 10,739. Method of, and Machine for Framing Doors, &c. (*Méthode d'assemblage des portes, &c., et machine pour cet objet.*)

Jonathan Griesby and John Mills, Lancaster, England, 13th December, 1879, for 5 years.

Claim.—1st. The borer spindles revolving in adjustable carriages, and the table to receive the work arranged to traverse towards the borer spindles; 2nd. The revolving borers, arranged in two parallel lines or sets, and the carriage to receive the work, arranged to traverse to and fro so as to submit the work to the action of the two sets of borers successively; 3rd. The borer spindles arranged in sets in movable carriages which are adjustable, at various distances apart to suit the work; 4th. The table formed in two parts arranged to slide towards and from each other by parallel movements, in order to clamp the work and to tighten the joints; 5th. The table carrying the work, arranged to be lowered and traversed to force in the pins or dowels; 6th. The combination of a table, to receive and clamp together the parts of a door, window frame or other framed wooden article, with a number of borers arranged to bore holes for the wood pins or dowels employed to secure together the said parts.

No. 10,740. Improvements on Turnip Harvesters. (*Perfectionnements aux moissonneuses à navets.*)

John Bartlett, Oshawa, Ont., 13th December, 1879, for 5 years.
Claim.—1st. The topping knife B with the threaded arms C C, with their nuts D D, in combination with the hinged slats B B, and the upright pieces E E; 2nd. The tailing and lifting knife L; 3rd. The frame A with the wheels I I, the topping knife B, the tailing knife L, combined for the purpose of topping, tailing and taking up turnips by horse-power.

No. 10,741. Improvements on Apparatus for Feeding Nail Machines. (*Perfectionnements aux appareils à alimenter les machines à clou.*)

William Briggs, Montreal, Que., 13th December, 1879, for 5 years.
Claim.—1st. In combination with the barrel L, a rack or similar device for revolving said barrel operated by a crank *i* which is, in turn, operated by a crank *d* arranged to have the dead centres of said cranks set as described; 2nd. The combination of the crank *d*, connecting rod *e*, rack *f*, pinion and axle *h*, crank *i*, connecting rod *k* and barrel *L*; 3rd. The combination of the barrel *L* with jaws *m* provided with plate *a*.

No. 10,742. Improvements on Sleds. (*Perfectionnements aux traîneaux.*)

James H. Dennis, Newark, N. J., U. S., 13th December, 1879, for 5 years.
Claim.—The combination of the sled frame A, the sweeps E, arranged in row-locks on the rails *d*, and the hand wheel device F G at the rear.

No. 10,743. Improvements on Car-Couplers. (*Perfectionnements aux attelages des wagons.*)

James G. Scott, Chicoutimi, Que., 13th December, 1879, for 5 years.
Claim.—1st. A draw bar A, constructed with an upward projection *a*, having a flat face in line with the pin hole; 2nd. A coupling pin constructed with a head having a groove *g* and a flat side *b*; 3rd. A coupling pin, having a projection *d* on the shank, in combination with a recess in the draw bar, whereby the pin is prevented from rising; 4th. The draw bar A, having projection *a* and draw pin having a flat face *b* in contact therewith, in combination with shackle B engaging with the pin head; 5th. The combination, with the draw bar A, of the shackle B having arms *e*, and shafts *g* having slotted arms *f* engaging with the arms *e*, for uncoupling from either side of the car.

No. 10,744. Improvements on Weighing Scales. (*Perfectionnements aux balances.*)

Henry H. Ham, jr., and Elbridge G. Pierce, jr., Portsmouth, N. H., U. S., 13th December, 1879, for 5 years.
Claim.—1st. The combination, with the rearward slotted extension A' of the bed A, of the supplementary bed B, screws *b* *b*, longitudinally adjustable and slotted cylindrical case F, shaft *d* carrying the scale-pan cylinder G, said shaft having its bearings in projections attached to the bed F, scale beam B and sliding weight H having a pointer *t*; 2nd. The combination, with a weighing scale, of a scale-pan cylinder having no tangible connection with any of the balancing levers of the scale.

No. 10,745. Improvements on Bicycles. (*Perfectionnements aux velocipèdes.*)

Edward C. F. Otto, Peckham, Eng., 16th December, 1879, for 5 years.
Claim.—1st. The improved construction of bicycle; 2nd. The improved position and arrangement of the seat, in combination with the treadle straps whereby perfect equilibrium is maintained and great facilities afforded for travelling over roads and surmounting obstacles hitherto impracticable for bicycles; 3rd. The improved arrangements of steering gear whereby the driving wheels are instantaneously converted into steering wheels and vice versa; 4th. The improved arrangement for shortening and lengthening the steering rods; 5th. The improved arrangements for the application of brake power whereby perfect control over the bicycle is maintained.

No. 10,746. Improvements in Apparatus for Ringing Alarm Bells on Buoys.*(Perfectionnements aux appareils à sonner les cloches d'alarme sur les bouées.)*

Henry Brown, Frederick W. Wagener and George A. Wagener, Charleston, S. C., U.S., 16th December, 1879, for 15 years.

Claim.—1st. The combination, with the bell, of a grooved disk carrying a ball for striking the bell; 2nd. The combination of the rigidly suspended bell, the grooved disk, the ball and the ball retracting springs.**No. 10,747. Improvements in Grinding Mills.***(Perfectionnements aux moulins à blé.)*

Jacob Dreisigaker, (Assignee of Ezra Rhodes,) Erie, Penn., U.S., 16th December, 1879, for 5 years.

Claim.—1st. The plates H provided with flanges J and hubs I, in combination with cylinder A, shaft F, burr E and nuts G; 2nd. The cylinder A provided with hopper M, spout C, concave plate D hung as described, in combination with plates H provided with flanges J and hubs I, and with shaft F provided with burr E, wheel K and a crank for turning the shaft.**No. 10,748. Self-binding Harvester.** *(Moissonneuse-lieuse.)*

James F. Gordon, Rochester, N. Y., U. S., 18th December, 1879, (Extension of Patent No. 4,193,) for 5 years.

No. 10,749. Self-binding Harvester. *(Moissonneuse-lieuse.)*

James F. Gordon, Rochester, N. Y., U. S., 19th December, 1879, (Extension of Patent No. 4,193,) for 5 years.

No. 10,750. Bed Spring. *(Resort de lit.)*

William Jones, Philadelphia, Pa., U. S., 22nd December, 1879, (Extension of Patent No. 4,202,) for 5 years.

No. 10,751. Improvements in Vehicles. *(Perfectionnements aux voitures.)*

Daniel Conboy, Uxbridge, Ont., 24th December, 1879, (Extension of Patent No. 4,260,) for 5 years.

No. 10,752. Improvements on Fifth Wheels for Vehicles. *(Perfectionnements aux rouls d'avant-train des voitures.)*

Charles G. Wells, Hartford, Ct., U. S., 24th December, 1879, for 5 years.

Claim.—The axle plate *a* attached to the axle, the head block plate *b* extending into the strap *f* and attached to the head block, and the annulus *c* and annular flange *e* under, and attached to the head block plate.**No. 10,753. Improvements on Windmills.***(Perfectionnements aux moulins à vent.)*

William Forbes, Plainwell, Mich., U. S., 24th December, 1879, for 5 years.

Claim.—1st. The combination of the weights F, rods E *e* *e* and slotted plates G *g* with the ropes K and sails I; 2nd. In a windmill having radial arms D provided with pulleys *d* *d* and stops J *j*, the combination of the weights P, rods E *e* having hooks *e* *e*, with the slotted plates G *g* adapted tobe disconnected therefrom, and the ropes K and sails I, so that any one of the sails may be detached from its weight; 3rd. The frame B having recess *b* and friction rollers *b* *b* *b* *b*, in combination with shaft C, disc C, arms D, sails I and weights G; 4th. The masts H serving the double function of supporting the sail and acting as a shaft for the pulley *d*, in combination with the sails I *i* and weights F.**No. 10,754. Improvements on Horseshoes.***(Perfectionnements aux fers à cheval.)*

John Vandegrift and Andrew J. Brown, Langhorne, Penn., U. S., 24th December, 1879, for 5 years.

Claim.—1st. In combination with a horseshoe having the screw bar B, the guide and protecting plate C welded to one of the heel calks and having the other heel calk bearing thereon; 2nd. The horseshoe made in one piece and having the calks *a* *a*, screw bar B, plate C and projection *c* *c*.**No. 10,755. Improvements on Cider Presses.***(Perfectionnements aux pressoirs à cidre.)*

David W. Witmer, Plattsville, Ont., 24th December, 1879, for 5 years.

Claim.—The combination of the blocks E E and F together with the screw A and nut B.**No. 10,756. Improvements on Ammunition Cases.** *(Perfectionnements aux caisses à munitions.)*

Oscar K. Buckhout, Kalamazoo, Mich., U. S., 24th December, 1879, for 5 years.

Claim.—A rectangular case containing shot compartments L L provided with powder-flask receptacle T, powder flask C and metallic-lined drawers D having lids or covers *e*.**No. 10,757. Improvements on Reaping Machines.** *(Perfectionnements aux moissonneuses.)*

Francis J. Craig, Strathroy, Ont., 24th December, 1879, for 5 years.

Claim.—The shive wheel C, when fastened to the side of the reaper frame B B and placed between the reaper table E *e* and the lifting lever A; the combination of the shive wheel C C with the lifting lever and short arm A, with the chain passing over the shive wheel and attached to the reaper table, at H, and the lifting lever, at the point G.**No. 10,758. Improvements on Spring Beds.***(Perfectionnements aux lits à ressorts.)*

Henry B. Clark, Ingersoll, Ont., 24th December, 1879, for 5 years.

Claim.—The long bar A with the braces B B B, properly formed, in combination with the attachment of the braces B B B, and of the spiral springs to the long bar A.**No. 10,759. Improvements in Boots.** *(Perfectionnements dans les bottes.)*

Michael C. Mullarky and Edmond Parent, Montreal, Que., 24th December, 1879, for 5 years.

Claim.—The blank A B comprising the leg and vamp of a boot, arranged in the manner, and cut of the outline shown.

List of Patents issued up to 18th January, 1880, but not yet Officially published in the Patent Office Record.

- No. 10,767. J. C. Blackett, Glace Bay, N. S., "Sewing Machine Spinning and Twisting Attachment," 31st December, 1879.
- No. 10,768. C. E. Brush, Toronto, Ont. (Assignee of C. C. Shelby, New York, U. S. A.), "Sack Supporter," 31st December, 1879.
- No. 10,769. J. M. Foss, St. Albans, Vt., and W. J. Watson, Chicago, Ill., U. S. A., "Safety Car Link," 31st December, 1879.
- No. 10,770. J. H. McLean and T. Hostetter, St. Louis, Miss., U. S. A., "Self-Lubricating Journals and Bearings," 31st December, 1879.
- No. 10,771. A. B. Davis and W. B. Whitney, Philadelphia, Penn., U. S. A., "Reversible Car Spring," 31st December, 1879.
- No. 10,772. J. Reckendarfer, (Assignee of J. Hoffman, New York, U. S. A.), "Lead and Crayon Holder," 31st December, 1879.
- No. 10,773. T. Clark, Truro, N. S., "Live Stock Freight Car," 31st December, 1879.
- No. 10,774. E. D. Shaffer, Moncton, N. B., "Freight Car," 31st December, 1879.
- No. 10,775. M. Bray, Newton, Mass., U. S. A., "Rivet Setting Machine," 31st December, 1879.
- No. 10,776. J. Lennerton, Princeport, N. S., "Treenail Wedge Machine," (Extension of Patent No. 4,222), 31st December, 1879.
- No. 10,777. J. M. Rhodes, Hancock, Mich., U. S. A., "Fracture Bed and Apparatus," (Extension of Patent No. 4,281), 2nd January, 1880.
- No. 10,778. R. M. Wanzer (Assignee of J. Jamieson, Hamilton, Ont.), (Extension of Patent No. 4,231), "Sewing Machine," 2nd January, 1880.
- No. 10,779. D. D. Ferguson and J. S. Loughin, Alvinston, Ont., "Churn," 5th January, 1880.
- No. 10,780. J. Popham and J. Linton, Montreal, Que., "Riveted Seam for Boots and Shoes," 10th January, 1880.
- No. 10,781. G. J. Atford, Bastard, Ont., "Lever Gate," 10th January, 1880.
- No. 10,782. V. Forester, Cranbrook, Ont. (Assignee of S. C. Welty, Ligouier, Ind., U. S. A.), "Horse Collar Facing," 10th January, 1880.
- No. 10,783. T. F. Wilkins, London, England, "Butter Preserving Process," 10th January, 1880.
- No. 10,784. A. E. Wait, Woonsocket, R. I., U. S. A., "Improvements on Bobbins," 10th January, 1880.
- No. 10,785. S. Hayward, St. John, (Assignee of W. A. Pitt, Kingston, N. B.), "Snaths Pictures," 10th January, 1880.
- No. 10,786. A. Graham, (Assignee of W. H. Moses, Shawsville, Va., U. S. A.), "Process of Cleaning Bolting Cloth," 10th January, 1880.
- No. 10,787. E. W. Potter, Smith's Cove, and Hon. E. R. Oakes, Digby, N. S., "Process for Curing and Preparing Finnan Haddies for Canning," 10th January, 1880.
- No. 10,788. T. T. Johnston, Molesworth, Ont., "Sick Room Lamp," 10th January, 1880.
- No. 10,789. G. M. Patten, Holbrook, Mass., U. S. A., "Seal Lock," 10th January, 1880.
- No. 10,790. C. Costello, Beverly, Ont., "Threshing Machine Tooth," 10th January, 1880.
- No. 10,791. T. A. Edison, Menlo Park, N. J., U. S. A., "Electric Lamp," 10th January, 1880.
- No. 10,792. F. Blake, jr., Weston, Mass., U. S. A., "Electric Signals," 10th January, 1880.
- No. 10,793. J. W. Pyne, Cincinnati, Ohio, U. S. A., "Middlings Separators," 10th January, 1880.
- No. 10,794. H. Burgess, Royer's Ford, Penn., U. S. A., "Pipe Covering and Machine for Making Same," 10th January, 1880.
- No. 10,795. S. A. Bates, Pittsburg, Penn., U. S. A., "Elevator," 10th January, 1880.
- No. 10,796. E. Wasell, Loudon, Ont., "Rail Trusses," (Extension of Patent No. 4,379), 10th January, 1880.
- No. 10,797. D. D. Cattanaeh, Providence, R. I., U. S. A., "Oil Process," (Extension of Patent No. 4,297), 10th January, 1880.
- No. 10,798. R. Eickemeyer, Yonkers, N. Y., U. S. A., "Mowing Machine," 11th January, 1880.
- No. 10,799. M. A. Keller, Brockport, N. Y., U. S. A., "Gleaner and Binder," 11th January, 1880.
- No. 10,800. L. D. West, West Valley, N. Y., U. S. A., "Barrel Stand," 11th January, 1880.
- No. 10,801. J. R. Mitchell, Melton, Ont., "Fanning Mill," 11th January, 1880.
- No. 10,802. W. B. Malcolm, Toronto, Ont., "Equalizing Gas Jet Regulator," 11th January, 1880.
- No. 10,803. E. S. Mauny, Beauharnois, Que., "Horse Power," 11th January, 1880.
- No. 10,804. A. Gardener, Hamilton, Ont., "Memorandum Book," 11th January, 1880.
- No. 10,805. J. Lewis, Manchester, England, "Water Meter and Motor," (Extension of Patent No. 4,328), 11th January, 1880.
- No. 10,806. G. S. Sheffield, Three Rivers, Mich., U. S. A., "Hand Car," 11th January, 1880.
- No. 10,807. F. Richardson, Providence, R. I., U. S. A., "Boot and Shoe Heels," 16th January, 1880.
- No. 10,808. J. L. Campbell, West Elizabeth, Penn., U. S. A., "Incubator," 16th January, 1880.
- No. 10,809. W. S. Colwell, Pittsburg, Penn., U. S. A., "Motor and Apparatus for Utilizing it," 16th January, 1880.
- No. 10,810. G. Piggott, Bowanville, O., "Reed Organ," 16th January, 1880.
- No. 10,811. T. Campbell, St. John, N. B., "Compression Cock for Water Basins," 16th January, 1880.
- No. 10,812. J. Z. C. Miquelon, St. Camille, Q., "Permutation Locks," 16th January, 1880.
- No. 10,813. D. Johnson, Wrexham, Wales, "Manufacture of Aerated and other Beverages," 16th January, 1880.
- No. 10,814. C. L. Travis, Minneapolis, Min., U. S. A., "Grain Binding Machine," 16th January, 1880.
- No. 10,815. W. S. Colwell, Pittsburg, Penn., U. S. A., "Motor for Locomotives, &c.," 16th January, 1880.
- No. 10,816. L. Thurston and Jay Vandenburg, Findlay, O., U. S. A., "Sun Dial," 17th January, 1880.
- No. 10,817. G. McCord, New York, U. S. A., "Skate," 17th January, 1880.
- No. 10,818. Ogle Carss, Smith's Falls, O., "Animal Trap," 17th January, 1880.
- No. 10,819. C. E. Brush, Toronto, Ont. (Assignee of C. C. Shelby, New York, U. S. A.), "Metallic Fastening for Under Garments, &c.," 17th January, 1880.
- No. 10,820. W. S. Colwell, Pittsburg, Penn., U. S. A., "Motor and Apparatus for Utilizing it," 17th January, 1880.
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- No. 10,823. H. A. Ste. Marie, Montreal, Q., "Hand Scrubber," 17th January, 1880.
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- No. 10,826. M. Garvin, Newcastle, O., "Mowing Machine," 17th January, 1880.
- No. 10,827. M. Johnson, Lockport, N. Y., U. S. A., "Hand Trucks," 17th January, 1880.
- No. 10,828. A. H. Ordway, Haverhill, Mass., U. S. A., "Oscillating Chair," 17th January, 1880.
- No. 10,829. C. J. Shirreff, (Assignee of J. R. Smith and P. W. Strong,) Brockville, O., "Paper Box," 17th January, 1880.
- No. 10,830. H. and W. Turner, Montreal, Q., "Pantaloons Suspensers," 18th January, 1880.
- No. 10,831. W. F. Dial and L. H. Pacard, Montreal, Q., "Files," 18th January, 1880.

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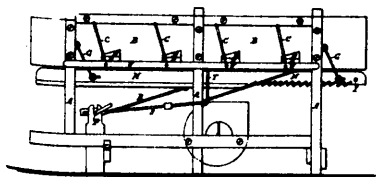
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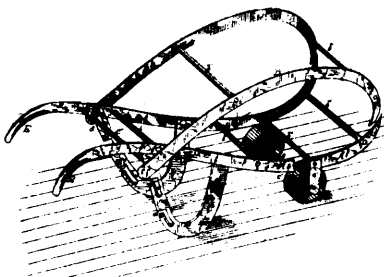
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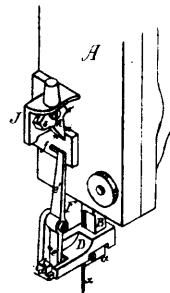
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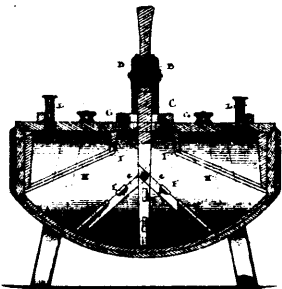
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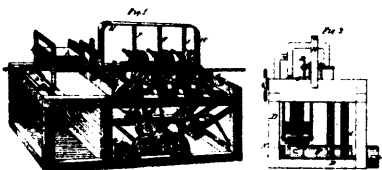
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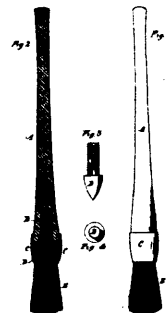
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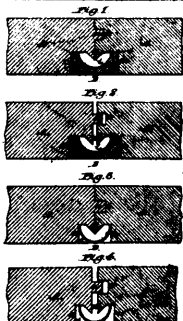
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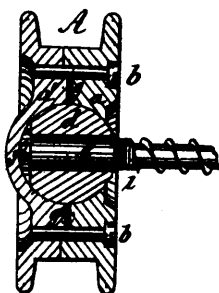
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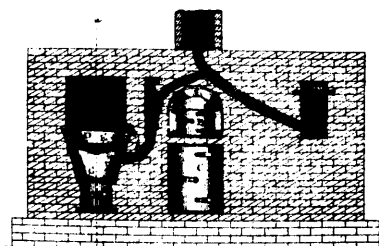
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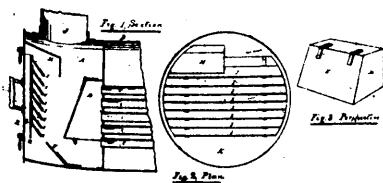
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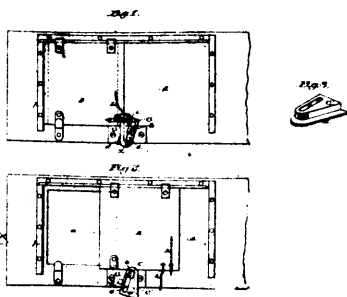
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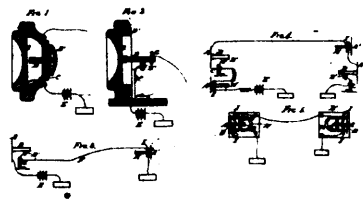
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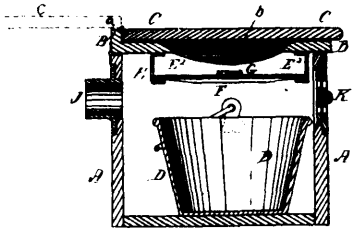
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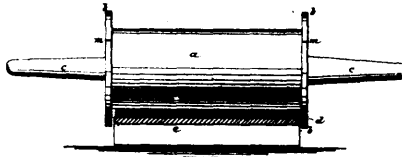
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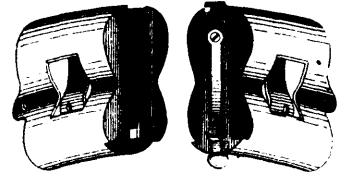
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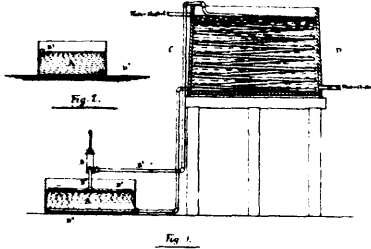
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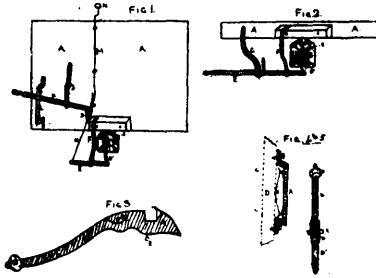
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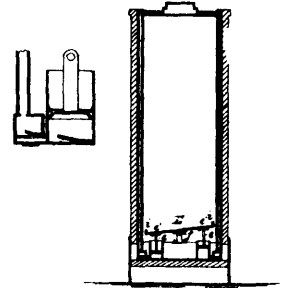
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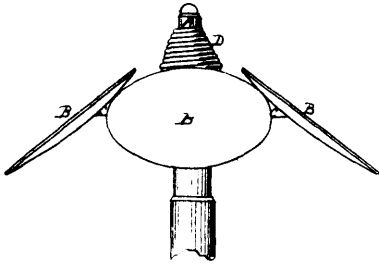
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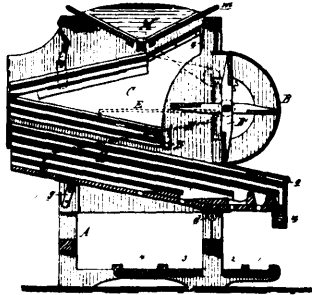
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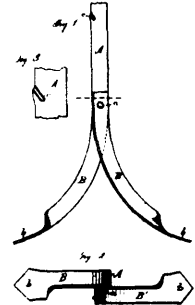
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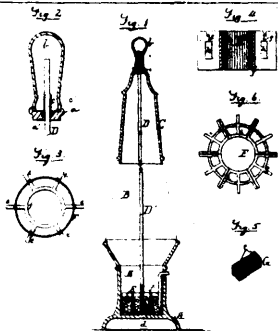
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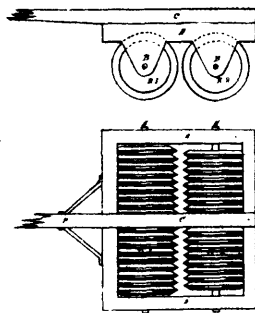
10715 Bissell's Improvement on Grain Separators.



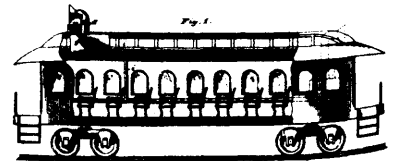
10716 Beecher's Improvements on Fence Posts.



10717 Bartlett's Improvements on Ozone Apparatus



10718 Kaybach's Improvements on Land Rollers.



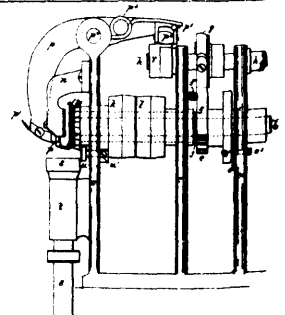
10720 Williamson's Improvement in Car Ventilators.



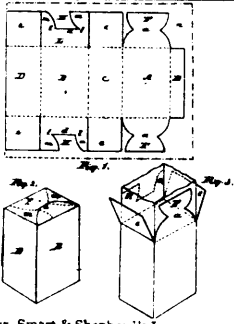
10721 Hogue's Improvements in the Manufacture of Boots and Shoes.



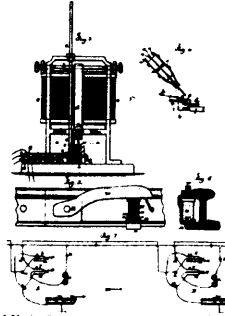
10722 Smith's Improvements on Buggy Tops.



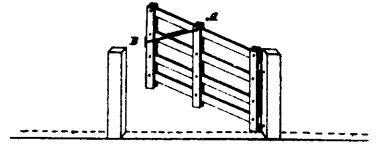
10723 Ballou's Machine for Making the Inner Soles of Boots and Shoes.



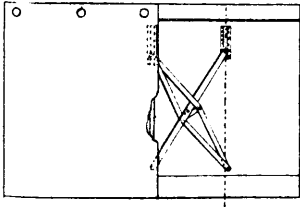
10724 Arthur, Smart & Shepherd's Improvements on Paper Boxes.



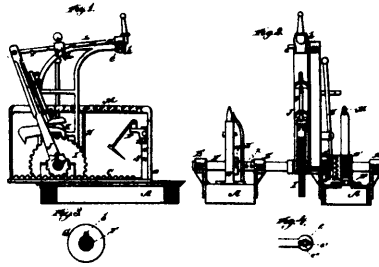
10725 Conklin's Improvements on Electric Signals for Railways.



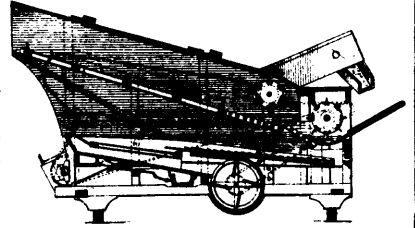
10726 Allen's Improvements on Fence Gates.



10727 Prescott & Gregory's Improvements on Door Hangers.



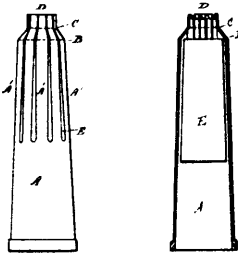
10728 Sergeant's Improvements on Saw Mill Head Blocks.



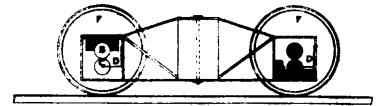
10729 Monteith & Hunner's Improvements on Threshing Machines.



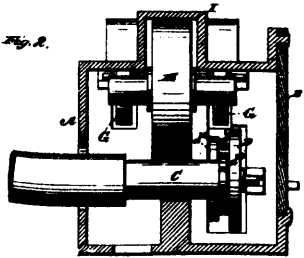
10730 Pierson, Ferris & Warren's Improvements on Harness.



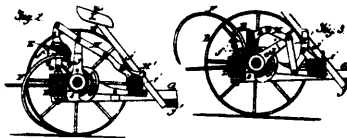
10732 Barnes' Improvements on Bean Pickers.



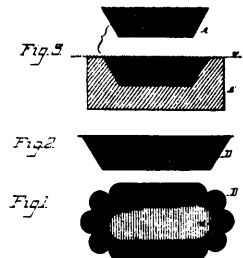
10733 Gilmore's Improvements on Self Oilers for the Journals of Railway Cars.



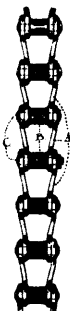
10734 Brewer's Improvements in Anti-Friction Journal Boxes.



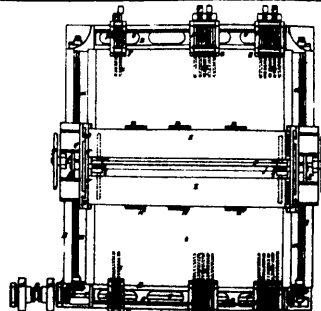
10735 Kaiser & Stangaard's Improvements in Horse Rakes



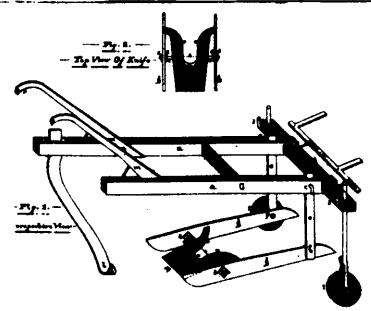
10737 Ingersoll's Improvements in the Manufacture of Paper Dishes.



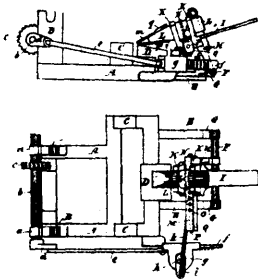
10738 Whiteley's Improvements on Chains for Transmitting Power.



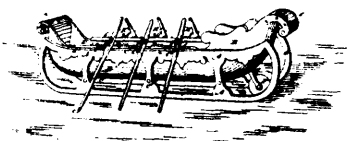
10739 Gresby & Mills' Method of, and Machine for Framing Doors, &c.



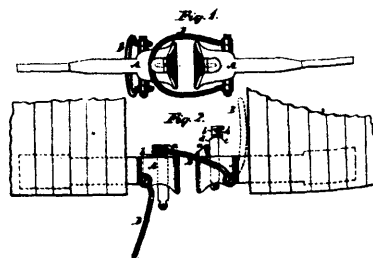
10740 Bartlett's Improvements on Turnip Harvesters.



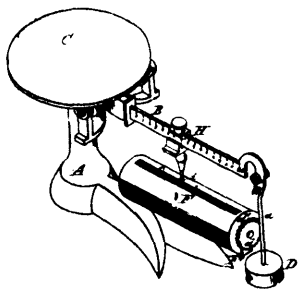
10741 Briggs' Improvements on Apparatus for Feeding Nail Machines.



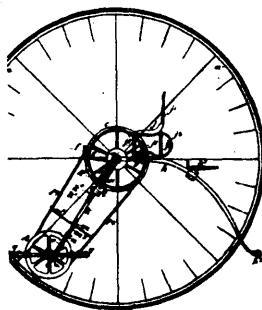
10742 Dennis' Improvements on Sleds.



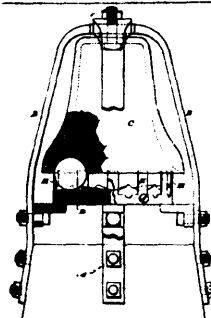
10743 Scott's Improvements on Car-Couplers.



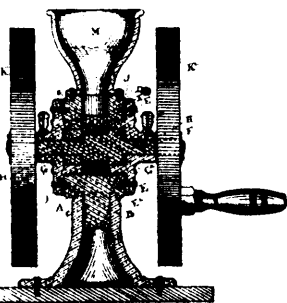
10744 Ham & Pierce's Improvements on Weighing Scales.



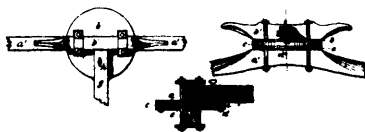
10745 Otto's Improvements on Bicycles.



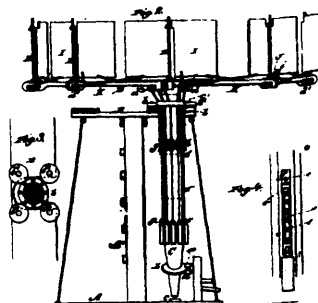
10746 Brown & Wagener's Improvements in Apparatus for Ringing Alarm Bells on Buoys.



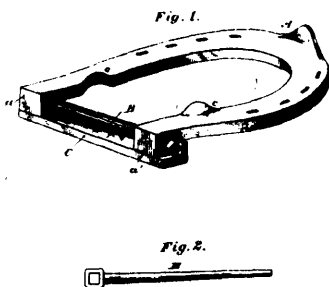
10747 Rhodes' Improvements in Grinding Mills.



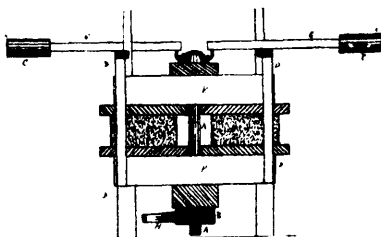
10752 Wells' Improvements on Fifth Wheels for Vehicles.



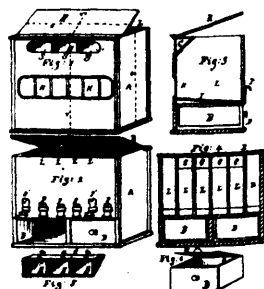
10753 Forbes' Improvements on Windmills



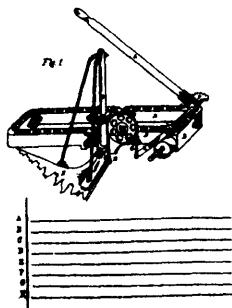
10754 Vandegrift's Improvements on Horse shoes.



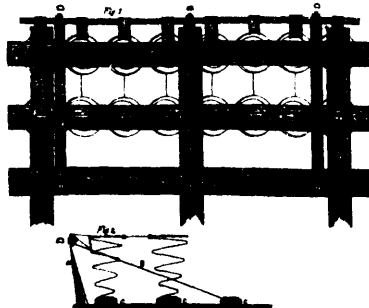
10755 Witmer's Improvements on Cider Presses.



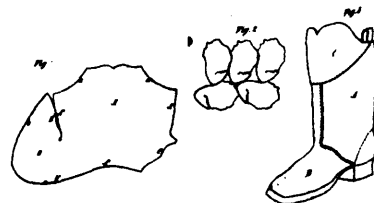
10756 Buckhout's Improvements on Ammunition Cases.



10757 Craig's Improvements on Reaping Machines.



10758 Clark's Improvements on Spring Beds.



10759 Mullarky & Parent's Improvements in Boots.