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Bread. apparatus for producing characters in. James Albert Shaffer.	47,821	Cans and vessels. Closure for. Frank Lamotte Salisbury.	49,353
Break for cereals. Alfred R. Tattersall.	48,260	Cans. Means of closing and opening ends of. Andrew Jackson Ritter.	50,365
Brick. George S. Balsley.	50,243	Cans. Method of closing. John Banbury.	48,649
Brick and tile cutting machine. John Thompson.	48,258	Cant hook. Thomas Pink.	48,995
Brick construction. Stephen I. Adams.	50,521	Car axle box. Hugh Sym.	50,218
Brick kiln. John Starkey.	48,095	Car axle box. Isaac P. Patton.	48,917
Brick machine. Charles Griffiths Davis.	49,510	Car axle lubricator. Julia E. Wright, et al.	50,769
Brick press. Edward Warden Seannans.	48,098	Car-brake and fender combined. Joseph Casper Waller.	49,253
Brick tile, &c. The National Opalite Glazed Brick and Tile Syndicate.	50,165	Car buffer. The Gould Coupler Co.	48,146, 48,558
Bridge. William Albert Nichols.	49,265	Car cooling and ventilating apparatus. Sam. Hughes.	50,492
Bridge for rail joints. Charles Corwin Wells.	48,616	Car coupler. Adolphe Schneider, et al.	49,467
Bridle bit. Melvin Franklin Bigelow.	48,025	Car coupler. Andrew D. Alden.	47,875
Bridle bit. Richard A. Shute.	50,924	Car coupler. August F. Shwadlenak.	48,885
Bridle bit. Richard Berry.	48,848	Car coupler. Carl Moradelli.	49,536
Bristles for brushes. Method of and means for preparing. Alfred Seaman Miles.	49,538	Car coupler. Carman Frost.	48,042
		Car coupler. Charles W. Hinton.	49,819, 49,820

Car coupler. Clinton Arthur Tower	47,894	Cash register. Thomas J. Hume	47,993
Car coupler. David J. Schulte, et al	50,574	Cash till. Joseph L. Coyle, et al	49,734
Car coupler. Duncan J. Sinclair	48,257	Caster. Adolph Kirnise	49,132
Car coupler. Dennis Wholey	48,228	Caster. Angelica and Laura Hofheimer	50,501
Car coupler. Edward K. Ober, et al	49,980	Caster. Charles Henry Gaffney	50,678
Car coupler. Ephrem Martin, et al	49,092	Caster for furniture. Jacob B. Offerle	50,631
Car coupler. Frank B. Hutchings	50,778	Caster. William S. Bowie	49,987
Car coupler. George Hector Pataul, et al	50,712	Catch basin. Charles H. Higgins	48,648
Car coupler. George W. Clayton	50,871	Cattle stalls. Method of making. Daniel Murphy, et al	48,623
Car coupler. Hermann Butschbach	50,831	Cell doors. Bar for locking. James Adams	49,620
Car coupler. Horace Boyd, et al	48,153	Cement. Jasper Whiting	49,755
Car coupler. Horace Lester Dunlop	49,821	Cement. Hydraulic lime, &c. Apparatus for manufacturing. José Francisco de Navarro	48,602
Car coupler. James Albert Roosevelt	49,152	Cement injector for repairing pneumatic tires. Ernest W. Young	50,453
Car coupler. James W. Tolar, et al	50,179	Cement tile. Christian L. Laiders, et al	50,428
Car coupler. Jeremie Lessard	50,403	Chain. Otto Klatte	49,799
Car coupler. John Clarke Yeiser, et al	48,716	Chain coupling. Cyrus F. Noble	49,810
Car coupler. John Coup	49,555	Chain ladder. John Main	48,907
Car coupler. John Somerville	48,733	Chain link. John Charles Schmidt	47,974
Car coupler. Lewis C. Peckham	47,979	Chain link. Richard A. Breul	50,679
Car coupler. Michael John Grady, et al	50,041	Chain making machine. The Phoenix Hardware Manufacturing Co.	49,111
Car coupler. Napoleon Guillemette	49,142	Chair. Edmund W. Briggs	50,747
Car coupler. Patrick McEntree	49,652	Chair. James M. Morgan	48,759
Car coupler. Richard J. Edwards	48,840	Chair. John D. Howe	50,576
Car coupler. Thomas Gaskins	48,624	Chair. Joseph G. McCaffrey	49,141
Car coupler. William Brookings	48,964	Chair. Ronald Gillis	47,880
Car coupler. William K. Knight, et al	48,403	Chair and stool. John F. H. Evers, et al	50,603
Car coupler. William L. Gelston	48,974	Chair for surgical purposes. Tiffin J. Shackelford, et al	49,268
Car coupler. William McNames	48,253	Change maker and deliverer. Samuel J. Taylor	49,485
Car coupler. William R. Roberts	49,430	Chart for drafting patterns. Alois Weiler	49,402
Car coupler and brake. Francois V. Isoire, et al	49,201	Check book. The Carter Crume Co	48,411
Car coupling utensil. Idus Mowry	48,582	Check hook. John N. Mollin, et al	49,081
Car fender. Jacob L. Schuman	50,881	Check hook. Thomas Woodbridge	50,877
Car fender. John Landan, et al	50,579	Check rein. George Washington Taylor	49,099
Car fender. William Hofmeister, et al	47,847	Cheese bauldages. Machine for preparing. William James Whitton	48,493
Car fender and brake. William McBeth, et al	48,338	Cheese hoop. Frank L. Jones	50,087
Car propelled by gas motor engines. Henry Percy Holt	49,583	Chemise cloth. Machine for cutting. The Toronto Carpet Manufacturing Co	48,481
Car seal and lock combined. William L. Sebring, et al	48,674	Chicken coop. Thomas Marr	48,831
Car seal and tag. Frank Aldrich	48,569	Chimney. Carl Gunther	48,016
Car seat. James M. Osgood	50,732	Chimney. Charles House	49,003
Car seat. The Pottier and Stymus Co.	49,971, 49,972	Chimney. Samuel Bernein	49,575
Car signal. Frank Nicholson	49,017	Chimney. William Rollin Wilson, et al	48,637
Car truck. George B. Esterley	49,409	Chimney and stove-pipe. Alfred E. Gilpin	48,218
Car wheel. John Player	48,094	Chimney cowl. Cyrus N. Shannon	50,226
Car wheel. William J. Taylor	50,473	Chimney cowl. Milo H. Ingalls et al	50,867
Car wheel moulds. Pattern for. The Wilkes Moulding Machine Co.	48,583	Chisel for breaking sub-aqueous rock. P. Sandford Ross	47,828
Car wheels. Process of forming moulds for. The Wilkes-Barré Moulding Machine Co.	48,584	Chocolate coating machine. P. J. Vanderlinda et al	49,048
Cars by electricity. System of lighting and heating. The National Electric Car Lighting Co.	48,849	Chocolate. Machine for preparing. Ganong Brothers	49,323
Cars. Draft device for. William H. Miner	49,017	Chronate. United States Smokeless Powder Co.	49,232
Cars. Method of and apparatus for ventilating. Marshall B. Stafford	47,964	Churn. Charles Pelton	48,478
Carbon for electric lamps. Edward E. Acheson	49,941	Churn. Charles S. Brown et al.	50,095
Carbonic acid gas. Method of and means for charging liquids with Edwin Adams	48,275	Churn. George A. Pool	50,021
Carburetor. Eugene M. Westcott	50,429	Churn. George Ayers	49,895
Carburetor. John W. Lambert	49,520	Churn. George B. Dowswell	48,868
Card: see Playing card.		Churn. George Washington Crabb	49,256
Cards of mica. Method of making ornamental. Wilber R. Hitchcock	48,682	Churn. John Bennett	49,462
Carousel. The Haleyon Cycle Co.	48,054	Churn. Joseph A. Howard	50,020
Carpet beater. George H. Fernald	48,213	Churn. Madst Hanson	48,439
Carpet lining. Charles Carroll Stewart	49,020	Churn. Michael F. Kelly	47,931
Carpet stretcher. John R. Lyon	48,934	Churn. William Deacon	50,505
Carpet sweeper. T. Stewart White, et al	48,914	Churn and butter worker combined. Charles Owens	47,919
Carriage, see Saw mill carriage		Churn dash. Jacob J. A. Morath	50,864
Carriage curtain fixture. Mortimer Otis Turner	48,243	Cigar bunching machine. Joseph De la Mar et al	49,222
Carriage for saw mills. John Hamilton	48,304	Cigar case. Frederick Cronewett	49,701
Carriage jack. James Davis, Jun	50,007	Cigar making machine. Charles Augustus Baker, et al	49,165
Carriage pole tip. Daniel O. Fisher	50,500	Cigar making machine. Jean Reerse	49,746
Carriage top. Daniel Conboy	49,653	Cigar package and holder. Eugene Vallens	49,203
Carriage top. Emil Alexander Summerfruechte	49,013	Cigar stamping machine. Edmond N. Cusson	47,822
Carrier. John Pearce Roe	50,572	Cigar tip cutter. William Henry Campbell, et al	48,334
Carrier for accompanying screw-making machines. Jason Allen Bidwell	48,574	Cigarette machine. Michael Kirshner	50,902
Carrier for packages. Emanuel C. Gripe	48,666	Cigarette machine. The Wood International Cigarette Machine Co.	49,590
Carrying and dumping device. James White Provan	48,960	Cigarette machine. William Cyrus Briggs	48,568
Cart. Aloysius Brohmann	48,215	Cigarette making machine. Bernhard Baron	50,274
Cart. Hermann Scheller	49,267	Cigarette making machine. Christophe Ollagnier	49,792
Cart attachment. John James Cameron	48,330	Cigarette making machine. William Maxfield	50,261
Cartridge. George David Rice Aikin	49,126	Cigarette making machine. William Maxfield, et al	50,690
Cartridge belt. Joseph R. Randle	50,075	Cigarette paper holder and receptacle. Walter Brafield Hobbs	50,181
Case for aromatic substances. Charles M. Stephens	48,921	Cinder ejecting and burning device. Robert Hartley McFern	47,881
Case for cards. Alfred J. Estlow	47,912, 47,913	Cinder sifter. Jacob Young	48,609
Case for carrying purposes. Thomas James Byers	48,428	Cinder sifter. Luther Lewis Smith	48,041
Case for cutlery. William L. Dempsey	48,008	Cinders. Device for burning and ejecting. Robert Hartley McFerson	47,881
Case for sugar, &c. William Wale	50,247	Cipher for telegraphing. Clement W. Bowman, et al	49,583
Cash recorder and drawer. Harry Martin Goiger	48,028	Clamp. Henry Vachon	48,106
Cash register. Charles A. Powell, et al	49,233	Clamp. Horace Stephen Buckland	48,011
Cash registers. Harmon A. Miles, et al	50,068	Clamp for broken glass. Frederick Everitt Dunham	49,535
Cash register. Joseph L. Howard	50,652		
Cash register. The Victor Cash Register Co.	50,070		

Clamp for fruit jars. Henry Clay Dilworth.....	50,378	Cork extractor. John C. C. Read.....	50,231
Clamp for hsts. Guillaume Boivin.....	48,824	Cork sole. Louis Migner.....	50,414
Clamp for locking crossed wires. Mathew Kelly.....	50,472	Corks. Machine for preparing. John Eisenhardt Howard.....	48,354
Clamp for the strings of musical instruments. Howard W. Hafer, et al.....	49,213	Corks. Machine for shaping. John E. Howard.....	48,328
Clapboard. Levi H. Montross, et al.....	50,130	Corn harvester. D. M. Osborne & Co.....	50,388
Clasp. Charles M. Hilliker, et al.....	50,072	Corn harvester. Thomas A. Chapman, et al.....	50,093
Clasp for garment supporters. Fred W. Harding, et al.....	50,263	Corn husker. Joseph Payment.....	50,619
Clay-ten,vering machine. William F. Cook, et al.....	48,833	Corn husker and fodder shredder. George W. Packer.....	50,910
Cleaner for beer pipes. Albert B. Ogden, et al.....	50,146	Corn husk holder. Thomas H. Boyce.....	50,845
Cleaner for boiler flues. Phillip Henry Enochs.....	47,904	Cornice frame. Henry Burbridge.....	49,681
Cleaner for cisterns, wells, &c. Charles A. Butterfield.....	50,145	Corset. Arthur Horace Phelps.....	48,457
Cleaner for steam boiler flues. William Thos. Coggeshall.....	48,010	Corset fastening. James C. Gilroy.....	50,376
Cleaner for steam boilers. Isaac C. Gray.....	50,296	Corset steel. Oswald F. E. Borchardt.....	50,166
Cleaning device for kid gloves. Charles P. Bailey.....	50,280	Corset steel and clasp. Carl Scholl.....	49,101
Cl vise. Henry L. Ferris.....	50,221	Cotton gin. Robert King.....	48,880
Clevis. John L. L. Colbert.....	50,589	Counting and recording machine. William Wallace Hopkings.....	48,984
Clevis. W. Irving Cormany.....	50,519	Coupler for straw carriers. Allan John Lindsay.....	49,014
Clip for metal fabrics and wire fences. Selden S. Casey.....	47,991	Coupling for air brakes. Leonidas Semmett.....	48,274
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Cloth and other fabrics. Machine for preparing. Fred Clow Wendell.....	50,361	Cover for barr-ls. James O. Cooper, et al.....	47,853
Cloth sizing and drying machine. The Montreal Cotton Co.....	48,212	Cover for cooking utensils. William Currie Maple-doram, et al.....	48,333
Clothes beater. Mathew Fitzpatrick.....	49,902	Cover for tables, desks, blinds, &c. Chauncey S. Homer.....	48,420
Clothes drier. Edward J. Downey.....	50,255	Cover lift. George B. Meadows.....	50,185
Clothes drier. John A. Caldwell.....	50,478	Coverings. Fast-ner for non-conducting. Philip Carey.....	48,241
Clothes drier. Joseph Phillips Hill.....	48,555	Crane. John F. A. Smith, et al.....	48,323
Clothes horse. Allen G. Ingalls et al.....	48,406	Crane mortar mill, &c. Thomas Whitaker.....	50,134
Clothes line. Jesse Grant Work.....	50,516	Crank. Coe Tyler, et al.....	48,520
Clothes rack. Thomas E. Agan.....	48,312	Crate. Asa S. Sherman.....	50,825
Clothes wringer. Michael H. Griffin, et al.....	50,645	Crate. Herbert Harvey Cummer.....	49,619
Clutch for transmitting power. Frank K. Bell.....	50,475	Cream separator. Claus Holmsbøhm.....	50,638
Coal and mineral washer. Erskine Ramsay.....	50,445	Cream whipper. Catherine M. J. Macdonald.....	49,125
Coal dumping car. William George Lane.....	50,704	Creamery apparatus. George Thomas McLauthlin.....	48,206
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Cockeye. William Finter.....	49,911	Cruet. Franz Zehetner.....	49,437
Cocoa soluble. Process of rendering. Wilhelm Galdke.....	48,905	Cruppers. Henry Cave.....	50,870
Cod liver oil. Armand Hudon.....	49,705	Crypto malt. The Chicago Crescent Co.....	49,585
Coffee pot. Alpheus Fay.....	49,148	Culinary implement. James J. Hayes.....	49,161
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Coin controlled vending machines. Means for protecting the receiving openings of. Amy LeGrand Peirce.....	49,239	Curd cutter. James B. Harris.....	49,846
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Coin-operated dispensing machine. George F. Gale, et al.....	49,864	Current meter. John F. Kelly, et al.....	50,315
Coin-operated vending machine. Joseph Mackin.....	49,047	Curry comb. Francis H. Burke.....	49,400
Coin-sorting apparatus. Henry Howard Hammer.....	50,073	Curry comb. Reuben E. Eldridge.....	50,225
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Collar button. Richard Gatzsche.....	48,915	Curtain pole. Alexander Sabiston, et al.....	50,647
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Conveyor for lumber, &c. William A. Leary, et al.....	50,629	Damper for stove pipes. Charles T. Redfield.....	50,110
Cooking stove. John Milne.....	49,533	Damping device for musical instruments. M. C. R. Andorff.....	47,911
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Railway frog. John F. Shea .....	50,236	Rubber articles. Art of making. Charles L. Higgins, et al. ....	50,485
Railway gate. James H. Fitzgerald .....	48,992	Rubber boot and shoe. Ferdinand Ephraim .....	48,784
Railway jack. James A. Holtz .....	50,284	Rubber compound. Art of treating. Wheeler Cable .....	50,363
Railway mail and express car. Frank Rowley .....	47,943	Rubber garment. Napoleon P. Bean .....	48,724
Railway rail joint. Major Hall, et al. ....	49,379	Rubber mixing mill. Edward Franklin Bragg .....	48,757
Railway signal. The Canada Switch Manufacturing Co. ....	48,553	Rubber soles. Art of making. George R. Davis, et al. ....	50,930
Railway snow plow. Olivier Malette .....	59,374	Rudder lock. Harry L. Bowdoin .....	48,029
Railway spike. Graham Fraser .....	48,010	Rule. Major R. Jewell .....	49,291
Railway structural support. John D. Reed .....	50,222	Rule. Thaddeus Norris .....	49,990
Railway switch frog. Russell Thomas Waldress .....	48,355	Ruler. Frank Barnard Deming .....	48,453
Railway tie. Ehner D. and William H. Gardner .....	50,290	Sack. Emons Horrice Lobell, et al. ....	49,053
Railway tie. Harmon Gilmore, et al. ....	50,774	Sacramental case. Henry Fummelen .....	49,551
Railway tool. Bernard Molloy .....	49,246	Sad iron. Charles M. Coates, et al. ....	49,578
Railway track. William Robinson Smith, et al. ....	48,773	Saddle: see Pack saddle. ....	
Railway track liner. David Richardson .....	50,090	Saddle. Charles E. Dyer .....	50,443
Railway train. Henry L. Simmons .....	48,711	Saddle. The Climax Manufacturing Co. ....	48,890
Railways. Vehicles for elevated. Fritz B. Behr .....	49,511	Safe. Francois Bernardin, et al. ....	48,459
Raisin seeder. Frank Howard Chase .....	48,844	Safety match. Anton Viebig .....	49,460
Raisin seeder. William Johnson .....	48,904	Safety pin. Arthur Richan .....	47,980
Rake. James Albert Linn .....	48,301	Safety pin. Elias La wis .....	49,305
Range. Joseph Harkley .....	48,732	Sales recorder. Thomas O'Brien .....	47,995
Range tank. James J. Malley, et al. ....	48,083	Salt. Apparatus for making. Thomas Craney .....	49,543
Rasm seeding machine. Charles Lourey Spencer .....	47,969	Salt grainer. Thomas Craney .....	49,451
Ratchet drill. Napoleon Samson .....	48,237	Sanding device for street cars. Frank O. Furber, et al. ....	50,792
Reamer. Robert H. Elliott, et al. ....	49,338	Sap spout. James Davidson .....	50,874
Reactive coil. The Canadian General Electric Co. ....	49,832	Sap spout. James F. Warner .....	47,928
Reflector for lamps. Ernest Tilmann, et al. ....	49,865	Sash adjuster. William Driscoll .....	50,455
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Refrigerator. E. A. and C. P. Cormille .....	49,658	Sash fastener. John E. Hartmann .....	48,906
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Sash fastener, &c. David A. Crishton	50,163	Separator for wild oak. James Coltham	47,973
Sash holder. Josiah Weldon	48,053	Sewer pipe. Moise Courtremanche	49,719
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Sash lock. Harry Bitner	49,157	Sewing machine. Charles A. Hill	48,004
Sash regulator. Alexander S. Roy	49,474	Sewing machine. Francis Joseph Freese	48,945
Sash regulator. Leonhardt Schmidt	49,475	Sewing machine. Harvey Moore	48,233
Saucepan. Ludovic J. Painter	48,148	Sewing machine. James Newbigging, et al.	48,300
Saucepan. Robert Benton Vanderburg	48,144	Sewing machine. Richard M. Melhuish	50,763
Saw. Charles Henry Douglas	50,025	Sewing machine. The Self-Threading Sewing Machine Co.	50,726
Saw. Dexter Hazard	48,796	Sewing machine. The Two Reel Lock Stitch Sewing Machine Co.	49,605
Saw. James H. Blackman	48,601	Sewing machine for wax thread. Francis Joseph Freese	48,933
Saw. Nathaniel H. Shaw	49,472	Sewing machines. Channel guide for. Myron Lee Keith	49,282
Saw clamp. Aaron T. Binkerd	50,227	Sewing machines. Tack pulling attachment for sole.	
Saw filer. John L. McDougall, et al.	48,997	Joseph Eli Bertrand, et al.	49,110
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Saw for cutting iron. The Aper Manufacturing Co.	48,999	Shaft. Aligning device. Jacob M. Isgrig	48,331
Saw for cutting stone. The Sharp Stone Saw Co.	48,901	Shaft-support and antifrattler. Ernest Duval, et al.	50,228
Saw gunner. William McLean, et al.	50,105	Shafting. Jay D. Harrigan	48,307
Saw mill carriage. Mat Cox	49,156	Shears. Daniel G. McDonald	49,330
Saw mill carriage. Noah Shaw	50,854	Sheet-holder and winch combined. Elbridge G. Kelley	50,029
Saw mill carriage. Offsetting device. Jas. McAllister, et al.	48,127	Shelf support. Charles Boker Godfrey	48,219
Saw mill dog. William Gowen	50,869	Shield for curative purposes. Alexander Cole	49,608
Saw set. John A. Minger	50,736	Shingle edging machine. John Henry Aekert	47,914
Saw set. Lydia Moyer	48,931	Shingle maker. Caleb Guyer	49,221
Saw set and jointer. William J. Simmons	50,639	Shingles. Machine for making. B. R. Mowry & Son, et al.	48,526
Saw sharpener. Seymour H. Holley, et al.	50,810	Shingles. Machine for making. The International Shingle Machine Co.	48,578
Saw sharpening machine. Dexter Hazard	49,216	Ship cleaning system. Eddy T. Thomas	50,788
Saw shifter for gang edgers. Charles F. Myberg, et al.	50,211	Shipping bill and bill of lading. James Edward	49,989
Saw teeth. Moses Harry Goulding	49,257	Shoe. Adam Reed	49,754
Saw teeth. Philias Bertrand	48,989	Shoes. Plate for soles of. Herbert G. H. Glass	50,720
Saw tooth sharpener. John F. Pribnow	48,425	Shoing animals. Instrument for. David Menard	48,719
Saving machine. Willard Curtis	49,223	Show case. Frederick Pollard	50,334
Scaffold. Sewell A. Brooks	49,449	Shuttle for looms. Henry Cruise	49,415
Scale for historical charts. Arthur H. Seafie	48,960	Sifter. Anton Behringer	49,679
Scale from boiler tubes. Apparatus for removing. William H. Theban, et al.	50,442	Sifter and washer for sand, &c. Carl Martin, et al.	50,234
Scale weighing machine. Henry B. Pullen-Burry	50,143	Sign. Robert Henderson	48,069
Scales and coffee case combined. John T. Whiteside, et al.	48,079	Signal for railways. Charles Henry Sherwood, et al.	48,405
Scales for computing and weighing. Drury J. Smith	48,827	Signal for railways. John Foster	50,838
Scales for weighing. John Henry Swihart	47,799	Signal for railways. Joseph Ritner Jones, et al.	48,346
School desk and seat. James J. Baskerville	50,859	Signal for railways. William Henry Walsh	48,244
School slate. Elijah Dave, et al.	49,500	Signal for railway trains. Charles G. Emery	50,668
Scissors sharpener. George R. Ford	50,076	Signal for telephone exchanges. The Bell Telephone Co. of Canada	48,374
Securing and cleaning machine. Gabriel Carlson	49,197	Signal light. David P. Heap	50,131
Scouring and cleaning machine for confections or grain. Gabriel Carlson	49,195	Signal light for locomotives. James R. Roberts	50,380
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Scraper. John D. Libby	50,857	Sink. Benjamin F. Ford	50,503
Screen and storm door combined. Charles Cook Wheeler	49,440	Sink. William B. Malcolm	50,502
Screen for cleaning grain. John B. Davis	50,014	Siphon test. Box for gas mains. Adolphe Bouvier	49,602
Screen for separating grain. The Clossz and Howard Manufacturing Co.	49,926	Skate. Ernst Pohl	49,677
Screen for threshing machines. The Clossz and Howard Manufacturing Co.	50,618	Skate. Joseph Lyon Whelpley	49,622
Screw cutting dies. Stock for. John J. Harrison	49,722	Skate. The Star Manufacturing Co.	49,074
Screw propeller. Bruno Wesselmann, et al.	49,781	Skate plainer. William B. Lynch	50,126
Screws, nuts, &c. Machine for forming. Christopher M. Spencer	49,721	Skewer pointing machine. Frederick Harrison	50,675
Scutching machine for flax. Alexander Morison	48,136	Skid. Theodore W. Sessinghaus	50,310
Seythe. Enoch Kohtz, et al.	48,962	Skins. Machine for softening. George Geyer	47,825
Seal lock. Claudius Victor Boughton	48,734	Skirt lifter. John Mallett	49,635
Seal lock. John A. Upslur	50,447	Slack adjuster. Charles G. Emery	50,558
Sealing system for metal boxes, cans, &c. Jules Gersant, et al.	50,733	Slate-cleaning device. Jesse Madison Davis, et al.	49,164
Seam for metal troughs and tanks. Harvey N. Hill, et al.	49,187	Slate pencil holder and slate eraser. Frederick Hayden Lumsden	48,404
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Seamless bodies. Process of and apparatus for making. Wilhelm Schulte, et al.	48,715	Sleigh. Dean S. Hall	49,811
Sea-sickness. Apparatus for preventing. Frederick W. Kimball	48,236	Sleigh. Fred P. Brooks	50,634
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Secondary battery. The Hess Storage Battery Co.	49,837	Sleigh runner. William DuBois	48,991
Seed drill. William Stephenson	48,611	Slide-carrier for magic lanterns. Asheleigh Thorp	48,651
Seed sower. William Reece Bowen	49,098	Slipper or shoe. Antoine Guitard	50,032
Seeder. Joseph A. Mengel, et al.	50,582	Slitting machine. John Torrent	47,835
Seeder. Lewis H. Kimball	48,377	Sliver forming and spinning mechanism. James Neale	48,654
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Seeding cultivating and fertilizing machine combined. Elsha S. Keeler	49,649	Smoke arrester. William P. Shank	49,688
Selvedge protector for cotton milling machines. George Townsend, et al.	48,084	Smoke consumer. Louis Halbauer	49,646
Separator. Francois X. Nadon	50,023	Smoke consumer for locomotives. Albert Silbermann	49,537
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Separator for amalgam. Arthur Kitson, et al.	49,009	Snap hook. Joseph Warren Calef	48,262
Separator for cereal substances. Henry Baker, et al.	48,545	Snap hook. Richard A. Breal	50,595
Separator for cream. Albert Krank	48,744	Snap hook. Wesley Eckert, et al.	50,556
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		Snow plow. The Very Rev. Thomas Hearn	48,799
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Speed indicator. Turney, Clark & Co .....	49,378	Steam shovel and dredge. James C. Brindle .....	50,592
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Spinning jenny. Heydrich Raffler & Co .....	49,439	Steam trap. Michael Partington .....	48,446
Spinning machine. John Hilton Smith, et al .....	48,990	Steam trap. William Geipel .....	49,404
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Spool support for spinning mules. The Dill Spool Support Co. ....	48,656	Stereopticon. Edmund Hudson .....	48,811
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Burns, John. Fire grate	50,615	Canadian General Electric Co. Reactive coil	49,832
Burpee, Augustus Ross. Mitten	50,885	Canadian General Electric Co. Regulator for dynamo electric machines	48,657
Burrill, Frank H. Faucet	50,270	Canadian General Electric Co. Regulator for electric generators	48,780
Burrows, Edward Thomas. Spring-actuated shale holder	48,625	Canadian General Electric Co. Synchronism indicator	48,556
Burrows, Alfred, et al. Spool holder, work box and pin cushion combined	49,060	Canadian Rubber Co. of Montreal. Machine for cutting soles, &c	50,674
Burson, Amos, et al. Packing and storing vessel	49,601	Canvey, Joseph. Nipple holder	49,770
Burt, Albert. Boiler	48,528	Capchart, Alexander Sweney. Matrix bar	48,033
Burton, George D. Apparatus for electrically heating metal	50,415, 50,417, 50,418, 50,419	Carey, Philip. Fastenings for non-conducting coverings	48,211
Burton, George D. Heater for metals and ores	50,416	Carey, William. Machine for uniting soles and uppers of boots and shoes	49,915
Burton, John S. Gable ornament	50,420	Carlinet, John G. Pneumatic tool	50,688
Burton, William L. Machine for boring wells	50,882	Carling, Frederick W., et al. Match box	48,577
Bush, James Joseph. Steam generator and water circulator	49,783	Carlson, Gabriel. Scouring and cleaning machine	49,197
Bustin, Robert, et al. Car fender	50,837	Carman, R. W., et al. Disinfector	48,290
Bustin, Robert, et al. Life saving apparatus	49,691	Carmel, A., et al. Fire escape	50,156
Butcher, John. Hay carrier	49,595	Carmichael, Henry. Apparatus for and process of electro-decomposition	49,269
Butfield, Charles J., et al. Printing machine	49,506	Carnduff, Edward. Drill	50,326
Butler, Edward S. Globe and chimney support	48,182	Carney, Edward. Check book	48,811
Butler, George Reber. Machine for making insulation pins	50,067	Carnrick, John. Alcoholic compound	49,828
Butler Hard Rubber Co. Blinkers for harnesses	49,129	Carpenter, Edwin P. Food compound	50,811
Butler Hard Rubber Co. Syringe	50,889	Carrette, Adolphus, et al. Whiffletree plate	49,849
Butschbach, Hermann. Car coupler	50,071	Carrington, John Bruce, et al. Reamer	49,338
Buttfahd, Archibald G., et al. Sealing system for metal vessels	50,831	Carr, Joseph J. Pattern for car wheel molds	48,583
Butterfield, Charles A. Cleaner for cisterns, wells, &c	50,733	Carr, Joseph J. Process of forming molds for car wheels	48,581
Buzzell, Nelson. Follower for cheese hoops	50,145	Carroll, Charles Jerome, et al. Register for sales	48,343
Byer, Daniel. Medicinal compound	49,206	Carroll, Houston M., et al. Artificial tooth	50,138
Byers, Thomas James. Case for carrying purposes	50,198	Cassens, Alexander, et al. Boiler tube header and expander	48,951
Byrne, James Henry, et al. Fire extinguisher	48,428	Carter Crume Co. Check book	48,811
Byrns, Thomas J. Nut lock	49,352	Carter Crume Co. Numbering machine	49,879
Cable, Daniel J. Lock	48,780	Carter, Edward Carlos. Rail brace	49,882
Cable Lock and Novelty Co. Lock	48,803	Carter, John Robert. Numbering machine	48,786
Cable, Wheeler. Art of treating rubber compounds	48,803	Carter, John W. Separator for magnetic ore	49,882
Cabot, Samuel. Packing for builder's use	50,363	Carter, John W. Separator for magnetic ore	49,077
Cadogan, Thomas C., et al. Beating engine for paper stock	47,972	Casey, James. Valve	49,094
Cadogan, Thomas C., et al. Machine for preparing paper stock	49,724	Caskey, Selden S. Clip for metal fabrics and wire fences	47,391
Cadogan, Thomas C., et al. Process for preparing paper stock	49,726	Casgrain, Edmond H. Vulcanizer	48,407
Cahill, Joseph E. Lemon squeezer	49,725	Casgrain, Edmond Henri. Method of casting metals	48,418
Cahome, Edwin R. Stove and range	50,482	Cassel Gold Extracting Co. Method of obtaining silver and gold from ores	49,354
Cain, Wesley Adam. Support for hose-nozzles	50,915	Casse, Wolf F. E. Method of preserving milk and cream	48,549
Calcutt, Henry. Steam boiler	49,168	Casse, Wolf F. E. Process of and vessel for preserving milk, cream, &c	48,521
Caddwell, John A. Clothes drier	48,595	Cassidy, P. S., et al. Filter for oil	50,154
Caddwell, John A. Steam boiler	50,478	Castle, Alred Martin, et al. Lug for supporting steam boilers	48,310
Caddwell, Matthew G. Gate	47,815	Caswell, Frederick K. Hot water heater	48,082
Caddwell, William C., et al. Fodder receptacle	48,401	Caswell, Henry H. Fastener for windows	48,491
Calef, Joseph Warren. Bar-iron and rail-cutter	48,859	Cate, William W., et al. Planer	50,862
Calef, Joseph Warren. Snap hook	49,061	Catin, Ephron. Face register	50,783
Calkins, James Stanley, et al. Wheel for steam engine indicators	48,262	Cavanagh, Francis J. L. Bicycle	49,264
Cal. Libbie Ann. Dress chart	48,026	Cave, Henry. Cruppers	50,870
Callow, John James. Metal letter	48,786	Caverly, George H., et al. Hoe and cutter combined	49,509
Calvert, James G. Feed-water heater	49,826	Cavell, John N., et al. Tire setting device	50,826
Calvert, James Gardner. Feed-water heater	49,329	Chalk, William McKay, et al. Steering apparatus for wheat headers	48,312
Cameron, Alexander N. Axle setting machine	49,317	Chambers, Alexander L., et al.	50,574
Cameron, Angus D. Thill coupling	50,286	Chanin, William J., et al. Electric conductor	49,066
Cameron, John James. Cart attachment	49,175	Chapman, Henry L., et al. Ore-roasting furnace	48,600
Cameron, John Steel, et al. Gauge for granular substances	48,390	Chapman, James E., et al. Fender for street cars	48,540
Cameron, Joseph Robert, et al. Oil can	48,950	Chapman, Stephen H. Letter-clip	49,441
Campbell, Henry. Machine for making barrels and kegs	48,552	Chapman, Thomas A. Corn harvester	50,093
Campbell, Hugh. Oil engine	48,635	Chappell, Richard. Lock	48,225
Campbell, James. Food compound and apparatus for producing it	48,524	Chaque, Ephraim. Air compressor	50,443
Campbell, Robert G. Top-roll for textile machines	49,190	Charest, Joseph. Press for hay	48,291
Campbell, William Henry, et al. Cigar tip cutter	50,288	Charlebois, Honoré. Overal	50,766
Camp, George A., et al. Display rack	48,354	Charlton, Benjamin E. Fender for street cars	49,716
Canada Switch Manufacturing Co. Detector for railway points	49,129	Charron, Adolard E., and Louis. Ice creeper	50,263, 50,675
Canada Switch Manufacturing Co. Railway switch	49,376	Chase, Frank Howard. Raisin-seeder	48,841
Canadian Copper Co., et al. Process of and apparatus for smelting ores	48,553	Chase, Zenas, et al. Lock hinge	48,856
Canadian General Electric Co. Armature	48,461	Chatfield, Irving G. Bicycle saddle	48,151
Canadian General Electric Co. Armature core	49,349	Chaufrau, H. E., et al. Apparatus for supplying liquid fuel to burners	49,729
Canadian General Electric Co. Armature for dynamos	49,350	Chavanne, A. Nozzle regulator	50,565
Canadian General Electric Co. Contact apparatus	49,636	Chazotte, Jean F., et al. Fire escape	50,156
Canadian General Electric Co. Current interrupter	49,667		
Canadian Fibre Chamois Co. Dampening apparatus	50,552		
Canadian General Electric Co. Cut-out	49,944		

Chen y Dry Mortar and Supply Co. Plastic compound.....	49,979	Collins, John O. Heel burnishing machine.....	48,415
Cheout, Jacob. Chimney.....	49,003	Coltham, James. Separator for wild oats.....	47,973
Chicago Crescent. Crypto malt.....	49,585	Colton, Arthur. Pill making machine.....	49,046
Chicago Crescent Co. Ferment leaven.....	49,594	Combs, Hamilton Jay. Steam engine.....	48,248
Chick, George Horatio. Amalgamator.....	49,996	Compagnie Internationale pour l'Exploitation des procédés Adolphe Ségale. Means of heating furnaces.....	50,316
Childs, Wallace. Telegraphic or telephonic systems.....	49,514	Conboy, Daniel. Carriage top.....	49,653
Chilton, Annie Haeck. Horse detachar and vehicle brake.....	48,351	Conger, Charles A. Buckle.....	50,300
Chimcock, George Hostel. Pneumatic tyre.....	48,999	Conking, Addison. Spool.....	47,996
Chittick, Samuel. Coin adder and rack.....	49,818	Connable, Ralph & Walter M. Device for lifting fish nets.....	50,662
Chitty, Charles D., et al. Match racking machine.....	49,788	Conner, C. W. Machine for preparing metal shingles.....	49,671
Chloride Electrical Storage Syndicate. Plate for secondary voltaic batteries.....	50,530	Connor, Patrick H., et al. Husking roller.....	47,901
Choate, Charles N., et al. Potato planter.....	50,610	Connor, James Henry. Wash bench and clothes bar.....	48,756
Chouquette, Jean Albert. Handle for culinary utensils.....	50,627	Conrad, Alexis. Wagon-bolster stake.....	48,994
Christie, John T. Valve.....	48,957	Conrader, Rudolph. Faucet and filter combined.....	50,759
Christoph, George W., et al. Relief for air pipe discharges.....	50,612	Consolidated Car Heating Co. Dynamo.....	49,839
Christopher, William N., et al. Steam engine.....	50,622	Consolidated Car Heating Co. Dynamo electric machine.....	48,171
Christy, Henry A. Bicycle saddle.....	48,150	Consolidated Car Heating Co. Electric heater.....	48,172
Church, Melvin B. Method of preparing decorative mix- tures.....	49,956	Consolidated Car Heating Co. Hose coupler.....	48,173
Church, William H. Dust-pan.....	49,308	Continental Match Co. Match splint machine.....	50,798
Cinamon, John. Heater and ventilator.....	47,970	Converse, Frank B. Buckle.....	50,697
Claener, Joseph. Bit for horses.....	49,818	Cook, Fred Jared, et al. Fodder receptacle.....	48,859
Clapp, Alfred C., et al. Hook and eye fastener.....	47,941	Cook, James Lamb, et al. Box and axle.....	48,386
Clark, Byron G., et al. Clasp for garment supporters.....	50,263	Cook, Ore. Cutter-bar for mowing machines.....	50,322
Clarke, Charles R. Printing machine.....	50,348	Cook, William F., et al. Clay tempering machine.....	48,833
Clark, F., et al. Bicycle sled.....	50,551	Cooke, Granville H. E., and Thomas. Pneumatic tire.....	48,056
Clark, Franklin D. Buckle for harness.....	48,886	Cooke, Granville H. E., et al. Pneumatic tir.....	48,056
Clark, John C. Pulverizing machine.....	50,998	Cooke, William Allen. Paper file.....	47,990
Clark, John E. Harness.....	48,571	Cool, Lorace D., et al. Brake for vehicles.....	48,178
Clark, Leroy, et al. Husking roller.....	47,901	Cooley, Henry E., et al. Envelope making machine.....	50,081
Clark, Spencer. Desk for school purposes.....	49,079	Cooley, Henry Buckley, et al. Paper feeding device.....	48,313
Clark, William. Planing machine.....	48,660	Coombs, George A. Machine for cutting nail blanks.....	49,861
Clarke, Francis-Joseph. Brush.....	48,693	Cooney, Merrill M., et al. Lock.....	50,537
Clarke, Frederick L. Brush wiper.....	49,796	Cooper, Benjamin, et al. Spinning machine.....	48,990
Clarke, Harry. Horse collar.....	50,762	Cooper, James Brooks. Hose jacket.....	48,285
Claudon, Joseph A. T. Steam generator.....	50,737	Cooper, James, et al. Match board.....	50,748
Clauson, Julius C. Buckle.....	49,975	Cooper, James O., et al. Cover for barrels.....	47,853
Clausen, J. Swivel for check-reins.....	49,289	Cooper, William John, et al. Method of distillation.....	47,895
Claus, Hubert. Method of enamelling metal ware.....	48,672	Cooper, William S. Fruit knife.....	50,277
Claus Shear Co. Fruit and flower picker.....	49,139	Cooper, William S. Toy.....	50,177
Clawson, Hiram. Plow.....	47,917	Cooper, Charles Joseph. Window sash and hanger.....	49,527
Clay, William S., et al. Combination tool.....	47,957	Copeland, Thomas M. Railway brake.....	49,612
Claybourne, Colin William. Burner for oil or gas.....	48,581	Copland, Alexander W. Confection making machine.....	50,335
Clayton, Jesse D. Mould for shaping glass.....	49,981	Copland, Edith. Heating attachment for gas burners.....	48,532
Clayton, George W. Car coupler.....	50,871	Copplantz, Cyrus. Horse shoe.....	48,023
Cleaveland, John B. Wire for fences.....	48,533	Corlett, Charles E., et al. Sad iron.....	49,578
Cleaver, Howard C. Means of applying paint and var- nishes to surfaces.....	49,656	Cornany, W. Irving. Clevis.....	50,519
Cleland, Andrew. Bicycle saddle.....	48,393	Cornell, Elijah B. Hydraulic punch.....	50,494
Cleland, Andrew, et al. Bicycle saddle.....	48,367	Cornell, Evan, W., et al. Can labelling machine.....	47,922
Clemens, Eliza J. M. Trunk.....	49,218	Corneli, William N. Method of making paper pulp boards.....	49,713
Clement, J. and A. Fare box.....	50,931	Cornellie, E. A. and C. P. Refrigerator.....	49,658
Clerici, Fabrizio, et al. Furnace for preparing ores.....	49,491	Cornforth, Robert G., et al. Crown piece for bicycle shafts.....	50,517
Clerhew, George William. Can.....	48,882	Cornwell, Henry, et al. Bicycle sled.....	50,554
Cleveland, John B. Wire for fencing.....	49,539	Cory, Colin, et al. Artificial fuel.....	49,550
Cleveland, Judson A. Window.....	50,387	Cory, G. S., et al. Artificial fuel.....	49,550
Clifford, Charles and Fred H. Photographic flash-light apparatus.....	49,362	Cotter, Hugh. Bag holder.....	48,530
Clinax Manufacturing Co. Saddle.....	48,890	Cotter, James. Combined furnace and boiler.....	47,819
Clinchinst, Barnett McF. Phot-graphy.....	47,813	Cotton, Cornelia, et al. Stove and grate therefor.....	49,030
Clinton, William H., et al. Tea kettle.....	48,869	Cottrell, Herbert. Telephone transmitter.....	48,916
Clokey, William J., et al. Tapping machine.....	47,848	Cuch, George Henry. Window frame and sash.....	50,004
Closs, William B. Rectifier for electrical currents.....	49,886	Coughlin, Edward W. Switch.....	49,394
Closz & Howard Manufacturing Co. Screen for separating grain.....	49,926	Coup, John. Car coupler.....	49,555
Closz & Howard Manufacturing Co. Screen for threshing machines.....	50,617	Coup, John. Car coupler.....	50,660
Clongh, John L., et al. Lock.....	48,968	Conrad, Ferdinand. Lock.....	48,205
Cluibe, Amelia. Truss.....	49,859	Couresme, Arsene E. Table desk.....	48,895
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Cocker, Joseph N. Potato harvester.....	49,927	Cowan & Co., et al. Matching head for planing machines.....	49,432
Cock, Frederick W. C. Gas engine.....	48,447	Cowper, James J. Hat brush.....	50,493
Cockshutt Plough Co. Gang plough.....	50,439	Cox, Arthur. Pedal support for bicycles.....	48,261
Cockshutt Plough Co. Nose for gang ploughs.....	48,358	Cox, Harry B. Thermo-electric generator.....	49,836
Cody, Alfred E. Fence post.....	50,353	Cox, Mat. Saw-mill carriage.....	49,156
Coe, Charles T. Grate bar.....	50,000	Cox, Paul Fleming. Type setter.....	48,589
Collin, Charles A. Contact device and switch for overhead currents.....	48,591	Cox Typesetting Machine Co. Typesetting machine.....	48,589
Coggshall, William. Steam boiler flue cleaner.....	48,040	Coxon, Alfred and George, et al. Bottle stopper.....	50,436
Colbert, John L. Clevis.....	50,589	Coyle, Bernard J. System of excavating and refilling.....	49,579
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Cole, Henry W. N. Lathe.....	48,822	Coyle, Joseph L., et al. Cash till.....	49,734
Cole, Romane Clark, et al. Hook for garments.....	49,388	Crabli, George Washington. Churn.....	49,256
Coleman, James C., et al. Grain drier.....	49,698	Crabtree, Thomas. Metallic packing.....	50,801
Coleman, James V. Partition for packing boxes, travellers' trunks, &c.....	48,518	Craue, Charles A. Artificial bait.....	48,690
Coleman, Joseph H. Fare box.....	50,786	Craue, Charles A., et al. Fish hook.....	48,677
Coleman, Patrick. Conductors box.....	50,123	Craue, Edward M. Oscillating device for vehicles.....	48,322
Colette, Auguste. Method of preserving vegetable and animal substances.....	48,259	Craue, Thomas. Apparatus for making salt.....	49,543
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		Crauey, Thomas. Salt grainer.....	49,450
		Crauey, Thomas. Steam generator.....	49,489
		Craver, Charles F. Harvesting machinery.....	49,415
		Crawford, Frederick. Metallic shingle.....	49,794
		Crawford, John A., et al. Gas burner.....	50,127
		Crevier, Hercule A. Mirror.....	49,759
		Crickmore, Edwin. Bicycle handle bar.....	50,408

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Crichton, David A. Sash fastener, &c.....	50,163	Dayton, W. A. Nasal expander.....	47,869
Crippen, George F. Bean picker and cleaner.....	50,230	Deacon, William. Churn.....	50,505
Crisp, Isaac A., et al. Band cutter and feeder.....	50,917	Deal, John Mowery. Railway switch.....	49,251
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Crocker, Samuel Henry. Fastener and suspender for paper.....	48,555	Dean, Francis W. Snow plough.....	48,798
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Cruse, Henry. Shuttle for looms.....	49,415	DeDonnal, Gaston de S. Electrical accumulator.....	49,961
Cruser, Van Dyke. Bicycle gear.....	48,125	Deeks, William E., et al. Curtain pole.....	50,617
Cullon, Harry. Receptacle for milk.....	49,412	Deering Harvester Co. Conveyor for binders.....	18,857
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Culnan, William James. Chimney.....	48,637	Dehn, Hugo Carl. Petroleum tank cart.....	47,456
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Cunliffe, Richard. Drying machine.....	47,929	Demers, Nazaire A. Brace.....	50,128
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Curtee, Jesse M. Kitchen cabinet.....	47,905	DeNavarro, José Francisco. Apparatus for manufacturing cement, hydraulic lime, &c.....	48,602
Curtin, James. Ventilation apparatus.....	48,911	Denison, Francis Napier. Electric transmitting thermometer.....	49,703
Curtiss, Willard. Sawing machine.....	49,223	Denison, Francis Napier. Grain bin.....	49,293
Curtiss, William H. Steam heater.....	50,449	De Palacio, Martin A. Submerged way.....	47,965
Cushman, Sarah Jane. Pot-holder and strainer.....	50,745	Derby, Willard E., et al. Shaft support and anti-rattler.....	50,228
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Cutts, Charles Davis. Bit-brace and hand drill combined.....	49,225	Detroit Vapour Stove Co. Burner for hydro-carbon.....	50,011
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Daigneau, Jeremiah. Press.....	49,641	Devois, Jacques F., et al. Liquid die.....	50,464
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Daley, Fred A. Stoker.....	50,533	Diamond Electric Co. Electric meter.....	49,952
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Dana, Charles Henry. Roofing tool.....	49,181	Dickson, Archibald A. Peat fuel.....	50,888
D'Andria, Michel N. Magnesium hydrate.....	49,827	Dickson, Archibald A. Reduction of metallic ores.....	49,835
Daniel, Daniel. Plow, potato-digger and cultivator combined.....	50,708	Dickson, Archibald A. Treatment of garbage.....	48,455
Dart, Edward M., et al. Stop-cock.....	49,777	Dickson, Archibald A. Wire fence making machine.....	50,188
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Davidson, Augustus A. Regulator for baby food.....	49,498	Diederich, Ferdinand. Spittoon.....	48,656
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Davidson, James. Metallic connections.....	50,874	Dill, Thomas Clark. Spool support for spinning mules.....	49,266
Davidson, James. Sap spout.....	50,216	Dilling, John T., et al. Threshold marker, or measure.....	49,968
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Davis, Charles Erwin. System of and apparatus for operating the brakes of electric mechanism.....	48,200	Dixon, Hugh. Tobacco pipe.....	49,824
Davis, Ellery C. and Edmund D. Fastening for railway rails.....	49,492	Dixon, John George. Fog signal.....	49,556
Davis, Francis Harley. Core boring apparatus.....	50,930	Dixon, Samuel W. Cremating furnace.....	48,795
Davis, George R., et al. Art of making rubber soles.....	50,917	Dixon, William J., et al. Bicycle.....	49,010
Davis, H. C., et al. Band cutter and feeder.....	50,941	Doble, William Henry. Weighing and package filling machine.....	48,174
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Ouellette, Alphonse. Tobacco cutter.....	49,798	Perkins, Edward L. Hydrant.....	49,565
Onimet, A. Fumigator.....	47,866	Perkins, Franklin J., et al. Floor clamp.....	50,340
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Page, Robert J. Governor.....	50,038	Peters, Laura C. Paper cutter.....	49,718
Pagett, Charles H. Windmill.....	49,858	Peterson, Adolph. Combined biographical and statistical tablets.....	48,946
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Palmer, Charles B., et al. Undertaker's truck.....	48,344	Peterson, Lewis. Washboard.....	50,586
Palmer, Frederick S., et al. Insulator.....	49,692	Petit, Jacques S. H. Dust pan.....	50,338
Palmer, Loran Lester. Philometer and bridge measure.....	50,760	Petit, Julius C. Electric battery for medicinal purposes.....	48,908
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Park, William. Water-current wheel.....	49,812	Phenice, William H. Kitchen cabinet.....	49,468
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Parker, Theodore, et al. Kitchen cabinet.....	50,692	Phillips, John Henry, et al. Electric motor.....	48,810
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Parkinson, Bennett. Buckle.....	50,360	Phillow, Joseph F. Washing machine.....	48,161
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Paterson, Thomas. Puzzle.....	49,571		
Partridge, John H. Hub for wheels.....	49,382		
Partington, Michael. Steam trap.....	48,446		

Phoenix Hot Water Heater Co. Hot water heating apparatus	49,668	Rahn, Charles A. Harness	48,448
Pickels, William D. Steam heating apparatus	50,752	Railsback, Lafayette. Rotary plow	49,063
Pickering, James and Albert. Shaker and cleaner for threshing machines	49,634	Ramsay, Eirskine. Coal and mineral washer	50,115
Pickett, Edward F., et al. Pneumatic tire	50,016	Ran, John. Closure for cans	49,353
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Pierce, Almy LeGrand. Means for protecting the receiving openings of coin controlled vending machines	49,230	Randale, George Henry, et al. Artificial fuel	49,611
Pierford, Alfred. Multiple telegraph	48,398	Randerson, John P., et al. Hydraulic or steam ram	50,707
Pierard, G6leon, et al. High and low water alarm	48,742	Randle, Joseph R. Cartridge belt	50,075
Pierce, Isaac. Method of packing valve stems	48,320	Rastetter, Louis. Spoke attachment for vehicle wheels	47,968
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Pinto, Adel B. Electrical process of preserving meat	47,814	Rawson, William S., et al. Electrolytic system	50,318
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Plant, William P. Colter clip	50,461	Ray, Samuel W., et al. Cover for cooking utensils	48,333
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Player, John. Car wheel	48,094	Read, Lawson G. Refrigerator	50,988
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Plenkharp Barrel Machine Co. Stave jointing machine	48,659	Reagan, James. Water bar grate	50,598
Plenkharp Barrel Machine Co. Stave preparing machine	48,314	Reagan, John P., et al. Cleaner for bicycle chains	49,978
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Pocock, John L., et al. Safe	48,459	Redhead, Charles B., et al. Cigar tip cutter	48,331
Pohl, Ernst. Skate	49,677	Redhead, Edward C., et al. Cigar tip cutter	48,334
Poindexter, William M. Book case	50,109	Reed, Adam. Shoe	49,754
Polke, Josef. Barrel	50,831	Reed, Albert F. Vise	49,313
Pollard, Frederick. Show case	50,333	Reed, Charles H., et al. Clasp for garment supporters	50,263
Polleys, Charles G., et al. Bracket for scaffolds	49,138	Reed, Charles J., et al. Carpet sweeper	48,944
Polleys, Charles George, et al. Cleaner for bicycle chairs	49,978	Reed, Charles John, et al. Magneto-electric induction apparatus	47,826
Pollock, Charles Ver Treese. Nozzle	50,686	Reed, Charles John, et al. System of telegraphy	47,827
Pollock, Charles Ver Treese. Pipe and nozzle	50,687	Reed, John D. Railway substructural support	50,222
Pomerooy, Harry Dwight. Chain making machine	49,111	Reeland, John Henry, et al. Bottle	48,832
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Pool, Howard F. Pipe trap	50,800	Reeves, Charles R. Anchor	49,761
Poole, George A. Churn	50,021	Reeves, Frederick W. Rotary steam engine	49,686
Poole, John Henry. Scrap pile for rolling	50,529	Rehffuss, George, et al. Bottle labelling machine	50,066
Pope, Adrian D., et al. Fastener for doors, windows, etc.	48,615	Rehffuss, George, John George and Martin Oscar. Machine for dressing type	49,600
Pope, Curran. Pocket lamp	50,317	Reise, Carl. Brush-making machine	48,123
Porsch, Ollakar. Process of and apparatus for making acetone	49,623	Reichert, Carl F. Button	50,371
Porteous, George. Cabinet for sportsmen's use	48,912	Reid, Thomas. Pump	49,913
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Porter, Henry C. Apparatus for applying electricity	48,557	Reisel, Frederick. Gas burner safety attachment	47,986
Porter, Henry C., et al. Rheostat	48,527	Rehance Dry Kiln Co. Dry kiln	47,846
Pottier and Styum Co. Car seat	49,973	Remington, Frederick. Stretcher and ammunition carrier	50,695
Potts, Ann Fannie. Box	48,958	Rent, George Payne. Piano	47,989
Poulson, Joseph. Valve	49,151	Repp, Ephriam E. Roofing tile	48,937
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Powers, William J., et al. Thill coupling	48,409	Rhodin, John C. A. Plate for secondary voltaic batteries	50,530
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Price, Albert. Warmer for powder and fuse	48,317	Richardson, Sam T., et al. Wheel and axle box	50,901
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Shadbolt, William Oscar, et al. Sliver forming and spinning mechanism.	48,654	Singer Safety Hook and Eye Co. Hook and eye.	50,551
Shafer, Robert D., et al. Wrench for pipe.	50,721	Singram, Albert. Turbine.	48,939
Shaffer, James Albert. Apparatus for producing characters in bread.	47,821	Sinton, Walter Lyon. Map stand.	48,875
Shaffer, Richard M. Apparatus for producing characters in bread.	47,821	Sintzel, Henry. Pocket.	50,803
Shailer, George W., et al. Cultivator.	50,402	Siver, Charles William. Sprinkler.	50,781
Shallenbarger, Oliver B. Meters for electric currents.	50,699	Skimmer, Frederick B. Boot and shoe polishing machine.	47,871
	50,700	Slack, William J. Gate.	49,155
	50,701	Slates, Delass. Damper for grates.	49,448
	50,702	Sleen, Nicholass V. Method for causing chemical changes in grasses.	49,840
	50,703	Sloan, George Beale. Band for springs.	49,553
Shand, John. Rag or beating engine.	48,080	Small, George Edward, et al. Rivet making machine.	47,934
Shank, William P. Smoke arrester.	49,688	Smallwood, Alfred, et al. Wheel and axle box.	50,904
Shannon, Cyrus N. Chimney cowl.	50,226	Smallwood, Samuel B. Machine for filling and corking bottles.	49,172
Shapira, Jacob S. Bed, lounge and chair combined.	49,339	Smart (James) Manufacturing Co. Stove grate.	49,470
Shapira, Jacob Samuel. Folding bed, &c.	48,414	Smart (The James) Manufacturing Co. Pattern for moulding stove plates or lids.	48,948
Shapira, Jacob S., and David H. Folding bed and chair.	49,339	Smelthurst, Aaron. Potato digger.	49,974
Shapley, William Henry. Windmill.	48,143	Smiley, Josiah Edward. Machine for forming stove-pipe joints.	48,835
Sharman, William, et al. Flushing device.	50,325	Smith, Aaron F., et al. Button fastening machine.	50,755
Sharpe, James F. Boot and shoe.	49,717	Smith, Alfred A., et al. Thermometer case.	50,744
Sharp Stone Saw Co. Saw for cutting stone.	48,901	Smith, Alvin Byron. Weather strip.	49,254
Shaw, A. B. Pneumatic tire.	48,893	Smith, Andrew A., et al. Bob sled.	50,536
Shaw, Charles A. Burner for illuminating gas.	50,142	Smith, Arnold E. Apparatus for retarding congelation of fluids.	50,357
Shaw, Daniel. Aerator for milk.	48,976	Smith, Brainerd W., et al. Valve.	48,035
Shaw, David, et al. Washing machine.	49,497	Smith, Charles F. Machine for making wire chains.	48,687
Shaw, James D., et al. Stamp sticking and sealing machine.	47,482	Smith, Charles Lynn. Perforating attachment for printing presses.	48,055
Shaw, Nathaniel H. Saw.	49,472	Smith, Drury J. Scales for computing and weighing.	48,827
Shaw, Noah. Saw mill carriage.	50,854	Smith, Edward A. Truck for barrels.	48,940
Shaw, Noah T., et al. Undertakers truck.	48,314	Smith, Edward F. Sash balance.	50,226
Shea, John F. Railway frog.	50,236	Smith Exhaust Pipe Co. Exhaust for locomotives.	50,735
Shear, Byron Erastus, et al. Rock drill.	48,603	Smith, Frederick S., et al. Thermometer case.	50,744
Shearer, John S. Furniture.	50,006	Smith, George Albert. Method of and apparatus for cleaning grain.	48,102
Sheffield, Evelyn D. T., et al. Dry bath.	49,325	Smith, George Edward. Nail bending machine.	48,862
Shelfy, Jay K. Wrench for pipes.	50,632	Smith, George Hilton, et al. Spinning machine.	48,490
Sheldon, May E. Cooking vessel.	50,933	Smith, Harry C. Copy holder.	49,174
Shelton, Thomas W. Rheostat.	48,090	Smith, Henry Doremus. Syringe.	49,887
Shepard, George B. Fastener for doors, windows, &c.	48,615	Smith, Isaac and William. Syren.	50,031
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Shepherd, Edmund G., et al. Match racking machine.	49,788	Smith, Jay Hungerford. Alarm box.	48,550
Shepherd, William G. Governor for steam engines.	50,346	Smith, John Edward, et al. Machine for setting and cooling tires on wheels.	48,567
Sheppard, George W. Paving block.	49,414	Smith, John, et al. Vehicle tire.	49,071
Sheppard, William H. Electric lamp.	50,822	Smith, John F. A., et al. Crane.	48,323
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Sherman, Asa S. Crate.	50,825	Smith, John W., et al. Floor clamp.	50,340
Sherman, Willis D. Hoist and transfer.	50,559	Smith, John Y. Exhaust for locomotives.	50,735
Sherman, Willis D. Steam engine.	50,106	Smith, Leonard Owen. Thread holder.	48,168
Sherrett, John. Animal trap.	49,342	Smith, Luther Lewis. Cinder sifter.	48,041
Sherrett, John. Cutting mechanism for mowers and reapers.	49,487	Smith, Morris F. Observation tower.	49,935
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Sherris, Alexander. Milking machine.	49,929	Smith, Thomas, et al. Metallic packing.	50,064
Shindler, Christian P. Hot air heating apparatus.	49,766	Smith, Warren Baldwin. Moquette fabric.	48,309
Ships, Walter Scott. Wooden rim for cycles.	49,630	Smith, Warren Baldwin. Moquette loom.	48,310
Shipman, James C. Railway frog.	50,381	Smith, William H. Snap hook.	50,235
Shipman, Milo A. Fence machine.	48,347	Smith, William Hogle. Buckle for traces.	48,709
Shiras, George T. Flash light apparatus.	50,913	Smith, William Robinson, et al. Railway track.	48,773
Shortt, Edward G. Brake.	50,673	Smith, Will Peter, et al. Vehicle.	49,003
Shortt, Edward G. Signal for railway train.	50,668	Smith, Luther C. Apparatus for storing and feeding oil.	50,245
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Showell, Edward. Planter and pulverizer.	49,345	Snow, Willie N. Vehicle spring.	49,369
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Shydecker, Eugene, et al. Steam boiler.	47,790	Soley, Frank. Lock.	50,575
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Sparas, Walter. Machine for enamelling paper.....	49,771	Stone, Henry H., et al. Bottle stopper.....	50,436
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Spaulding, Alfred F. Stone polishing machine.....	49,403	Storner, H. C. F. Electrolysis and apparatus for producing it.....	49,977
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Thomas, Eddy T. Ship cleaning system. . . . .	50,788	Turcott, David. Planter. . . . .	50,495
Thomas, Henry O. Pump. . . . .	50,013	Turcotte, Jules Marie. Swimming appliance. . . . .	50,564
Thomas, Henry Orris. Hand truck. . . . .	48,362	Turley, Theodore J. Multi-colour printing. . . . .	49,561
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Thompson, John S. W. roller bearing for wheels. . . . .	48,368	Two Reel Lock Stitch Sewing Machine Co. Sewing machine. . . . .	49,505
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Thompson, Oliver E. Root cutter. . . . .	48,382	Tygrad Pollman Co. Speed changing for bicycles. . . . .	48,764
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Thomson Houston Electric Co. Telpher system. . . . .	47,935	Vachon, Henry. Clamp. . . . .	48,196
Thomson-Houston International Electric Co. Contact device and switch for overhead currents. . . . .	48,591	Valentine, James Henry. Bottle. . . . .	48,118
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Thomson-Houston International Electric Co. Pump. . . . .	47,865	Van Danc, John R., et al. Cooking utensil. . . . .	49,693
Thomson-Houston International Electric Co. System of transmitting electric currents. . . . .	49,695	Van Depolle, Charles. Telpher system. . . . .	47,925
Thomson, Hugh. Apparatus for flushing water closets. . . . .	49,438	Van Depolle, Charles J. Electric transmission system. . . . .	49,595
Thomson, Jacob Weber. Railway rail joint. . . . .	49,379	Van Depolle, Charles J. Pump. . . . .	47,845
Thomson, James and George. Method of beading iron pipes. . . . .	49,479	Van Deusen, William A. Seeding attachment for harrows. . . . .	49,446
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Toronto Carpet Manufacturing Co. Machine for cutting chenille cloth. . . . .	48,481	Vinton, Henry C., et al. Turn-table. . . . .	49,356
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CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO THE FOLLOWING PATENTS.

Owing to the certificates granted during the month of June, 1895, and published in that number of *The Record*, having been republished by inadvertence in *The Record* for July, 1895, the following certificates which should have appeared in this publication for the latter month, were omitted.

3989. THE HONOURABLE CHARLES ALGERNON PARSONS, 3rd five years of No. 22,122, from the 21st day of July, 1895. Rotary Motor. July 3rd, 1895.	4009. FRANK LESLIE BARTLETT, 2nd five years of No. 34,820, from the 5th day of August, 1895. Process of and Apparatus for Manufacturing Pigments, July 15th, 1895.
3990. PETER ABRAHAMSON, 2nd five years of No. 34,658, from the 9th day of July, 1895. Window Ventilator, July 3rd, 1895.	4010. FRANK LESLIE BARTLETT, 2nd five years of No. 34,832, from the 7th day of August, 1895. Process of and Apparatus for Refining Fumes, July 15th, 1895.
3991. THE CANADIAN GRANITE COMPANY (assignee), 2nd five years of No. 34,615, from the 3rd day of July, 1895. Tool for Stone Dressing Machines, July 3rd, 1895.	4011. CHARLES EDGAR KNAPP, 3rd five years of No. 22,404, from the 5th day of September, 1895. Binding for Carpets, July 15th, 1895.
3992. GEORGE SMITH, 2nd five years of No. 34,678, from the 10th day of July, 1895. Curtain Rods, Poles and Fixtures, July 3rd, 1895.	4012. THE E. B. EDDY COMPANY (assignee), 2nd five years of No. 34,828, from the 6th day of August, 1895. Toilet Paper Roll, July 18th, 1895.
3993. THE MILWAUKEE HARVESTER COMPANY (assignee), 2nd five years of No. 34,627, from the 5th day of July, 1895. Harvester, July 4th, 1895.	4013. THE MILWAUKEE HARVESTER COMPANY (assignee), 2nd five years of No. 34,870, from the 13th day of August, 1895. Harvester Reel Support, July 18th, 1895.
3994. THE MILWAUKEE HARVESTER COMPANY (assignee), 2nd five years of No. 34,628, from the 5th day of July, 1895. Harvester, July 4th, 1895.	4014. THE MILWAUKEE HARVESTER COMPANY (assignee), 2nd five years of No. 34,883, from the 22nd day of August, 1895. Grain Harvester, July 18th, 1895.
3995. THE MILWAUKEE HARVESTER COMPANY (assignee), 2nd five years of No. 34,629, from the 5th day of July, 1895. Harvester, July 4th, 1895.	4015. JOHN WARD JONES and EDWARD K. BRIDGER, 2nd five years of No. 34,742, from the 19th day of July, 1895. Manufacture of Boots and Shoes, July 18th, 1895.
3996. JOHN WILSON, 2nd five years of No. 34,686, from the 11th day of July, 1895. Shirt, July 4th, 1895.	4016. STEPHEN J. LANCASTER, 3rd five years of No. 22,142, from the 29th day of July, 1895. Medicinal Compound, July 20th, 1895.
3997. JOHN C. McLAUGHLIN, 2nd five years of No. 34,751, from the 21st day of July, 1895. Manufacture of Imitation Dressed Chamois and Buck-skin from Paper Pulp in sheets, July 6th, 1895.	4017. McFARLANE, THOMPSON and ANDERSON (assignees), 3rd five years of No. 22,455, from the 15th day of September, 1895. Shingle Machine, July 23rd, 1895.
3998. SAMUEL TROTT, 2nd five years of No. 34,633, from the 8th day of July, 1895. Brush Contacts for Electric Railways, July 6th, 1895.	4018. HAROLD JAGGER, 2nd five years of No. 34,770, from the 24th day of July, 1895. Method of Purifying Sewage, July 23rd 1895.
3999. JOHN BOYD, 2nd five years of No. 34,674, from the 10th day of July, 1895. Art of Making Butter, July 8th, 1895.	4019. WILLIAM DEERING & CO. (assignee), 2nd five years of No. 34,767, from the 24th day of July, 1895. Twine and Method of Making the Same, July 23rd, 1895.
4000. ROBERT GORTON, 2nd five years of No. 34,634, from the 8th day of July, 1895. Hook or Hanger, July 8th, 1895.	4020. ANDREW GEORGE HILL, 2nd five years of No. 34,802, from the 1st day of August, 1895. Disk Harrow, July 27th, 1895.
4001. WILLIAM NORTON, 2nd five years of No. 34,687, from the 11th day of July, 1895. Improvements on Shoes, Over-gaiters, &c., July 10th, 1895.	4021. WILLIAM H. FIELD, 2nd five years of No. 34,914, from the 25th day of August, 1895. Wheel for Door Hangers, July 29th, 1895.
4002. THE CONSOLIDATED CAR HEATING COMPANY (assignee), 2nd five years of No. 34,757, from 23rd day of July, 1895. Car Heating Apparatus, July 10th, 1895.	4022. WILLIAM H. FIELD, 2nd five years of No. 34,917, from the 25th day of August, 1895. Door Hanger, July 29th, 1895.
4003. HOWARD WILLIAMS, 3rd five years of No. 22,671, from the 14th day of July, 1895. Flat-roof for Buildings, July 10th, 1895.	4023. THE HONOURABLE CHARLES ALGERNON PARSONS, 3rd five years of No. 22,286, from the 24th day of August, 1895. Construction and Working of Apparatus for Generating Electricity, July 29th, 1895.
4004. JACOB S. SHAFER, 2nd five years of No. 34,759, from the 23rd day of July, 1895. Washing Machine, July 11th, 1895.	4024. ANNIE HAWKE, 2nd five years of No. 34,783, from the 1st day of August, 1895. Portable Table, July 30th, 1895.
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4007. JAMES STOTT, 3rd five years of No. 22,073, from the 14th day of July, 1895. Gas Regulator, or Governor, July 13th, 1895.	4027. JAMES VERNON, 2nd five years of No. 34,814, from the 2nd day of August, 1895. Method of Making Horse Shoes, July 31st, 1895.
4008. FRANK LESLIE BARTLETT, 2nd five years of No. 34,819, from the 5th day of August, 1895. Process of Treating Silver and Zinc Ores, July 15th, 1895.	

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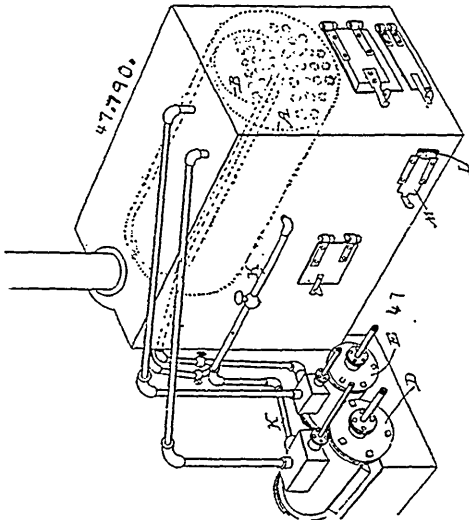
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### INVENTIONS PATENTED.

NOTE.—Patents are granted for 15 years. The term of years for which the fee has been paid, is given after the date of the patent.

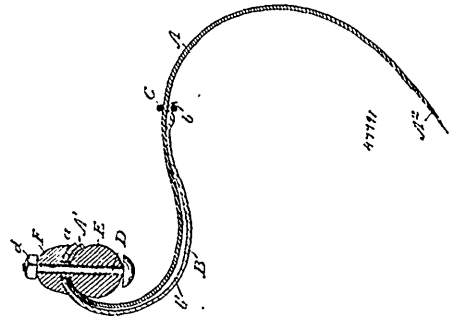
#### No. 47,790. Steam-Boiler. (*Chaudière à vapeur.*)



Eugene Shydecker and Harvey S. Brown, both of San Francisco, California, U.S.A., 3rd January, 1895; 6 years.

*Claim.*—1st. In a steam generator, the combination of two boilers, one inclosed within the steam space of the other, each having flues for the passage of heat, and front and rear combustion chambers with which said passages connect, and a fire-place, substantially as described. 2nd. In a steam generator, the two boilers, one contained within the steam space of the other, flues extending through the two boilers for the passage of heat and communicating with front and rear combustion chambers at opposite ends of the boilers, a horizontal partition situated above the line of flues of the larger boiler, whereby the heat is diverted through said flues into the front combustion chamber and thence through the upper boiler flues, and a controlling damper in said partition whereby the heat may be delivered directly to the chimney without passing through e flues, substantially as described.

#### No. 47,791. Cultivator Teeth. (*Dents de cultivateur.*)



The Massey Harris Company, assignee of Lyman Melvin Jones and William F. Johnston, all of Toronto, Ontario, Canada, 3rd January, 1895; 6 years.

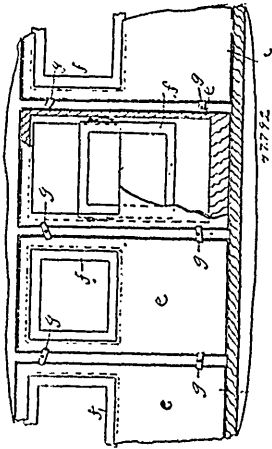
*Claim.*—1st. The combination with a curved spring tooth, of a curved spring strap secured to the upper end of the tooth by the bolt, which secures the tooth to its seat and extending around the upper curved portion of the tooth to a point at which the reverse curve of the tooth commences, as and for the purpose specified. 2nd. The combination with a curved spring tooth, of a curved spring strap secured to the upper end of the tooth by the bolt, which secures the tooth to its seat and extending around the upper curved portion of the tooth to a point at which the reverse curve of the tooth commences and means for securing the end of the strap to the tooth at such point, as and for the purpose specified. 3rd. The combination with a curved spring tooth, of a curved spring strap secured to the upper end of the tooth by the bolt which secures the tooth to its seat and extending around the upper curved portion of the tooth to a point at which the reverse curve of the tooth commences, the lower end of the strap being shaped so as to form a cross-groove and a link being provided which extends through the groove and around the back of the tooth to hold them together, as and for the purpose specified.

#### No. 47,792. Street Car. (*Char de rue.*)

Edward Julien, and Treffé Berthiaume, both of Montreal, Quebec, Canada, 3rd January, 1894; 6 years.

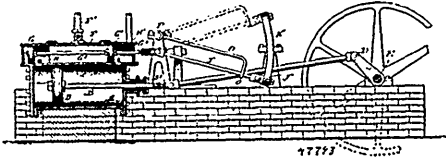
*Claim.*—1st. A street car having movable end sections, for the purpose set forth. 2nd. A street car having movable end sections and sliding door carried by one of said sections, for the purpose set forth. 3rd. A street car having its end sections hinged to the corner posts of the car, and a sliding door carried by one of such sections, for the purpose set forth. 4th. A street car having detachable side foot boards, for the purpose set forth. 5th. In a street car, the combination with bolt heads projecting from the sides thereof, of detachable side foot boards having hanger bars provided with slots having enlarged ends, for the purpose set forth. 6th. A street car having removable side panels, for the purpose set forth. 7th. A street car having longitudinally recessed side posts, removable panels adapted to be held between such posts and suitable retaining devices, for the purpose set forth. 8th. A street car having movable or interchangeable seats, for the purpose set forth. 9th. A street car having movable seats adapted to be arranged lengthwise

or transversely of the car and means for retaining them in position, for the purpose set forth. 10th. A street car having removable side panels and movable or interchangeable seats, for the purpose set



forth. 11th. A street car having movable end sections, removable side panels and movable or interchangeable seats, for the purpose set forth. 12th. A street car having movable end sections, detachable side foot boards, removable side panels and movable or interchangeable seats, for the purpose set forth.

**No. 47,793. Valve Gear for Steam-Engines.**  
(*Mécanisme de soupape de machine.*)



Lemon O. Burk and Douglas Hopson, both of Borning, Arkansas, U.S.A., 3rd January, 1895; 6 years.

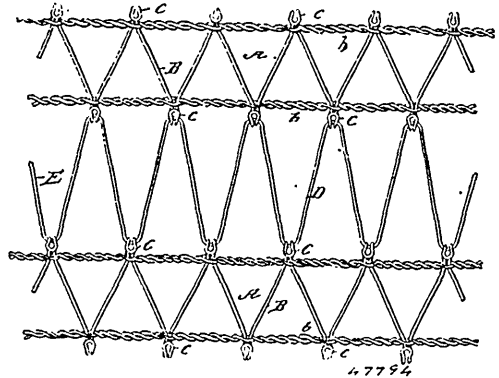
*Claim.*—1st. A device of the class described, comprising a reversing link adapted to be rocked from the main shaft, a block fitted to slide in the said reversing link, a connecting rod for connecting the block with the valve stem, and a raising and lowering device for the said connecting rod, to move the block in the said reversing link, substantially as shown and described. 2nd. A device of the class described, comprising a steam-cylinder, a steam-chest held on the said cylinder and connected by straight ports with the cylinder, and two slide valves in the said steam-chest and operating over the said ports, substantially as shown and described. 3rd. A device of the class described, comprising a steam-cylinder, a steam-chest held on the said cylinder and connected by straight ports with the cylinder, two slide valves in the said steam-chest and operating over the said ports, and semi-circular casings fixed in the said steam-chest and engaging the segmental surfaces of the said valves, substantially as shown and described. 4th. A steam-engine, provided with a semi-circular sliding valve, substantially as shown and described. 5th. In a device of the class described, the combination with a cylinder having ports at its ends, of a steam-chest secured on the said cylinder and into which open the said ports, casings held in the said steam-chest and made semi-circular, and connected slide valves made semi-circular and connected with the said casings to divide the steam chest into three compartments, of which the middle one is for live steam and the end compartments for the exhaust steam, substantially as shown and described.

**No. 47,794. Wire Fence.** (*Clôture en fil de fer.*)

Ephraim L. Schanck, Lewis Center, and Horace F. Owen, Delaware, both in Ohio, U.S.A., 3rd January, 1895; 6 years.

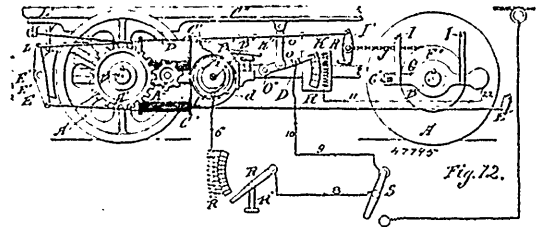
*Claim.*—1st. A wire fence, substantially as described, comprising a series of stretchers or woven frames formed respectively of wire strands twisted one about the other, and wire stays connecting the adjacent runners of each frame, said stays being provided at their opposite ends with open ended hooks or pockets adapted to connect with the runners of adjacent frames, essentially as and for the purpose herein set forth. 2nd. In a wire fence, the combination of a series of longitudinal woven wire stretchers or frames A, each composed of upper and lower runners formed respectively of wire

strands twisted one about the other, a diagonal or zigzag wire stay B, intersecting said runners and formed with open ended hooks or



pockets at its angles or bends, and a diagonal or zigzag wire tie D, held within said hooks or pockets between the adjacent wire stretchers or frames, substantially as shown and described.

**No. 47,795. Controller for Electric Motors.**  
(*Appareil à contrôle pour moteurs électriques.*)



Charles Erwin Davis, Chicago, Illinois, U.S.A., 3rd January, 1895; 6 years.

*Claim.*—1st. In a controller for electric motors, two series of contacts separated by a space, and co-operating contacts, one set being mounted on a main moving element of the controller and organized for movement relative to the other set or sets, a supply circuit for the motor leading to the controller, connections between the said contacts, and the motor or motors such that when the said moving element is in a central position the contacts are open-circuited, when in a position to one side of said central position the supply circuit is operatively coupled to the motor or motors through said single set of contacts and connected resistance, and when in a position on the other side of said central position the motor or motors are disconnected from the said supply circuit, and their circuit is completed through the said local circuit, also through said single set of contacts and connected resistance. 2nd. In a controller for electric motors, two series of contacts separated by a space, and co-operating contacts, one set being mounted on a main moving element of the controller and organized for movement relative to the other set or sets, a supply circuit for the motor or motors leading to the controller, connections between the said contacts and the motor or motors such that when the said moving element is in a central position the contacts are open-circuited, when in a position to one side of said central position the supply circuit is operatively coupled to the motor or motors, and when in a position on the other side of said central position the motor or motors are disconnected from the said supply circuit, and the circuit is completed through the said local circuit, in combination with an electrically operated device as a brake adapted to be thrown into and out of action by the operation of said controller, the same being included in the said local circuit. 3rd. In a controller for electric motors, two series of contacts separated by a space, and co-operating contacts, one set being mounted on a main moving element of the controller and organized for movement relative to the other set or sets, a supply circuit for the motor or motors leading to the controller, and an independent local circuit also leading to the controller, connections between the said contacts and the sections of an artificial resistance, and also to the motor or motors such that when the said moving element is in a central position the contacts are open-circuited, when in a position to one side of said central position the supply circuit is operatively coupled to the motor or motors, and when in a position on the other side of said central position the motor is disconnected from the said supply circuit and the circuit is completed through the said local circuit, and a temporary short circuit around the artificial resistance, in combination with means for automatically opening the short circuit. 4th.

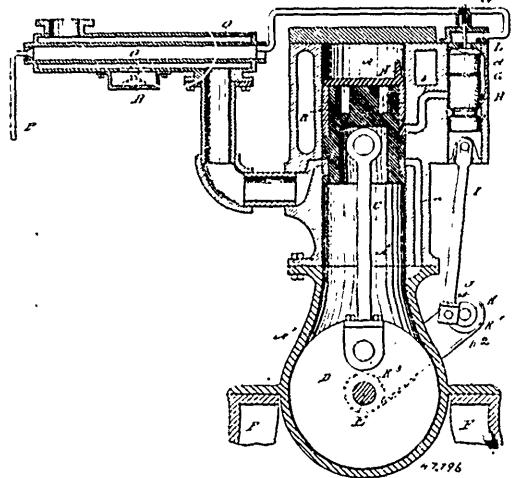
The method of variably retarding or checking the motion of motors normally coupled to the feed circuit in pairs, together with a variable resistance for the operation of such motors, said method consisting in breaking the supply circuit, connecting the motors in series on a local circuit including said variable resistance, and then causing said resistance to be regulated to suit the requirements in regulating or varying said retardation. 5th. The method of variably checking the motion of motors normally coupled to the feed circuit in pairs together with a variable resistance for the operation of such motors, said method consisting in breaking the supply circuit, connecting the motors in series on a local circuit, the coupling being such that the electro-motive force of the two motors acting through said variable resistance though unequal are normally opposed to each other, said local circuit including said variable resistance, and regulating such resistance to vary the said checking of the motion. 6th. The method of arresting or checking the motion of motors normally coupled to the feed circuit in pairs, consisting in breaking the supply circuit, connecting the motors in series with each other, and closing a short-circuiting device around one of the motors. 7th. In an electric controller, a shaft capable of but a single revolution or fraction thereof, two sets of electric contacts operated by said shaft, one moving with the shaft and the other reversing its direction of motion at or about the central point in the rotation of the shaft and mechanical connection from the shaft to the last named set of contacts. 8th. The system of braking an electric car or other mechanism, same consisting in disconnecting the circuit of the electrical supply to the electric motor of such car, reversing the circuit relation of the elements of the motor, re-establishing circuit relation of such elements through a local circuit containing an electrically actuated device for mechanically arresting the motion of the mass, and containing also means for automatically varying the current intensity therein. 9th. The system of braking an electric car or other mechanism, the same consisting in disconnecting the circuit of the electrical supply to the electric motor of such car, reversing the circuit relation of the elements of the motor, re-establishing circuit relation of such elements through a local circuit containing an electrically actuated device for calling into action the motion of one or more of the moving parts for mechanically applying a frictional resistance to the motion of such car or mechanism. 10th. The system of braking an electric car or other mechanism, same consisting in disconnecting the circuit of the electrical supply to the electric motor of such car, reversing the circuit relation of the elements of the motor, re-establishing circuit relation of such elements through a local circuit containing an electrically actuated device for mechanically arresting the motion of the mass, and containing also means for automatically varying the current intensity in such local circuit in direct ratio to the weight of the mass. 11th. The system of braking a train of electric cars, the same consisting in disconnecting the circuit of the electrical supply to the electric motor or motors of one of such cars, reversing the circuit relation of the elements of the motor or motors, re-establishing circuit relation of such elements through a local circuit containing an electrically actuated device for mechanically applying directly a frictional resistance to the motion of two or more of the cars constituting said train. 12th. In an electric brake circuit for a car, a resistance, a car body supported upon a truck by a spring, and means for varying such resistance dependent upon the motion between the said car body and the truck due to compression of the spring. 13th. In an electric brake for a car, in combination with a brake reel provided with a frictional surface, co-operating mechanism connected with a revolving axle provided with co-operating frictional surfaces, an electro-magnet for controlling the frictional surfaces, a mechanical generator of electricity connected with the axle, and a variable resistance in the circuit between the generator and the magnet.

**No. 47,796. Gas Engine. (Machine à gaz.)**

Frank S. Mead, Montreal, Quebec, Canada, 3rd January, 1895; 6 years.

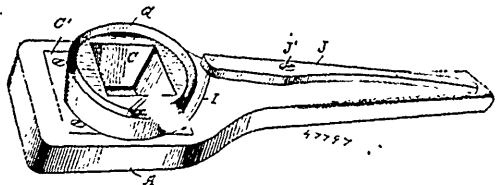
*Claim.*—1st. A gas engine whose working cylinder is provided with a port for the admission of the inflammable vapour, a vapour pump connected to the said port, a vapour feed-pipe connected to the said pump, a vaporizer connected to the said feed-pipe, and a supply pipe extending to the vaporizer from a lower level, so that the inflammable fluid travels to the vaporizer only when the pump creates a suction in the said supply pipe, whereby the supply of vapour is rendered dependent on the operation of the engine, substantially as described. 2nd. A gas engine provided with a working cylinder, a pump-barrel located adjacent thereto, a channel connecting the pump-barrel to the working cylinder, a feed-pipe connected to the pump to convey the inflammable fluid thereto, pistons adapted to move in the pump-barrel and in the working cylinder respectively, the ports whereby the said channel communicates with the cylinder and the pump-barrel, being located in the paths of travel of the working piston and the pump-piston respectively, so that the inlet of the inflammable fluid is controlled both by the pump-piston and by the working piston, substantially as described. 3rd. A gas engine provided with a working cylinder, a pump-barrel located adjacent thereto, a channel connecting the pump-barrel to the working cylinder, a channel or passage in the side of the pump-barrel, said channel extending from a point near one end of the barrel to a point located in transverse alignment

with the orifice of the channel leading to the working cylinder, a feed pipe connected to the same part of the barrel in which the said lateral channel or passage is arranged, to convey the inflammable



fluid to the pump, and means, substantially as described, for controlling the inlet of the inflammable fluid to the cylinder, as set forth.

**No. 47,797. Wrench. (Clé à écrou.)**

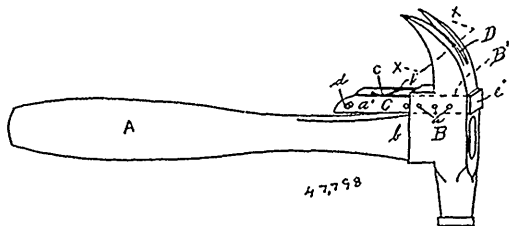


Julius Locke Stambaugh, Standart, Texas, U.S.A., 3rd January, 1895; 6 years.

*Claim.*—1st. A wrench, provided with a cap for engaging the nut of a wheel-hub, and having an expansible clamping device surrounding it adapted to engage the interior of such hub, as set forth. 2nd. A wrench comprising a body, having a cap member adapted to engage the nut, an expansible spring band secured at one end near the cap, and encircling the same, a tension lever pivoted on the body and a connection between such lever and the free end of the said band, all substantially as shown and described. 3rd. An improved wrench, comprising a body having a handle member, a cap adapted to engage the nut, a spring band held to encircle the cap, having one end secured to the body adjacent to the cap and means secured to the body for drawing up such band, whereby it can be fitted into the hub to expand against the inner wall thereof, as specified.

**No. 47,798. Hammer. (Marteau.)**

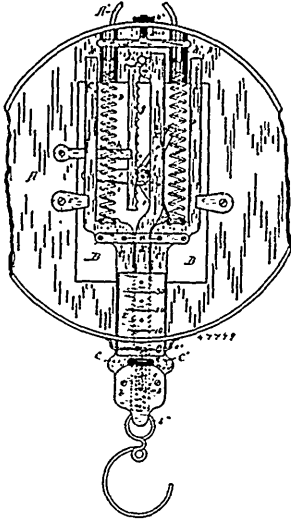
Willard Henry Burgess, Steamboat Springs, Colorado, U.S.A., 3rd January, 1895; 6 years.



*Claim.*—1st. In a claw-hammer, an auxiliary socket formed through the head thereof, a fulcrum device passed through said opening, a flange at one end of said fulcrum device to prevent its withdrawal from said opening, said fulcrum device formed in two parts connected together at one end by a socket joint, the free ends of said fulcrum device having projections upon their outer surfaces, also to prevent the withdrawal of said device from the opening, said parts also bearing a pin, holes within the wall of the opening in the hammer-head to receive said pin, and a spring between said

parts of the fulcrum device, substantially as and for the purpose set forth.

**No. 47,799. Scales. (Balances.)**



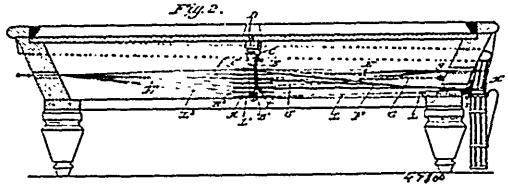
John Henry Swihart, Dayton, Ohio, U.S.A., 3rd January, 1895; 6 years.

*Claim.*—1st. The combination of spring-controlled sliding-bars, two of which are movable together, an intermediate sliding-bar, movable with said bars or independently thereof, a rack-bar carried by said intermediate sliding-bar, a pinion and shaft rotated by said rack-bar, and means for adjusting said intermediate sliding-bar, to take-off tare, substantially as described. 2nd. The combination of spring-controlled sliding-bars, the adjustable transverse bar  $d^{11}$ , to which said springs are attached, a thumb-nut for adjusting said bar  $d^{11}$ , and intermediate sliding-bar movable with the before-mentioned sliding-bars or independently thereof, a rack-bar carried by said intermediate bar, a pinion and shaft rotated by said rack-bar, and means for adjusting said intermediate bar, to take-off tare, substantially as described. 3rd. The combination of spring-controlled sliding-bars, a rack-bar pivoted to one of said bars, a pinion sleeve movable by said rack-bar, cams mounted on, and a shaft inclosed by said pinion sleeve, springs carried by said shaft that normally rest against the peripheries of said cam, substantially as described. 4th. The combination of spring-controlled sliding-bars, a shaft with a calculating dial as herein described, and springs mounted thereon, a pinion sleeve with cams thereon, with which said springs normally engage, and a rack-bar pivoted to one of said sliding-bars and means for taking off the tare, substantially as described. 5th. The combination of a price and weight indicating dial as described, a vertically positioned price per pound scale adjacent thereto, a shaft upon which said dial is fixed, and springs mounted on said shaft, a pinion sleeve and cams fixed thereto, and means for rotating said pinion sleeve, substantially as described. 6th. The combination of sliding-bars, two of which have a fixed connection at their lower ends, and one of which is movable with said two or independently thereof, a rack-bar pivoted to said independently movable bar, a plurality of cams fixed thereto, and a shaft loosely inclosed by said pinion sleeve, a plurality of springs carried on said shaft and normally pressing said cam, substantially as described. 7th. The combination with the supporting plate, of a plurality of sliding-bars, two of which are inseparably movable, and one of which is movable with said two or independently thereof, to take-off tare, springs attached to two of said bars, and means for adjusting said springs to preserve a normal tension thereof, a rack-bar pivoted to said independently movable sliding-bar, a pinion sleeve movable by said rack-bar, a shaft inclosed by said pinion sleeve, and means on said shaft and pinion sleeve for causing an uniform or independent movement of said parts, substantially as described. 8th. The combination of sliding bars  $C$ ,  $C^1$ , socket-plate  $b$ , to which said bars are attached, an intermediate sliding-bar  $E$ , having its lower end screw threaded and inserted in an opening  $b^1$ , in said socket-plate, a coil-spring seated in said opening upon which the bar  $E$ , normally rests, a thumb-nut to elevate or lower the bar  $E$ , to zero, a calculating dial and means interposed between said dial and bar  $E$ , for moving said dial in unison with the bar  $E$ , or independently thereof, substantially as described. 9th. In a price-computing scale, a dial upon which are indicated in circumferential columns, prices ranging from cents to dollars, and weights ranging from ounces to pounds, in combination with a shaft upon which said dial is rigidly mounted, spring bars carried by said shaft, a pinion sleeve inclosing said shaft, and upon which a

plurality of cams are mounted, against the peripheries of which said spring bars normally press, a rack by which said pinion sleeve is rotated, and a sliding-bar to which said rack is pivoted, and means for adjusting said sliding-bar to relieve the scale of tare, substantially as described.

**No. 47,800. Pool-Table Racks and Tallies.**

(Table pour jeu de poule, compteur et étalier.)



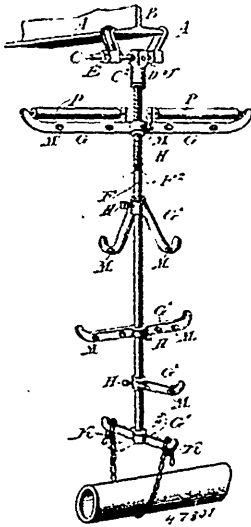
George Frank Goss, Wallaceton, Pennsylvania, U.S.A., 3rd January, 1895; 6 years.

*Claim.*—1st. The combination of a pool-table having inclined chutes leading from its pockets, of receptacles for balls with, movable doors, and separate groups of pull-rods or cords running to each side of the table, one rod or cord of each group being connected to the same rocking frame in the centre, and having in common a slide-rod or connection for one of the sliding doors of the rack, substantially as described. 2nd. The combination of a pool-rack having sliding doors, sliding connections for operating the same, and a series of frames connecting with the latter and having an alternately reversed motion with a readjusting device between them and pull-rods or cords for operating the frames whereby the opening of one door in the rack by a pull-rod closes the door opened by the previous pull-rod, substantially as shown and described. 3rd. The combination of the rack having sliding doors for its receptacles, slide-rods for operating the same, a series of rotary moving frames and pull-rods or cords, and a cable  $I$ , connected to the first of the series of frames and having multiple ends connected to the other frames for enabling the first of the series being played to close the door of the last of the series played, substantially as described. 4th. The combination with a pool-table of the rack having vertical receptacles, a rock-shaft having arms leading into the receptacles and adapted to be struck and deflected by the balls, and having also another arm arranged as a circuit closer, and an electric bell and circuit arranged to be operated thereby, substantially as shown and described. 5th. The combination of the pool-table having inclined chutes and rack with sliding doors, four series of pull-rods or cords running to the four sides of the table, a vertical axial-rod provided with a series of four armed frames connected to the pull devices, slide-rods connecting them to the sliding doors, and the readjusting devices between the frames, substantially as shown and described, and for the purpose set forth. 6th. In a pool-table, the combination with the rack or ball receptacles having adjustable doors controlling admission thereto, of a series of rotary adjustable frames having readjusting devices and connected to and operating the adjustable doors of the ball receptacle, the said frames being arranged in two alternating series working reversely, and a corresponding set of pull-rods or operating devices for moving said frames, substantially as and for the purpose described. 7th. In a pool-table, a series of oscillating frames movable one in one direction and the next in the reverse direction and provided after the first of the series with projecting arms or portions arranged to engage the preceding or next frame in advance, whereby as the frames are successively moved each will return its immediately preceding frame to its original position, and devices controlling the passage of the balls connected with and operated by said frames, substantially as set forth. 8th. In a pool-table, a series of frames movable alternately in reverse directions, each frame after the first being provided with a laterally extended segment having a projection or portion arranged to engage the preceding frame such segments being projected alternately in opposite directions, and devices controlling the passage of the balls connected with and operated by said frames, substantially as shown and described. 9th. In a pool-table, a series of frames movable alternately in reverse directions and provided each after the first with laterally extended segment, and provided with a projection or portion connected adjustably with said segment and arranged and adapted to engage the next preceding frame, and devices controlling the passage of the balls connected with and operated by said frames, substantially as shown and described. 10th. In a pool-table, a series of frames movable as described and provided with radially adjustable end pieces or extensions, combined with the devices operated by said frames and connections between said devices and frames, such connections being secured to the radially adjustable end pieces, substantially as set forth. 11th. In a pool table, the combination with the series of oscillating frames and the pull and push-rods by which to operate the slides or doors controlling the passage of the balls to the racks, and the radially adjustable end pieces of said frames to which end pieces the pull and push-rods are connected, substantially as shown and described. 12th. In a pool-table, the combination with the shaft and the series of frames independently movable thereon, of independent tension devices for the



said frames, whereby they will be held from accidental movement on the shaft, substantially as set forth. 13th. In a pool-table, the combination with the table, the series of rocking frames and the devices connected with and operated thereby of the shaft supporting the said frames, such shaft being secured to and depending from the table frame, whereby said rocking frames may be suspended clear of the floor and are supported by and movable with the table, all substantially as and for the purposes set forth. 14th. In a pool-table, the combination with ball receptacle of a rock-shaft having arms controlling the entrance thereto, and adapted to be struck and deflected by the balls, a detent or lock for holding said rock-shaft from turning, and devices by which the said shaft and detent may be brought into engagement, substantially as shown and described. 15th. A pool-table provided with a series of reversely oscillating frames provided each after the first with means for returning the preceding frame to its original position, a cable connected adjustably with the first frame, a guide around which said cable is passed, and a series of branch cords connected at one end adjustably with the cable and extended thence and connected with their respective frames, substantially as set forth. 16th. In a table, substantially as described, the combination with the pool receptacles of a rock-shaft having projections controlling the entrance to said receptacles, and arranged to be engaged by the balls, whereby the shaft will be rocked as the balls enter the receptacles, said shaft being normally free to rock, a detent or lock adapted to engage and secure the shaft from turning and independent operating devices, whereby to adjust the said shaft and detent into engagement, substantially as set forth.

**No. 47,801. Girder Clamp and Hanger.**  
(Support et tirant pour poutres.)

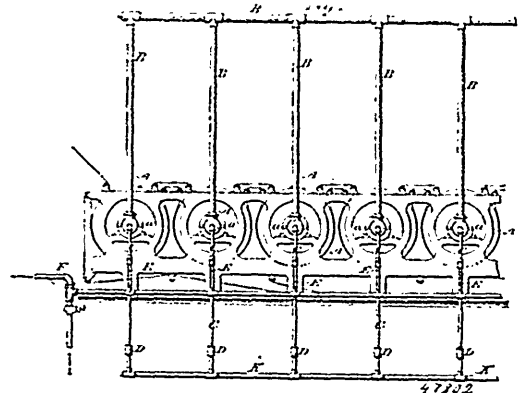


Charles MacTaggart, Philadelphia, Pennsylvania, U.S.A., 3rd January, 1895; 6 years.

*Claim.*—1st. Girder clamps having a tightening and adjusting bolt connected therewith, and an arm-supporting device on said bolt, the parts named being combined substantially as described. 2nd. Girder clamps in combination with a bolt with a nut connecting the same, and an arm-supporting device on said bolt, substantially as described. 3rd. Girder clamps having a bolt adjustably connecting the same, and an arm-supporting head on said bolt, the latter having a squared part, and one of said clamps having a squared opening to receive said part and prevent rotating of said clamps, substantially as described. 4th. Girder clamps having a bolt adjustably connecting the same, and a supporting head on said bolt, said head having angularly-arranged openings, each adapted for the passage of a bolt, substantially as described. 5th. In a girder clamp and hanger, a supporting head having a series of vertical openings, substantially as described. 6th. In a girder clamp, a supporting head having an opening of different diameters. 7th. In a girder clamp, a rod with a supporting arm thereon, and openings in said arm or arms, substantially as described. 8th. In a girder clamp, the supporting arm or arms having openings therein, and bosses for said openings, substantially as described. 9th. In a girder clamp, a supporting arm and a chain or girder thereon, substantially as described. 10th. Girder clamps, a bar attached to one clamp and freely passing through the other clamp, and a set screw connected with the latter and adapted to engage with said bar, the parts being combined, substantially as described. 10th. Girder clamps having a bar provided with notches, and a head receiving said bar in an opening therein and formed with a tooth in said opening adapted to enter either of said notches, said parts

being combined, substantially as described. 12th. A girder clamp hanger, and an arm thereon, in combination with a roller mounted on said arm, substantially as described.

**No. 47,802. Drying Machine. (Four à sécher.)**



Andrew G. Paul, Boston, Massachusetts, U.S.A., 3rd January, 1895; 6 years.

*Claim.*—1st. The combination of a drying or heating cylinder with a discharge pipe connected with one of the journals thereof, and a trap consisting of a valve device at the lower end of the said discharge pipe, substantially as before set forth. 2nd. The combination of two or more drying or heating cylinders, separate discharge pipes, one connected with each cylinder, a trap consisting of a valve device at the outer end of each discharge pipe, and a common drain pipe into which the discharge pipes empty, substantially as before set forth. 3rd. The combination of two or more drying or heating cylinders, separate discharge pipes, one connected with each cylinder, a trap consisting of a valve device at the outer end of each discharge pipe, a regulating device to regulate the amount of water that can be discharged from each discharge pipe, and a common drain pipe into which the discharge pipes empty, substantially as before set forth. 4th. The combination of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap at the outer end of the said discharge pipe and an escape pipe connected with the said discharge pipe above the outer end thereof, substantially as before set forth. 5th. The combination of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, and an exhausting device with which said escape pipe is connected, substantially as before set forth. 6th. The combination, substantially as before set forth, of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, the said escape pipe being provided with a restricted passage. 7th. The combination, substantially as before set forth, of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, the said escape pipe being provided with a restricted passage, and an exhausting device with which said escape pipe is connected. 8th. The combination of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap consisting of a valve device at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, and an exhausting device with which said escape pipe is connected, substantially as before set forth. 9th. The combination, substantially as before set forth, of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap consisting of a valve device at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, the said escape pipe being provided with a restricted passage, and an exhausting device with which said escape pipe is connected. 10th. The combination, substantially as before set forth, of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, and a regulating device to regulate the amount of water discharged from the said discharge pipe. 11th. The combination, substantially as before set forth, of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, an exhausting device with which said escape pipe is connected, and a regulating device to regulate the amount of water discharged from the said discharge pipe. 12th. The combination, substantially as before set forth, of a drying or heating cylinder, a discharge pipe connected with one of the journals

thereof, a trap at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, and the said escape pipe being provided with a restricted passage, and a regulating device to regulate the amount of water discharged from the said discharge pipe. 13th. The combination, substantially as before set forth, of a drying or heating cylinder, a discharge pipe connected with one of the journals thereof, a trap at the outer end of the said discharge pipe, an escape pipe connected with the said discharge pipe above the outer end thereof, the said escape pipe being provided with a restricted passage, an exhausting device with which said escape pipe is connected, and a regulating device to regulate the amount of water discharged from said discharge. 14th. The combination of a heating or drying cylinder with a steam supply pipe, an air discharge pipe, and a water discharge pipe, the said three pipes being connected with the journals of the said cylinder, substantially as before set forth. 15th. The combination of a heating or drying cylinder with a steam supply pipe, an air pipe, an exhausting device with which the said air pipe is connected, and a water discharge pipe, the said three pipes being connected with the journals of the said cylinder, substantially as before set forth. 16th. The combination, substantially as before set forth, of a heating or drying cylinder with a steam supply pipe, an air pipe, an exhausting device with which the said air pipe is connected, a water discharge pipe, and a trap at the outer end of the water discharge pipe. 17th. The combination, substantially as before set forth, of a heating or drying cylinder with a steam supply pipe, an air pipe, an exhausting device with which the said air pipe is connected, a water discharge pipe, the said three pipes being connected with the journals of the said cylinder, a trap at the outer end of the water discharge pipe, and an escape pipe connected with the water discharge pipe above the outer end thereof, and an exhausting device with which the said escape pipe is connected. 18th. The combination, substantially as before set forth, of a heating or drying cylinder with a steam supply pipe, an air pipe, an exhausting device with which the said air pipe is connected, a water discharge pipe, the said three pipes being connected with the journals of the said cylinder, a trap at the outer end of the water discharge pipe, an escape pipe connected with the water discharge pipe above the outer end thereof, and provided with a restricted passage, substantially as before set forth. 19th. The combination, substantially as before set forth, of a heating or drying cylinder with a steam supply pipe, an air pipe, a water discharge pipe, a trap at the outer end of said water discharge pipe, an escape pipe connected with the water discharge pipe above the discharge end thereof, and provided with a restricted passage, and an exhausting device with which the said escape pipe is connected. 20th. The combination, substantially as before set forth, of a heating or drying cylinder with a steam supply pipe, an air pipe, a water discharge pipe, a trap at the outer end of said water discharge pipe, an escape pipe connected with the water discharge pipe above the discharge end thereof, and provided with a restricted passage, and an exhausting device with which the said escape pipe is connected. 21st. The combination of two or more drying or heating cylinders, separate discharge pipes, one connected with each cylinder, a trap at the outer end of each discharge pipe, separate escape pipes connected with the said discharge pipes above the outer end thereof and severally provided with restricted passages, and a common exhausting device with which all the said escape pipes are connected, substantially as before set forth. 22nd. The combination of two or more drying or heating cylinders, separate steam supply pipes therefore connected with the journals of the said cylinders, separate air pipes also connected with the journals of the said cylinders and severally provided with restricted passages, and a common exhausting device with which all of the said air pipes are connected, substantially as before set forth.

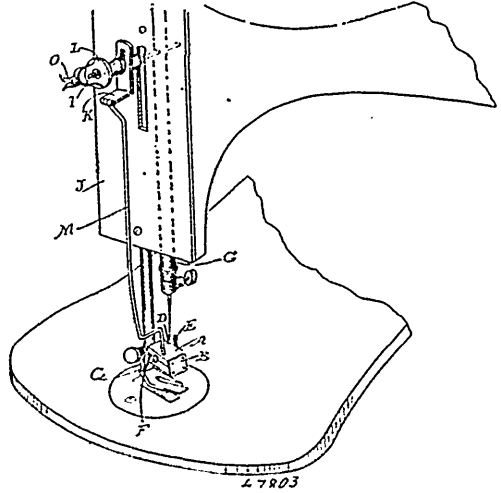
**No. 47,803. Sewing-Machine Needle Threader.**

(Appareil pour enfiler les aiguilles des machines à coudre.)

Patrick Bralley, Oakland, California, U.S.A., 3rd January, 1895; 6 years.

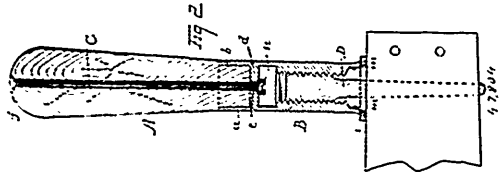
*Claim.*—1st. A threading device for sewing-machine needles consisting of a block having a hole or perforation adapted to coincide with the eye of the needle, an arm, to the lower end of which the block is secured, and means for adjustably securing said arm and block to the needle bar, consisting of a slotted plate fitted to the arm of the machine and having its lower end connected by a hinged joint with the upper end of the arm which carries the block, a screw projecting from the needle bar through a slot in the arm of the machine, and through the slot in said plate, and a locking nut for adjustably securing said plate, and provided with means for maintaining the block elevated when not in use. 2nd. A needle threading device for sewing-machines consisting of a block having a hole or perforation adapted to coincide with the eye of the needle and direct the thread therethrough, an arm carrying the block at its lower end, a slotted plate fitted against the arm of the machine having its lower end bent outwardly and hinged to the upper end of the arm which carries the block, about which hinge the device may be turned down for use and up out of the way when not in use, a screw pin from the needle bar passing through a slot in the arm of the machine and through the slot in the plate, and a nut engaging said pin and adjustably securing the slotted plate, said nut being provided with a clamp into which the block carrying arm may be placed and maintained in an elevated position. 3rd. A device for threading sewing machine needles con-

sisting of a two-part block, a spring plate by which the two parts are normally held together, a tapered opening or hole made partially in each block between the meeting faces thereof, a vertical channel



into which the smaller part of the hole opens upon the opposite side, said channel being adapted to fit the needle, and a spring plate between which and the block the needle passes, whereby it is retained in the channel with the eye in line with the hole of the threading block.

**No. 47,804. Saw Handle. (Manche de scie.)**

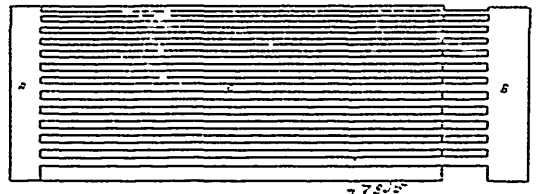


John Watt Miller, Penfield, Pennsylvania, U.S.A., 3rd January 1895; 6 years.

*Claim.*—1st. The combination with ferrule having a web therein with a hole formed in it, said ferrule screw-threaded internally, of a loop adapted to receive the saw blade and one end of the loop threaded to screw into the ferrule, a handle and a bolt passed through the handle and the hole in the web for holding the ferrule on the handle, substantially as set forth. 2nd. The combination with a ferrule having a transverse web therein located a sufficient distance from each end to leave a receptacle at each end thereof, one end of the ferrule internally screw-threaded, and a shank or loop threaded at one end to enter the threaded end of the shank of a handle fitted into the opposite end of the ferrule, and a rod passed through the handle and the web for holding the handle and ferrule together, substantially as set forth.

**No. 47,805. Distillation of Fluids.**

(Méthode de distillation des fluides.)



JAMES ALFRED, and WILLIAM JOHN COOPER, both of Derby Villas New Molden, Surrey, England, 3rd January, 1895; 6 years.

*Claim.*—1st. The herein described method of distilling material such as crude petroleum or other liquid, which consists in utilizing the material to be subsequently distilled as the cooling or condensing medium for the hot or vaporized material, and then feeding the condensing material thus heated for subsequent distillation. 2nd. In a distilling apparatus, the combination of the boiler with a

vertical uptake, a series of tubes leading from said uptake to a receiving chamber, a condenser chamber surrounding the tubes, and a conduit pipe leading from the receiving chamber, as set forth. 3rd. In a distilling apparatus, the combination of the boiler, a series of tubes leading therefrom to a receiving chamber, a condenser chamber surrounding the tubes, and a conduit leading from the condenser chamber to the boiler, as set forth. 4th. In a distilling apparatus, the combination of the boiler, the tubes, the condenser and a vertical conduit leading from the tubes of a height, say 40 feet, sufficient to effect an approximate vacuum in the tubes, as set forth. 5th. In a distilling apparatus, the combination of the boiler, the condenser, the receiving chamber with which the tubes communicate, a vertical conduit leading from the tubes of a height, say 40 feet, sufficient to effect an approximate vacuum in the tubes, and valves or stop-cocks in the vertical conduit and in the receiving chamber to regulate the pressure at which the distillation may be conducted.

**No. 47,806. Gas Burner. (Feu de gaz.)**



Robert Baillie, Main, Glasgow, Scotland, 3rd January, 1895; 6 years.

*Claim.*—1st. A burner for gas fires, comprising flaring nozzles and perforate removable thimbles fitting within the nozzles at a slight distance from the outlets of the latter, substantially as described. 2nd. A burner for gas fires, comprising upwardly extending nozzles having flanges at the base thereof, and perforated upwardly extending removable thimbles fitting within the nozzles and seated on the flanges at a slight distance from the outlets of the nozzles, substantially as described. 3rd. Burners for gas fires, comprising upwardly flaring nozzles having flanges at the base thereof, and perforated upwardly flaring removable thimbles fitting within the nozzles, and seated on the flanges at a slight distance from the outlets of the nozzles, substantially as described.

**No. 47,807. Electric Heater. (Chauffeur électrique.)**

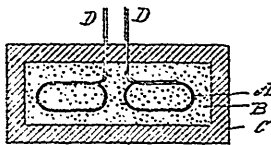
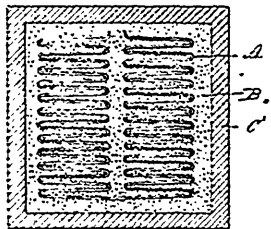


Fig. 1

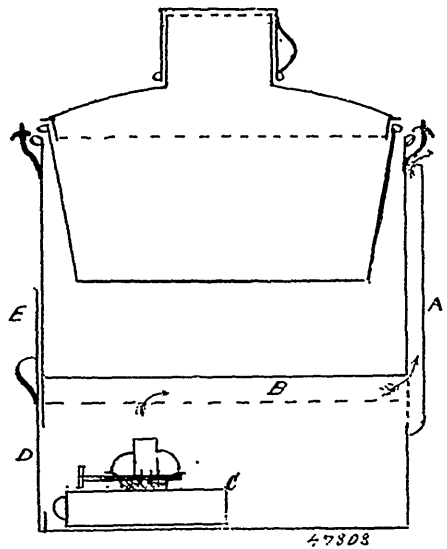


Peter MacGregor, assignee of John Elliot Brown, both of Ottawa, Ontario, Canada, 4th January, 1895; 6 years.

*Claim.* 1st. An electric heater, comprising an insulated metal conductor A, to form part of an electric circuit, a refractory material C, surrounding the insulated conductor to reinforce and resist disturbance or injury to the insulation and prevent oxidation, and a metal covering F, cast around said refractory material, to protect the same and form the exterior of the heater, substantially as set forth. 2nd. An electric heater, comprising an insulated wire or ribbon A to form part of an electric circuit, a covering C of refractory material surrounding said wire or ribbon, and applied in a soft state and dried or hardened by heat, and a casting F of metal inclosing said refractory material, substantially as set forth. 3rd. An electric heater, comprising an insulated wire A or ribbon to form part of an electric circuit, a covering C of refractory material surrounding said insulated wire or ribbon, and applied in a soft moist state and dried or hardened by heat, a coating B of graphite or vegetable carbon applied to the exterior of the refractory material, and a metal jacket or exterior F cast upon said coating, as set forth.

**No. 47,808. Dinner Kettle.**

(Chaudière garde-manger pour ouvriers)



Arthur Wesley Way, assignee of George Lyle Way, both of Halifax, Nova Scotia, Canada, 4th January, 1895; 6 years.

*Claim.*—The heating apparatus C in bottom of kettle, with draft pipe A, inside bottom B, door D, and slide E, substantially as and for the purpose herebefore set forth.

**No. 47,809. Nasal Expander. (Dilatateur nasal.)**

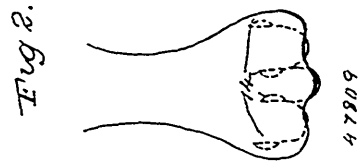


Fig. 2

Fig. 1



Emma S. Dayton, assignee of William A. Dayton, both of North Farrytown, New York, U.S.A., 4th January, 1895; 6 years.

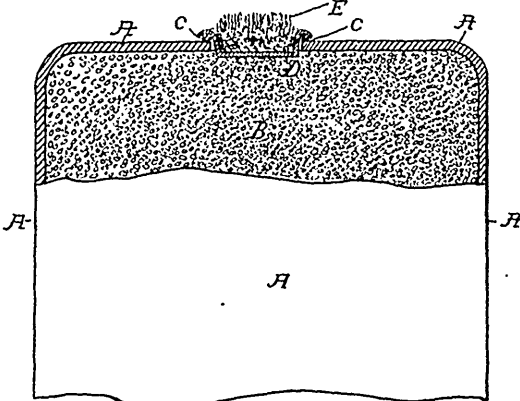
*Claim.*—A nasal expander comprising a pair of U-shaped spring loops having limbs of appropriate lengths with bearing plates at their free ends, which fit the inner surfaces of the walls of the nostrils, and a middle loop connecting the loops first mentioned and adapted to fit and straddle the septum or cartilage of the nose, substantially as described.

**No. 47,810. Apparatus for Extracting Weevil from Grain, etc. (Appareil pour extraire les charançons du grain, etc.)**

Daniel R. Bowker, Brooklyn, New York, U.S.A., 4th January, 1895; 6 years.

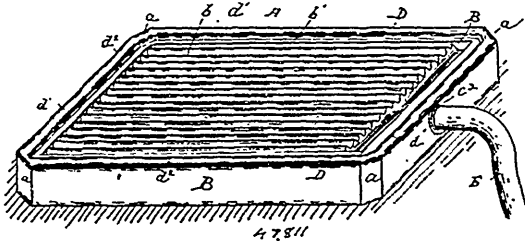
*Claim.*—1st. A grain bin having an opening at its top, and a weevil collecting box having a perforated bottom contained in said bin, and adapted to be passed through said opening, substantially as set forth. 2nd. In combination, with a grain bin having an opening at its top, a box having a perforated bottom containing sprouting grain therein, said box being contained in said bin, and adapted

to pass through said opening, substantially as set forth. 3rd. The method herein described of extracting weevils from grain consisting



in instigating growth in a portion of the grain at the upper part of the bin said portion being inclosed within a device removable therefrom, substantially as set forth.

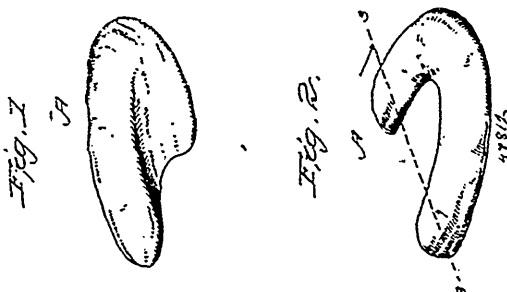
**No. 47,811. Dish-Drainer, Bread-Board and Cutting-Board.** (*Egouttoir, planche à pain et à couper.*)



John D. Johnston, Newport, Rhode Island, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. A combined dish-drainer, bread-board and cutting-board consisting of a body portion provided with grooves or channels in its top surface leading to a transverse main groove or channel at the front end, an outlet opening intersecting the main groove or channel and extending forwardly through the front of the body portion, a smooth and level under surface extending over the area of the body portion, and a surrounding rim, as at D, projecting from both the grooved top surface as at d', and from the smooth and level under surface as at d, the top surface being adapted to form the drainer and the under surface the bread-board or cutting-board, substantially as set forth. 2nd. As an improved article of manufacture, a combined dish-drainer, bread-board and cutting-board, moulded or formed of suitable material and consisting of a body portion provided with a grooved or channelled top surface, an outlet opening intersecting said channelled surface, a smooth imperforate under surface, and a surrounding rim projecting from both the grooved top surface and the smooth under surface, the top surface being adapted to form the drainer and the under surface, a bread-board or cutting-board.

**No. 47,812. Rubber Blank for Dental Plates.** (*Blanc en caoutchouc pour plaque dentaire.*)

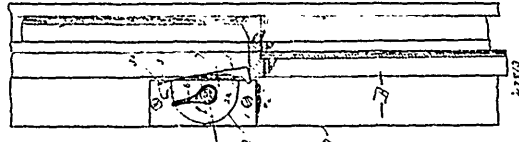


Joseph Spyer, Mexico, Republic of Mexico, 7th January, 1895; 6 years.

*Claim.*—A soft rubber blank adapted for use in making artificial

dentures, which soft rubber blank is of the size and shape of the denture and is adapted to be shaped in any suitable manner and vulcanized, substantially as described.

**No. 47,813. Sash Fastener.** (*Arrête-croisée.*)



Nels Johnson, Chippewa Falls, Wisconsin, U.S.A., 7th January, 1895; 6 years.

*Claim.*—The combination with a window frame and a sliding sash arranged therein, of the sash fastener comprising a suitable casing, the sash engaging shoe arranged in said casing and having a broad end 3<sup>b</sup>, and the opening 3<sup>a</sup>, a shaft journaled in the casing, and an eccentric or eccentrically mounted disc fixed on the shaft, and arranged in the opening 3<sup>a</sup>, of the shoe, the said fastener being connected to one of the side stiles of the window frame, and so arranged with respect to the sash as to enable the broad end 3<sup>b</sup>, of the shoe 3, to engage one end of the sash and the outer edge of the said shoe to engage one of the side bars of the sash, substantially as specified.

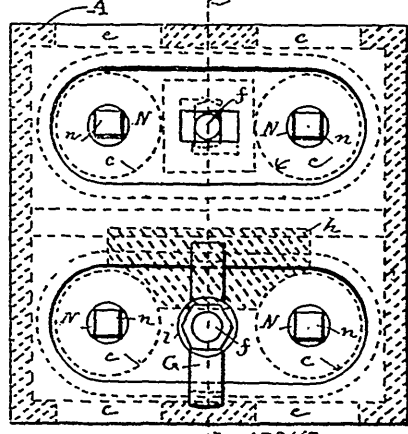
**No. 47,814. Process of Preserving Meat.**

(*Procédé de conservation de la viande.*)

Adel Barreto Pinto, Rio de Janerio, Brazil, 7th January, 1895; 6 years.

*Claim.*—The application of electricity to the preservation of meat, the same consisting in the introduction of a continuous current of electricity in a saline solution in which fresh meat is submerged, for the production in the same of antiseptic elements that destroy any parasitical germs that might prevent its preservation, as above described and specified, and for the purpose stated.

**No. 47,815. Steam-Boiler.** (*Chaudière à vapeur.*)

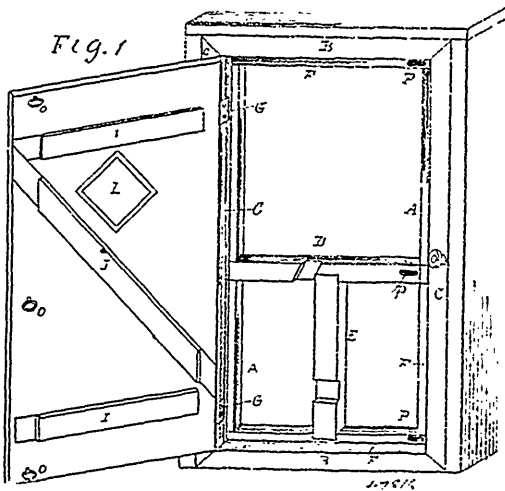


John A. Caldwell, Bay Ridge, New York, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. In a sectional water-tube boiler, in which the several sections are so disposed that the water-tubes stand in substantially vertical planes, in combination, a header, substantially quadrangular in outline, having a series of tubes fastened in its rear portion, in substantially horizontal and vertical planes, a suitably contoured opening in front, bridged so as to form oblong openings, one in front of each horizontal or vertical series of said tubes, and each of said oblong openings being bounded by an inner lip, and plates or covers adapted to close said oblong openings from the inside outwardly, for the purpose set forth. 2nd. In a sectional water-tube boiler, in which the several sections are so disposed that the water-tubes stand in substantially vertical planes, and in which the several sections are interconnected by two nipples, in combination, a header, substantially quadrangular in outline, having in front a suitably contoured opening, centrally bridged so as to form two horizontal or vertical oblong openings, each of the latter being bounded by an inner lip, plates adapted to close said oblong openings from the inside outwardly, a series of tubes communicating with said header

at the rear, and baffle-brick, disposed, upon said tubes, all substantially as described and for the purposes set forth. 3rd. In a sectional water-tube boiler, in which the several sections are so disposed that the water-tubes stand in substantially vertical planes, and in which the several sections are interconnected by two nipples, substantially as set forth. 4th. In a sectional water-tube boiler, the combination with the tubes *c*, of the baffle-bricks *k*, substantially as and for the purpose set forth. 5th. In a sectional water-tube boiler in which the several sections are so disposed that the water tubes stand in substantially vertical planes, the combination with the headers *A*, having two nipples in the upper and lower walls, and having the ends of the water-tubes extended into openings in the rear, and an aperture in the front wall, of the covers *g*, provided with suitable means for holding them in position, the said covers having apertures *X*, formed therein opposite the ends of each of the said water-tubes, and the plugs *n*, adapted to be screwed into the said apertures *X*, substantially as set forth.

**No. 47,816. Storm and Screen Door Combined.**  
(*Contre-porte et écran de porte combinés.*)



Joseph Deritis, Detroit, Michigan, U.S.A., 7th January, 1895; 6 years.

*Claim.*—As an improved article of manufacture, in interchangeable storm and screen door comprising in combination with a skeleton *A*, designed to hold a screen, a solid panel *H*, hinged to the said skeleton and provided with the braces *I* and *J*, which when the said solid panel is closed, are adapted to be seated in the recesses *C*, of the skeleton frame, thus securely bracing the latter, and the fastening eyes *O*, which are designed to register with the perforations *P*, in the frame *A*, and be engaged by the hooks *Q*, all substantially as shown and described.

**No. 47,817. Method of Preparing Iron Derivatives of Albumen.** (*Procédé pour obtenir des dérivatifs de fer de l'albumine.*)

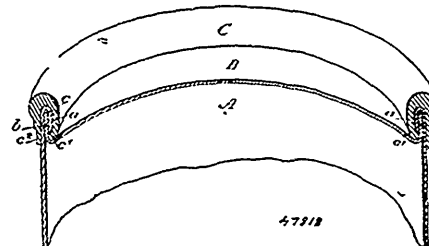
Friedrich Engelhorn, Waldhof, Germany, assignee of Pio Marfori, Ferrara, Italy and Oswald Schmiedeberg, Strassburg, Alsace, Germany, 7th January, 1895; 6 years.

*Claim.*—1st. The process of obtaining an iron compound capable of resorption in the animal organism, which consists in keeping an albuminous substance in solution in the presence of an iron salt and alkali, substantially as set forth. 2nd. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in heating albuminous substances in the presence of an iron salt and an alkali, substantially as set forth. 3rd. The process of obtaining an iron compound capable of resorption in the animal organism, which consists in adding albuminous substances to an iron salt in the presence of an alkali and heating the mixture for a period of not less than twelve hours, substantially as set forth. 4th. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism which consists in heating an albuminous substance in solution in the presence of an iron salt and an alkali for a period of about two and a half to four hours, then treating the same with an acid to remove the alkali, then again rendering the same alkaline and finally heating for a period not less than twelve hours, substantially as set forth. 5th. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in adding to a solution of albumen, a solution of an iron salt, a neutral solution of an alkali salt and an

alkaline solution, then heating for a period of about two and a half to four hours, then removing the surplus of alkali by an acid, then again rendering the solution alkaline and finally heating the alkaline solution for a long period of not less than twelve hours, substantially as set forth. 6th. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in adding successively to a solution of an albumen, a solution of an albumen, a solution of an iron salt, a neutral solution of tartrate of sodium, and soda-lye, then warming the resultant liquid for about two and one half to four hours, then adding an acid solution to remove the surplus of alkali, then again rendering the solution alkaline and then keeping the solution at a temperature of about 90° centigrade, for not less than twelve hours, substantially as set forth. 7th. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in keeping albuminous substances in solution in the presence of an iron salt and an alkali, and then precipitating the resulting iron derivative of albumen by an acid solution for removing noxious and undesirable salts and other constituents, substantially as set forth. 8th. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in heating albuminous substances in the presence of an iron salt and an alkali, and then precipitating the resulting iron derivative of albumen by a solution of tartaric acid, substantially as set forth. 9th. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in adding successively to a solution of an albumen, a solution of tartrate of iron, a neutral solution of tartrate of sodium and a soda-lye, then warming the resultant solution to 90° centigrade, for from two and a half to four hours, then adding a solution of tartaric acid to remove the surplus of alkali and then adding ammonia solution to render the liquid alkaline and finally keeping the mixture at a temperature of 90° centigrade, for a period of not less than twelve hours, substantially as set forth. 10th. The process of obtaining an iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in heating albuminous substances in solution in the presence of an iron salt and alkali, and then precipitating the resulting iron derivative of albumen by an acid solution, then purifying the precipitate by filtering and dissolving in distilled water mixed with a solution of ammonia and a solution of tartrate of ammonia and then keeping the solution at 90° centigrade, for a long period of time, then cooling and precipitating the iron derivative of albumen by tartaric acid to remove noxious salts, substantially as set forth. 11th. The process of obtaining iron compound capable of resorption in the mentioned proportion in the animal organism, which consists in adding successively to a solution of an albumen, a solution of tartrate of iron, a neutral solution of tartrate of sodium and a soda-lye, then warming the resultant solution to 90° centigrade, for from two and a half to four hours, then adding a solution of tartaric acid to remove the surplus of alkali and then adding ammonia solution to render the liquid alkaline and finally keeping the mixture at a temperature of 90° centigrade, for a period of not less than twelve hours, then allowing the same to cool, and then treating it with a solution of tartaric acid until it reacts distinctly acid, whereby the iron derivative of albumen is precipitated, substantially as set forth. 12th. As a new compound adapted for use as a medicine and an article of food, an iron derivative of albumen containing about ten per cent of iron and having a dark or light-brown colour, which is insoluble in water, but soluble in a strong solution of tartaric acid, and, after being dried, in weakly alkaline cold water, a neutral solution of which will not coagulate on boiling, and an ammoniacal solution of which, in connection with sulphid of ammonium, reacts in the manner hereinbefore specified.

**No. 47,818. Range Boiler.**

(*Calorifère à eau pour poêles de cuisine.*)

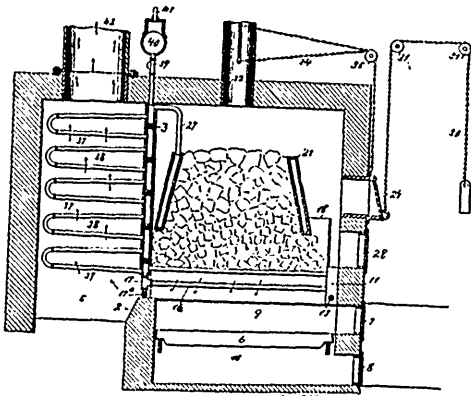


George Booth, Toronto, Ontario, Canada, 7th January, 1895; 6 years.

*Claim.*—A range boiler having a cylindrical portion *A*, with a turned over flange *a*, forming a recess, a head *B*, having an upwardly turned flange fitting into said recess, and a ring of malleable iron of approximately U-shape fitting over the united flanges of the cylinder and head, the inner lower edge of the ring fitting the space beneath the end of the flange of the cylinder thus locking the parts in place, substantially as described.

**No. 47,819. Furnace and Boiler Combined.**

(*Fournaise et chaudière combinées.*)



James Cotter, Kansas, Missouri, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. In a combined furnace and boiler, the combination with a bridge-wall, and a series of superimposed water-boxes, of a water-box, a water-grate connecting said box, and the lowest of the superimposed water-boxes, boiler-tubes connecting said water-boxes, and a water-supply communicating with the front water-box, substantially as set forth. 2nd. In a combined furnace and boiler, the combination with a bridge-wall, a series of superimposed water-boxes, which in conjunction with said bridge-wall, divide the structure into a front and rear compartment, a front water-box, a water-grate connecting the front water-box and the lowest of the superimposed water-boxes, and boiler-tubes connected together and to said superimposed water-boxes, so as to form a serpentine or tortuous water-way, of an auxiliary water-grate arranged horizontally below the first-mentioned water-grate, and communicating at its front end with the front water-box, and at its rear end with the lowest of the superimposed water-boxes, and water-supply pipes communicating with the front water-box and with the lowest of the superimposed water-boxes, substantially as set forth. 3rd. In a combined furnace and boiler, the combination with the bridge-wall, a series of superimposed water-boxes, and boiler-tubes connected to each other and communicating with said water-boxes, so as to form a serpentine or tortuous water-way, of a water-box, a water-grate connecting the front water-box with the lowest of the superimposed water-boxes, and a fuel magazine supported above the water-grate and having its walls extending divergently downward, substantially as set forth. 4th. In a combined furnace and boiler, the combination with the bridge-wall, a series of superimposed water-boxes, and boiler-tubes connected to each other and communicating with said water-boxes so as to form a serpentine or tortuous water-way, of a front water-box, a water-grate connecting the front water-box with the lowest of the superimposed water-boxes, a fuel magazine supported above the water-grate, and having its walls extending divergently downward, and a door-controlled fuel-chute extending through the side-wall of the furnace and communicating with the fuel magazine at its upper end, substantially as set forth. 5th. In a combined furnace and boiler, the combination with the bridge-wall, a series of superimposed water-boxes arranged above the bridge-wall, a series of boiler-tubes connected to each other and with the water-boxes, a front water-box, and a water-grate connecting the front water-box with the lowest of the superimposed water-boxes, of a draft-pipe communicating with the furnace above the water-grate, and means to control the draft through said pipe, substantially as set forth. 6th. In a combined furnace and boiler, the combination with a series of superimposed water-boxes which extend from the top-wall of the furnace a suitable distance downward, and divide the interior into a furnace compartment and a boiler compartment, a series of boiler-tubes connected together and to said superimposed water-boxes, a combustion-flue communicating with the upper end of the boiler compartment, a draft-flue communicating with the furnace compartment, a water-box in the furnace compartment, a water-grate connecting said water-box with the lowest of the superimposed water-boxes, side water-boxes communicating with the front water-box and the superimposed water-boxes, and an annular water-box forming a fuel-magazine, pipes connecting the same to the upper end of the side water-boxes, and pipes connecting the upper end of the annular water-box to a water-box of the superimposed series, substantially as set forth.

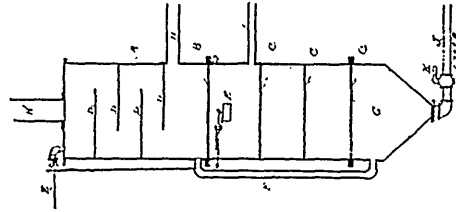
**No. 47,820. Water Heater and Purifier.**

(*Réchauffeur et épurateur de l'eau d'alimentation.*)

George Franklin Day and William Hunter, both of San Francisco, California, U.S.A., 7th January, 1895; 6 years.

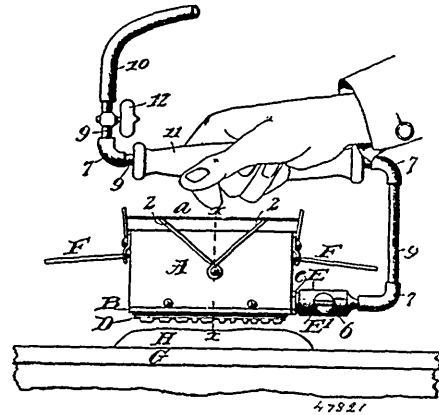
*Claim.*—1st. In a filter and purifier for boiler feed water, a means

for separating both light and heavy impurities from the feed water, consisting of a funnel-shaped chamber into which the previously heated water is delivered before passing through superposed filters which occupy the chamber from side-wall to side-wall, said funnel having a discharge opening and controlling cocks at the apex,



whereby the heavy impurities are discharged directly, and a central draft is produced from the surface to withdraw the oil and lighter impurities simultaneously. 2nd. A mud and oil trap and water purifier consisting of a chamber having its lower end made funnel-shaped and having diaphragms near its upper and lower ends to form independent chambers, perforated diaphragms C, in the main chamber between the upper and lower diaphragm forming chambers to contain a filtering medium, a water pipe entering the upper chamber, a series of alternately disposed inclined plates below the level of the water pipe for directing the water alternately across the chamber, a steam pipe passing through the filtering chamber and entering the uppermost chamber at a point below the lower inclined diaphragm whereby steam is caused to pass upwardly over said plates and the thin sheet of water passing downwardly over them, a pipe F, at or near the lower level of the upper chamber leading to the lowermost chamber, a steam escape pipe at the upper end of the main chamber, a pipe leading from the filtered water chamber, and a sediment discharge pipe and cock at the bottom or funnel-shaped end of the main chamber.

**No. 47,821. Stamp for Bread. (*Estampe pour le pain.*)**



James Albert Schaffer, Washington, Columbia, assignee of Richard Melancthon Shaffer, Baltimore, Maryland, both in the U.S.A., 7th January, 1895; 6 years.

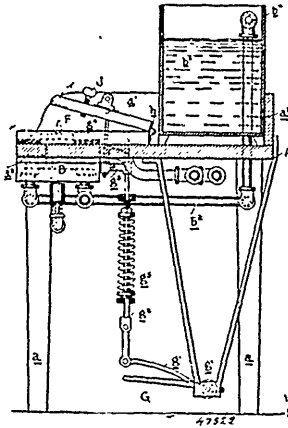
*Claim.*—1st. The herein described method of producing letters or characters in bread, which consists in impressing said letters or characters in the blocks of dough by means of a die heated to a degree sufficient to scar the surfaces of the impressed letters or characters, whereby as the dough rises in the act of baking said letters or characters are caused to remain intact. 2nd. In an apparatus of the class above described, the combination with a burner-box open on its lower side and having suitable draft openings of a burner located in and closing said open side of the box, the burner plate having a longitudinal groove in its under side and perforated on each side of said groove, means for admitting gas to the interior of the burner, and a die secured on the outer side of the burner and adapted to be heated by the gas burning above the burner-plate. 3rd. In an apparatus of the class above described, the combination, with a burner-box open on its lower side and having suitable draft openings, of a burner located in and closing said open side of the box and provided with a projecting nipple, an air-mixer secured to said nipple, gas-pipe connected with the mixer, a handle on said pipe, and a flexible tube leading from a gas-supply and connected with the gas-pipe.

**No. 47,822. Stamp for Cigars. (*Estampe pour les cigares.*)**

Edmond Narcisse Cusson, assignee of Louis Goulliond, both of Montreal, Quebec, Canada, 7th January, 1895; 6 years.

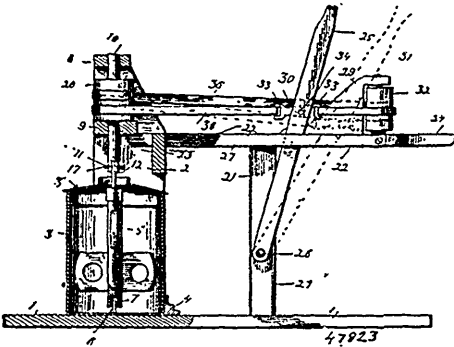
*Claim.*—1st. In a machine to stamp cigars, a casting B, having a

space *b*, for a circulation of water connected with the pipes *b*<sup>1</sup> and *b*<sup>2</sup> connected in turn either with a water-works system and the sewer or with a tank *b*<sup>3</sup>, substantially as described and for the purposes set forth. 2nd. In a machine for stamping cigars, a table A,



casting B, having the openings *b*<sup>5</sup>, communicating with a chimney through the pipes *b*<sup>4</sup>, and having an opening *b*<sup>6</sup>, provided with the flanged reducer *b*<sup>7</sup>, asbestos packing *b*<sup>8</sup>, and die-holder *b*<sup>9</sup>, cigar holder E, die D, gas burner *c*<sup>1</sup>, lever H, pieces *a*<sup>1</sup>, *g*<sup>1</sup>, *g*<sup>2</sup>, *g*<sup>3</sup>, shaft *g*, pedal G, and spring *g*, substantially as described and for the purpose set forth. 3rd. In a machine for stamping cigars, a holder E, having a depression *e*, in the bottom of which is an opening *c*<sup>1</sup>, air holes *c*<sup>2</sup>, and on its under side springs *c*<sup>3</sup>, substantially as described and for the purposes set forth.

**No. 47,823. Churn Motor.** (*Moteur pour barattes.*)



Frank Elliott and John G. Schierling, jr., both of North Vernon, Indiana, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. In a churn motor, the combination with a pair of uprights connected by two cross-pieces, a driving shaft journaled and sliding vertically in said cross-pieces, its lower end being bifurcated and having a vertical socket at the bottom of the bifurcation, and a transverse hole through the arms thereof, a pulley secured to said shaft and shorter than the distance between the cross-pieces, and means for driving the pulley, of a churn body provided with a pin rising from its bottom, a dasher staff having a hole in its lower end fitting loosely around the pin, its upper end being reduced and flattened to fit said bifurcation, having a transverse hole adapted to register with that in the arms of the bifurcation, and having a pin at its upper extremity adapted to enter the socket in the bottom of said bifurcation when the holes align, and a split pin removably passing through said aligned holes for detachably connecting said shaft with the staff, the length of the latter being such that when the pulley rests on the lower cross-piece the lower end of the staff will be raised above the bottom of the churn and the bottom of the hole off the tip of the pin, as and for the purpose set forth.

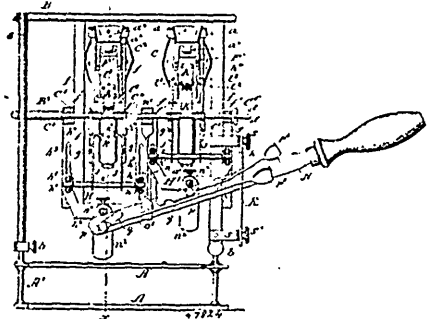
**No. 47,824. Milking Machine.**

(*Machine pour traire les vaches.*)

Josiah Clarendon Fay, Southborough, Massachusetts, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. In a cow-milking machine, the combination, with a set of compressing devices operating against the base of the teat, of pressure plates operating against the lower portion of the teat, and

means for actuating said devices and pressure plates, substantially as set forth. 2nd. In a cow-milking machine, the combination, with a teat cup, of a set of pivoted compressing levers operating with their free upper portions against the base of the teat, pressure plates attached at their upper portions to said levers and operating with their free lower portions against the lower portion of the teat, and



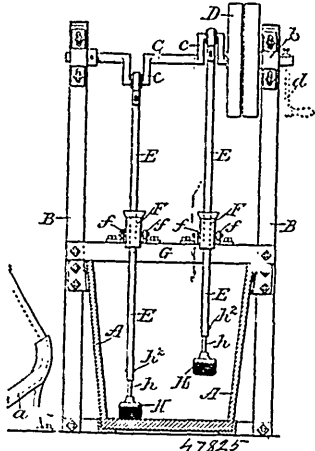
means for successively closing said levers and pressure plates, substantially as set forth. 3rd. In a cow-milking machine, the combination, with a stationary support, of a pair of teat compressing levers pivoted to said support, whereby the same are held from vertical movement, pressure plates attached to said levers and capable of inward and outward movement independently of said levers, a vertical reciprocating frame arranged below said compressing levers, operating devices for said levers carried by said frame, connections between the pressure plates and the reciprocating frame for operating said plates, and means for actuating the reciprocating frame, substantially as set forth. 4th. In a cow-milking machine, the combination, with a set of compressing levers, of pressure plates carried by said levers and operating against the lower portion of the teat, a reciprocating frame, and links connecting said pressure plates with said reciprocating frame, substantially as set forth. 5th. In a cow-milking machine, the combination, with a pair of compressing levers, of pressure plates pivoted at their upper portions to said levers and each provided with an upright guide, a vertically reciprocating actuating arm or frame, and links pivoted at one end to said actuating arm or frame and sliding with their opposite ends in the guides of the pressure plates, substantially as set forth. 6th. In a cow-milking machine, the combination, with a pair of compressing levers, of pressure plates pivoted at their upper portions to said levers and each provided with an upright guide, a vertically reciprocating actuating arm or frame, and links pivoted at one end to said actuating arm or frame and provided at their opposite ends with cross-heads which slide in the guides of the pressure plates, substantially as set forth. 7th. In a cow-milking machine, the combination, with the stationary main frame, of a pair of compressing levers pivoted between their ends to a support mounted on the main frame, a vertically reciprocating frame, and a wedge or cam arranged on said frame and engaging between the lower arms of said levers, substantially as set forth. 8th. In a cow-milking machine, the combination with a fixed support of front and rear sets of compressing levers attached to said support, pressure plates attached to said levers, a vertically reciprocating frame arranged underneath each set of such levers and pressure plates mounted on said reciprocating frames, and a hand lever connected with said reciprocating frames on opposite sides of its fulcrum, whereby said frames are alternately moved in opposite directions, substantially as set forth. 9th. In a cow-milking machine, the combination with the front and rear sets of teat compressing devices, of vertically reciprocating frames, each carrying the actuating means of a set of such devices, and a hand lever having its arms detachably connected with the said frame, substantially as set forth. 10th. In a cow-milking machine, the combination with the stationary main frame, the teat compressing devices and the vertically movable frames for operating the same, of a hand lever provided on opposite sides of its fulcrum with catches carrying studs or pivots adapted to engage in openings formed in the vertically movable frames, substantially as set forth. 11th. In a cow-milking machine, the combination with the teat compressing devices and their actuating means, of a hand lever for operating said means, and a retractable recessed stop-plate having stops or shoulders for limiting the stroke of the hand-lever, substantially as set forth. 12th. In a cow-milking machine, the combination with the base frame having upright posts, of a superposed main frame carrying the teat cups and their compressing devices, and having tubular uprights fitting over the posts of the base and made vertically adjustable thereon, substantially as set forth. 13th. A teat cup of waterproof textile material bifurcated at its upper end, and provided at its lower end with a discharge outlet, substantially as described. 14th. A teat cup of waterproof textile material, having a body portion to inclose the teat, bifurcated at its top to form retaining flaps, and provided with a discharge outlet, substantially as described. 15th. In a cow-milking machine, teat compressing devices, including pressure plates, a teat cup of waterproof textile



material, having a body portion to inclose the teat and connected to said compressing devices, and yielding pads interposed between the teat cups and the pressure plates, substantially as described. 16th. In a cow-milking machine, teat compressing devices, a teat cup of waterproof textile material adapted to surround the teat and bifurcated to form retaining flaps, clips to secure said flaps to the compressing devices, and detachable yielding pads or cushions between the teat cup and compressing devices, substantially as described.

**No. 47,825. Machine for Softening Skins.**

(*Machine pour amollir les peaux.*)



George Geyer, Brooklyn, New York, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, said receptacle having an inclined bottom, a crank-shaft, an actuating rod or bar mounted on the crank-shaft, a guide for said rod or bar through which it may slide and in which it may at the same time vibrate, and a foot or pounder carried by said rod or bar, whereby said foot or pounder has a compound vertical and swinging movement, and during part of its movement follows substantially the inclination of the bottom, substantially as shown and described. 2nd. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, a crank-shaft, an actuating rod or bar through which it may slide and in which it may at the same time vibrate, a foot supported by said bar to be movable longitudinally with respect thereto, and means to limit the movement of said foot with respect to the bar, substantially as shown and described. 3rd. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, a crank-shaft, an actuating rod or bar mounted on the crank-shaft, a guide for said rod or bar through which it may slide and in which it may at the same time vibrate, a foot supported by said bar to be movable longitudinally with respect thereto, and a spring interposed in the connection between the foot or pounder and its rod or shaft, substantially as shown and described. 4th. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, a crank-shaft, an actuating rod or bar mounted on the crank-shaft, a foot having a stem to enter a longitudinal hole in said bar, a spring to press said foot outwardly and means to limit the movement of the foot with respect to the bar, substantially as shown and described. 5th. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, said receptacle having an inclined bottom, a crank-shaft, an actuating rod or bar mounted on the crank-shaft, and a foot supported by said bar to be movable longitudinally with respect thereto, substantially as shown and described.

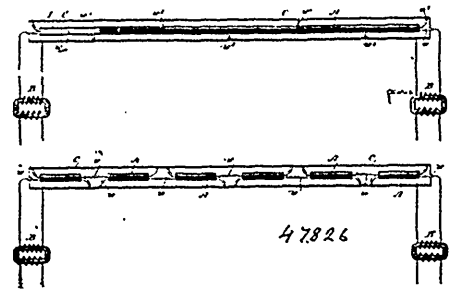
**No. 47,826. Magneto-Electric Inductive Apparatus.**

(*Appareil d'induction magnéto-électrique.*)

Charles John Reed, and Gustav Stahl, both of Philadelphia, Pennsylvania, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. An electrical inductive apparatus consisting of a series of converters having their primary and secondary conductors arranged side by side in successive pairs, substantially as described. 2nd. A series of converters consisting each of a pair of insulated primary and secondary conductors located side by side and connected to a common return circuit, substantially as described. 3rd. An electrical inductive apparatus consisting of two or more insulated primary and secondary conductors located side by side and connected at their terminal to a common return circuit, substantially as described. 4th. An electrical inductive apparatus consisting of two

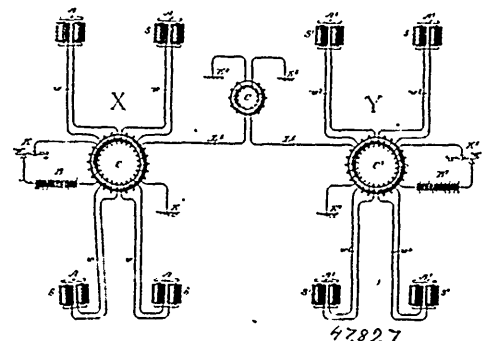
or more insulated primary and secondary conductors located side by side and surrounded throughout their entire length by a conducting shield which acts as a common return circuit, substantially as described. 5th. An electrical inductive apparatus consisting of two or more insulated conductors located side by side, a surrounding



magnetic field of inductive material, and a common return circuit to which both ends of the conductors are attached, substantially as described. 6th. An electrical inductive apparatus consisting of two or more insulated conductors surrounded by a magnetic inducing shield, and an outer casing of conducting material to which the ends of the inner conductors are connected. 7th. An electrical inductive apparatus consisting of pairs of insulated conductors located side by side, and surrounded by an inducing medium, and an exterior conducting shell or casing to which all of the inner conductors are connected, substantially as described. 8th. An electrical inductive apparatus consisting of a series of pairs of parallel insulated conductors, each pair being surrounded by an independent inducing medium and all inclosed in a conducting shield to which the ends of all of the conductors are secured, substantially as described. 9th. An electrical inductive system consisting of two converters located one at each end of an intermediate compound cable converter composed of pairs of insulated parallel conductors connected to each other and the converters in the order described. 10th. A compound cable converter consisting of a series of pairs of parallel conductors, each pair being surrounded by an inducing medium, and all inclosed in a conducting shield or casing to which all of the inner conductors are connected, substantially as described.

**No. 47,827. System of Telegraphy.**

(*Système de télégraphie.*)



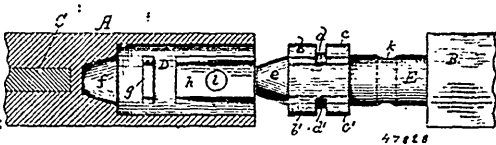
Charles John Reed and Gustav Stahl, both of Philadelphia, Pennsylvania, U.S.A., 7th January, 1895; 6 years.

*Claim.*—1st. The described method of transmitting Morse or analogous characters having elements of varying length, consisting in setting up two sets of secondary impulses one at each station and in combining the effects of these secondary impulses with local direct current effects at said stations. 2nd. The described method of signalling electrically, consisting in setting up simultaneously two secondary or induced impulses at a transmitting station and in uniting one induced impulse at the home station jointly with a direct current and the other at a receiving station with a corresponding direct current. 3rd. The described method of transmitting a Morse or analogous code having elements of varying lengths, consisting in setting up over a main line joining two or more stations two secondary or induced impulses of different phase for each element or signal transmitted, and in maintaining the effect of the first impulse for a length of time corresponding to the closure of the circuit at the transmitting station. 4th. The described method of transmitting Morse or analogous signals electrically, consisting in setting up induced or secondary impulses over a main line, causing said impulses to act in conjunction with local magnetic effects at the distant or receiving station the durations of which are made dependent upon the subsequent transmission of additional secondary im-

pulses of a different phase. 5th. The described method of repeating or duplicating Morse or analogous characters telegraphically consisting in transmitting a single induced or secondary electrical impulse to independent receivers located in independent circuits, and in maintaining the effects of the single impulse for a length of time corresponding to the closure of the circuit at the transmitting station. 6th. The described method of telegraphically transmitting Morse or analogous characters, consisting in setting up in a main line joining several stations, a single secondary or induced impulse and in combining the effects of this impulse with local magnetic influences for a length of time corresponding to the closure of the circuit at the transmitting station. 7th. The described method of signalling electrically, consisting in transmitting induced currents over a main line and in combining the resultant effect thereof with magnetic influences at a receiving station until additional secondary impulses are transmitted of different phase. 8th. The described method of operating a Morse receiver which consists in combining induced and direct current effects to produce mechanical motion in one direction and subsequently combining induced and direct current effects to produce mechanical motion in the opposite direction. 9th. In a system of telegraphy, a main line joining two or more main line stations and including in its circuit a secondary coil of a converter at each station, a generator of electricity and a transmitter for each station included in circuit with the primary or inducing coil of the converter at that station, one or more additional secondary coils for each converter included in circuit with the coils of corresponding electro-magnetic receivers, local coils included in circuit with local generators at each station and adapted to magnetize the armatures of the receivers, and adjustable means for regulating the pull on the several armature levers, all substantially as described. 10th. In a system of telegraphy, an electro-magnetic receiver having its energizing coils in circuit with the secondary coil of a converter, and a second coil permanently connected through a key or transmitter with the primary coil of the converter, with means for varying the pull of the armature lever, all substantially as described. 11th. A cable or electrical conductor having two interior insulated wires or conductors, an external metallic casing and a permanent metallic connection at one or more points between the external casing and one of the interior wires, the other wire being insulated throughout the cable.

**No. 47,828. Sub-Aqueous Rock-Breaking Chisel.**

(Ciseau pour briser la roche sub-aquatique.)



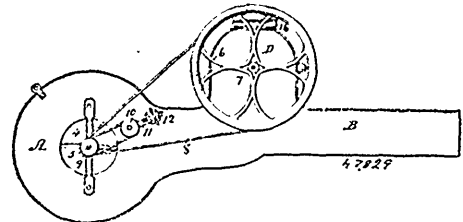
P. Sanford Ross, assignee of William L. Ross, both of Newark, New Jersey, U.S.A., 8th January, 1895; 6 years.

*Claim.*—1st. In a sub-aqueous rock-breaking chisel, the combination of a long heavy shank provided with a stud at its lower end, a removable point provided with a socket adapted to receive the stud of the shank, the socket and stud having projections and recesses which, when the stud is inserted within the socket and turned through a given angle, are adapted to interlock, and means for maintaining the parts in locked position, whereby the point and shank are rigidly and detachably united, substantially as set forth. 2nd. In a sub-aqueous rock-breaking chisel, the combination of a long heavy shank provided with a stud at its lower end, a removable point having at one end a cutting tip and provided with a welded-in steel core extending upward from the tip, and at its other end provided with a socket adapted to receive the stud of the shank, the socket and stud having projections and recesses which, when the stud is inserted within the socket and turned through a given angle, are adapted to interlock, and means for maintaining the parts in locked position, whereby the point and shank are rigidly and detachably united, substantially as set forth. 3rd. In a sub-aqueous rock-breaking chisel, the combination of a long heavy shank provided with a stud at its lower end, a removable point provided with a socket adapted to receive the stud of the shank, the socket and stud having projections and recesses which, when the stud is inserted within the socket and turned through a given angle, are adapted to interlock, and a removable bolt passing through the socket and stud for maintaining the parts in locked position whereby the point and shank are rigidly and detachably united, substantially as set forth. 4th. In a sub-aqueous rock-breaking chisel, the combination of a long heavy shank provided with a stud at its lower end, a removable point having at one end a cutting tip and provided with a welded-in steel core extending upward from the tip and at its other end provided with a socket adapted to receive the stud of the shank, the socket and stud having projections and recesses which, when the stud is inserted within the socket and turned through a given angle, are adapted to interlock, and a removable bolt passing through the socket and stud for maintaining the parts in locked position whereby the point and shank are rigidly and detachably united, substantially as set forth. 5th. In a sub-aqueous rock-breaking chisel, the combination of a long heavy shank provided with a stud E at its lower end, a remov-

able point A provided with a socket D adapted to receive the stud of the shank, the socket having projections *g, g'* and *h, h'* and corresponding recesses, and the stud having projections *b, b'* and *c, c'*, and recesses *d, d'* which, when the stud is inserted within the socket and turned through a given angle, are adapted to lock, and a removable bolt F passing through the socket and stud for maintaining the parts in a locked position whereby the point and shank are rigidly and detachably united, substantially as set forth.

**No. 47,829. Insect Powder Distributer.**

(Distributeur d'insecticide.)

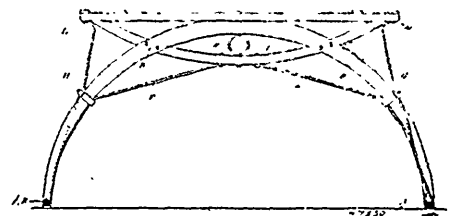


Seymour Elihu Hotchkiss, Wallingford, Connecticut, U.S.A., 8th January, 1895; 6 years.

*Claim.*—1st. The herein described powder distributor, consisting essentially of the case having the fan chamber and chute, a fan within said fan chamber, and a revolving barrel having side openings each of which is covered with a sifter for sifting the material in a finely powdered condition into the air blast within the chute, substantially as described and for the purpose specified. 2nd. In an insect distributor, the chute B, revolving barrel C, and pocket or offset in the side of said barrel with a sifter at its outer end for discharging into said chute, substantially as described and for the purpose specified. 3rd. In an insect distributor, the chute, a revolving barrel having two or more offsets or pockets in the side of said barrel provided with the sifters for discharging into said chute, and a movable cap or cover for said offsets, substantially as described and for the purpose specified. 4th. In an insect distributor, a revolving barrel provided with offsets or pockets having sifters at their outer ends and movable caps for covering or partially covering said sifters, substantially as described and for the purpose specified. 5th. In an insect distributor having a fan chamber and chute leading therefrom, the cross flange 18, forming a pocket at the junction of said chute and fan chamber, substantially as described and for the purpose specified. 6th. The combination of the fan chamber and chute in continuation thereof, said chute being provided with an inclosing wall on its upper side, the distributing chamber D, above the upper wall of the chute and having an opening communicating with said chute, the distributing barrel mounted in said distributing chamber, and means for creating an air blast through said chute and at the same time revolving said barrel, substantially as described and for the purpose specified. 7th. The combination of the fan chamber and chute forming the case, the shaft, and driving-wheel without the chute, and the distributing barrel discharging into the chute, the fan and its shaft 5, having the double grooved pulley 9, the pulley 10, the sliding frame 11, upon which it is mounted, means for adjustably securing said frame in place, and the belt S, substantially as described and for the purpose specified.

**No. 47,830. Running Gear for Sleighs.**

(Patin pour traîneaux.)



Joseph Jumeau, Montreal, Quebec, Canada, 8th January, 1895; 6 years.

*Claim.*—In a sleigh running gear an inverted arch bar stiffener I joined to the ordinary arch piece D at J and K, and by means of the central ring N, and let into the cross bars A at M and L, substantially as described and for the purposes set forth.

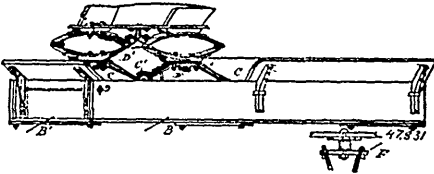
**No. 47,831. Wagon Seat Fixture.**

(Appareil pour sièges de wagon.)

William Wallace Simpson, Chatham, Ontario, Canada, 8th January, 1895; 6 years.

*Claim.*—1st. The riser D, with sockets C and C', substantially as

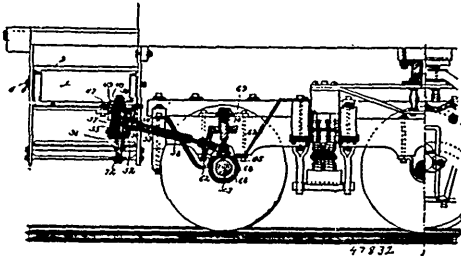
and for the purpose herebefore set forth. 2nd. The riser D, with the sockets C, C', in combination with lugs D<sup>1</sup>, and braces D<sup>2</sup>, D<sup>2</sup>, substantially as and for the purposes herebefore set forth. 3rd.



The riser D, sockets C, C', lugs D<sup>1</sup>, D<sup>1</sup>, braces D<sup>2</sup>, D<sup>2</sup>, in combination with pivoted cross-bar F, substantially as and for the purposes herebefore set forth.

**No. 47,832. Automatic Railway Car Protector.**

(Protecteur de chars automatique.)



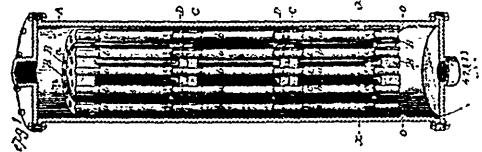
Charles Klettner, Cincinnati, Ohio, U.S.A., 8th January, 1895; 6 years.

*Claim.*—1st. In an apparatus for protecting railway cars, the combination of a casing designed to be located at the steps of a car and to form one of the risers thereof, and provided with a series of apertures, a series of firing wheels mounted in the casing and provided with a series of cartridge-receiving bores arranged to register successively with the apertures of the casing, firing mechanism for discharging the cartridges, actuating mechanism for rotating the firing wheels, and gearing for connecting the firing mechanism with a car axle, whereby the firing will be automatic, substantially as described. 2nd. In an apparatus for protecting railway cars, the combination of a casing provided with apertures and designed to be located at the steps of a car, a series of firing wheels provided at their peripheries with teeth and meshing with one another and having a series of cartridge-receiving bores arranged to register successively with the apertures of the casing and the firing mechanism, substantially as described. 3rd. In an apparatus for protecting railway cars, the combination with the steps of a car, of a casing having its front wall forming one of the risers of said steps and provided with a series of apertures, a series of firing wheels arranged within the casing and provided with cartridge-receiving bores arranged to register successively with the apertures of the casing, firing mechanism, and means for automatically operating the firing mechanism, and for rotating the firing wheels, substantially as described. 4th. In an apparatus for protecting railway cars, the combination of a casing provided with a series of apertures, a series of firing wheels provided with peripheral teeth and meshing with one another, and having cartridge-receiving bores arranged to register successively with the apertures of the casing, spring actuated levers fulcrumed on the casing and provided at their outer ends with firing pins, and a shaft carrying arms arranged to engage the inner ends of the levers, substantially as and for the purpose described. 5th. In an apparatus for protecting railway cars, the combination of a casing, firing wheels provided with peripheral teeth and meshing with one another, spring-actuated firing levers arranged in pairs, a ratchet-wheel mounted on one of the firing wheels, a bell-crank lever fulcrumed at its angle and provided at the outer end of one of its arms with a pivoted pawl arranged to engage the ratchet-wheel, and connections between the other arm of the bell-crank lever and the adjacent firing lever, substantially as described. 6th. In an apparatus for protecting railway cars, the combination of a casing, the firing wheels provided with peripheral teeth and meshing with one another, and a ratchet-wheel mounted on one of the firing wheels, an actuated lever provided at one end with a pivoted pawl engaging the ratchet-wheel and the firing levers, one of the said firing levers being connected with the actuating lever, substantially as described. 7th. In an apparatus for protecting railway cars, the combination of a casing, of toothed firing wheels journaled on the casing and meshing with one another, spring-actuated levers, a shaft provided with a crank-bend and carrying arms arranged to engage the firing levers, an oscillating lever fulcrumed intermediate of its end and having one end connected with the crank bend of the shaft to rotate the latter, a transverse crank-shaft having a crank bend connected with the

other end of the oscillating lever and gearing for communicating motion from an axle of the car to the transverse shaft, substantially as described. 8th. In an apparatus for protecting railway cars, the combination of a casing, toothed firing wheels meshing with one another and journaled on the casing, spring-actuated firing levers arranged in pairs and provided at their outer terminals with pins, a ratchet-wheel mounted on one of the firing wheels, an actuating lever having one end connected with the outer terminals of a firing lever and provided at its outer end with a pivoted pawl engaging the ratchet-wheel, a longitudinal shaft having a crank bend and provided with arms arranged to engage the inner terminals of the firing levers and adapted to pass between the same, a transverse shaft having a crank bend, an oscillating lever fulcrumed intermediate of its ends, and a pitman connecting the oscillating lever with the crank bend of said shaft, substantially as described. 9th. In an apparatus for protecting railway cars, the combination with a car, a casing mounted at the steps of the car, firing levers journaled in the casing, firing mechanism, a shaft connected with the firing mechanism and carrying a gear-wheel, an adjustable shafting composed of a sliding section and a stationary section, a gear-wheel carried by the sliding section and arranged to mesh with the said gear-wheel, an operating lever fulcrumed intermediate of its ends and having one of the steps mounted on the outer portion, toggle levers having their outer ends connected with the sliding and stationary sections of the adjustable shafting and connected at their inner terminals with the operating lever, and gearing communicating motion from an axle of the car to the adjustable shaft, substantially as described. 10th. In an apparatus for protecting railway cars, the combination of an adjustable shafting composed of telescoping sections, toggle levers connected at their outer ends with the sections of the adjustable shafting, and an operating lever carrying a step at its outer end and connected at its inner end with the toggle levers, substantially as described. 11th. In an apparatus for protecting railway cars, the combination of an adjustable shafting composed of telescoping sections, one of the sections being provided with grooves and the other sections having splines fitting in the grooves, a movable arm depending from the sliding section of the shafting, a stationary arm, a spring connecting the arms, toggle levers having their outer terminals connected with said arms, and an operating lever connected with the inner terminals of the toggle levers, substantially as described. 12th. In an apparatus for protecting railway cars, the combination with a car, of the firing wheels, firing mechanism, and transversely disposed adjustable shafting, the longitudinally disposed adjustable shafting, gearing connecting the adjacent ends of said shafting, a vertically disposed shaft located above an axle of the car and adjustably mounted, gearing for connecting the vertical shaft with the axle and with the adjacent end of the longitudinal shaft, and means for connecting the transverse shafting with the firing mechanism, substantially as described. 13th. In an apparatus for protecting railway cars, the combination with a car, of the longitudinally disposed adjustable shafting composed of telescoping sections, a yoke provided with a bearing receiving the adjacent end of said shaftings, a bolt connecting the sides of the yoke, a gear-wheel mounted on the bolt, a bracket arm journaled on the car and provided with a sleeve arranged on the bolt and interposed between the gear-wheel and the opposite side of the yoke, gearing for connecting the longitudinally disposed shafting with an axle of the car, a gear-wheel carried by the longitudinal shafting and meshing with that of the yoke, firing mechanism, and means for connecting the firing mechanism with the gear-wheel of the yoke, substantially as described. 14th. In an apparatus for protecting railway cars, the combination with car truck, of a gear-wheel mounted on one of the axles thereof, a bearing plate located at the top of the truck, a vertical shaft journaled at its lower end on the track and having its upper end loosely arranged on said bearing plate, a gear-wheel disposed horizontally on the vertical shaft and arranged intermediate of the ends thereof, a spring interposed between the gear-wheel of the vertical shaft and the bearing plate, a pinion connecting the lower end of the vertical shaft with the gear-wheel of the axle, and a longitudinally disposed shaft carrying a gear-wheel connected with that of the vertical shaft, substantially as described.

**No. 47,833. Feed Water Purifier.**

(Epurateur d'eau d'alimentation.)



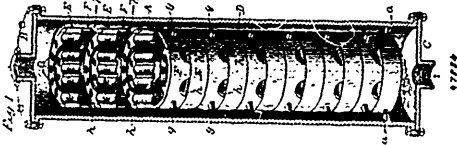
Sterling L. Bailey, Chicago, Illinois, U.S.A., and John W. Dowd, Toronto, Ontario, Canada, 8th January, 1895; 6 years.

*Claim.*—1st. In a water purifier, the combination of an outer shell provided with a removable cap, and a series of relatively electro-positive and negative tubes loosely mounted within the shell and freely removable therefrom. 2nd. In a water purifier, the com-

bination with an outer shell, of a removable interior body composed of tubes of relatively electro-positive and negative metals, and connecting heads therefor, and supports for said body within the shell. 3rd. In a water purifier, the combination with an outer containing shell, of an internal tubular body, composed of separable sections each comprising a group of tubes of relatively electro-positive and negative metals. 4th. The herein described water purifier, consisting of an outer shell A, provided with internal lugs or projections o, and a removable internal tube system comprising tubes a and b, of relatively electro-positive and negative metals, connected by heads B. 5th. In combination with shell A, a sectional internal tube system, consisting of tubes a and b, of relatively electro-positive and negative metals, arranged in groups, each group being provided with connecting heads, the lower head of one group being adapted to fit upon the upper head of the next lower group, substantially as shown and described. 6th. In a water purifier, the combination of a shell A, and a sectional tube system of relatively electro-positive and electro-negative metals contained therein, the tubes being arranged in groups, and the groups being provided at their proximate ends with heads C and D, respectively furnished with nipples and sockets in axial alignment with the tubes, whereby the groups are held in proper relation. 7th. In a water purifier, the combination with an outer shell, of an internal tube system of relatively electro-positive and negative metals, said tube system being provided with heads having annular openings, and being of less diameter than the shell, whereby free passage for the water is afforded between the shell and heads and through the heads.

**No. 47,834. Feed Water Purifier.**

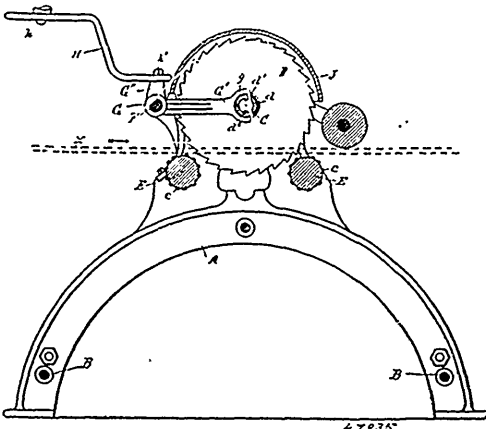
(Epurateur d'eau d'alimentation.)



Sterling L. Bailey, Chicago, Illinois, U.S.A., and John W. Dowd, Toronto, Ontario, Canada, 8th January, 1895; 6 years.

*Claim.*—1st. In combination with a shell or casing, an internal core or cylinder composed of alternate notched or perforate rings and perforate discs, resting one upon another substantially as shown and described, the exposed surfaces within the shell being of relative electro-positive and electro-negative substance. 2nd. In combination with shell A and copper lining D, a series of perforated discs E and notched or perforate rings F, superposed one upon another in axial alignment with the shell or casing and composed of material which will co-operate with the copper lining to produce galvanic action. 3rd. In combination with shell or casing A, a series of discs E provided with passages from face to face, and an alternating series of rings F provided with lateral openings, the surfaces exposed within the shell being relatively electro-positive and electro-negative, substantially as set forth. 4th. In combination with shell or casing A, provided with lugs a, an internal core or cylinder composed of alternate perforate discs E, and notched rings provided with outwardly projecting lugs g, the surfaces exposed within the shell being relatively electro-positive and electro-negative, substantially as set forth.

**No. 47,835. Slitting Machine.** (Machine à fendre.)

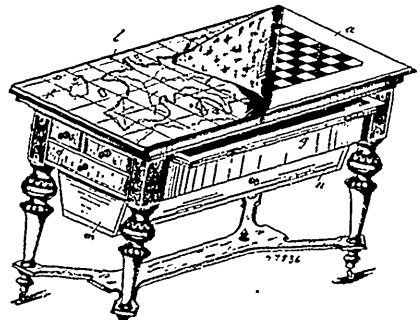


John Torrent, Muskegon, Michigan, U.S.A., 8th January, 1895; 6 years.

*Claim.*—1st. In a slitting machine, the combination of a frame,

feed rolls journaled therein, means for driving the same, saw arbours arranged above the plane of the top of said feed rolls, saws driven by said saw arbours with their peripheries descending below the plane of the top of said feed rolls, and means for driving said saws, substantially as described. 2nd. In a slitting machine, the combination of feed rolls, means for driving the same, a pair of saw arbours located above the plane of the top of the feed rolls, said saw arbours being upon the same extended longitudinal line, saws movably attached to said saw arbours and adapted to move longitudinally thereon, but compelled to rotate therewith, means for moving and adjusting the distance between the saws and movable stops, whereby said motion is limited, and which by their movement permit the saws to be removed from the extended ends of the arbours, substantially as described. 3rd. In a slitting machine, the combination of a frame, feed rolls journaled therein, saw arbours located above the plane of the top of the feed rolls but parallel thereto, saws driven by said arbours and being movable longitudinally upon said arbours, the axis of said saws being so located that the downward cut of the saw is substantially above the axis of the front feed roll, substantially as described. 4th. In a slitting machine, the combination of a frame, feed rolls journaled therein, means for driving the same, saw arbours arranged above the plane of the top of said feed rolls, saws driven by said saw arbours with their peripheries descending below the plane of the top of said feed rolls, means for driving said saws, and a hood covering the top of the saws, substantially as described.

**No. 47,836. Convertible Table.** (Table convertible.)

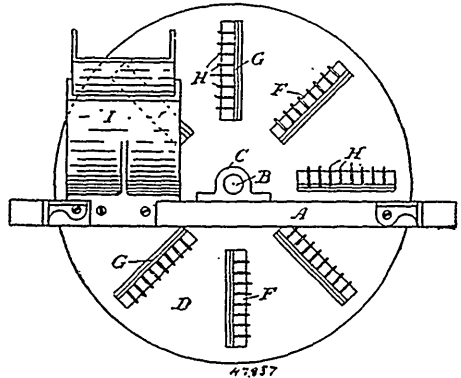


Arthur Clements Dedo Seifert, Chemnitz, Saxony, Germany, 8th January, 1895; 6 years.

*Claim.*—A convertible table comprising in its construction a hinged upper plate fitted on its outer face like a drawing room table while its inner face carries or is adapted to carry billiard cues, pencil, writing slate, marking disc, chalk and spirit level, a lower plate or table proper, constructed or adapted to serve as a billiard table, and below the billiard plate a writing desk adapted to be drawn out and folded, a Tivoli game or similar games, several drawers for chess and draught boards with accessories, domino box, dice box, Fröbel's toys, doll's theatre with ornaments and figures, musical box and electric lighting apparatus, and the combination of the above with a table cover adapted to serve as a map, substantially as described and for the purposes specified.

**No. 47,837. Curd-Cutting Machine.**

(Ménoles de fromagerie.)

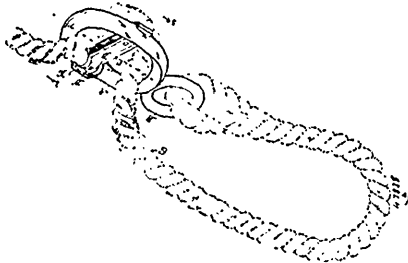


Michel Israel Montreuil, Plessisville de Somerset, Quebec, Canada, 8th January, 1895; 6 years.

*Claim.*—1st. In a curd cutting machine, a rotating disc, having

longitudinal openings extending radially from near its hub, and in which are secured cutting blades extending lengthways of the openings, and each of said blades having a number of cutters secured to its face standing transversely and perpendicularly upon it, as shown and described. 2nd. In a curd-cutting machine, the combination of a rotating disc carrying radially placed cutting blades, which have each secured to their faces, and approximately at right angles to them, a number of cutters, with an inclined shoot placed so as to direct the curd against the cutters. 3rd. The combination in a curd-cutting machine of a rotating disc carrying two sets of cutting blades, one set perpendicular to the other, with an inclined shoot, and a steadying roller to hold against the back of said disc, substantially as shown and for the purpose set forth.

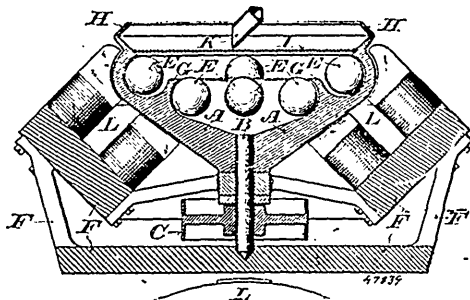
**No. 47,838. Rope Buckle. (Boucle pour cordes.)**



Charles W. Baker, Waverly, Michigan, U.S.A., 8th January, 1895; 6 years.

*Claim.*—1st. In a rope buckle, the combination of the loop A, the tongue C journalled to one side thereof and extending transversely across the same, a spring D, attached to the side of said tongue C, next to the loop A, a notch in the journal bearing of the tongue of the buckle adapted to receive the end of said spring D, when it is swung into contact with the loop A, to retain it there, for the purpose specified. 2nd. In a rope buckle, the combination of the loop A, the tongue C, journalled to one side thereof and extending transversely across the same, a spring D, inserted in a recess in the side of said tongue C, next to the loop A, a notch in the journal bearing of the tongue of the buckle adapted to receive the end of said spring D, when it is swung into contact with the loop A to retain it there, a portion E projecting out and around the journalled end of the buckle tongue to protect the same, for the purpose specified. 3rd. In a rope buckle, the combination of the loop A, the tongue C journalled to one side thereof and extending transversely across the same, a spring D, attached to the side of said tongue C, next to the loop A, a notch in the journal bearing of the tongue of the buckle adapted to receive the end of the spring D, when it is sprung into contact with the loop A to retain it there, a ring B, integral with said loop A, for the purpose of attaching a rope so that the rope can be looped into a loop for an attachment and a kink forced through the buckle so that the tongue can be swung inside said kink or loop in the buckle to retain it there, as specified. 4th. In a rope buckle, the combination of the main rope A, transverse buckle tongue C, a spring D thereon adapted to engage the side of the buckle and retain the buckle tongue either in the open or closed position as desired, for the purpose specified. 5th. In a rope buckle, the combination of the main rope A, the tongue C, journalled to one side thereof and a projecting bar E around said journal part, for the purpose specified.

**No. 47,839. Machine for Crushing, Pulverizing and Mixing Minerals, Seeds, and other Substances. (Machine à broyer et mêler le minéral, les graines et autres substances.)**



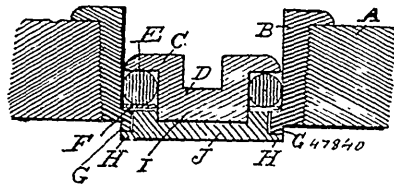
William Hinrichs, Milwaukee, Wisconsin, assignee of Frederick Allen Wheeler, Chicago, Illinois, both in the U.S.A., 8th January, 1895; 6 years.

*Claim.*—1st. In a machine for crushing substances, the combina-

tion of a revolving hopper, pestles, and magnets acting upon such pestles, substantially as and for the purposes set forth. 2nd. In a machine for crushing substances, the combination of a revolving hopper or mortar, a series of loose pestles, a foraminated cover to such mortar, and a series of magnets the poles of which are arranged in close proximity to the walls of the mortar, substantially as and for the purpose set forth. 3rd. In a machine for crushing substances, the combination of a revolving mortar or hopper, a series of loose pestles, a foraminated cover for the mortar or hopper, a trough, and a series of magnets having their poles in close proximity to the walls of the mortar, substantially as and for the purpose set forth. 4th. In a machine for crushing substances, the combination of a revolving mortar or hopper provided with an interior circular division, a series of loose metal balls, and a series of magnets with their poles arranged in close proximity to the walls of the hopper so as to attract such balls, substantially as and for the purpose set forth. 5th. In a machine for crushing substances, the combination of a revolving hopper or mortar provided with a circular interior partition, a series of metal balls within such mortar, a trough surrounding such mortar, and provided with a foraminated bottom which serves as a cover for the hopper, a scoop or sprout projecting into such trough and a series of magnets having their poles supported close to the walls of the hopper and opposite the path of the balls, substantially as and for the purpose set forth.

**No. 47,840. Bung Stopper and Bung Bush.**

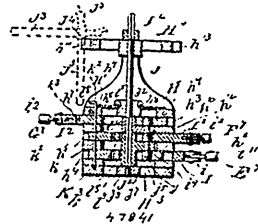
(Bouchon et garniture de bonde.)



Simon Schlangen, and Ignatz Neumann, both of Chicago, Illinois, U.S.A., 8th January, 1895; 6 years.

*Claim.*—The bung stopper composed of the cylinder I, integral flange portion C, the flat ring F, placed round the cylinder, the lower section J, secured to the lower end of the cylinder and provided with clamps H, H, in combination with the bung brush provided with the serpentine stops  $\eta$ , S, and the rubber ring E, round in cross-section, and placed within the annular groove formed between the bung bush, the ring F, the cylinder I and its flange, as and for the purposes herein specified and shown.

**No. 47,841. Switch. (Aiguille.)**

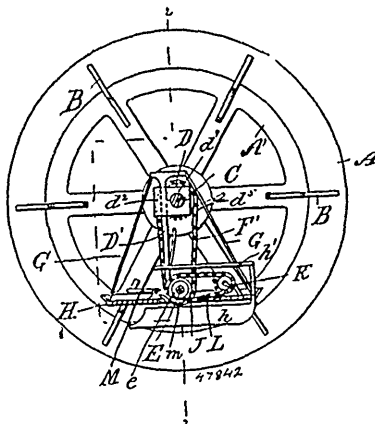


George Hargreaves, Syracuse, New York, U.S.A., 9th January, 1895; 6 years.

*Claim.*—1st. In a switch, the combination with movable switch points B, B<sup>1</sup>, of a standard or gate H, formed with a guide h<sup>1</sup>, and a stop receiving opening k, an actuating plate or slide I, reciprocally movable in said guide, and connected, substantially as described, to said switch points and formed with a stop receiving opening k<sup>2</sup>, and a stop or pin K, passed through said stop receiving openings, substantially as and for the purpose described. 2nd. In a switch, the combination with movable switch points B, B<sup>1</sup>, of a standard or gate H, formed with a guide h<sup>2</sup>, an actuating plate or slide I, reciprocally movable in said guide, and connected, substantially as described, to said switch points for operating the same and formed with a slot i<sup>2</sup>, having opposite engaging faces i<sup>2</sup>, i<sup>2</sup>, and a cam j, supported by said standard or gate and formed with a pair of separate engaging faces bearing against said walls of the slot for reciprocating said actuating plate or slide and for holding the same in position, substantially as and for the purpose set forth. 3rd. In a switch, the combination with movable switch points B, B<sup>1</sup>, of a standard or gate H, formed with a guide h<sup>3</sup>, and a stop receiving opening k, an actuating plate or slide I, reciprocally movable in said guide, and connected, substantially as described, to said switch points for operating the same, and formed with a slot i<sup>3</sup>, having opposite engaging faces i<sup>3</sup>, i<sup>3</sup>, said plate or slide being provided with a stop receiving opening k<sup>3</sup>, a cam j, supported by said standard or gate and formed with a pair of separated engaging faces bearing against

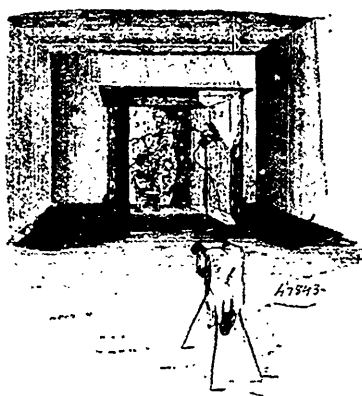
said faces of the slot for reciprocating said actuating plate or slide and for holding the same in position, and a stop or pin K, passed through said stop receiving openings, substantially as and for the purpose specified. 4th. In a switch, the combination with movable switch points B, B', of a standard or gate H, formed with a guide h', an actuating plate or slide I, reciprocally movable in said guide and formed with a slot i', having opposite engaging faces i', i', and connected, substantially as described, to said switch points for operating the same, a rocking-shaft J, journaled in said standard or gate and provided with a hub j', for engaging one of the faces of said slot and holding the actuating plate or slide in position, and a projecting cam j, on said shaft for engaging another of the faces of the slot and reciprocating said plate or slide, substantially as specified. 5th. In a switch, the combination with movable switch points B, B', of a standard or gate H, formed with a guide h', an actuating plate or slide I, reciprocally movable in said guide and formed with opposite bearing surfaces i', i', and connected, substantially as described, to said switch points for operating the same, a rocking shaft J, journaled in said standard or gate and provided with a hub j', for engaging one of said surfaces and holding the actuating plate or slide in position, and a cam j, on said shaft formed with separated engaging faces bearing against said opposite faces of the plate or slide for reciprocating said plate or slide and for holding the same in its operative position, substantially as and for the purpose set forth. 6th. In a switch, the combination with movable switch points B, B', of a standard or gate H, formed with a guide h', an actuating plate or slide I, reciprocally movable in said guide and formed with opposite bearing surfaces i', i', and connected, substantially as described, to said switch points for operating the same, a rocking shaft J, journaled in said standard or gate and provided with a hub j', for engaging one of said surfaces and holding the actuating plate or slide in position, and a cam j, on said shaft formed with a pair of rollers j', j', arranged equi-distant from said shaft for reciprocating the plate or slide and for holding the same in its adjusted position, substantially as and for the purpose described. 7th. In a switch, the combination with movable switch points B, B', of a standard or gate H, formed with a guide h', an actuating plate or slide I, reciprocally movable in said guide and connected, substantially as described, to said switch points for operating the same, a shaft J, journaled in said standard or gate, a cam j, on said shaft for engaging and reciprocating the plate or slide, and a movable section or plate h', for the standard or gate for permitting access to said plate or slide and to said cam, substantially as specified. 8th. In a switch, the combination with movable switch points B, B', of a standard or gate H, formed with a guide h', an actuating plate or slide I, movable in said guide and connected, substantially as described, to said switch points for operating the same and provided with opposite transverse bearing faces i', i', extending outwardly from the remaining portion thereof, and a cam j, having separated bearing faces for engaging said faces of the plate or slide, substantially as set forth. 9th. In a switch, the combination with movable switch points B, B', of a standard or gate H, formed with a guide h', an actuating plate or slide I, movable in said guide and connected, substantially as described, to said switch points for operating the same and provided with opposite transverse bearing faces i', i', and end i', o, of one of said faces extending outwardly from the remaining portion thereof, and the opposite end of the other of said faces being provided with a rearwardly extending groove i', extending outwardly from said other face, substantially as described. 10th. In a switch, the combination with two pairs of movable switch points B, B', C, C', of a standard or gate H, an actuating plate or slide I, movable in said standard or gate and connected to one pair of said switch points B, B', for operating the same, said plate or slide being provided with opposite transverse bearing faces i', i', one of which is formed with a portion i', o, extending outwardly from the remaining portion thereof, a second actuating plate or slide I', movable in said standard or gate above the former plate or slide, and connected to the other pair of said switch points C, C', for operating the same, and provided with opposite bearing faces i', i', and cams j, j', supported by the standard or gate and formed with opposite bearing faces for engaging said plates or slides successively, substantially as and for the purpose specified. 11th. In a switch, the combination with two pairs of movable switch points B, B', C, C', of a standard or gate H, an actuating plate or slide I, movable in said standard or gate and connected to one pair of said switch points B, B', for operating the same, said plate or slide being provided with opposite transverse bearing faces i', i', one of which is formed with a portion i', o, extending outwardly from the remaining portion thereof, a second actuating plate or slide I', movable in said standard or gate above the former plate or slide and connected to the other pair of said switch points C, C', for operating the same, and provided with opposite bearing faces i', i', cams j, j', supported by the standard or gate and formed with opposite bearing faces for engaging said plates or slides successively and a stop K, for engaging said plates or slides and preventing the same from movement, substantially as and for the purpose set forth.

paddle extensions as described, the rods D' journaled near their upper ends to the main driving shaft, carrying at their lower ends a shaft having sprocket-wheel and chain connection with the main shaft, and paddles for operating the same, the platform H suspended



from the upper ends of the bars D', by the rods C, the said platform adapted to carry the steering mechanism, all substantially as shown and described. 2nd. In an aquatic bicycle, the combination, with a platform suspended from pneumatic-wheels of a brake carried on the said platform, operating so as to stop the said pneumatic-wheels, substantially as described. 3rd. In an aquatic bicycle, the combination, with the axle of the pneumatic-wheels, of rods suspending a platform from the said axle, and means for raising and lowering the said platform in relation to the said axle, substantially as set forth.

**No. 47,843. Photography by Artificial Light.**  
(*Photographie au moyen de lumière artificielle.*)



Barnett McPhee, Washington, Columbia, U.S.A., 9th January, 1895; 6 years.

**Claim.**—1st. The method of making photographic negatives which consists in placing an artificial light of large candle-power within a cabinet having light coloured interior surfaces or walls, preventing the direct rays of light from the lamp from reaching the subject, and directing them to the walls or surfaces of the cabinet adjacent to the face of the reflector, and reflecting or diffusing the light from such walls or surfaces throughout the cabinet and upon the subject. 2nd. An apparatus for making photographic negatives the combination of a cabinet having light coloured walls and roof, an artificial light of large candle-power arranged within the cabinet, and a reflector so arranged as to reflect the light to the adjacent interior surfaces of the cabinet, entirely away from the subject, when it is diffused throughout the cabinet and upon the subject, as set forth. 3rd. A cabinet for photographic purposes consisting of the combination of jointed portable sides, and roof clothed in light colours, an artificial light within a dead white surface reflector, the reflector being so arranged as to divert the light entirely away from the subject and against adjacent surfaces from which it is diffused throughout the cabinet, substantially as described.

**No. 47,844. Hasp Lock. (Cadenas.)**

Thomas Mounce, Toronto, Ontario, Canada, 9th January, 1895; 6 years.

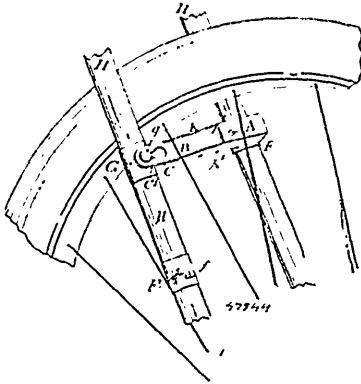
**Claim.**—1st. In a hasp lock, the combination of a pivoted hasp

**No. 47,842. Aquatic Bicycle. (Bicycle aquatique.)**  
Jacob Earl Ronk and Henry L. Shultis, both of Fort Wingate, New Mexico, U.S.A., 9th January, 1895; 6 years.

**Claim.**—1st. In combination, with the pneumatic-wheels with

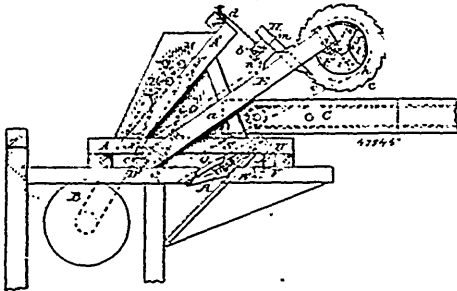


and locking staple, of means for shooting a bolt from the body of the hasp so as to lock the hasp to the staple, substantially as described and specified. 2nd. In a hasp lock, the combination of a hasp pivotally connected at one end to a support and provided with an opening on the lower face, of a lock-box formed on its free end,



which opening is so shaped that the head of the locking staple may enter in the lock-box and engage with a shoulder on the lower face thereof and be retained in this place when the bolt is shot, substantially as described and specified. 3rd. In a hasp lock, the combination of a hasp detachably and pivotally connected at one end to a support and provided with an L-shaped opening on the lower face of a lock-box formed on its free end, so that the head of the locking staple may enter therein and engage with a shoulder formed by the opening and be retained in this place when the bolt is shot, substantially as described and specified. 4th. In a hasp lock, the hasp shank B, provided with opening C, and slot C', and lock-box A, in combination with shank steeple g, formed on fork H, substantially as described and for the purpose specified. 5th. In a hasp lock, the combination of a hasp shank B, pivotally and detachably connected with fork H, the lock-box A, L-shaped opening I, shoulder D, suitably shaped locking staple f', on fork H, and bolt E, substantially as described and for the purpose specified. 6th. In a hasp lock, the combination of a hasp shank B, pivotally and detachably connected with fork H, the lock-box A, strengthening flanges k, k', opening I, shoulder D, locking staple f', provided with head f', and bolt E, substantially as described and for the purpose specified. 7th. In a hasp lock, the combination of hasp shank B, pivotally and detachably connected with fork H, the lock-box A, opening I, shoulder D, suitably shaped locking staple f', located on the same portion of the fork as that to which the shank is pivoted, and the bolt E, substantially as described and for the purpose specified. 8th. A hasp lock, comprising the following elements, hasp shank B, opening C, slot C', shank staple g, lock-box A, opening I, shoulder D, bolt E, and locking staples f, or f', with heads adapted to engage with the shoulder D, when locked in place, substantially as described and specified.

**No. 47,845. Band Cutter and Feeder.**  
(*Coupe-hart et alimentateur.*)

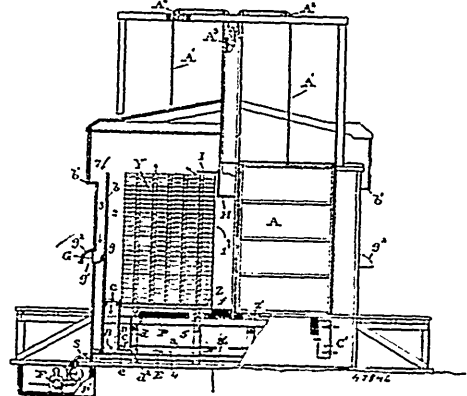


Edward J. Vraalstad, Hillsboro, North Dakota, U.S.A., 9th January, 1895; 6 years.

*Claim.*—1st. In a band cutter and feeder, the combination of an endless carrier C, means for cutting the bands, a toothed endless carrier or rake O set away from the delivery end of carrier C and extending from a point above to a point below said carrier C, and a normally-inclined, yielding board Q extending from just below the delivery end of carrier C toward the lower end of rake O, to form, in connection with the rake, an inclined throat into which the grain is tipped after the band has been cut, all substantially as shown and described. 2nd. In a band cutter and feeder, the com-

ination of a carrier C to receive the bound bundles of grain, the toothed disc G adapted to take hold of and elevate the grain band and to present it to the knife, and the fixed knife H arranged above the lower edge of the disc and at the rear side of the latter, all substantially as shown and described. 3rd. In combination with the carrier C, the overhanging frame E having the fixed knives H, and the shaft F provided with discs G, having hooks or teeth c, said knives being located close to the side faces of the discs, and in rear of the shaft. 4th. In combination with the carrier C, the overhanging frame E having the fixed knives H, and the shaft F located in advance of the knives and provided with toothed discs G, and enlarged sleeves K between the discs, whereby the sleeves will hold the grain upon the carrier while the discs are drawing the band taut and raising it to the knives. 5th. In a band cutter and feeder, the combination of a carrier C, a shaft F located above the same and provided with enlarged sleeves and with the toothed discs, and a fixed knife arranged in rear of the shaft, with its lower cutting edge substantially in the same horizontal plane with the lower face of the sleeve, whereby the knife is prevented from interfering with the feed of the grain. 6th. In combination with the board Q having its upper end rigid and its lower end hinged or pivoted, the spring S to sustain the lower end of said board and extending from the upper end to the lower end thereof, and the stationary arms R adapted to project above or through the board when the latter is depressed. 7th. In combination with a hinged board Q slotted as shown, a series of arms R projecting into the slot, and connected to a bar or rod, a support for said bar and arms independent of the board and means for clamping the bar and its arms in different positions.

**No. 47,846. Drying Kiln.** (*Four à sécher.*)



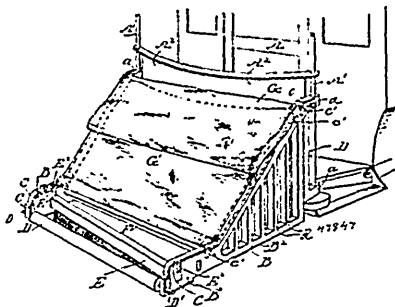
The Reliance Dry Kiln Company, assignee of Victor Lee Emerson, both of Baltimore, Maryland, U.S.A., 9th January, 1895; 6 years.

*Claim.*—1st. A drying kiln having a drying chamber, supports for sustaining the material to be dried, descending air-passages in the side-walls having their upper parts open to receive the moist air from said drying chamber and provided with exits to the external atmosphere, said exits located above said supports. 2nd. A drying kiln having a drying chamber resting on a suitable base, and descending air passages having their upper parts open to receive the moist air from said drying chamber and provided with exits to the external atmosphere, said exits located between said upper openings and the said base. 3rd. A drying kiln having in combination a drying chamber, means for supplying heat, a false floor or bottom below the heater and having an opening communicating with the drying chamber, and a lower down-passage or chamber B, having a lateral passage c, for delivering moist air below said false floor or bottom. 4th. A drying kiln having in combination a drying chamber, means for supplying heat, a false floor or bottom below the heater and having an opening communicating with the drying chamber, a fresh-air supply passage C, having an outlet d', below said false floor, and a lower down-passage or chamber B, having a lateral passage e below said fresh-air outlet. 5th. A drying kiln having in combination a drying chamber, means for supplying heat, descending air-outlet passages in the side-walls and open at their top, and an exterior projection b', in the upper portion of the side-walls to facilitate the settling of the moist air into the top opening of said descending passages. 6th. A drying kiln having in combination a drying chamber, means for supplying heat, a false floor or bottom below the heater and having an opening communicating with the drying chamber, a sub-floor E below the said false floor, and a down-passage or chamber B, communicating from the drying-room to the chamber formed between the false floor and sub-floor. 7th. A drying kiln having in combination a drying chamber, descending air-passages having their upper ends open to receive moist air from said chamber and provided with exits to the external atmosphere, and a lower down-passage or chamber communicating from the said drying chamber to the base below said chamber. 8th.



A drying kiln having, in combination a drying chamber, air-circulating vertical passages in the drying chamber, means in the chamber for supplying heat, communications B from the drying chamber extending down and below the means for supplying heat and thence opening again into the drying chamber, and descending air-passages having their upper part open to receive moist air from the drying chamber and provided with exits to the external atmosphere. 9th. A drying kiln having in combination a drying chamber, means for supplying heat, two vertical side passages, a central vertical passage, and a deflector I above the said central passage to cause the heat to pass laterally in opposite directions.

**No. 17,847. Car Fender. (Défense de chars.)**



William Hofmeister, and William Francis Madaus, both of New York, State of New York, U.S.A., 9th January, 1895; 6 years.

*Claim.*—1st. A car fender comprising a collapsible body supported in front of the car-platform, and having rigid frames at either side thereof, and padded material upon said collapsible body, substantially as shown and described. 2nd. A car fender comprising approximately triangular frames supported at each side thereof in front of the car platform, sections pivoted between said frames at the top and bottom, normally held together to range diagonally downward upon a common plane, and adapted when borne upon to separate and collapse, and a support or base connecting the frames at the bottom and adapted to receive the sections thereon when the same collapse, substantially as shown and described. 3rd. A car fender comprising a collapsible frame secured in front of the car-platform, a roller journalled in the front thereof, and a brush mounted behind said roller, both the said roller and brush being vertically yielding with respect to said fender, substantially as shown and described. 4th. A car fender comprising two frames secured to the dash-board supporting bars of the car, and having forward extensions in which are mounted, a roller and a brush, sections pivoted between the top and bottom of the frames held together by a tongue and groove connection, and adapted when borne upon to collapse, and flexible material laid upon said sections, substantially as shown and described. 5th. A car fender comprising two approximately triangular frames secured to the dash-board supporting bars of the car, connected by a base plate and having forwardly projecting extensions in which are yieldingly mounted a roller and a diagonal brush, sections pivoted between the top and bottom of the frames, held together by a tongue and groove connection in a common diagonal plane, and adapted when borne upon to separate, and the lower section fall to the horizontal position by gravity, and the upper section fall to the vertical position and pads or blankets laid upon and secured to each section, substantially as shown and described. 6th. A car fender comprising standards having sleeves thereon which slide upon the dash-board supporting bars of the car at each side, approximately triangular opening frames bolted to the said standards and having vertical bars extending from top to bottom of said frames, a cross-bar connecting said frames at the rear, and a base plate secured between the same, forwardly ranging extensions upon said frames having diagonally opposite slots therein in which is mounted a brush to be upwardly yielding, braces surrounding the extensions upon their upper and lower faces and projecting in front of the same to form slots, in which is journalled a rubber roller, rigid sections pivoted between the frames at the top and at the forward ends thereof, having a longitudinal tongue and longitudinal groove respectively at their points of junction, whereby they are normally maintained in a common diagonal plane, and when borne upon will swing or collapse to the horizontal and vertical positions respectively, and padded bodies resting upon and secured to said sections, substantially as shown and described.

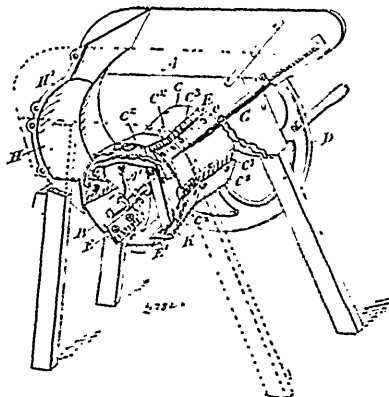
**No. 17,848. Pulping and Slicing Machine.**

(Machine à pâte à papier et à trancher.)

The Massey Harris Company, assignee of Lyman Melvin Jones, William F. Johnston and William John Clokey, all of Toronto, Ontario, Canada, 9th January, 1895; 6 years.

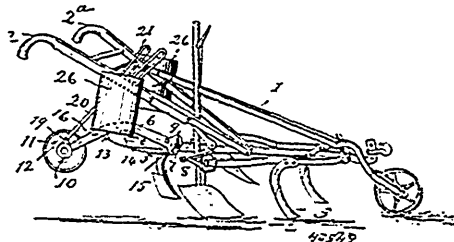
*Claim.*—1st. In a pulping and slicing machine, the combination with the wheel having the rim board V-shaped in cross-section extending across and suitably journalled at the bottom part of the

hopper, and provided with slots extending across the rim and knives extending obliquely through the slots and bolted underneath the rim, of the concavo-convex throat reverse broad V-shaped in cross-section and having the lower edge extending below the centre of the wheel and located in proximity to the rim, as and for the purpose



specified. 2nd. In a pulping and slicing machine, the combination with the wheel, having the rim board V-shaped in cross-section extending across and suitably journalled at the bottom part of the hopper and provided with slots extending across the rim and knives extending obliquely through the slots and bolted underneath the rim, of the concavo-convex throat H, formed as specified and having its lower edge located in proximity to the wheel, the lip extending downwardly from the lower edge, a bolt extending through such lip and a cross-bar of the machine and provided with suitable jam-nuts, flanges H', formed at the outside of the throat and bolts H', extending through holes in such flanges as an for the purpose specified. 3rd. In a pulping and slicing machine, the combination with the wheel having the rim board V-shaped in cross-section extending across and suitably journalled at the bottom part of the hopper and provided with slots extending across the rim and knives extending obliquely through the slots and bolted underneath the rim, of scrapers having the blade extending obliquely into the interior of the wheel from each side, as and for the purpose specified.

**No. 17,849. Machine for Spreading Plaster, Paris Green, etc. (Machine pour étendre le plâtre, le vert de Paris, etc.)**



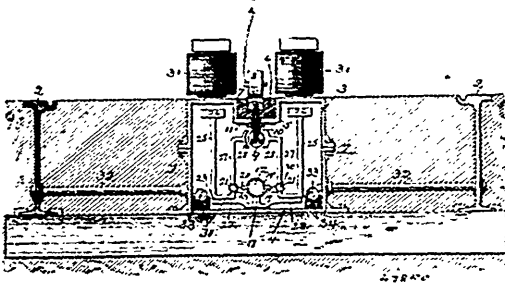
Walter E. Everitt, Buffalo, New York, U.S.A., 9th January, 1895; 6 years.

*Claim.*—1st. In a cultivator, the combination with the front wheel of a rear wheel supported on a pivoted frame which can be raised or lowered, and means for securing said wheel when lowered for the purposes described. 2nd. In a cultivator, the combination with a distributing vessel for carrying the material to be distributed and means for distributing said material, of a wheel mounted on the rear of the machine, a slotted arm having one end connected with a crank on said wheel, and the other end connected with an arm pivoted on the handle, and carrying a pawl for actuating the mechanism in the distributing vessel, substantially as described. 3rd. In a cultivator, the combination with the front wheel, of a vertically adjustable wheel mounted on a pivoted frame at the rear of the machine, a pivoted cleaning pawl adapted to rest on said wheel, and means for adjusting and securing the wheel at the limit of its downward movement, substantially as described. 4th. In a cultivator, the combination with the supporting frame of an angular frame pivoted thereto, a roller mounted on a shaft at the rear end of said angular frame, crank arms mounted on said shaft, slotted arms connecting the cranks with the cultivator handles, pawl arms pivoted to the cultivator handles, adapted to fit in the slots in the slotted arms, so said arms can slide up or down thereon, and pawls pivoted to the lower portions of the pawl arms, for opening the distributing mechanism, substantially as described. 5th. In a cultivator, the combination with the distributing vessel, and means for connecting it with the

cultivator handle, of a conical perforated spreader secured by holding pieces slightly below the bottom, a tapering bottom on the inner side located above the perforated spreader for holding the material to be distributed, and having a valve opening and seat at the bottom, a valve having its stem secured by a cross-bar adapted to fit said valve seat, a crank-shaft mounted in the lower part of the distributing vessel having its crank-pin pivotally connected with the lower end of the valve, a crank-arm on one end of the crank-shaft extending in a substantially horizontal direction outside of the distributing vessel, and means substantially as above described for operating the same, for the purposes set forth. 6th. In a cultivator, the combination with the supporting frame, of a frame portion pivoted thereto, at one end so as to be capable of swinging up or down, a wheel mounted at the opposite end of the supporting frame, and a short bar pivoted to the top of the rear portion of the frame of the machine, and in its normal position adapted to lay lengthwise of its supporting frame so that the wheel and its frame may be raised or lowered, and so that when the wheel is lowered the short bar may be turned at right angles to its normal position so as to rest on the frame and hold the wheel down as described. 7th. In a cultivator, the combination with a rear supporting frame carrying a wheel and pivoted to the rear of the machine so as to be capable of swinging up or down, of a pivoted holding piece on the machine frame for securing the wheel when lowered down when the machine is required to be moved from one place to another, substantially as described. 8th. In a cultivator, the combination with a distributing vessel attached to the cultivator, of a conical perforated spreader secured by holding pieces slightly below the bottom, a tapering bottom on the inner side located above the perforated spreader for holding the material, and having a valve opening and seat at the bottom, a valve having its stem secured by a cross-bar adapted to fit said valve seat, a crank-shaft mounted transversely in the distributing vessel, having its crank pin pivotally connected with the valve, a crank arm on one end of the crank shaft extending in a substantially horizontal direction outside of the distributing vessel, an arm pivoted to the cultivator handle provided with a pawl pivoted at its lower end, the pawl extending downward so the horizontally extending crank arm will be directly in the pathway of its lower point, and means for operating the pawl substantially as described. 9th. In a cultivator, the combination with a distributing vessel, of a plunger valve, a crank mounted on said vessel for operating said valve, and means substantially as above described for operating the crank, as herein above set forth.

**No. 47,850. Closed Conduit Electric Railway.**

(Chemin de fer électrique à conduit fermé.)



James Francis McLaughlin, Philadelphia, Pennsylvania, U.S.A., 9th January, 1895; 6 years.

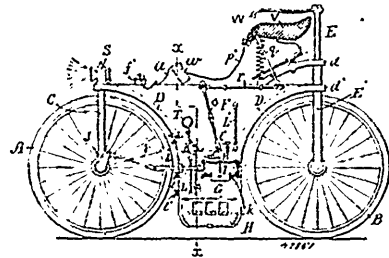
*Claim.*—1st. In an electric railway, the combination with a closed conduit, of a main or supply conductor housed therein, a sectional working conductor composed of sections in the conduit and exposed sections seated in the top of the conduit and electrically connected to the sections in the conduit, and magnetically operated switches, pivoted to the main conductor, formed with switch plates in operative relation to the underground sections of the working conductor and with armatures close to the top of the conduit, substantially as described. 2nd. In an electric railway, the combination with a closed conduit provided with a central longitudinal groove or trough along its top, of a main or supply conductor housed in the conduit, a working conductor composed of sections in the conduit and exposed sections seated in the trough and electrically connected to the sections in the conduit, and magnetically operated switches pivoted to the main conductor and formed with switch plates in operative relation to the underground sections of the working conductor and with armatures close to the top of the conduit between the trough and sides of the conduit, substantially as described.

**No. 47,851. Bicycle. (Bicycle.)**

Hosea W. Libbey, Boston, Massachusetts, U.S.A., 9th January, 1895; 6 years.

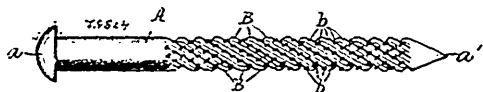
*Claim.*—1st. A bicycle consisting of a front driving and a rear steering wheel connected together by a suitable frame, a flat water

reservoir and boiler secured to said frame in the plane of the wheel and carrying a steam cylinder on each side and connecting rods to transmit motion to cranks on the axle of the driving wheel, substantially as set forth. 2nd. A bicycle consisting of a front driving and a rear steering wheel, connected together by a loop frame, a flat water reservoir and boiler secured to the frame between the wheels,



the front and rear ends of said reservoir and boiler substantially conforming to the curvature of the wheels, a steam cylinder upon each side of the boiler, and connecting rods to transmit motion to cranks on the axle of the driving wheel, substantially as set forth. 3rd. In a bicycle, the combination with a frame, of a flat sheet iron casing secured thereto, two horizontal partitions in said casing forming a water reservoir, a boiler, and a lamp chamber, one above the other, a steam cylinder upon each side of the casing, and connecting rods to transmit the motion to cranks on the axle of the driving wheel, substantially as set forth. 4th. In a bicycle, the combination with a frame, of a flat sheet iron casing secured thereto, two horizontal partitions in said casing forming a water reservoir, a boiler and a lamp chamber, three pipes secured to the top of the casing and to the upper partition, the upper ends of said pipes being provided with a safety valve, steam gauge and whistle, respectively, and means for driving the bicycle by means of the steam generated in the boiler, substantially as set forth. 5th. In a bicycle, the combination with a frame of a casing secured thereto, the lower portion of which is formed into a lamp chamber, the sides of said chamber being bulged outward and fitted with mica, so that the light from the lamp may be diffused on each side of the vehicle, and means for driving the bicycle by the steam generated in the boiler, substantially as set forth. 6th. In a bicycle, the combination with a frame, of a flat casing secured thereto, forming a boiler a steam cylinder upon each side of the casing, each cylinder being provided with a piston and a rod for connection with one of the wheels, a pipe leading from the boiler to each cylinder, and provided with a valve, a handle at the side of the bicycle, and connecting rods between the handle and the valve in the pipe, substantially as set forth.

**No. 47,852. Nail. (Clou.)**



Willard Coughtry Lipe, Syracuse, New York, U.S.A., 9th January, 1895; 6 years.

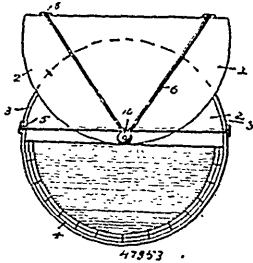
*Claim.*—1st. As a new article of manufacture, the herein described nail, the same comprising a body A, and a swaged spiral rib or projection B, the body provided with a series of transverse grooves b, substantially as described. 2nd. As a new article of manufacture, the herein described nail, the same comprising a body A, and a series of lengthwise parallel ribs or projections B, upon the body provided with a series of spirally extending transverse grooves b, of less depth than the height of said ribs, substantially as specified. 3rd. As a new article of manufacture, the herein described nail, the same comprising a body A, provided with a tapering point a<sup>1</sup>, a head a, and a plain upper end extending downwardly from the head a, and transversely grooved spiral ribs B, extending upwardly from said tapering point, to the lower extremity of the upper plain end of the nail, substantially as and for the purpose described.

**No. 47,853. Barrel Cover. (Couvercle de baril.)**

James O. Cooper, Guthrie, Oklahoma, and Albert S. Jacoby, Mount Rock, Pennsylvania, both in the U.S.A., 9th January, 1895; 6 years.

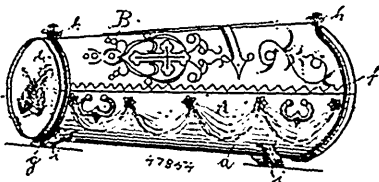
*Claim.*—1st. A barrel cover comprising a stationary section 2, a sliding section 1, located in a horizontal plane different from the stationary section and arranged to move inward across the same, a stationary transverse rod 5, providing an intervening space for the passage of the movable section of the cover, and a rod rigidly mounted on the movable section and receiving and confining the transverse rod, whereby the movable section of the cover is permitted a straight forward and rearward movement, substantially as described. 2nd. A barrel cover comprising the stationary and movable sections, the rigid transverse rod mounted on the stationary section and arranged above the same and providing a space to per-

mit the passage of the movable section, the integral divergent rods mounted on the movable section and provided at their apex with an eye arranged at the front of the movable section, said divergent rods being arranged above the movable section and confining the transverse rod, a handle having a shank passed through said eye and



secured to the movable section, and a spacing block arranged on the shank and interposed between the eye and the movable section, substantially as described. 3rd. A barrel cover comprising the segmental movable and stationary sections located in different horizontal planes, the movable section being located above and adapted to move rearward over the stationary section, the stationary transverse rod rigidly connected at its ends with the stationary section and located above the same, and forming an intervening space for the passage of the movable section, the divergent rods rigidly connected at their front terminals to the front of the movable section and having their rear ends bent downward and secured to the rear edge of the movable section, said divergent rods being located above the movable section and forming an intervening space and receiving and confining the transverse rod, and a depending rim receiving the stationary section and arranged flush with the upper face thereof, and having its front portion located beneath the movable section, substantially as described.

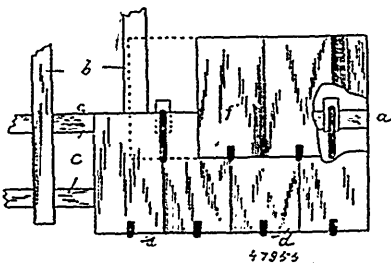
**No. 47,854. Coffin. (Cercueil.)**



Otto F. Naumann, Zschwitz, Saxony, German Empire, 9th January, 1895; 6 years.

*Claim.*—1st. As an article of manufacture, a coffin body comprising staves, end pieces and bands trimmed and fitted together, substantially as described. 2nd. A coffin comprising staves and end pieces fitted together to form a segmental cylindrical trunk and a segmental lid adapted to fit the trunk and complete the cylindrical casing, substantially as described. 3rd. A coffin comprising a trunk A, formed of staves *a*, having end grooves *c*, head and foot pieces *d*, *e* to fit said grooves, a lid B, formed of staves *b*, having grooves *c*, to receive said end pieces, and end bands *f*, *g* secured together, substantially as described. 4th. A coffin comprising a segment trunk, head and foot pieces and a segment lid to form a cylindrical shell, end bands to unite the same and locks to secure the bands upon the cylinder, substantially as described.

**No. 47,855. Roofing. (Toiture.)**

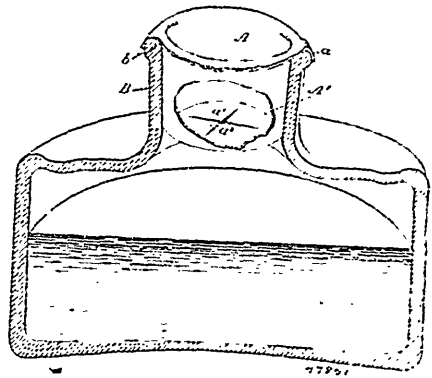


Samuel R. Hawthorne, Hartford, Connecticut, U.S.A., 9th January, 1895; 6 years.

*Claim.*—1st. In combination with a cross-piece of a roof, an angular slate holder made of metal bent about midway of its length provided at one end with a clamping hook adapted to engage the cross-piece of the roof and at the other end with a slate holding hook, and an anchor secured to the cross-piece and having an opening through

which one arm of the slate holder is passed, all substantially as described. 2nd. In combination with the framework of a roof a slate holder composed of an angular piece of metal provided at one end with a slate holding hook adapted to engage the lower edge of the slate and with the other end adjustably secured to a clamping hook attached to the cross-piece of the roof, all substantially as described. 3rd. In combination with the framework of a roof, a slate holder composed of an angular piece of metal provided at one end with a slate holding hook and at the other end with a screw thread, a clamping hook adapted to engage the cross-piece of the roof and provided with a screw threaded opening adapted to engage the screw threaded end of the holder, all substantially as described.

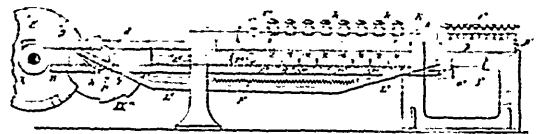
**No. 47,856. Supplemental Stopper for Ink Bottles. (Bouchon supplémentaire pour encriers.)**



Helen Braid Leadbetter, Kincardine, Ontario, Canada, 9th January, 1895; 6 years.

*Claim.*—1st. A supplemental stopper for ink bottles, consisting of a disc to fit the neck of the bottle provided with a slit or slits and means for securing such disc in position in the neck of the bottle, as and for the purpose specified. 2nd. The combination, with a neck of an ink bottle, of a supplemental cylindrical hollow stopper provided with a bottom having a plurality of slits forming elastic lips, as and for the purpose specified. 3rd. The combination, with a neck of an ink bottle, of a supplemental cylindrical hollow stopper provided with a bottom having a plurality of slits forming elastic lips and an over top hanging lip designed to extend over the flange at the top of the neck of the bottle, as and for the purpose specified.

**No. 47,857. Calculating Machine. (Machine à calculer.)**



Otto Steiger, Munich, Germany, 9th January, 1895; 6 years.

*Claim.*—1st. In a calculating machine, a controlling mechanism graduated to correspond to all the products of the multiplication table from 0 x 0 to 9 x 9, inclusive. 2nd. In a calculating machine, a controlling mechanism consisting of controlling devices arranged in pairs, one device of each pair being graduated to correspond to the tens, and the other device of the same pair being graduated to correspond to the units, of the products determined by the said pair of controlling devices. 3rd. In a calculating machine, a starting mechanism graduated to correspond to all the products of the multiplication table from 0 x 0 to 9 x 9, inclusive. 4th. In a calculating machine, a starting mechanism consisting of starting devices arranged in pairs, one device of each pair being graduated to correspond to the tens, and the other device of the same pair being graduated to correspond to the units, of the products determined by the said pair of starting devices. 5th. In a calculating machine, the combination of a controlling mechanism, a transmitting mechanism whose movement is determined by the controlling mechanism, and a registering mechanism actuated by the transmitting mechanism, substantially as set forth. 6th. In a calculating machine, the combination of a series of starting devices, a series of racks whose movements are determined by the starting devices, and a registering device actuated by the movement of the racks, substantially as set forth. 7th. In a calculating machine, the combination with a series of racks, and means for moving the racks, of a controlling mechanism for limiting the movement of the racks, and a registering mechanism operated by the racks, substantially as set forth. 8th. In a calculating machine, the combination with a series of racks, and means for

moving the racks, of a series of controlling devices for limiting the movement of the racks, a registering mechanism operated by the racks, and means for setting the controlling devices according to the figures of the multiplier, substantially as set forth.

9th. In a calculating machine, a controlling mechanism, and a transmitting mechanism whose operation is determined by the controlling mechanism, in combination with a registering mechanism, and means for intermittently engaging the registering mechanism with the transmitting mechanism, substantially as set forth.

10th. In a calculating machine, a controlling mechanism, a transmitting mechanism whose operation is determined by the controlling mechanism, and a longitudinally movable registering mechanism actuated by the transmitting mechanism.

11th. In a calculating machine, the combination of a controlling mechanism, a transmitting mechanism whose operation is determined by the controlling mechanism, and a transversely movable registering mechanism actuated by the transmitting mechanism.

12th. In a calculating machine, a controlling mechanism, and a transmitting mechanism whose operation is determined by the controlling mechanism, in combination with a longitudinally and transversely movable registering mechanism actuated by the transmitting mechanism, substantially as set forth.

13th. In a calculating machine, a controlling mechanism, a plurality of racks whose movements are determined by the controlling mechanism, a series of counting pinions, each arranged to be shifted into engagement with any rack, and a registering device actuated by the pinions.

14th. In a calculating machine, a controlling mechanism, a plurality of racks whose movement is determined by the controlling mechanism, a registering mechanism, and means for transmitting motion from any desired rack to the registering mechanism.

15th. In a calculating machine, the combination of a plurality of controlling devices, a plurality of transmitting devices, and means for setting the controlling and transmitting devices opposite each other, substantially as set forth.

16th. In a calculating machine, a plurality of controlling devices, a plurality of transmitting devices, and a controlling device shifting mechanism, whereby the controlling devices are shifted with relation to the transmitting mechanism.

17th. In a calculating machine, the combination of a controlling mechanism consisting of controlling devices arranged in pairs, one for the units and one for the tens of the product determined by each pair of controlling devices, a transmitting mechanism, and means for moving the controlling devices, so as to bring either the controlling devices for the tens or the controlling devices for the units into engagement with the transmitting mechanism.

18th. In a calculating machine, a plurality of controlling devices, a registering mechanism whose operation is determined by the controlling devices, and means for arranging the controlling devices, substantially as set forth.

19th. In a calculating machine, a plurality of controlling devices, a registering mechanism whose operation is determined by the controlling devices, and a series of keys for arranging the controlling devices, substantially as set forth.

20th. In a calculating machine, a rotary recessed controlling disc, in combination with a registering mechanism whose movement is determined by the controlling disc, substantially as set forth.

21st. In a calculating machine, a recessed controlling disc and means for rotating the same to any desired extent, in combination with a rack whose movement is determined by the controlling disc, and a counting pinion adapted to engage the rack, substantially as set forth.

22nd. In a calculating machine, a series of recessed controlling discs, and means for rotating the selected discs to any desired extent, in combination a series of racks whose movement is determined by the controlling discs, and a series of counting pinions arranged one in advance of the other, and means whereby each counting pinion may be brought into engagement with any desired rack, substantially as set forth.

23rd. In a calculating machine, the combination, with a series of circular controlling devices, of a registering mechanism actuated by the controlling devices, substantially as set forth.

24th. In a calculating machine, the combination, with a series of recessed controlling discs, of a registering mechanism actuated by the controlling devices.

25th. In a calculating machine, a plurality of controlling devices, a plurality of racks whose movement is determined by the controlling devices, a series of pinion shafts, a series of counting pinions on the pinion shafts, and means for moving each counting pinion into engagement with any desired rack.

26th. In a calculating machine, a registering mechanism comprising a series of register dials, a series of spindles on which the dials are mounted, a series of star-wheels on the spindles, a series of carrying dogs arranged to engage the star-wheels, and means for operating the dogs.

27th. In a calculating machine, a registering mechanism comprising a series of register dials, a series of register spindles on which the dials are mounted, a series of star-wheels fixed on the register spindles, a series of dog spindles, a series of carrying dogs on the dog spindles, a series of pairs of fingers, one finger of each pair being fixed on its respective register spindle, and the other finger of the same pair being fixed on its respective dog spindle, and means for swinging the carrying-dogs.

28th. In a calculating machine, the combination, with a series of register dials, and a series of register spindles on which the dials are fixed, of a series of dog spindles, means for communicating motion from the register spindles to the adjacent left-hand dog spindle, and means for communicating motion from the dog spindles to the register spindles directly above

them.

29th. In a calculating machine, the combination, with a series of register spindles, and a series of dials fixed thereon, of a revoluble cylinder provided with cam-teeth, and mechanism interposed between the cam-teeth and the register spindles, whereby the dials are operated by the cam-teeth, substantially as set forth.

30th. In a calculating machine, the combination, with a series of register dials, and a series of transmitting devices, of means for severally engaging the dials in succession with the transmitting devices.

31st. In a calculating machine, the combination, with a series of register spindles, a series of dials and a series of star-wheels fixed on the spindles, a series of dog spindles, a series of carrying dogs fixed thereon, and means for communicating motion from each register spindle to its dog spindle, of means for shifting the carrying dogs into or out of engagement with the star-wheel of the register spindles directly above them.

32nd. In a calculating machine, the combination, with an upper and a lower carriage, of a series of register spindles mounted in the upper carriage, and provided with dials, mechanism mounted in the lower carriage for rotating the dials, and means for moving the carriages with relation to each other.

33rd. In a calculating machine, the combination, with an upper and a lower carriage, of a series of register spindles mounted in the upper carriage, a series of dials and star-wheels fixed thereon, a series of dog spindles mounted in the lower carriage, means for transferring motion from the register spindles to the dog-spindles, a series of dogs actuated by the dog spindles and arranged to engage the star-wheels, and means for moving the carriages with relation to each other.

34th. In a calculating machine, the combination, with a register carriage, of a comb attached to the carriage, a shifting bar arranged to engage the teeth on the comb, and means for operating the shifting bar, substantially as set forth.

35th. In a calculating machine, the combination, with a register carriage, of a comb attached to the carriage, a shifting bar arranged to engage the teeth on the comb and means for operating the shifting bar, substantially as set forth.

36th. In a calculating machine, the combination, with a register carriage, and a comb attached to the carriage of a shifting bar provided with a nose arranged to engage any one of the teeth on the comb, and means for operating the shifting bar, substantially as set forth.

37th. In a calculating machine, the combination with a register carriage, and a comb attached to the carriage, of a shifting bar provided with a nose arranged to engage any one of the teeth on the comb, and a cam-wheel for operating the shifting bar, substantially as set forth.

38th. In a calculating machine, the combination with a register carriage, of a comb pivotally attached to the carriage, a shifting bar provided with a nose arranged to engage any one of the teeth on the comb, means for operating the shifting bar, and mechanism for lifting the comb out of engagement with the nose on the shifting bar, substantially as set forth.

39th. In a calculating machine, the combination with a register carriage, and a comb pivotally attached to the carriage, of a shifting bar provided with a nose arranged to engage any one of the teeth on the comb, a cam for pushing the shifting bar in one direction, and a spring attached to the shifting bar and tending to force the shifting bar in the opposite direction, substantially as set forth.

40th. In a calculating machine, the combination with a register carriage, of a comb attached to the carriage, a shifting bar provided with a nose arranged to engage any one of the teeth on the comb, means for operating the shifting bar, and mechanism for moving the carriage transversely, whereby the comb may be moved out of its position of engagement with the nose on the shifting bar, substantially as set forth.

41st. In a calculating machine, the combination with a register carriage, and a comb attached to the carriage, of a shifting bar provided with a nose arranged to engage any one of the teeth on the comb, and a cam-wheel having a lateral cam-face for operating the shifting bar, and a peripheral cam-face for moving the carriage transversely, substantially as set forth.

42nd. In a calculating machine, the combination with a register carriage, and a cam-operating shaft, of a cam-wheel fixed on the cam-operating shaft, and having peripheral and lateral cam-faces, of a roller carried by the register carriage and engaging the peripheral cam-face of the cam-wheel, a comb attached to the carriage, a shifting bar provided with a nose arranged to engage any one of the teeth on the comb, and with a roller engaging the lateral cam-face of the cam-wheel, a spring holding the roller of the main carriage in contact with the peripheral cam-face, and a spring secured to the shifting bar and holding its roller in contact with the lateral cam-face, substantially as set forth.

43rd. In a calculating machine, the combination with a series of pinion shafts, and a series of counting pinions mounted on said shafts, of a series of register spindles, a carriage in which the register spindles are mounted, means for moving the carriage alternately in a longitudinal and in a transverse direction, and means for coupling the pinion shafts to the register spindles, whereby each register spindle will be first rotated by one pinion shaft and then move into engagement with an adjacent pinion shaft, substantially as set forth.

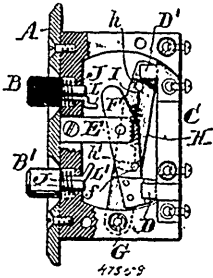
44th. In a calculating machine, the combination, with a series of pinion shafts, and a series of counting pinions mounted on said shafts, of a pin disc on each shaft, a series of register spindles, a perforated disc on each spindle, a carriage on which the spindles are mounted, means for moving the carriage longitudinally, and means for engaging the pin-discs and the perforated discs, whereby motion is imparted from one counting pinion to its opposite register spindle and then to the next adjacent spindle, substantially as set forth.

45th. In a calculating machine, the combination, with a controlling mechanism comprising a series of pairs of controlling devices, one

device of each pair being graduated to correspond to the units and the other device of the same pair being graduated to correspond to the tens of the partial products represented by said pair, a series of counting pinions whose movement is determined alternately by the tens and then by the units graduations of the controlling devices, a series of register spindles, and a carriage on which the spindles are mounted, of means for transferring motion from the counting pinions to the register spindles, and means for shifting the carriage longitudinally, whereby each register spindle may be rotated first by one counting pinion and then shifted until in a position to be operated by the next counting pinion, thus receiving first the rotation due to the tens graduations of one pair of controlling devices and then the rotation due to the units graduations of the next highest pair of controlling devices, substantially as set forth.

**No. 47,858. Electric Switch or Circuit Breaker.**

(Commutateur électrique ou frein de circuit.)



Frank Stevens and Robert Rodwell Kesteven, both of Philadelphia, Pennsylvania, U.S.A., 9th January, 1895; 6 years.

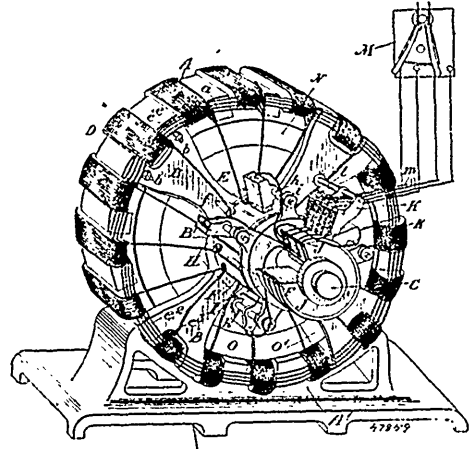
*Claim.*—1st. A spring actuated electric switch, comprising a hollow frame supporting the electric terminals on one side thereof, a pivoted contact lever mounted within the hollow frame and engaging the terminals, a rocking lever independently mounted within the frame, a spring connecting the free end of the contact lever with one end of the rocking lever, and separately movable push buttons extending through one side of the frame and having toes arranged to engage the rocking lever, substantially as described. 2nd. A spring actuated electric switch, comprising a face plate, an insulating hollow frame secured to the face plate and supporting the electric terminals on one side, separately movable push buttons mounted in sockets in the plate and frame and having toes projecting into the recess of the frame, a pivoted contact lever mounted within the frame and engaging the terminals, a separate rocking lever independently mounted on a standard and supported within the frame, and a spring connecting the free end of the contact lever with one end of the rocking lever, substantially as described. 3rd. A spring actuated electric switch embracing a pair of pivoted levers, one or both adapted to make and break circuit with the contacts, a spring connecting one end of one lever with the other end of the other, and a pin or projection carried by one lever and acting upon the other to positively move it and assist the connecting spring in throwing the said other lever to make or break the circuit.

**No. 47,859. Electric Motor. (Moteur électrique.)**

James Harry Keighly McCollum, Edwin Crickmore, Thomas Edward Bernard McCollum, Melville Burgoyne Robertson Gordon, John William Sweatman and Thomas Wilson Hector, all of Toronto, Ontario, Canada, 10th January 1895; 6 years.

*Claim.*—1st. In an electric motor, an armature surrounded with a plurality of coil layers arranged in multiple and connected by wire to the commutator, as and for the purpose specified. 2nd. In an electric motor, a stationary armature consisting of a ring with a series of sections extending around the ring and comprised of a plurality of coil layers arranged in multiple, the sections being connected together in multiple and each section being tapped by a wire leading to the corresponding section of the commutator, as and for the purpose specified. 3rd. In an electric motor, the combination with a stationary armature comprised of a series of poles, of an arc-shaped field magnet supported and magnetically insulated from the main shaft of the motor by a disc, as shown and for the purpose specified. 4th. The combination with a stationary armature comprised of a ring having a series of sections arranged equi-distant around it between the toothed projections, the sections having a plurality of coil layers arranged in multiple and the sections being connected together in multiple and suitably connected to the corresponding sections of the commutator, of an arc-shaped field magnet supported and magnetically insulated from the main shaft of the motor by a disc as shown and for the purpose specified. 5th. The combination with the ring-shaped stationary armature comprised of a series of sections arranged as specified and having arms secured to the ring and extending inwardly and terminating in hubs, which form bearings for the main shaft of the motor, of a stationary commutator secured in one of the hubs, rotating brushes and arc-

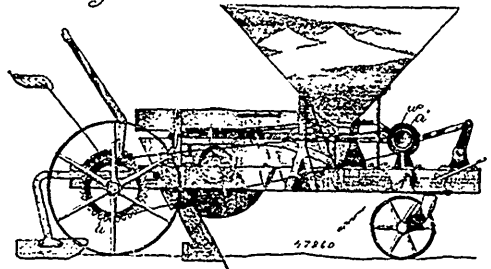
shaped field magnets supported upon and magnetically insulated from the shaft by a suitable disc and designed to rotate in unison with the commutator brushes, which are suitably supported and



derive current from electrically insulated rings through the contact brushes resting on such rings and connected to the main circuit as and for the purpose specified.

**No. 47,860. Potato Planter. (Semoir à patates.)**

Fig. 1.



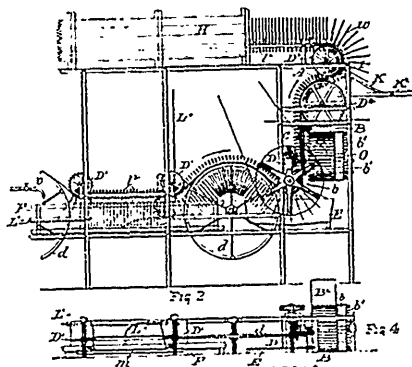
Samuel H. Fish, Hinsdale, and Henry C. Middaugh, Clarendon Hills, both in Illinois, U.S.A., 10th January, 1895; 6 years.

*Claim.*—1st. In a potato planting machine, the combination with means for forming a temporary pocket in the separation chamber, of means for removing sufficient potatoes for a hill from said pocket and depositing the same in the drills, substantially as described. 2nd. The method of planting potatoes by machinery, which consist in feeding the potatoes into a separation chamber, singling out one or more potatoes by the formation of a temporary pocket, and then removing from said pocket sufficient potatoes for a hill and depositing the same in the drills, substantially as described. 3rd. In a potato planting machine, the combination with separating fingers adapted to form a temporary pocket, of means for removing sufficient potatoes for a hill from said pocket and depositing the same in the drills, substantially as described. 4th. In a potato planting machine, the combination with means for forming a temporary pocket, of piercing forks adapted to remove sufficient potatoes for a hill from said pocket, substantially as described. 5th. In a potato planting machine, the combination with the reciprocating separating fingers adapted upon their approach to form a temporary pocket, of means for removing sufficient potatoes for a hill therefrom, substantially as described. 6th. In a potato planting machine, the combination with the reciprocating separating fingers adapted upon their approach to form a temporary pocket, of piercing forks adapted to remove sufficient potatoes for a hill from said pocket, substantially as described. 7th. In a potato planting machine, the combination with the reciprocating separating fingers provided with inclined surfaces adapted upon the approach of the fingers to form a temporary pocket, of piercing forks adapted to pierce potatoes in said pocket, and means for separating said fingers to permit the removal of said pierced potatoes by said piercing forks, substantially as described. 8th. In a potato planting machine, the combination with the reciprocating bar, of the reciprocating separating fingers connected by linkage with said bar, whereby they are caused to approach and recede from one another, the disc carrying the piercing forks adapted to be rotated step-by-step as said bar is reciprocated, and the cam actuated by the reciprocation of said bar adapted to cause the piercing forks to enter the temporary pocket formed by the separating fingers, and

to withdraw the same from the potatoes at another point in the travel of the disc, substantially as described. 9th. In a potato planting machine, the combination with the separating fingers adapted to form a temporary pocket, of a yielding mounting for one of the series of fingers, whereby the capacity of said pocket may be varied, substantially as described. 10th. In a potato planting machine, the reciprocating separating fingers adapted on their approach to form a temporary pocket, one series of said fingers being yieldingly mounted, whereby the capacity of said pocket may be varied, substantially as described. 11th. In a potato planting machine, the combination with the separating fingers *e* mounted upon the reciprocating rod *h*<sup>1</sup>, of the link *b*<sup>2</sup>, the end thereof encircling said rod *h*<sup>1</sup>, and the spring *h*<sup>3</sup> located between the end of link *b*<sup>2</sup> and rod *h*<sup>1</sup>, substantially as described. 12th. In a potato planting machine, the combination with the arms carrying the piercing forks, of the cam *r* provided with the groove comprising the parallel portions *r*<sup>2</sup>, *r*<sup>3</sup> and the annular portions *r*<sup>1</sup>, *r*<sup>4</sup>, in which the ends of said arms are adapted to travel, the rocking block *s*<sup>2</sup> movable with said cam, and the reciprocating detents *s*<sup>1</sup>, *s*<sup>2</sup> adapted to rock said block *s*<sup>2</sup> to impart a rocking movement to said cam, substantially as described. 13th. In a potato planting machine, the combination with the separating fingers adapted to form a temporary pocket, of the piercing forks adapted to be inserted into said pocket by the cam *r* before said separating fingers have receded to open said pocket, substantially as described. 14th. In a potato planting machine, the combination with the reciprocating bar *b*, of the separating fingers *e*, *e*<sup>1</sup>, adapted to be approached thereby to form a temporary pocket, the detents *s*<sup>1</sup>, *s*<sup>2</sup>, adapted to be reciprocated by said bar *b*, the rocking blocks *s*<sup>2</sup> adapted to be engaged thereby, the cam *r* for actuating said piercing forks, the movement of said detents *s*<sup>1</sup>, *s*<sup>2</sup> relatively to said bar *b* being such that said piercing forks are caused to enter the temporary pocket before the same is opened by the recession of the separating fingers, substantially as described. 15th. In a potato planting machine, the combination with the ratchet wheel *m*<sup>2</sup> adapted to rotate the disc carrying the piercing forks, of the reciprocating detent *m*, adapted to rotate said ratchet wheel step-by-step, and the stop *o* adapted to engage with lugs *o*<sup>1</sup> to limit the movement of the ratchet wheel independently of said detent, substantially as described. 16th. In a potato planting machine, the combination with the reciprocating bar *b* of the separating fingers *e*<sup>1</sup> mounted upon the reciprocating bar *d*<sup>1</sup>, the pivoted lever *d*<sup>2</sup>, and the links *q* and *d*<sup>3</sup> connecting the ends of said lever with said reciprocating bars *b* and *d*<sup>1</sup>, substantially as described. 17th. In a potato planting machine, the combination with the reciprocating bar *b*, of the oscillating lever *b*<sup>2</sup> connected therewith by link *b*<sup>3</sup>, the separating fingers *c* and a yielding connection between said fingers *c* and the end of said link *b*<sup>3</sup>, substantially as described. 18th. In a potato planting machine, the combination with the swinging scooping plate *k* mounted upon the reciprocating bar *b*, of the stationary stop *k*<sup>2</sup> adapted to impart to the scooping end of said plate a thrusting movement, and the resiliently mounted pin *k*<sup>1</sup> adapted to yieldingly limit the swinging of said plate, substantially as described.

and 2, in combination with a roller such as *r*, for the purpose of enabling the audible signals, produced by the making or breaking of the electric circuit at the several said contact pieces *e*, *f*, *g* to be readily distinguished from one another, constructed and arranged, substantially as described.

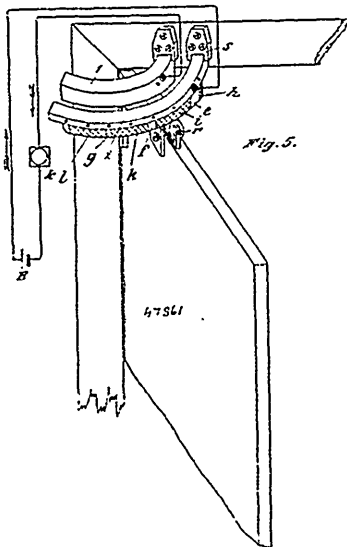
**No. 47,862. Process of and Apparatus for Electro-Plating. (Procédé et appareil d'argenture galvanique.)**



Clarence Morse Barber, Cleveland, Ohio, U.S.A., 10th January, 1895; 6 years.

*Claim.*—1st The continuous and automatic process of electro-plating which consists in passing the articles to be plated, in a continuous series and by a continuous and uninterrupted movement, successively through a series of plating baths in each of which the article receives an increment of deposit, causing the articles to complete the electrical circuit as they enter the baths and to break the circuit as they emerge therefrom, then washing, drying and discharging the plated articles without interrupting their motion, substantially as described. 2nd. The continuous and automatic process of electro-plating which consists in passing the articles to be plated, in a continuous series and by a continuous movement, successively through the proper cleaning, plating and washing baths arranged in their proper order, causing the articles to form part of the electrical circuit while in the plating bath and to be out of circuit while not in the plating bath, then drying and discharging the plated articles without interrupting their motion, substantially as described. 3rd. The process of continuously and automatically electro-plating articles which consists in passing them by a continuous movement successively through the proper cleaning, plating and washing baths arranged in their proper order, causing the articles to form part of the electrical circuit while in the plating bath, and drying them by a blast of heated air directed upon them while in motion after leaving the washing bath, substantially as described. 4th. The process of continuously and automatically electro-plating articles which consists in passing them by a continuous movement successively through the proper cleaning, plating and washing baths, arranged in their proper order, causing the articles to form part of the electrical circuit while in the plating bath, and drying them while in motion after leaving the washing bath by means of a blast of air directed upon them, substantially as described. 5th. In electro-plating apparatus, the combination of a series of tanks containing respectively the proper cleaning, plating and washing baths arranged in proper order, an endless carrier adapted to carry the articles to be plated and arranged to traverse over said tanks successively, an electrical circuit in which the plating bath is included, and means for connecting the articles into said circuit while in the plating bath, substantially as described. 6th. In electro-plating apparatus, the combination of a series of tanks containing respectively the proper cleaning, plating and washing baths arranged in proper order, an endless carrier arranged to traverse over said tanks successively, conducting holders attached to said carrier and adapted to receive and hold the articles to be plated, an electrical circuit in which the plating bath is included, and means for causing said holders to make connection with the electrical circuit while passing over the plating bath, substantially as described. 7th. In electro-plating apparatus, the combination of a series of tanks containing respectively the proper cleaning, plating and washing baths arranged in proper order, an endless carrier arranged to traverse over said tanks successively, conducting holders attached to said carrier and adapted to receive and hold the articles to be plated, an electrical circuit in which the plating bath is included in connection with the positive pole, and an electrical connection with the negative pole extending along the plating tank contiguous to the path traversed by the holders, and with which each holder makes contact while passing the plating tank, whereby the articles carried by the holders are put in circuit during their passage through the plating bath, substantially as described. 8th. In electro-plating apparatus, the combination of a series of tanks containing respectively the proper cleaning, plating and washing baths arranged in proper order,

**No. 47,861. Trolley. (Trollée.)**



Carl Ast, Grolitz, Prussia, German Empire, 10th January, 1895; 6 years.

*Claim.*—An electrical rolling contact-making and breaking device in which contact pieces such as *e*, *f*, *g*, are arranged in varying number, position and length, or straight or arc-shaped bars, such as 1



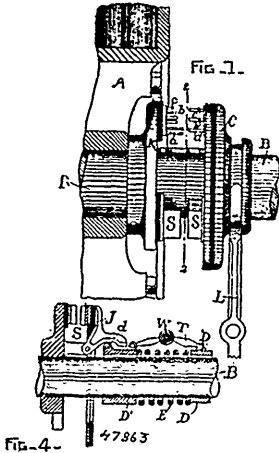
an endless carrier adapted to carry the articles to be plated and arranged to traverse over said tanks successively, an electrical circuit in which the plating baths are connected in series, means for connecting the articles into said circuit while in the plating baths, and a shunt circuit connection to each of the plating baths, whereby any one or more of said plating baths may be cut out of circuit, substantially as described. 9th. In electro-plating apparatus, the combination, with a series of tanks, of an endless carrier arranged to traverse over said tanks successively, holders attached to said carrier, and adapted to hold the articles to be plated and to immerse them in the baths contained in said tanks, an electrical circuit with the positive pole of which the plating baths are connected and with the negative pole of which the holders make connection while passing over the plating bath, and thereby put said articles in circuit while in the plating bath, and means for guiding said carrier so as to cause the same to pass the articles carried by said holders into, through and out of the successive baths in said tanks, substantially as described. 10th. In electro-plating apparatus, the combination, with a series of tanks, of an endless carrier arranged to traverse over said tanks successively, holders attached to said carrier and adapted to hold the articles to be plated and to immerse them in the baths contained in said tanks, an electrical circuit with the positive pole of which the plating baths are connected and with the negative pole of which the holders make connection while passing over the plating baths, and thereby put said articles in circuit while in the plating bath, and means for guiding said carrier, so as to cause the same to pass the articles carried by said holders into, through and out of the successive baths in said tanks and thence along a drying space, substantially as described. 11th. In electro-plating apparatus, the combination, with a series of tanks, of an endless carrier arranged to traverse over said tanks successively, holders attached to said carrier, and adapted to hold the articles to be plated and to increase them in the baths contained in said tanks, an electrical circuit with the positive pole of which the plating baths are connected while passing over the plating baths, and thereby put said articles in circuit while in the plating bath, and means for guiding said carrier, so as to cause the same to pass the articles carried by said holders into, through and out of the successive baths in said tanks and thence along a drying space supplied with means for artificially drying the plated articles, substantially as described. 12th. In an electro-plating apparatus the combination, with a series of tanks, of an endless carrier arranged to traverse over said tanks successively, holders attached to said carrier and adapted to hold the articles to be plated and to immerse them in the baths contained in said tanks, an electrical circuit with the positive pole of which the plating baths are connected and with the negative pole of which the holders make connection while passing over the plating bath, and means for guiding said carrier so as to cause the same to pass the articles carried by said holders into, through and out of the successive baths in said tanks and thence along a drying space supplied with artificial heat, substantially as described. 13th. In electro-plating apparatus the combination, with a series of tanks, of an endless carrier arranged to traverse over said tanks successively, holders attached to said carrier and adapted to hold the articles to be plated and to immerse them in the baths contained in said tanks, an electrical circuit with the positive pole of which the plating baths are connected and with the negative pole of which the holders make connection while passing over the plating baths and means for moving said carrier so as to cause the same to pass the articles carried by said holders into, through and out of the successive baths in said tanks and thence along a drying space wherein an air blast is directed upon the plated articles, substantially as described. 14th. In electro-plating apparatus having a series of tanks and an endless carrier adapted to traverse above the same successively and provided with holders adapted to hold the articles to be plated and to immerse them in the baths contained in said tanks, a contact piece in electrical connection with the negative pole of the circuit, extending above and along each plating tank and so located that said holders make contact therewith while passing such tank, substantially as described. 15th. In electro-plating apparatus the combination, with a series of tanks, of an endless carrier arranged to traverse over said tanks, means for moving and guiding said carrier, holders attached to said carrier and having spring-actuated jaws to grasp and hold the articles to be plated, said holders being provided with means for making electrical connection with the electrical circuit while passing over the plating baths, and means substantially such as described, for automatically opening the jaws of the holders to enable the same to be charged or discharged. 16th. In automatic electro-plating apparatus in combination with the plating bath and electrical circuit and a carrier arranged to traverse over the plating bath and having holders for the articles to be plated, the feeding mechanism comprising in combination a hopper, a rotating drum closing the bottom of said hopper, grooves in the face of said drum adapted to each receive a single one of the articles to be fed, a plunger adapted to reciprocate in said groove and normally retracted by a spring, a cam adapted to engage said plungers at a fixed point and force them into said groove to feed out the articles therein. 17th. In automatic electro-plating apparatus in combination with the plating bath and electrical circuit and a carrier arranged to traverse over the plating bath, and having holders for the articles to be plated, the feeding mechanism comprising in combination a rotating drum having grooves upon its face parallel with its axis and each adapted to receive one of the articles

to be plated, a hopper adjusted against said drum and closed at the bottom thereby, a casing adjusted upon said drum in line axially with each of said grooves, a spring-actuated plunger extending through each casing and having its inner end in one of said grooves, and its outer end projecting from the opposite end of said casing, and a fixed cam located in the path of the outer ends of the plungers to force the same into the grooves against the action of the springs, substantially as described. 18th. In automatic electro-plating apparatus, in combination with the plating bath and electrical circuit, the carrier for the articles to be plated, comprising in combination an endless sprocket-belt and means for moving the same, guide-wheels for governing and changing the line of movement of said belt, holders attached to said belt and adapted to receive and carry the articles to be plated, and means attached to said belt for making electrical connection with the circuit while passing over the plating paths, substantially as described. 19th. In automatic electro-plating apparatus, in combination with the plating bath and electrical circuit the carrier for the articles to be plated, comprising in combination an endless sprocket-belt, sprocket-wheels operated by driven gear for moving said belt, guide-wheels for governing and changing the line of movement of said belt, and holders secured to said belt for receiving and conveying the articles, each of said holders being adapted to effect electrical connection with the circuit while passing over the plating baths, substantially as described. 20th. In automatic electro-plating apparatus, in combination with the plating bath and electrical circuit the carrier for the articles to be plated, comprising in combination an endless sprocket-belt composed of two sprocket-chains attached to the ends of transverse bars, sprocket-wheels operated by driven gear and engaging said chains for moving said belt, guide-wheels for governing and changing the line of movement of said belt, and holders secured to said transverse bars, each of said holders being adapted to receive and transport one of the articles to be plated, and to effect electrical connection with the circuit while passing over the plating baths, substantially as described. 21st. In automatic electro-plating apparatus, in combination with the plating bath and electrical circuit the carrier for the articles to be plated, comprising in combination an endless sprocket-belt composed of two sprocket-chains attached to the ends of transverse bars of non-conducting material, sprocket-wheels operated by driven gear and engaging said chains for moving said belt, guide-wheels for governing and changing the line of movement of said belt, and holders of conducting material secured to said bars, and adapted to be plated and to effect electrical connection with the circuit while passing over the plating baths, substantially as described. 22nd. In automatic electro-plating apparatus, in combination with the plating bath and electrical circuit, the carrier for the articles to be plated comprising in combination an endless sprocket-belt of two endless sprocket-chains secured to the ends of non-conducting bars, holders attached to said bars and having spring-actuated clamping jaws to receive and hold the articles to be plated, and contact-pieces to make electrical connection, and put said holders in circuit while traversing over the plating tanks, sprocket-wheels and guide-wheels for controlling the line of movement of said carrier, and means for imparting motion thereto, substantially as described. 23rd. In automatic electro-plating apparatus, the combination of a series of tanks, an endless carrier arranged to traverse over said tanks, means for moving and guiding said carrier, holders attached to said carrier and adapted to receive and hold the article to be plated and to make connection with the electrical circuit while traversing over the plating tanks, an automatic feeding apparatus comprising a grooved drum, a hopper, feeding plungers and means for actuating them, a cam for automatically opening the holders, and means for moving the carrier and feeding drum at corresponding speed, substantially as described. 24th. In automatic electro-plating apparatus, the combination of a series of tanks, an endless carrier arranged to traverse over said tanks, means for moving and guiding said carrier, holders attached to said carrier and adapted to receive and hold the articles to be plated and to make connection with the electric circuit while passing over the plating baths, an automatic feeding apparatus comprising a grooved drum, a hopper, feeding plungers, and means for actuating them, a cam for automatically opening the holders, means for moving the carrier and feeding drum at corresponding speed, and a cam for opening the holders to discharge the plated articles, substantially as described. 25th. In automatic electro-plating apparatus, the combination of a series of tanks, containing the proper cleaning, plating and washing solutions, an endless carrier arranged to traverse over said tanks, means for moving and guiding said carrier, holders attached to said carrier and adapted to receive and hold the articles to be plated, a contact piece attached to each of said holders, a connection of the positive pole of the circuit with each of the plating tanks, and a contact piece in connection with the negative pole of the circuit and extending over each plating tank contiguous to the path of the contact pieces of the holders and in position to be engaged in electrical connection therewith while said holders are passing the plating tank, substantially as described. 26th. In automatic electro-plating apparatus, the combination of a series of tanks containing the proper cleaning, plating and washing solutions, an endless carrier arranged to traverse over said tanks, means for moving and guiding said carrier, holders attached to said carrier and adapted to receive and hold the articles to be plated, a contact piece attached to each of said holders, a connection of the positive pole of the circuit with each of the plating tanks, and



negative contact piece consisting of a metal trough above each plating tank, said trough being in electrical connection with the negative pole of the circuit and containing mercury into which the contact pieces of the holders dip while passing the plating tank, substantially as described. 27th. In electro-plating apparatus, the combination with the plating bath, a negative contact piece arranged above the same and electrically connected with the negative pole of the circuit, and a carrier arranged to traverse above the bath, of the holders having a spring-actuated clamping jaw and a contact piece adapted to make contact with the negative contact piece and to move along the same as the holder traverses above the bath, substantially as described. 28th. In electro-plating apparatus in combination with the plating bath and a mercury trough electrically connected with the negative pole of the circuit, the holder for the articles to be plated comprising a spring-actuated clamping jaw and a hooked contact piece adapted to dip into the mercury trough, substantially as described. 29th. In electro-plating apparatus, in combination with the plating bath and a carrier arranged to traverse over the bath and having holders for the articles to be plated, each of which holders has a projecting contact piece, the negative contact piece extending above and along the bath in position to be engaged in moving contact by the contact pieces of the holders while they are passing the bath, and in electrical connection with the negative side of the circuit, substantially as described. 30th. In electro-plating apparatus, a plating tank having a metallic side or sides electrically connected with the circuit, in combination with the anode, and a conducting support for the anode in contact with the metallic side of the tank, substantially as described.

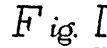
**No. 47,863. Multiphase Motor. (Moteur multiphase.)**



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Louis Bell, Chicago, Illinois, U.S.A., 10th January, 1895; 6 years.

*Claim.*—1st. In an electric motor of the inductive type, the combination with a revolving secondary member closed-circuited through a resistance moving therewith, of means for varying said resistance, as described. 2nd. In an electric motor of the inductive type, the combination with a revolving secondary member having a closed-circuited winding, of a resistance in said winding revolving therewith, and means for gradually lowering said resistance by successively short-circuiting portions thereof, as set forth. 3rd. In an electric motor of the inductive type, the combination with a revolving secondary member having a winding normally closed-circuited through a resistance revolving therewith, of circuit-closing devices such as switch-contacts mounted on said secondary member and revolvable therewith, and means for operating said circuit-closing devices to short-circuit successive portions of said resistance, as set forth. 4th. In an electric motor having a closed-circuited armature, the combination of resistances carried upon the armature between the coils and divided into sections with a switching mechanism carried upon the armature shaft and adapted to short-circuit the sections of the resistances successively. 5th. In an electric motor, the combination with a revolving secondary member closed-circuited through a resistance movable therewith, of a speed responsive device adapted to gradually remove said resistance from circuit as the speed increases, substantially as set forth. 6th. In an electric motor having a closed-circuited armature-winding, the combination with resistance in circuit with said winding and carried therewith upon the armature shaft, said resistances being divided into sections, of automatic switching mechanism also mounted on said armature shaft and responsive to the speed thereof, whereby successive sections of the resistance are short-circuited as the speed increases, as set forth.

**No. 47,864. Forgery Proof Bank Note Paper. (Papier à billets de banque à l'épreuve des faux.)**



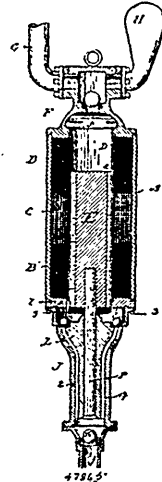
47864

Rodolph George Beker and Alexander Massau Farewell, both of Montreal, Quebec, Canada, 10th January, 1895; 6 years.

*Claim.*—A forgery proof paper for cheques, bank notes and other similar documents, having thick and thin parts in its area, so as to be palpable by the fingers, substantially as described.

**No. 47,865. Electro-Magnetic Reciprocating Pump. (Pompe réciproque electro-magnétique.)**

Fig. 1

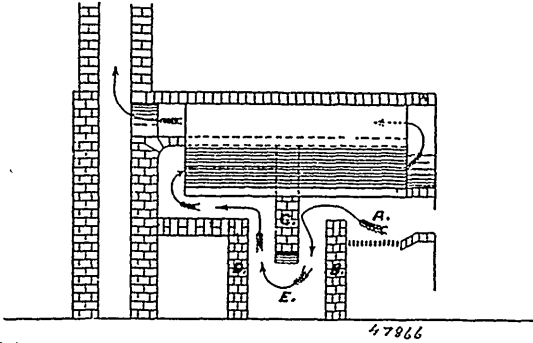


The Thomson-Houston International Electric Company, Portland, Maine, assignee of Charles A. Coffin, Boston, Massachusetts, and Albert Wahl, Chicago, Illinois, executors of the last will of Charles J. Van De Poble, late of Lynn, Massachusetts, all in the U.S.A., 10th January, 1895; 6 years.

*Claim.*—1st. A reciprocating electro-magnetic pumping engine, comprising motor coils, a magnetic plunger adapted to be reciprocated therethrough, a pump actuated by said plunger, and passages extending from the pump and through the electric engine and in proximity to the motor coils. 2nd. A reciprocating electro-magnetic pumping engine, comprising electric motor coils, a magnetic plunger adapted to be reciprocated therethrough, a pump actuated by said plunger, and connections between the pump and the electric engine whereby the pump liquid is passed through the engine. 3rd. A reciprocating electro-magnetic pumping engine, comprising electric motor coils, a magnetic plunger adapted to be reciprocated therethrough, and a pump piston actuated directly thereby, the mass or weight of the magnetic plunger being greater than that of the pump piston. 4th. A reciprocating electro-magnetic pumping engine, comprising electric motor coils, a magnetic plunger adapted to be reciprocated therethrough, a pump actuated by said plunger, and connections between the pump and the interior of the motor coils whereby the pumped liquid is passed therethrough before reaching the suction pipe. 5th. A reciprocating electro-magnetic pumping engine, comprising motor coils, a magnetic plunger adapted to be reciprocated therethrough under variations of current in the coils, a pump and mechanical connections between the piston thereof and the plunger of the reciprocating engine, and ports and passages connecting the pump with the interior of the engine. 6th. A reciprocating electro-magnetic pumping engine, comprising electric motor coils, a magnetic plunger adapted to be reciprocated therethrough, said plunger being formed with longitudinal passages, a pump actuated by said plunger, and passages extending between the pump and the interior of the motor coils whereby the pumped liquid is passed therethrough and through the passages in the plunger before

reaching the eduction pipe. 7th. An electro-magnetic pumping engine, comprising electric motor coils having an interior non-magnetic lining, a magnetic plunger adapted to be reciprocated there-through, and exterior iron envelope for the coils, a valve chamber at one end of said envelope, and a pump at the other end, the valve chamber and the pump closing the magnetic circuit of the envelope, and direct connections between the magnetic plunger and the pump piston.

**No. 47,866. Fumigator. (Fumivore)**

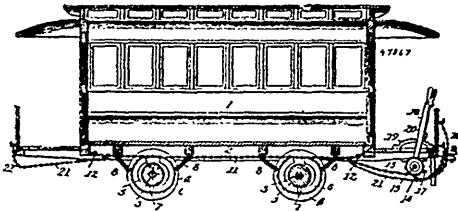


Alphonse Lamoureux et Adolphe Ouimet, Montréal, Québec, Canada, 10 janvier, 1895; 6 ans.

*Résumé.*—La combinaison des cloisons B. C et D, tel que décrit.

**No. 47,867. Car Brake. (Frein de chars.)**

Fig. 4.



George Hill Kinter, George Duncan Teller and George Tait, all of Buffalo, New York, U.S.A., 11th January, 1895; 6 years.

*Claim.*—1st. In a car brake, the combination with an axle and a brake-drum upon said axle, of contractile brake shoes suspended from the car frame and arranged around the drum, and a chain or cable, independent of the brake shoes, extending lengthwise of the car and having a loop or convolution surrounding said brake shoes, substantially as described. 2nd. In a car brake, the combination with a plurality of axles provided with brake drums, of brake shoes suspended from the car frame and arranged around the drums, and a chain or cable, independent of the brake shoes, extending lengthwise of the car, and having loops or convolutions surrounding the brake shoes, substantially as described. 3rd. In a car brake, the combination with a plurality of axles provided with brake drums, of brake shoes arranged around the drums and suspended from the car frame by yielding connections, and a chain or cable extending lengthwise of the car and having loops or convolutions surrounding the brake shoes, substantially as described. 4th. In a car brake, the combination with an axle and a brake drum upon said axle, of brake shoes surrounding the drum, a chain or cable extending lengthwise of the car and having a loop around the brake shoes, a winding-drum to which the chain is connected, a locking device for the winding-drum, and an extension of the chain from the winding-drum adapted to be connected to an adjoining car, whereby the brake is automatically set and the winding-drum locked when the cars become separated, substantially as described. 5th. In a car brake, the combination with a plurality of axles provided with brake drums, of brake shoes suspended from the car and arranged around the drum, a main chain or cable extending lengthwise of the car and having loops or convolutions surrounding the brake shoes, operating chains and winding-drums therefor for operating the brakes, and connecting chains for uniting the main chains of adjacent cars, substantially as described.

**No. 47,868. Cycle Driving Mechanism.**

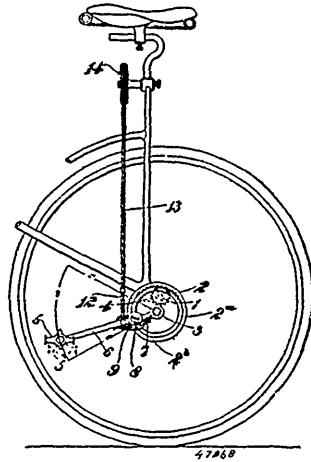
(Mécanisme conducteur de cycle.)

Thomas Browne and Francis Richard Martino, both of Heath House, Yardley Wood, Kings Heath, Birmingham, England, 11th January, 1895; 6 years.

*Claim.*—1st. In driving mechanism for a cycle, the combination,

with a driving wheel in connection with one of the cycle wheels, of a clutch adapted to partly rotate said driving wheel in one direction only and a pedal lever for operating said clutch, substantially as described. 2nd. Driving mechanism for cycles, comprising a toothed wheel in gear with one of the wheels of the cycle, a pedal lever with friction clutch adapted to engage and turn said wheel when moved

Fig. 1.



in one direction and to release it when turned in the opposite direction, and a movable fulcrum for said lever, substantially as herein described. 3rd. Driving mechanism for a cycle, comprising a pinion connected with one of the cycle wheels, an internally toothed wheel in gear with said pinion and journaled on a projection of the cycle frame, a pedal lever provided with lateral projections arranged at opposite sides of the rim of said toothed wheel so as to engage therewith when said lever is moved in one direction, and to release the said rim when moved in the opposite direction, a pivoted arm arranged to turn about the same centre as the said internally toothed wheel and to which said pedal lever is jointed, and means for slightly turning said pedal lever relative to said pivoted arm when said lever is relieved of downward pressure, substantially as described for the purposes specified. 4th. The combination, with a cycle of two sets of driving mechanism, each comprising a wheel in connection with one of the cycle wheels, a clutch adapted to engage said wheel when moved in one direction and a pedal lever for operating said clutch, and connecting means between the pedal levers of the two sets of driving mechanism and whereby one pedal lever when depressed will raise the other and *vice versa*, substantially as herein described. 5th. A driving mechanism for a cycle, comprising a pinion fixed to one of the wheels of the cycle, an internally toothed wheel having a plain ring at one side and in gear with said pinion, a pin carried by the cycle frame and whereon said toothed wheel is mounted, a link fitted to turn on said pin, a pedal lever jointed to the free end of said link and provided with lateral pins or projections arranged one at each side of said plain ring, a spring arranged between said link and pedal lever, and a guiding device carried by said lever and working against a way on said internally toothed lever, substantially as herein described for the purposes specified. 6th. In a cycle, the combination with the driving wheel thereof, of two sets of driving mechanism each comprising a pinion 1, internally toothed wheel 2, with ring 3, a pedal lever 6, with lateral projections 6a, 6b, a link 7, and spring 9, these parts being arranged substantially as described and shown, and a flexible connection 13 connected to the two pedal levers and passing over a guide pulley, carried by the cycle frame, substantially as and for the purposes specified.

**No. 47,869. Blasting Powder. (Poudre de mine.)**

Benjamin Cory Pettingell, Victoria, British Columbia, Canada, 11th January, 1895; 6 years.

*Claim.*—1st. The process of mixing the coal or coke dust with the nitre in solution instead of dry as heretofore. 2nd. The use of wood pulp in connection with nitre and sulphur, with or without other ingredients, in the manufacture of explosives. 3rd. The following composition, namely, 60 parts by weight of nitre, 20 parts of coal or coke dust, 16 parts of sulphur and 4 parts of wood pulp.

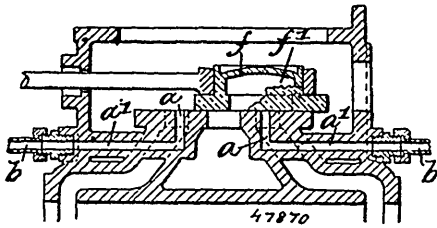
**No. 47,870. Compound Locomotive Engine.**

(Locomotive composée.)

Karl Gölsdorf, Favoritenstrasse, Austria, Hungary, 11th January, 1895; 6 years.

*Claim.*—1st. In compound locomotive engines, the combination with the low pressure slide valve, of a valve seat therefor provided

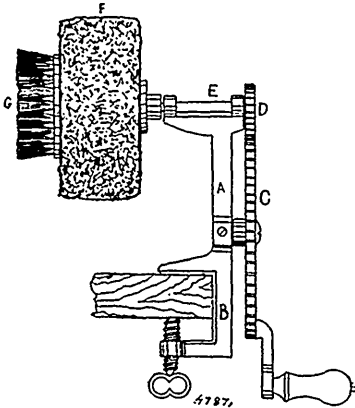
with the usual steam ports and with two auxiliary steam ports in perpetual communication with the source of live steam, adapted to be covered and uncovered by the said valve under certain conditions of cut-off, for the purpose set forth. 2nd. In compound locomotives, the combination with the low pressure slide valve, of a seat there-



for provided with the usual steam ports and with two auxiliary steam ports in perpetual communication with the live steam supply and arranged relatively to the slide valve so as to be normally covered thereby and uncovered to admit live steam to one or the other side of the low pressure piston according to the direction in which the engine is to move whenever the normal cut-off point is exceeded, for the purpose set forth. 3rd. The herein described means for starting compound locomotives, which consist in the combination with the low pressure slide valve, of a valve seat therefor provided with the usual steam ports and with two auxiliary steam ports *a, a*, in perpetual communication with the live steam supply, said ports arranged relatively to the valve so as to be closed steam-tight thereby during the normal operation of the engine, and to be uncovered by said valve when the cut-off point exceeds the normal whereby live steam may be admitted to the side of the low pressure piston corresponding with the direction in which the locomotive is to move to start the same through the medium of said piston only, and whereby after closure of said ports and the consequent cessation of counter-pressure on the high pressure piston the locomotive can be set in motion through the medium of the latter piston, substantially as set forth.

**No. 47,871. Boot and Shoe Polishing Machine.**

(*Machine à polir les chaussures.*)



Frederick Bowden Skimmer, Gulph, Ontario, Canada, 11th January, 1895; 6 years.

*Claim.*—The boot and shoe polishing machine, consisting of a revolving brush or brushes, of any suitable shape, driven at a high rate of speed by means of gearing or belts, together with a special clamp with extra wide top and back, for securing the machine to a table or bench, the whole combined and operating as and for the purpose set forth, as hereinbefore described and illustrated in the drawing.

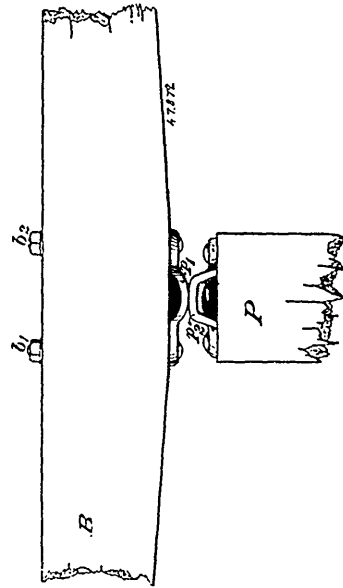
**No. 47,872. Walking Beam Iron.**

(*Tige de balancier.*)

Thomas Bicknell, Petrolea, Ontario, Canada, 11th January, 1895; 6 years.

*Claim.*—1st. The central or fulcrum bearings of a walking-beam or similar mechanism, composed of irons or plates of metal, having convex curved, or cylindrical surfaces, held in rocking contact, with their generatrices parallel, by means of one or more projecting parts of the one fitting into one or more slots or holes in the other, for the purposes set forth. 2nd. The central or fulcrum bearings of a walking-beam or similar mechanism, composed of two irons or

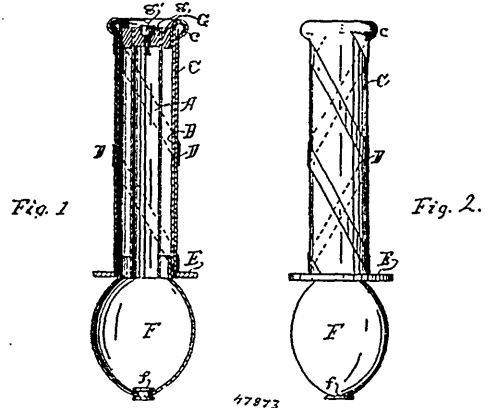
plates of metal having convex curved or cylindrical surfaces held in rocking contact with their generatrices parallel by means of two



anchor lugs or projecting parts of one fitting into two slots or holes in the other, substantially as shown and described, and for the purpose specified.

**No. 47,873. Electric Uterine Battery.**

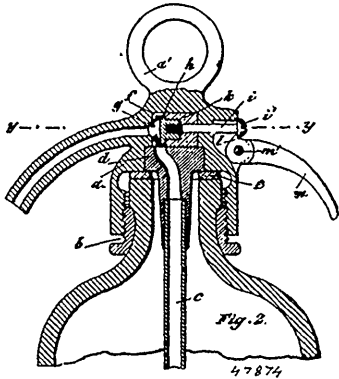
(*Pile utérine électrique.*)



Charles E. Hebard, Grand Rapids, Michigan, U.S.A., 11th January, 1895; 6 years.

*Claim.*—1st. The combination, in a uterine battery, of an inner perforated tube, a solid outer tube, a zinc head, at one end of said tubes, and a silver flange at the other end, and a copper ribbon connecting the two, substantially as shown and described. 2nd. The combination, in a uterine battery, of a perforated inner tube, a solid outer tube, an absorbent material between the tubes, said absorbent saturated with a volatile medicinal compound, a stopper and valve at one end, a soft rubber jacket over the outer tube, a zinc head in one end and a silver flange on the other end, a copper ribbon connecting the two, substantially as shown and described. 3rd. In a uterine battery, a perforated inner tube, a solid outer tube, an absorbent substance containing a volatile medicinal compound between the tubes, a zinc head at one end, a metallic flange at the other end, a soft rubber jacket encasing the outer tube, a copper ribbon encircling the jacket and connecting the zinc head and metallic flange, and a soft fold at the end of the jacket, substantially as set forth. 4th. In a uterine battery, a perforated inner tube, an outer tube, an absorbent and a volatile medicinal compound between said tubes, a zinc head, a silver flange and a copper ribbon connecting them, with a bulbous elastic air injector attached to the end of the tubes, substantially as and for the purpose set forth.

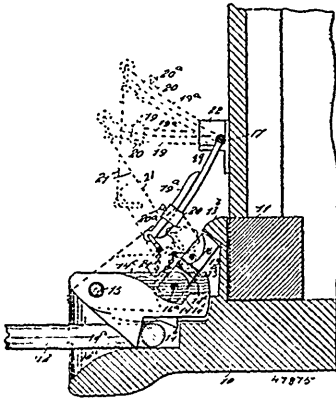
**No. 47,874. Device for Closing Bottles, Etc.**  
(Appareil pour boucher les bouteilles etc.)



Alexander Frankl, assignee of Johann Macek, both of Budapest, Hungary, 11th January, 1895; 6 years.

*Claim.*—1st. A syphon head consisting of a valve chamber with which communicates the exit pipe closed by the valve stopper *g* which moves horizontally, and is pressed against the exit by means of an india-rubber sleeve *k* or a spring *s* and by which the opening for the valve spindle or screw *i* is made tight. 2nd. A syphon head in which the horizontal valve stopper is pressed against the exit pipe by an india-rubber sleeve *k* or a spiral spring *s*, inclosed on all sides with india-rubber, whereby the passage for the valve spindle or screw *i* is also made tight. 3rd. A syphon head having a lever *m*, and a ring *a'* cast to the body of the syphon head for carrying the bottle. 4th. For the purpose of attaching the syphon head to the bottle, a boss *b*, slotted longitudinally on one side in order to allow of the boss being pushed over the bottle.

**No. 47,875. Car Coupler.** (Attelage de chars.)

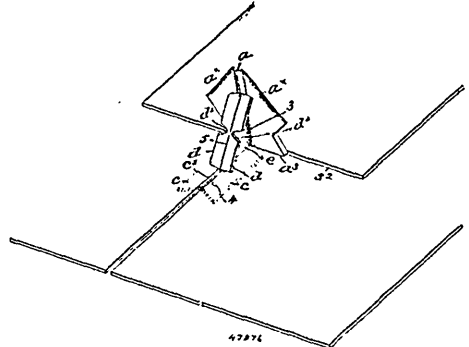


Andrew D. Alden, Brockport, Pennsylvania, U.S.A., 14th January, 1895; 6 years.

*Claim.*—1st. The combination with a recessed draw-head, having its top wall longitudinally slotted, of a latch hook pivoted in said slot and provided with a depending nose, and a gravity link pivoted to said hook and adapted to be actuated to lock the same to the draw-head, substantially as described. 2nd. The combination with a recessed draw-head, slotted in its top wall from the front edge rearward, of a pivoted latch hook having a depending nose, a gravity link pivoted to said hook and adapted to be actuated to lock the same to the draw-head hook connected to and adapted when actuated to lift said link whereby the hook is unlocked from the draw-head, and a lifting device for the hook, substantially as described. 3rd. The combination with a recessed draw-head slotted in its top wall from the front edge rearward, and having an upright projection behind the slot, of a gravity latch hook pivoted in the slot in front of its depending nose, and a device adapted by gravity to lock on the draw-head projection and hold the latch hook, and release said hook when lifted to clear said projection, substantially as described. 4th. The combination, with a forwardly recessed draw-head, having its top wall slotted from the front edge rearward and having an upward projection that inclines forwardly on said top wall at the rear end of the slot, of a gravity latch hook pivoted in the slot in front of its depending nose, a link pivoted on the latch hook behind its nose and

adapted to lock below on the inclined wall of the draw-head projection, and a device to draw the link forwardly and upwardly for the release of the latch hook, substantially as described. 5th. The combination, with a recessed and top slotted draw-head, of a gravity latch hook pivoted in the slot in the draw-head in advance of the nose of the hook, a furcated link pivoted on the latch hook behind its nose, and adapted to rock rearward below a projection from the draw-head and hold the latch hook depressed, and a device on the car adapted for actuation from either side of the car, and which will forwardly rock the link to release it and the latch hook, substantially as described. 6th. The combination, with a recessed and top slotted draw-head, having a recessed bracket block on its top at the rear end of the slot, a gravity latch having a depending hook nose and pivoted in the slot in advance of said nose, a lifting link pivoted on the latch hook behind the hook nose, and adapted to rock rearward below the top wall of the recessed bracket block, and an elongated coupling link, of a coupling link releasing device comprising the rock-shaft on the car, an extensible arm on said shaft, the stopped block on the shaft and car adapted for engagement by the lifting arm, and a flexible connection between the arm and lifting link, substantially as described.

**No. 47,876. Snow Guard.** (Garde-neige.)

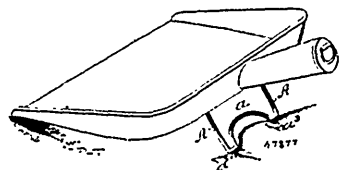


Henry Mitchell Esselen, Boston, Massachusetts, U.S.A., 14th January, 1895; 6 years.

*Claim.*—1st. A sheet metal snow guard composed of outwardly extended supporting wings, an upturned snow stop integral therewith, and having a flat extended foot to rest upon the slates, and a body portion rigidly connecting said stop and wings, and in a plane at right angles to both, substantially as described. 2nd. A sheet metal snow guard composed of outwardly extended supporting wings bent up at their inner edges to form a body portion, outwardly turned ears or braces thereon to rest upon the top of and grip the slate, and a snow stop integral with and at right angles to said body portion and wings, substantially as described. 3rd. A sheet metal snow guard composed of wings to be held by and beneath two adjacent slates of a course, a snow stop adapted to rest on the upper surface of said slates, a rigid body connecting said stop and wings, and lateral outwardly turned braces secured thereto, and interposed between the tops of the adjacent slates and the back of the stop, substantially as described. 4th. A snow guard composed of sheet metal bent to form a snow stop, a body portion having outwardly turned braces to bear against the back of and support the stop, and with out-turned wings integral with said body portion, substantially as described.

**No. 47,877. Foothold for Dust Pans.**

(Appui de porte-ordure.)

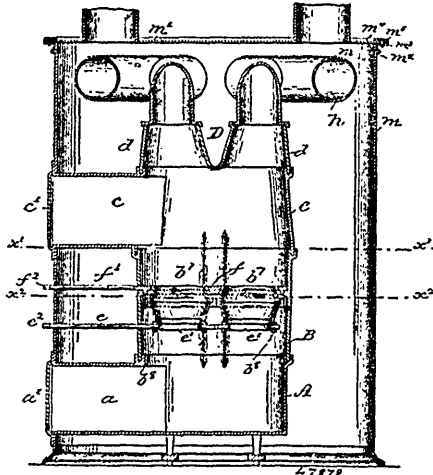


Olin Merchelon Barber, Port Richmond, New York, U.S.A., 14th January, 1895; 6 years.

*Claim.*—1st. In combination with a dust pan having loops on its bottom, a foot hold made in one piece of wire comprising two downwardly and rearwardly extending arms, whose upper ends have forward and downward extensions engaging such loops, and whose lower ends rest upon the floor, and a foot engaging piece connecting said lower ends, and extending upward and forward therefrom, substantially as and for the purpose described. 2nd. In combination with a dust pan having loops on its under side, a foot hold

made in one piece of wire, comprising two downwardly and rearwardly extending arms, whose upper ends are carried laterally and then downward and forward and engage said loops, and whose lower ends have straight inwardly and horizontally extending floor engaging portions from the inner ends of which rises a forwardly extending, arched, foot engaging portion, substantially as and for the purpose shown.

**No. 47,878. Heating Apparatus. (Appareil de chauffage.)**

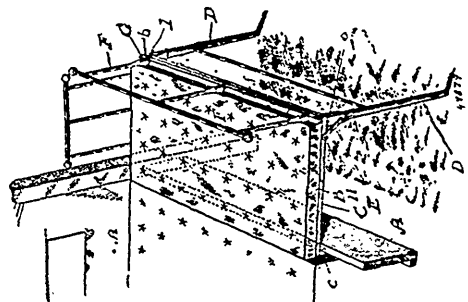


Henry Ransom Luther, Cambridge, Massachusetts, U.S.A., 14th January, 1895; 6 years.

**Claim.**—1st. A heating apparatus, containing a multi-pocket fuel-support, and an inclosing fire-pot therefor having an irregular concavo-convex outline, the convex portions of the said fire-pot inclosing said pockets, and the concave portions entering between adjacent pockets to provide a substantially uniform distribution of upper grate surface around the several pockets, free from corners, and enabling the said pockets to properly supply gases to and for perfect combustion of fuel upon the said surrounding upper grate surface, substantially as described. 2nd. A heating apparatus, containing a multi-pocket fuel support, and an inclosing fire-pot therefor having an irregular, concavo-convex outline, the convex portions inclosing the several pockets, and the concave portions entering between adjacent pockets to provide a substantially uniform distribution of upper grate surface around the several pockets, avoiding corners, and a full convex heating chamber surmounting the concavo-convex fire-pot, substantially as described. 3rd. A heating apparatus, containing a multi-pocket fuel-support, and an inclosing fire-pot therefor, having an irregular, concavo-convex outline, the convex portions inclosing the several pockets, and the concave portions entering between adjacent pockets to provide a substantially uniform distribution of upper grate surface around the several pockets free from corners, a full convex heating chamber surmounting the concavo-convex fire-pot, and a full convex ash-pit beneath said fire-pot, both the said heating chamber and ash-pit blending from the full convex outline to the irregular, concavo-convex outline of the fire-pot, substantially as described. 4th. A heating apparatus, containing a fire-pot, and a multi-pocket fuel-support, a heating chamber surmounting the said fire-pot and provided with a plurality of smoke-exits arranged directly over as many pockets to cause a substantially vertical central draft for each of said pockets, substantially as described. 5th. In a heating apparatus, a fire-pot containing a fuel-support, a heating chamber surmounting the said fire-pot, a plurality of smoke-exits at the top of said heating chamber, and a curved radiation flue having its opposite ends joined to and terminating in one of said exits, and an outlet for said curved radiation flue, intermediate its ends, substantially as described. 6th. In a heating apparatus, a fuel-support comprising an upper grate surface, one or more coking pockets depending therefrom, and lower grate surfaces in the bottoms of said pockets, the said pockets being enlarged or increased in diameter below their mouths to thereby increase their coking capacity without changing the ratio of the area of the pocket mouths to the surrounding upper grate surface, substantially as described. 7th. In a heating apparatus, a pocket grate, consisting of an upper grate surface mounted to be rocked upon diametrically opposite journals, and a lower grate surface arranged within and near the bottom of said pocket and also mounted to rock upon diametrically opposite journals in line axially with the journals in the said upper grate surface, both said journals being extended through the inclosing casing to the front of the apparatus to be rocked therefrom, substantially as described. 8th. In a heating apparatus, a pocket grate, consisting of an upper grate surface, a pocket-support, an independent pocket carried by said support, and

a lower grate surface suspended by and mounted to rock in said pocket, substantially as described. 9th. In a heating apparatus, a pocket grate, consisting of an upper grate surface, a plurality of pockets depending therefrom, and lower grate surfaces in the said pockets, means to rock one of said lower grate surfaces, and connecting arms on adjacent lower grate surfaces, one slotted at its end to receive the other, whereby both are rocked in unison, and either removable independently of the other, substantially as described. 10th. In a heating apparatus, an outside inclosing case, provided at its top with a flange, a crown sheet laid thereon, and a retaining ring arranged upon the said crown sheet, and means to secure the said retaining ring and flange, one to the other, substantially as described. 11th. An inclosing case, comprising side and crown sheets, and detachable connections uniting the two at their abutting edges, substantially as described. 12th. In a heating apparatus, a dome or heating chamber provided at its top with a plurality of exit openings of an aggregate area or approximating that of the horizontal area of the dome, and a radiation flue or flues connected therewith, and extended outwardly beyond the vertical sides of the said dome, whereby the heat, usually concentrated in and beneath the top of the dome, is concentrated in the said radiation flue or flues for better utilization in heating the air, substantially as described. 13th. In a grate, a fire-pot, and an upper grate surface supported thereby, a pocket-support arranged beneath said upper grate surface, a series of pockets arranged thereon and depending from the said upper grate surface, and lower grate surfaces in the said pockets below the said upper grate surfaces surrounding the upper ends of the pockets, substantially as described. 14th. In a heating apparatus, a fire-pot, and an upper grate surface supported thereon, a pocket-support arranged beneath said upper grate surface, a series of circular pockets carried by said pocket-support and depending from the said upper grate surface, and lower grate surfaces arranged in the said pockets below said upper grate surface surrounding the upper ends of the pockets, substantially as described. 15th. In a heating apparatus, a fire-pot, and an upper grate surface therein, a pocket-support, and a series of coking pockets carried thereby and depending from said upper grate surface, and lower grate surfaces arranged in the bottoms of said pockets, combined with independent shaking means for the upper and lower grate surfaces, substantially as described. 16th. In a heating apparatus, a fire-pot, an upper grate surface supported therein, means to shake said upper grate surface in sections, a series of independent pockets depending from said upper grate surface, a pocket-support, a series of lower grate surfaces in the said pockets, and a common axis connecting said lower grate surfaces in series, whereby they may be rocked, substantially as described. 17th. In a grate of the class described, the combination with upper and lower grate surfaces, of one or more pockets depending from the former and inclosing the latter, said pocket or pockets being provided with one or more lateral inlet openings to admit air or gas to assist in the combustion, substantially as described. 18th. In a grate of the class described, the combination with upper and lower grate surfaces, of pockets depending from the former and inclosing the latter, said pockets having tangential or angular openings through which air or gas may enter to assist in the circular movement of the gases within the pockets, substantially as described. 19th. In a grate of the class described, the combination with upper and lower grate surfaces, of pockets depending from the former and inclosing the latter, and upwardly and outwardly inclined baffle surfaces on the sides of the said pockets to deflect the air or gases rising between the same away from the side walls of the pockets at the tops of the latter, substantially as described.

**No. 47,879. Bed for Infants. (Lit pour enfants.)**

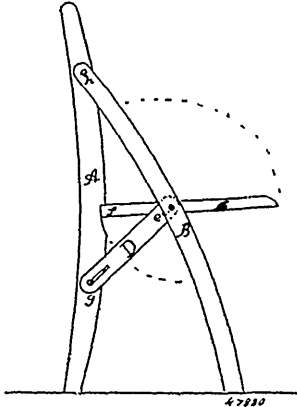


Andrew Joseph McDonagh, Toronto, Ontario, Canada, 14th January, 1895; 6 years.

**Claim.**—1st. The combination with an ordinary bedstead, of a smaller supplemental bed consisting of a frame adapted to support a mattress and detachably connected at one side to the larger bed and having suitable legs connected to it at or near its outer edge, substantially as and for the purpose specified. 2nd. The combination with the bedstead A, of the supplemental bed B, consisting of the frame C, detachably connected at one side to the bedstead A, the legs D, hinged at e, the hooks E, and pins H, substantially as

and for the purpose specified. 3rd. The combination with the bedstead A, of the supplemental bed B, consisting of the frame C, detachably connected at one side to the bedstead A, the legs D, hinged at a, the hooks E, pins H, the rail F, hinged at b, the hooks G, and pins I, substantially as and for the purpose specified. 4th. A supplemental bed comprising the following elements: the frame C, cleat c, legs D, hinged at a, the hooks E, pins H, the rail F, hinged at b, the hooks G, and pins I, substantially as and for the purpose specified.

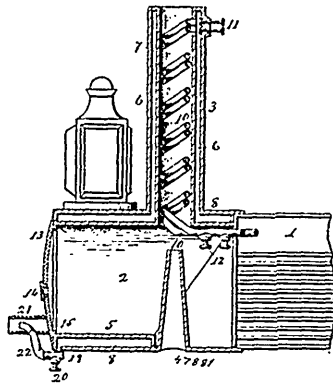
**No. 47,880. Folding Chair. (Chaise pliante.)**



Ronald Gillis, Sydney, Nova Scotia, Canada, 14th January, 1895; 6 years.

*Claim*—1st. The combination of the piece A and the piece B, with the link D and the seat E, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the piece C or seat with the piece B and the notch f in the piece A substantially as and for the purpose hereinbefore set forth.

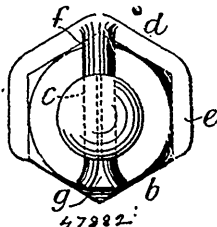
**No. 47,881. Device for Burning and Ejecting Cinders. (Appareil pour brûler et rejeter les cendres.)**



Robert Hartley McEerson, Turner, Illinois, U.S.A., 14th January, 1895; 6 years.

*Claim*—A locomotive having an extension, an annular water space, an opening in the front of the extension and a damper closing said opening.

**No. 47,882. Nut Lock. (Arrête-écrou.)**

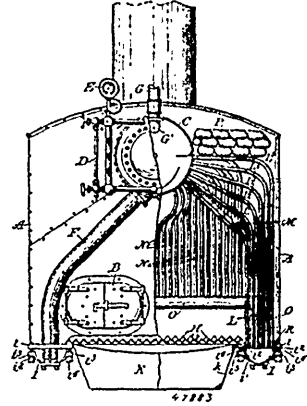


Julius Evinof, London, England, 14th January, 1895; 6 years.

*Claim*—1st. A device for locking nuts upon screw-bolts consisting

of a strap or clip adapted to partly embrace the sides of the nut, and provided with a projection adapted to enter a hole situated in a definite position in relation to the nut, as and for the purpose specified. 2nd. A device for locking nuts upon screw-bolts consisting of a strap or clip adapted to partly embrace the sides of the nut, and provided with a split pin or projection adapted to enter a hole in the bolt, substantially as and for the purpose specified. 3rd. The combination with a nut and a bolt having a hole e, in the end thereof, of a nut locking device consisting of a strap or clip adapted to embrace the sides of the nut and having a split pin entering the hole in the bolt, the several parts being arranged and operating, substantially as and for the purpose specified.

**No. 47,883. Steam Boiler. (Chaudière à vapeur.)**



Charles Lincoln Seabury, Nyack, New York, U.S.A., 14th January, 1895; 6 years.

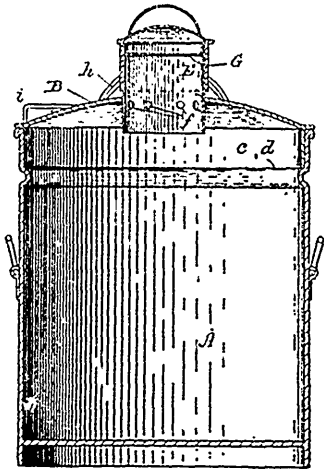
*Claim*—1st. In a water-tube steam-boiler, the combination of an inclosing shell or casing, a drum extending from end to end of said casing, two manifolds extending from end to end of said casing below said drum and parallel therewith, one at each side of the combustion chamber, diverging water-legs connecting said drum to said manifolds, and a plurality of longitudinal series of water-tubes extending from end to end of the drum, said water-tubes being carried straight up from said manifolds, and then bent at a right or obtuse angle, the bent arms entering said drum radially, and a baffle-plate supported by the bent arms of the inner series of water-tubes and extending from end to end of the shell or casing from the drum downwardly and outwardly toward the bend of said arms to direct the products of combustion downwardly and outwardly among the other tubes, a space being left between the lower edge of the baffle-plate and the shell or casing in which space the outer series of tubes stand, substantially as shown and described. 2nd. In a water-tube steam-boiler, the combination of a drum, two manifolds below said drum and parallel therewith, one at each side of the combustion chamber, diverging water legs connecting said drum to said manifolds, a plurality of longitudinal series of water-tubes extending from end to end of the drum carried straight up from said manifolds and then bent at a right or obtuse angle, the bent arms entering said drum radially, a baffle-plate supported by the bent arms of the inner-series of water-tubes, and extending from the drum downwardly and outwardly toward the bend of said arms to direct the products of combustion downwardly and outwardly among the other tubes, and a feed-water heater supported above the horizontal arms of the outer series of tubes and above the baffle-plate N, substantially as shown and described. 3rd. In a water-tube steam-boiler, a manifold composed of a flattened tube-plate having longitudinal grooves in its under side, a curved under plate the edges of which enter the longitudinal grooves in said tube-plate, lugs secured to said under plate, and bolts engaging said lugs to secure said under plate to said tube-plate, substantially as shown and described. 4th. In a water-tube steam-boiler, the combination of a drum, a manifold having a flat tube-plate, water-tubes connecting said drum and manifold, and a perforated steam pipe laid upon said tube-plate and parallel with the series of water-tubes, substantially as shown and described. 5th. In a water-tube steam-boiler, the combination of an inclosing shell or casing, a drum, side manifolds, water-legs connecting said drum with said side manifolds, water-tubes connecting said drum with said side manifolds, a rear transverse manifold extending substantially from side to side of the casing and connected to the rear ends of said side manifolds, and a series of water-tubes connecting said drum and said rear manifold and arranged to form a water-back for the combustion chamber, substantially as shown and described.

**No. 47,884. Milk Can. (Bidon à lait.)**

Joseph Cyprien Thibault, Arthabaskaville, Quebec, Canada, 14th January, 1895; 6 years.

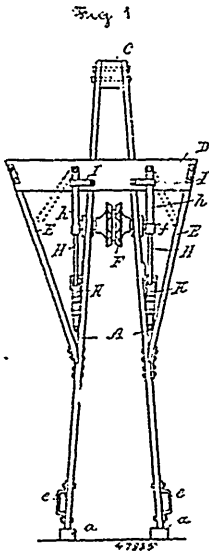
*Claim*—1st. In a milk can, a shoulder formed by a crease in the

side, or wall of the can, to hold against the band of the can cover. 2nd. A milk can cover, provided with a strainer, which is composed of a hollow cylinder fixed in the cover and protruding from it, both



outwardly and inwardly, and with perforations in said cylinder, and a perforated end. 3rd. A milk can cover having a milk strainer fixed in it, and a cap having an opening in its top, to fit over said strainer. 4th. In combination with a milk can, a cooling vessel having a perforated bottom, and a hollow cylindrical stock fixed to its under side, to stand upon a perforated cylinder, fixed in the cover of the milk can, all substantially as and for the purposes set forth.

No. 47,885. Stump Extractor. (*Arrache-souches*.)



Mathias Jannis, Maniwaki, Quebec, Canada, 14th January, 1895; 6 years.

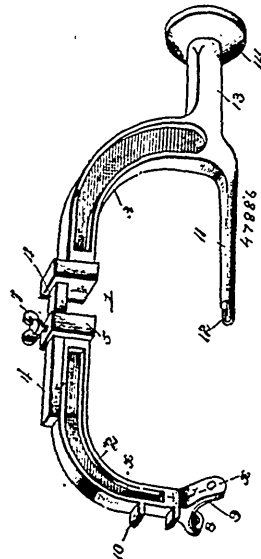
*Claim.*—In a stump extractor, the combination with a chain drum secured on an axle journalled in converging upright legs, suitably braced, of ratchet-wheels secured on either end of the said axle, pawls pivoted to levers operating the said ratchet-wheels, detents engaging the said ratchet-wheels, and means for keeping the said pawls and detents in engagement and for disengaging the same, substantially as set forth.

No. 47,886. Wagon Jack. (*Chêvre de carrosserie*.)

Samuel J. Johnston, Leesburg, Virginia, U.S.A., 14th January, 1895; 6 years.

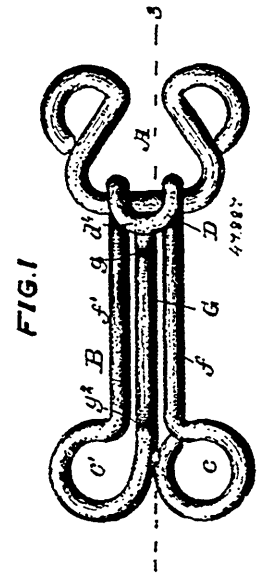
*Claim.*—1st. In a carriage and wagon jack, a sectional bowed jack-arm consisting of separate curved members, and an adjustable connection between the inner ends of said members, substantially as

set forth. 2nd. In a jack of the class described, a sectional bowed jack-arm consisting of separate curved members, one of which is provided at its inner end with a connecting bar projected from one side, and the other end with members being provided at its inner end with a slide loop loosely receiving said connecting bar, and a set



screw mounted in said slide loop and impinging on said connecting bar, substantially as set forth. 3rd. In a jack of the class described, the combination of a sectional bowed jack-arm consisting of separate curved members adjustably connected together, and one of which is provided at its rear outer end with a fulcrum fork and an adjacent fork and an adjacent notched rest lug, and the other of which arms is provided at its outer end with an inwardly disposed jack spindle, and an outwardly disposed handle and foot arm having a flat rest base at its outer extremity, substantially as set forth. 4th. A carriage or wagon jack made of two sections or members adjustably connected together and comprising a bowed jack-arm provided at one end with a fulcrum rest and a rest lug, and at the opposite end with an inwardly disposed jack spindle, and a handle and foot arm having a rest base, substantially as set forth.

No. 47,887. Hook and Eye. (*Crochet et œillet*.)



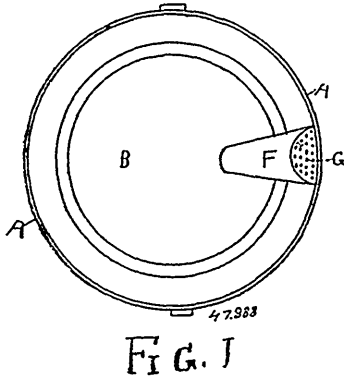
Charles Edward Hollowell, Philadelphia, Pennsylvania, U.S.A., 14th January, 1895; 6 years.

*Claim.*—In a hook and eye fastening, a hook formed from a single



piece of wire and comprising a shank portion consisting of two straight parallel members  $f, f^1$ , bent to form the eyes  $e, e^1$ , at one end, and at the other end bent to form the downwardly inclined hook D, and the tongue G lying in a plane above the shank portion and at its free end curved downward and then upward, and at its extreme end bevelled as at  $g^1$ , and bearing against the underside of the portion  $d^1$  of the hook D, and the eye A, seated in said hook against lateral movement, substantially as described.

**No. 47,888. Cooking Vessel. (Ustensile de cuisine.)**

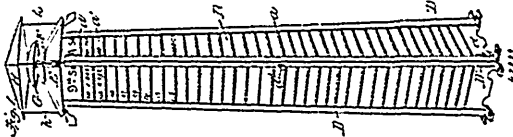


Archibald Fairgrieve, Toronto, Ontario, Canada, 14th January, 1895; 6 years.

*Claim.*—1st. The combination of the cover C with the perforated quarter-section H and the slide D, substantially as and for the purpose hereinbefore set forth. 2nd. In a cooking vessel, the combination of the tube F, with perforated top G, substantially as and for the purpose hereinbefore set forth.

**No. 47,889. Directory Posts and Call Boxes.**

(Boîte à lettres et avertisseur.)



John Telfair Field, St. Louis, Missouri, U.S.A., 14th January, 1895; 6 years.

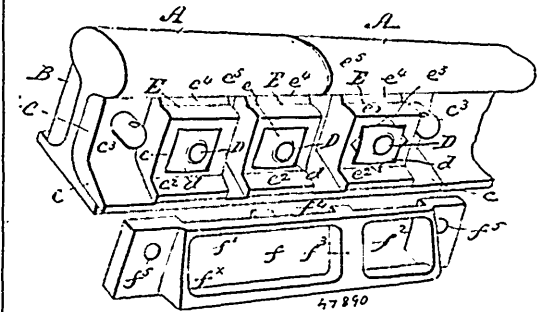
*Claim.*—1st. In a directory post, the combination with panels having transverse ribs on their faces, of angle irons which secure the panels together, said angle irons fitting over the corners of the ribs, plates which are spaced by the ribs and secured by the angle irons in place, and a hinged angle iron which swings horizontally to permit the insertion or removal of the plates from two sides, substantially as described. 2nd. In a directory post, the combination with panels having ribs arranged transversely their faces, angle irons arranged at the corners of the panels, one of which is hinged to swing horizontally, a lock for the hinged iron, tongued projections extending obliquely from the tops of the panels, and a cap or cover formed with ways which engage the tongues to hold the cap or cover in position, substantially as described. 3rd. In a directory post, the combination with the panels, two of which are provided with ribs across their faces, the others being formed with openings leading to the interior, and provided with doors for the openings, angle irons for holding the panels together, said irons where they connect with the ribbed panels being arranged on the outer faces of the ribs so as to leave a space, plates which are arranged between the ribs and received in the spaces formed by the angle irons at the corners, and an angle iron hinged at its top and bottom at the junction of the two ribbed panels and adapted to swing horizontally, said hinged angle iron holding the plates against displacement on each side, substantially as described. 4th. In a directory post, the combination with the panels, of name plates or sign-boards which are adapted to be secured to some of said panels, angle irons for retaining said sign boards in position and holding the panels together, one or more of said panels being formed with openings giving access to the interior, doors for closing said openings, a cap piece, for the post, and a bell mounted upon the cap piece, substantially as described.

**No. 47,890. Nut Lock. (Arrête-touche.)**

Mary E. Odgers and Peter A. Benham, both of Bonnac Terre, Missouri, U.S.A., 14th January, 1895; 6 years.

*Claim.*—1st. In a nut-lock, the combination with the rail sections, fish-plates and locking bolts and nuts, of a series of individual blocks

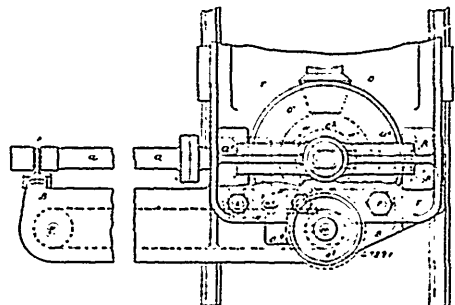
fitted over said nuts, and a rigid locking plate or frame applied over said blocks, substantially as described. 2nd. In a nut-lock, the combination with the rail sections, fish-plates and locking bolts and nuts, of a series of blocks fitted over said nuts, a locking plate or



frame applied over said blocks, and securing bolts for said frame or plate, substantially as described. 3rd. In a nut-lock, the combination with the nuts, of a series of blocks fitted thereover having lower flanges, and a locking frame or plate applied over said blocks, substantially as described. 4th. In a nut-lock, the combination with the nuts, of a series of blocks fitted thereover, and a locking plate applied over the blocks and having one or more lugs which are adapted to fit in the spaces between said blocks. 5th. In a nut-lock, the combination of the nut, of a series of blocks fitted thereover and provided with lower flanges, a locking plate or frame mounted over said blocks and provided with a central outward projection with one or more openings therein and forming upper and lower bars, said upper bar having one or more lugs fitting between said blocks, and end securing bolts for removably holding said plate or frame in position, substantially as described.

**No. 47,891. Machine for Cutting Coal, Stone, Etc.**

(Appareil pour couper le charbon à pierre, etc.)

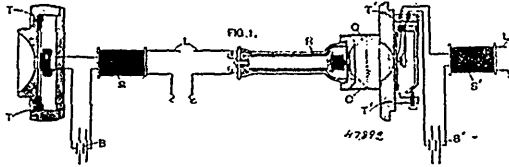


Thomas Heppell, Leafield House, Chesterle Street, William Patterson and John George Patterson, both of Hardwicke Terrace, Gateshead, all in Durham, England, 15th January, 1895; 6 years.

*Claim.*—1st. A machine for cutting coal, stone and similar hard substances, consisting of a backstay B, pivotally secured to a suitable trolley T, recessed radial slots adapted to receive T-headed bolts, connecting the trolley with the backstay, a cutter-bar A, mounted in bearings  $A^1, A^2$ , on the inner end of the said backstay, and a sliding bearing K, at the outer end of the said backstay, means for rotating and reciprocating the said cutter-bar, and a debris removing apparatus, a scraper chain, substantially as set forth. 2nd. In a machine for cutting coal, stone and similar hard substances, the combination with a backstay B, pivoted to a suitable trolley, and means for locking the said backstay in its working position, of the cutter-bar A, mounted in bearings  $A^1$  and  $A^2$ , on the inner end of the said backstay, and a sliding bearing K, at the outer end of the said backstay, cams R,  $R^1$ , on the inner end of the said cutter-bar, a fixed pin  $S^1$ , on the said backstay engaging the said cams, a conveyer or chain or debris removing apparatus carried on wheels journaled in the said backstay at M, M, and means for revolving the said cutter-bar and wheels carrying the said debris removing apparatus, substantially as set forth. 3rd. In a machine for cutting coal, stone and similar hard material, the combination with a cutter-bar A, carried in suitable bearings at the inner end of a backstay, and adapted to be revolved and reciprocated, of the sliding bearing K, consisting of the bar A, being reduced at S, a recessed sleeve 9, a collar 10, having an arm 11, and terminating in a slotted head-piece 12, a recessed sleeve 13, screwed on to the end of the said bar A, a pin  $N^2$ , passing through the forked end of the backstay and through the slot in the said head-piece 12, and teeth

or cutters fitted in the said sleeves 9 and 13, and the bar A, substantially as set forth.

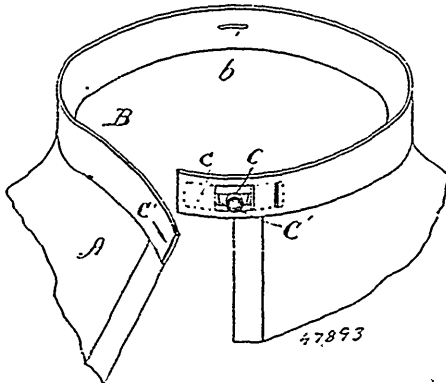
**No. 47,892. Telephonic Relay. (Relais téléphonique.)**



George Gillmore, Douglas, Isle of Man, 15th January, 1895; 6 years.

*Claim.*—1st. A telephonic relay consisting essentially of a telephonic receiver, a sound chamber, and a telephonic transmitter, arranged substantially as hereinbefore described and as illustrated by the accompanying drawings. 2nd. In a telephonic relay, the combination and arrangement with a telephonic receiver and transmitter, of a sound chamber, substantially as and for the purpose hereinbefore described and as illustrated by the accompanying drawings. 3rd. In a telephonic receiver, the combination and arrangement with a telephonic transmitter and receiver of a single tympanum or diaphragm acting for both the transmitter and receiver, and a sound chamber, substantially as hereinbefore described and as illustrated by the accompanying drawings.

**No. 47,893. Shirt Collar Fastener and Adjusting Device. (Attache pour faux-cols et appareil pour ajuster.)**

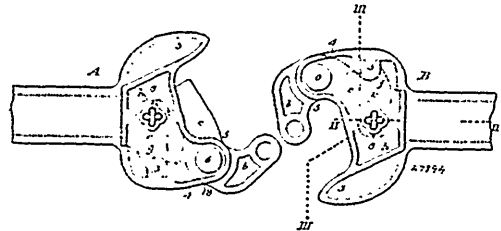


James B. Wolgenuth, Pierre; and George S. Engle, Aberdeen, all in South Dakota, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. A shirt collar-fastener button-holder and adjusting device, adapted to hold the collar-button as well as the collar from the back of the neck, substantially as described. 2nd. A shirt collar button-holder and adjusting device, adapted to adjust the collar-band to the size of the neck, substantially as described. 3rd. The combination with the neck or collar-band of a shirt having means for engaging a collar-button-clasp, of said clasp adapted to adjustably retain the collar-button, substantially as described. 4th. The combination with the neck or collar-band of a shirt or similar garment, having means for engaging a collar-button-clasp, of said clasp adapted to adjustably retain the collar-button at a distance from the neck-band, substantially as described. 5th. The combination with the neck or collar-band of a shirt having means for engaging a collar-button-clasp, of said clasp having a neck or bed-piece to engage the neck-band, a slotted piece to hold the collar-button and a spring-actuated collar-button, substantially as described. 6th. The combination with the neck or collar-band of a shirt, having means for engaging the collar-button-clasp, of said clasp having a neck or bed-piece to engage the neck-band, a slotted piece to hold the button, a spring interposed between the neck-piece and slotted piece, and adapted to press against the base of the button and to throw out the button for easy fastening, substantially as described. 7th. The combination, with the neck or collar-band of a shirt having means on its exterior to engage a collar-button-clasp, of said clasp having a neck or bed-piece to engage the neck-band, a slotted piece to hold the collar-button and a spring-actuated collar-button, substantially as described. 8th. The combination, with the neck or collar-band of a shirt having a pocket and loop to engage the collar-button-clasp, of said clasp having a neck or bed-piece to engage the neck band, a slotted piece to hold the collar-button, and a spring-actuated collar-button, substantially as described. 9th. The combination, with the neck or collar-band B, having the pocket e, and a loop or loops, of the collar-button-clasp

C, composed of the neck or bed-piece C<sup>2</sup>, provided with the spring or tongue C<sup>3</sup>, and the slotted piece C<sup>4</sup>, hinged at one end to the bed-piece, and adapted to engage the same at the other end, substantially as described. 10th. The combination, with the neck or collar-band of a shirt, without button-holes at its back, having loops on its exterior to engage a collar-button-clasp, of said clasp having a neck or bed-piece to engage the loops, a slotted piece to hold the collar-button, substantially as described. 11th. The combination, with the neck or collar-band of a shirt, without button-holes at its rear, having loops on its exterior to engage a collar-button-clasp, of said clasp composed of a neck or bed-piece bent back upon itself, and formed in its rear portion with a slot for the reception and operation of the collar-button, substantially as described.

**No. 47,894. Car Coupler. (Attelage de chars.)**



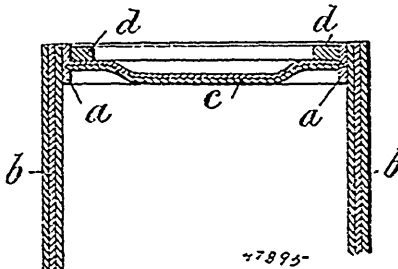
Clinton Arthur Lower, Cleveland, Ohio, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. A coupler having a swinging knuckle and an angled locking device, one member of said locking device extending within the coupler over the knuckle's tail, its head being directly fixed to the last named member and being adapted to fit between the knuckle and the coupler-head, and its rear arm extending vertically back of the tail, substantially as described. 2nd. A coupler having a swinging knuckle and an angled locking device, one member of said locking device extending within the coupler over the knuckle's tail, its head being adapted to fit between the knuckle and the coupler-head, and its rear arm extending back to the tail, and being adapted to fit a vertical hole or recess in the coupler-head, the said locking device having means for moving it vertically to release the knuckle, substantially as described. 3rd. A coupler, having a knuckle, and a radially movable angled locking and opening device whose rear arm extends back of the tail of the knuckle, means for lifting said locking and opening device in a plane transverse to the direction of length of the draw-bar, and means for tipping it after such lifting motion has progressed sufficiently to unlock the knuckle, substantially as described. 4th. A coupler, having a swinging knuckle, and locking and opening mechanism consisting of a single angled piece, whose head is directly connected to it, and engages the knuckle when locked and whose arm extends vertically at the rear of the tail of the knuckle, said angled piece being set without fixed pivot in a recess in the coupler-head, wherein it is movable in a plane transverse to the direction of the length of the draw-bar, being capable of an initial vertical motion without substantial radial motion, in order to first free its head, and being adapted in its continued motion to engage a shoulder, which causes it to turn radially in order to open the knuckle, substantially as described. 5th. A coupler, having a vertically movable knuckle-opening device of angled form set without fixed pivot in a recess in the coupler-head, wherein it is movable in a plane transverse to the direction of length of the draw-bar, and having a part which extends in the rear of the knuckle's tail, means for lifting the opening device, and a notch and shoulder in the recess, and on the opening device adapted to engage each other, and to cause the knuckle to be swung radially after the lifting motion has begun, substantially as described. 6th. An angled locking device for couplers, movable radially in a vertical plane and adapted to fit within the coupler-head over the tail of the knuckle and downwardly behind the same, said locking device having an integral head which, when the knuckle is locked, fits between the knuckle and the coupler-head, substantially as described. 7th. A coupler having a knuckle, and a locking and opening device whose head is adapted to lock the knuckle, and which has an arm adapted to move the knuckle open, said device being movable radially in a vertical plane transverse to the direction of length of the coupler, and adapted to be supported by bearing of the arm at the base of the coupler-head when the knuckle is open, substantially as described. 8th. A coupler, having a swinging knuckle, and an angled locking and opening device whose head engages the knuckle when locked and whose rear arm extends at the rear of the tail of the knuckle and fits within a guide-hole or recess in the coupler-head, when the knuckle is locked, said device being set without fixed pivot in a recess in the coupler-head, wherein it is movable in a plane transverse to the direction of the length of the draw-bar, and being capable of an initial vertical motion without substantial radial motion, in order to first free its head, and a shoulder in the recess adapted to engage said device in its continued motion and to cause it to turn radially in order to open the knuckle, substantially as described. 9th. A vertically movable knuckle-holding pin having

a lateral bearing in a vertical angular seat in the coupler-head, and having angular faces fitting within said seat, and a curved face fitting within a correspondingly-shaped recess in the knuckle, substantially as described. 10th. In a car-coupler, a knuckle whose tail is provided with a lateral hook or shoulder, and a radially movable arm forming part of a locking device, and having a lateral bearing against the coupler-head, which arm (when the knuckle is in locked position) serves for said hook or shoulder to pull against, for the purpose of relieving the strain from the pivot of the knuckle, substantially as described. 11th. An angled swinging coupler-knuckle, having the locking face of its tail longitudinally inclined at proper angle to match and fit a longitudinally inclined or wedge-bearing of a knuckle-locking device, substantially as described and for the purpose specified. 12th. A coupling-knuckle, having a locking-block adapted to engage the side of the tail of the knuckle, said parts having a longitudinally inclined or wedge-bearing the inclination being such as to force the tail inwardly and to correct the tendency of the knuckle when strained longitudinally to become displaced in direction, substantially as described. 13th. In a car-coupler, a swinging knuckle, a locking device including as one of its members a locking head adapted to fit over the tail of the knuckle, and a downwardly projecting member adapted to be swung laterally to open the knuckle, means whereby said locking device is given a limited initial vertical motion, the length of the locking head and the amount of vertical movement of which the device is capable, being so related that said initial vertical motion frees the locking head from the knuckle, whereby the knuckle may be swung without radial movement of the locking device, said knuckle having a projecting arm extending when closed in a plane transversely from the end of said tail, and adapted when the knuckle is swung open, to support the locking device, substantially as described. 14th. A coupler having a swinging knuckle and a radially movable angled locking and opening device having means for lifting it to clear the knuckle and for tipping it subsequently to open the same, said knuckle having a horizontally and transversely projecting intermediary arm of such length and position, that, as the knuckle is swung open, said arm shall continue to occupy a position beneath said device to prevent it from dropping back of the tail of the knuckle, the arms of said locking device being of such relative lengths that said device is supported in its tilted position by the floor of the coupler-head alone and being supported by said arm alone when the knuckle has been opened without radial motion of the angled device. 15th. In a coupler having a swinging knuckle with a tail piece, a locking device having a locking head engaging the tail piece and having the transverse member *e* and the vertical member *f* with means for moving the latter radially against the tail of the knuckle to force the latter outwardly, said coupler-head being provided with a shoulder located below the plane of the transverse member of the locking device, said vertical member of the locking device being adapted to engage said shoulder, substantially as described. 16th. In a coupler having a swinging knuckle with a tail piece, the coupler-head having the shoulder 13, the locking device carrying a head engaging the tail piece and having the transverse and vertical members, the latter being provided with the recess, the upper end of which is adapted to engage the shoulder whereby the transverse member is kept from contact with the knuckle, substantially as described. 17th. In a coupler, the combination of a swinging knuckle having a rearwardly extending arm and a radially movable angled piece which moves in a vertical plane within the coupler-head, and is adapted to engage the rear arm of the knuckle, said rear arm serving as a stop to prevent radial motion of the angled piece beyond a predetermined limit, substantially as described. 18th. A coupler, having a radially movable or tipping device for opening the knuckle, and a lifting chain passing through a guide-hole in the top of the coupler-head, said opening device having a stop portion adapted to engage the last link of the chain when the latter is in the guide-hole and to be stopped thereby at the proper limit of its tipping motion.

No. 47,895. Method of Making Articles from Veneer.

(Méthode de fabriquer des objets de bois de placage.)

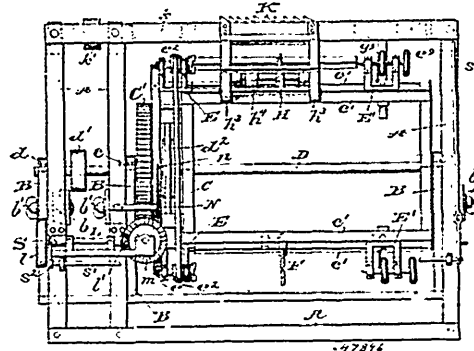


Christian Wilhelm Luther, Reval, Russia, 15th January, 1895; 6 years.

Claim.—1st. The herein described method of making barrels, casks or other cylindrical bodies, which consists in gluing together in a wet condition with waterproof glue, two or more layers of

veneer, having their fibre running crosswise, setting them in a press to make them to adhere closely, then drying them, and thereby causing them to assume a cylindrical form by reason of the outer layers of veneer overcoming the tension of the inner ones, substantially as described and set forth. 2nd. The herein described method of connecting together cylindrical bodies, casks or barrels, which consists in bevelling the edges of the said bodies, gluing said edges with a waterproof glue, then gluing in said bodies a ring having a groove or croze for the reception of a head, substantially as and for the purpose set forth. 3rd. The herein described method of forming heads for cylindrical bodies, casks or barrels, and means of setting them therein, which consists in gluing in a wet condition, with waterproof glue, two or more thicknesses of veneer, with their fibres running crosswise, pressing said heads to have them assume a dish-shaped form, to better resist pressure as described, forcing said heads into the grooves or crozes formed in a ring glued to the barrel body, and retaining said head in place by means of glued blocks, as shown and for the purposes set forth.

No. 47,896. Lathe. (Tour.)

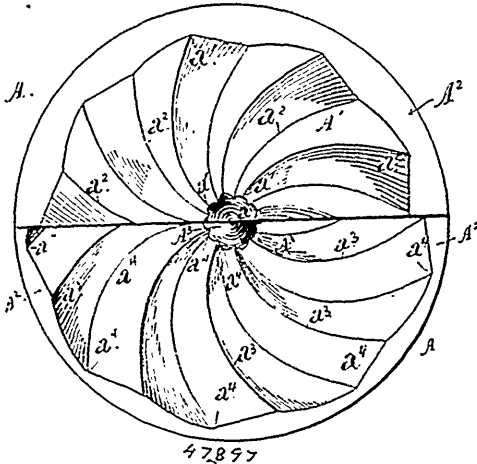


William Turner Wood, Washington, Columbia, U.S.A., 15th January, 1895; 6 years.

Claim.—1st. In a lathe, the combination with the main cutter and work-holding devices, of the steadying rest, and the auxiliary cutter, in a different plane from the main cutter, and operating independently thereof, for grooving the work for said rest in advance of the main cutter, substantially as described. 2nd. In a lathe, the combination with work-holding devices, of the steadying rest having portions for engaging the work on the side next to the cutter, the distance between the adjacent work engaging portions of said rest being less than the diameter of the portion of the work engaged by said rest, substantially as described. 3rd. In a lathe, the combination with the main cutter and work-holding devices, of a steadying rest, an auxiliary cutter for cutting a groove in the work to receive said rest, and means for clamping said rest upon the work in said groove, substantially as described. 4th. In a lathe, the combination with work-holding devices, of a steadying rest comprising two opposing jaws for gripping the work between them, the distance between opposite work engaging portions of said jaw, being less than the diameter of the portion of the work engaged by said jaws, substantially as described. 5th. In a lathe, the combination with work-holding devices, of a steadying rest comprising two movable jaws for engaging opposite sides of the work, and clamping it against accidental removal from said work-holding devices, the portions of said jaws adjacent to the cutters being cut away to allow the portion of the work engaged by said jaws to project beyond them, substantially as described. 6th. In a lathe, the combination with work-holding devices, of a steadying rest comprising a pair of movable jaws having angular recessed portions for engaging the work at four isolated points on opposite sides of the centre of the work, the distance between opposite work engaging portions or said jaws being less than the diameter of the portion of the work engaged by said jaws, substantially as described. 7th. In a lathe, the combination with the main cutter and work-holding devices, movable with respect to said cutter, of the steadying rest and an auxiliary cutter in a different plane from the main cutter and operating independently thereof, for engaging the work in advance of the main cutter, whereby said work-holding devices will first bring the work to the auxiliary cutter to groove it for the reception of the steadying rest, before it is brought to the main cutter, substantially as described. 8th. In a lathe, the combination with the main cutter and work-holding devices, movable with respect to said cutter, of the steadying rest, an auxiliary cutter in a different plane from the main cutter and operating independently thereof, for forming a groove for said rest, and means for automatically releasing said steadying rest, substantially as described. 9th. In a lathe, the combination with the main cutter, and work-holding devices, movable with respect to said cutter, of the steadying rest for grasping the work, an auxiliary cutter in a different plane from the main cutter and operating independently thereof, for forming a

groove to be engaged by said rest, means for clamping said rest upon the work, including a wheel having a friction surface, and a friction strip for turning said wheel to release the steadying rest, substantially as described. 10th. The combination with work-holding devices, of a steadying rest provided with a cutter for forming a groove to receive said rest, substantially as described. 11th. The combination with work-holding devices, of a steadying rest comprising a pair of movable jaws, and a movable cutter for forming a groove to be engaged by said jaws, substantially as described. 12th. The combination with work-holding devices, of a steadying rest comprising a pair of movable work engaging jaws, one of said jaws being provided with a cutter, substantially as described. 13th. In a lathe, the combination with work-holding devices, of a steadying rest comprising a pair of movable work engaging jaws, a cutter secured to one of said jaws and adjustable stops for limiting the movement of said jaws and cutter toward the work, substantially as described. 14th. In a lathe, the combination, with the cutter, of work-holding devices movable with respect to said cutter, including a work-holding chuck, operating means for rotating said chuck, clutching mechanism for connecting said chuck and operating means, and a device for automatically releasing said clutch, to permit the work to be inserted without stopping said operating means, substantially as described. 15th. In a lathe, the combination, with the cutter, of work-holding devices movable with respect thereto, including a work-holding chuck, operating means for rotating said chuck, a clutch mechanism for connecting said chuck and operating means and a device having a yielding portion for automatically disengaging said clutch to permit the insertion of the work without stopping said operating means, substantially as described. 16th. A lathe comprising among its members, a steadying rest independent of the work supporting devices and an auxiliary cutter located in a different plane from and independent of the main cutter, substantially as described.

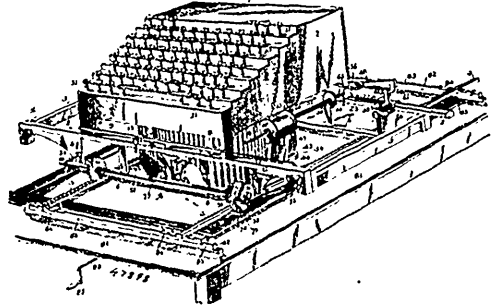
No. 47,897. Flying Target. (Cible.)



Benjamin Franklin Saylor, Lancaster, Pennsylvania, U.S.A., 15th January, 1895; 6 years.

Claim.—1st. A target to be sprung from a trap, comprising a hollow segmental spherical body having a practically cylindrical base about the open end, a conical depression in the centre of its top, and a depending cone in the hollow thereof, with alternating elevated and sunken spiral volutes on top of the dome extending from said conical depression to the upper face of said cylindrical base with alternating elevated and sunken spiral volutes in the hollow thereof extending from said depending cone to the lower edge of the target, all substantially as described and for the purpose herebefore set forth. 2nd. The herein described flying target comprising the hollow segmental spherical dome projecting from the upper face of the cylindrical base, having the central conical top depression, with the convoluted top surface corrugations terminating in the upper face of said cylindrical base, and having the central depending cone in the hollow of the dome with the convoluted under surface corrugations extending to the under edge of the target, all substantially as and for the purpose herebefore set forth. 3rd. The flying target A, having the hollow segmental spherical dome A<sup>1</sup>, projecting from the upper face of the cylindrical base A<sup>2</sup>, with the conical depression a in the centre of its top, and the alternating spiral volutes a<sup>1</sup> and a<sup>2</sup> terminating in the upper face of said base, and the central depending cone A<sup>3</sup>, with the alternating spiral volutes a<sup>3</sup> and a<sup>4</sup>, in the convoluted surface of the target extending to the under edge thereof, all substantially as described and for the purpose herebefore set forth.

No. 47,898. Type Writer. (Clavigraphic.)

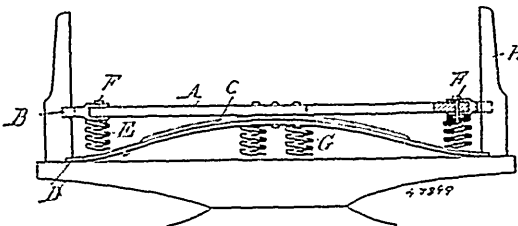


Robert J. Fisher, Athens, Tennessee, U.S.A., 15th January, 1895; 6 years.

Claim.—1st. The combination of a framework having an elevated guide for the carriage, and provided at its base with series of notches or seats, tracks feeding in said notches or seats and capable of relative lateral adjustment thereby, a line-spacing mechanism for moving the framework upon the tracks, with a carriage mounted upon said elevated guide, and having a pendent type-bar-supporting ring, carriage-feeding mechanism, type-bars, keys, and operating connections between said parts, substantially as specified. 2nd. The combination of a framework having elevated carriage-guides, parallel tracks supporting said framework, means for adjusting the tracks laterally with relation to the framework, and line-spacing mechanism including a transverse shaft, spur-wheels carried by said shaft, and adjustable thereon to agree with the interval between the tracks, and adapted to engage racks on said tracks, and means for rotating said shaft, with a carriage mounted upon said guides, carriage-feeding mechanism, type-bars, keys, and operating connections, substantially as specified. 3rd. The combination of a framework having carriage-guides, tracks supporting said framework, means for adjusting the tracks laterally with relation to the framework, a transverse shaft journaled upon the framework, spur-wheels adjustably secured to the shaft and engaging racks with which the tracks are provided, a ratchet fixed to the shaft, a spacing-lever having a spring-tooth to engage said ratchet, a gravity-pawl to prevent backward rotation of the ratchet, and a sliding-gage arranged in the path of the spacing-lever to regulate the throw thereof, with a carriage mounted upon the guides, carriage-feeding mechanism, type-bars, keys, and operating connections, substantially as specified. 4th. The combination of a framework having elevated carriage-guides, laterally-adjustable tracks arranged to guide said framework in a direction transverse to the line of writing, line-spacing devices for feeding the framework upon said tracks, and laterally-slidable supports mounted upon suitable ways and supporting the extremities of the tracks, whereby the framework may be moved laterally to expose the work, with a carriage mounted upon said guides, carriage-feeding mechanism, type-bars mounted upon a ring depending from the carriage between said guides and arranged slightly above the plane of said tracks, keys, and operating connections, substantially as specified. 5th. The combination of a framework having elevated carriage-guides, longitudinal tracks supporting said framework, line-spacing mechanism for feeding the framework upon the tracks, laterally-slidable supports for the extremities of the tracks, vertically-adjustable leaves or traps arranged below the plane of the tracks, means for adjusting said leaves or traps independently, with a carriage mounted upon said guides, and having a pendent type-bar supporting ring, type-bars, carriage-feeding mechanism, keys, and operating connections, substantially as specified. 6th. The combination with a framework provided with laterally movable carriage feeding mechanism for the carriage, type-bars, keys, and operating connections, of ribbon spools mounted on the carriage, slidable spindles supporting said spools, a stationary guide-way arranged at an inclination to the direction of the movement of the carriage and in a plane parallel with the carriage guides, and a traveller mounted upon said guide-way and carried by a bar connecting said spindles, substantially as specified. 7th. The combination, with a framework having carriage guides, a carriage mounted upon said guides, carriage-feeding mechanism, type-bars, keys and operating connections, of ribbon-spool spindles carrying ribbon spools and capable of longitudinal movement, a stationary horizontal guide-way inclined to the carriage-guides, a traveller mounted upon said guide-way and connected to the spool spindles, and means for rotating said spindles at each limit of movement of the carriage, substantially as specified. 8th. The combination with a framework having carriage-guides, a carriage mounted thereon, carriage-feeding mechanism, type-bars, keys and operating connections, of an inclined guide-way, a traveller mounted upon said guide-way, ribbon-spools, spindles carrying said spools and connected for longitudinal movement to the said traveller, a line-stop arranged in the path of the carriage, and a pawl carried by said line stop to engage a ratchet on one of said spindles, substantially as specified. 9th. The combination, with carriage-guides, a carriage mounted

thereon, and feeding mechanism for the carriage, of type-bars mounted upon a pendent supporting ring, keys, partitions removably fitted in the carriage, and operating connections between the keys and type-bars carried respectively by said partitions; whereby the operating connections may be removed independently by the removal of the partitions, substantially as specified. 10th. The combination, with carriage-guides, a carriage mounted thereon, and feeding mechanism for the carriage, of type-bars, keys, operating connections between the type-bars and keys, slidable uprights, pivotal yokes connected to the said uprights and having cross-bars arranged between contiguous rows of keys and connected thereto, and means for communicating the motion of the uprights to the carriage-feeding mechanism, substantially as specified. 11th. The combination, with carriage-guides, a carriage mounted thereon, feeding mechanism for the carriage, type-bars, keys, and operating connections between the keys and type-bars, of pivotal yokes having cross-bars arranged between contiguous rows of keys, pins carried by the key-shanks to engage said cross-bars, slidable uprights connected to the side-arms of said yokes, and means for communicating the motion of the uprights to the carriage-feeding mechanism, substantially as specified. 12th. The combination, with carriage-guides, a carriage mounted thereon, feeding mechanism for the carriage, type-bars, keys, and operating connections between the keys and type-bars, of pivotal yokes having cross-bars arranged between contiguous rows of keys adapted to be engaged by lateral pins carried by the key-shanks, slidable uprights connected to the side-arms of said yokes, operating connections between the uprights and the carriage-feeding mechanism, and a rock-shaft journaled in the carriage and having arms engaging said uprights to insure uniformity of movement thereof, substantially as specified. 13th. The combination with carriage guides, a carriage mounted thereon, carriage-feeding mechanism, type-bars, keys and operating connections between the keys and type-bars, of uprights slidably mounted upon the carriage and operatively connected to the carriage-feeding mechanism, means for communicating the movement of the keys to said uprights, an adjustable line-stop arranged in the path of the carriage, and a key-lock carried by said adjustable stop and adapted to engage the projection upon one of said uprights, substantially as specified. 14th. The combination with carriage guides, a carriage mounted thereon, carriage-feeding mechanism, type-bars, keys and operating connections between the keys and type-bars, of ribbon spools, slidable spindles carrying said spools, means for moving said spindles longitudinally as the carriage is fed laterally to cause a lateral feed of the ribbon, slidable uprights mounted upon the carriage and operatively connected to the carriage-feeding mechanism, operating connections between the keys and said uprights, and an adjustable line-stop arranged in the path of the carriage and carrying a pawl to engage a ratchet upon one of the spool spindles to feed the ribbon longitudinally, and a key-lock to engage a projection upon one of the uprights, substantially as specified. 15th. The combination with carriage guides, a carriage mounted thereon, carriage-feeding mechanism, type-bars, keys and operating connections, of longitudinally movable spool spindles having stop shoulders, ribbon spools feathered upon said spindles and movable independently thereof to expose the writing, return springs to normally hold the spools in their operative positions in contact with the said shoulders, and means for sliding and rotating said spindles to give lateral and longitudinal feed to the ribbon, substantially as specified. 16th. The combination with carriage guides, a carriage mounted thereon, a carriage-feeding mechanism, keys, and operating connections between the keys and said feeding mechanism, of a pendent type-bar supporting ring provided with lateral slotted extensions, ribbon-spools mounted upon said ring and operatively connected to the keys, ribbon guides mounted for longitudinal movement in said slots, ribbon-spools supporting the upper ends of said guides, spools feathered upon said spindles, return springs, and means for feeding the spools longitudinally and transversely, substantially as specified.

**No. 47,899. Bolster Spring. (Support de ressort.)**

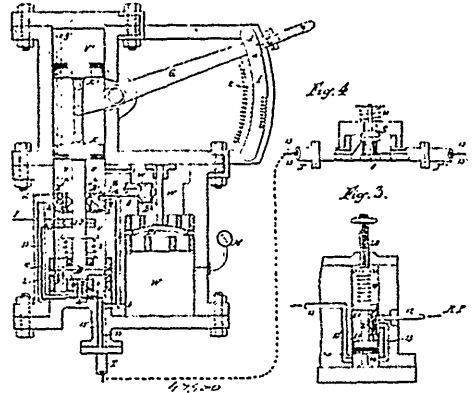


Albert G. North, Pontiac, Michigan, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. In combination with a bolster and bolster stakes, of a cross-bar having slotted ends adapted to engage with the stakes, and a series of springs secured to the under side of the cross-bar and adapted to be successively brought into play to support the load as the weight increases, substantially as described. 2nd. The combination with a bolster and bolster stakes, of the cross-bar having

slotted ends to engage the stakes, a semi-elliptical spring centrally secured to the under side of the cross-bar having its free ends extending to or near the ends thereof and separated therefrom, slotted bearings in the ends of the spring adapted to engage with the base of the stakes and to rest upon the bolster, and spiral springs suspended at their upper ends from the cross bar and having their lower ends normally above the bolster, substantially as described. 3rd. In a bolster spring, the combination of the cross-bar having the metallic notched or slotted tips, the semi-elliptical spring C, of a length corresponding substantially to the length of the cross-bar, the slotted bearing D, in the ends of the semi-elliptical spring and the coil spring E and G between the cross-bar and bolster, substantially as described.

**No. 47,900. Car Brake. (Frein de chars.)**



Charles Luvers, Brussels, Belgium, 15th January, 1895; 6 years.

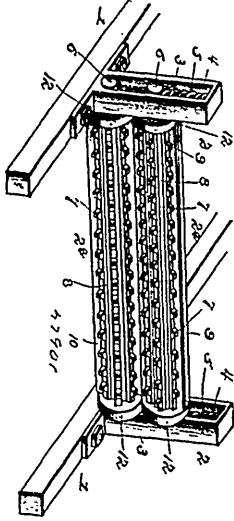
*Claim.*—1st. Pneumatic brake apparatus for goods and passenger trains, being a combination of the several organs referred to in the following claims, arranged and operating substantially as described. 2nd. In a railway brake apparatus, the combination of a friction drum, brake blocks suspended from fixed bars U, brake rigging pivoted to such fixed bars, a device for compensating for the wear of the brake blocks and an apparatus for indicating the wear of the brake cylinder consisting of a pointer situated in contact with the brake cylinder and moving over a graduated scale, substantially as described and represented in Figs. A, B, C, D, and E of the drawings. 3rd. The construction of the driver's valve with its regulator and compensator as described in head I, and shown in Figs. 1, 2 and 3. 4th. The construction of the electric discharge valve as described in heads II and III, and shown in Figs. 4 and 10. 5th. The construction of compressed air discharge valves as described in head IV, and shown in Fig. 5. 6th. The construction of the distributing regulator and the auxiliary reservoirs as described in head V, and shown in Figs. 6, 7 and 8. 7th. The couplings of the train pipe completing when connected, the circuit of the electric wires on the length of the train pipe, as described in head IV, and shown in Fig. 11. 8th. The weight indicator described in head VII, and shown in Fig. 9. 9th. The automatic air pump stopping spontaneously when the desired pressure is attained, and starting when the pressure is reduced in the main reservoir, as described in head VIII, and shown in Figs. 12, 13 and 14. 10th. The speed gauge described in head IX, and shown in Fig. 15. 11th. The brake cylinder intended to limit the expenditure of air to that which is strictly necessary, as described in head X, and shown in Fig. 18. 12th. A modified construction of the brake cylinder, also described in head X, and shown in Figs. 16 and 17.

**No. 47,901. Husking Roller. (Rouleau à écosser.)**

Patriek H. Conner and Leroy Clark, both of Monticello, Iowa, U.S.A., 15th January, 1895; 6 years.

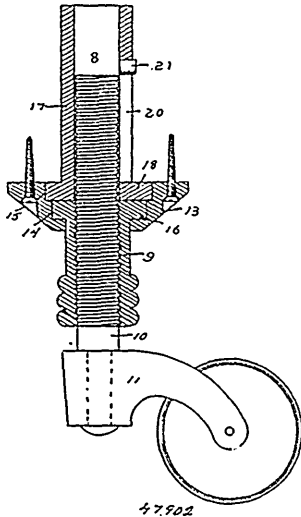
*Claim.*—1st. A feed-roll having a series of teeth formed thereon and arranged in distinct longitudinal lines, and a groove or passage formed on the roll and between each line of teeth, said groove being extended below the base of the teeth and into the roll, in a line radial from the axis of the roll, substantially as described. 2nd. Feed or snapping rolls for corn-husking machines, and consisting of two co-operating rolls adapted to be arranged parallel with each other and each having a series of teeth thereon for engagement with the corn, one of said rolls having a longitudinal groove therein and in addition to the teeth, and the remaining roll having a similarly-disposed rib in addition to its teeth, the rib being adapted to mesh with the grooves on the first roll as they revolve, and to break the ears of corn from the stalks, substantially as described. 3rd. The combination of two feed-rolls adapted to be arranged side by side each other and to be actuated into engagement by spring pressure and having teeth thereon for engagement with the corn, said rolls having at their ends continuous concentric flanges extended beyond the ends

of the teeth and adapted to engage each other, whereby the teeth of the rolls are held from engagement with each other at all times and whereby they are prevented from chocking, substantially as described.



4th. The combination of two feed-rolls for corn-husking machines, said rolls being adapted to lie parallel with each other having teeth thereon for engagement with the corn and having longitudinal grooves and ribs in addition to the teeth and adapted to mesh with each other, and break the corn from the stalks, and each roll having a continuous concentric flange adapted to engage each other and hold the rolls apart and to hold the ribs and grooves in the proper relations, substantially as described.

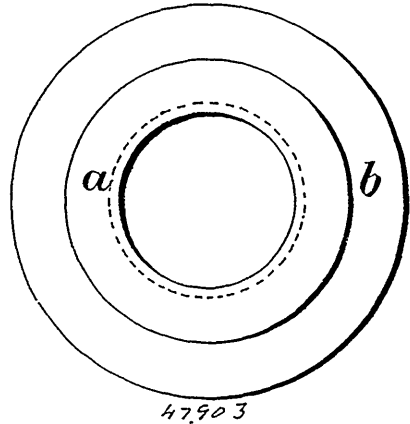
**No. 47,902. Adjustable Feet for Tables.**  
(*Pieds de tables*)



Frederick Christian Luethi and John Michael E. Riedel, both of Fort Wayne, Indiana, U.S.A., 15th January, 1895; 6 years.

*Claim.*—In an adjustable foot piece for a table or other article, the combination of a screw-bolt, with a collar encircling the same, provided with a corresponding screw thread, adapted to operate said screw-bolt, a thimble provided with a vertical slot adapted to inclose said screw-bolt, a plate attached to a table leg or other article to be supported, provided with two recesses, the lower one being circular, a flange attached to the lower end of said thimble adapted to be placed within the upper recess of said plate, and provided with means to prevent its turning therein, a pin attached to the upper end of said screw-bolt, adapted to engage and move in said vertical slot in said thimble, a flange attached to the upper end of said collar adapted to fit in the lower recess of said plate, and be revolved therein, and a projection attached to said screw-bolt adapted to be connected to a caster or foot knob.

**No. 47,903. Washer and Grummet Combined.**  
(*Rondelle et erseau combinés.*)



Alfred Henry Barton, Radcliffe Road, Northam, Southampton, Hants, England, 15th January, 1895; 6 years.

*Claim.*—1st. A combined washer and grummet consisting of a metal washer having an elastic ring fixed on its face, substantially as described. 2nd. A combined washer and grummet for use with water, steam, gas, air or other fluids, and to prevent vibration between metal surfaces, substantially as described with reference to the drawings.

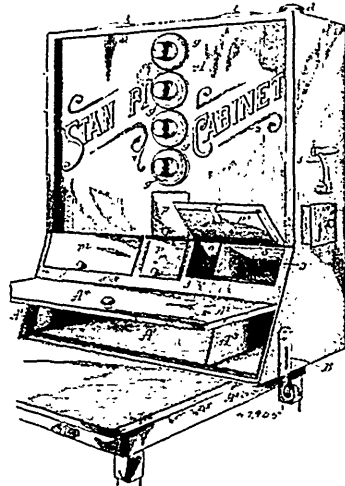
**No. 47,904. Boiler Flue Cleaner.**  
(*Nettoyeur de tuyau de chaudière.*)



Phillip Henry Enochs, Fernwood, Mississippi, U.S.A., 15th January, 1895; 6 years.

*Claim.*—A boiler flue cleaner comprising a suitable bar, resilient members secured to or forming a part of said bar, suitable scraping plates at the end of said members, an adjusting bolt having a head, carried by one of said members, the head being located between the members, and a suitable operating handle adapted to be secured to said bar, substantially as set forth.

**No. 47,905. Kitchen Cabinet.** (*Buffet de cuisine.*)



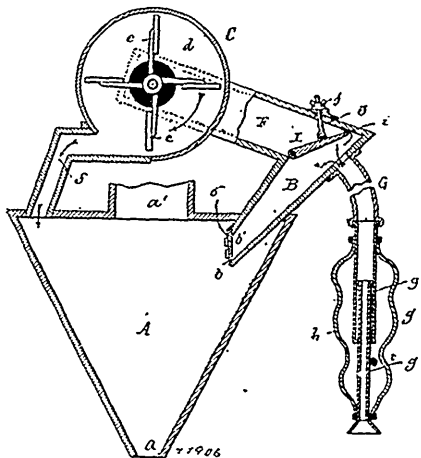
Jesse Milligan Curtice, Kansas, Missouri, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. As an article of manufacture, a kitchen cabinet divided by transverse vertical partitions into three independent

compartments, the middle compartment being again subdivided into a series of chambers, the several chambers and compartments having rearwardly and downwardly inclined false bottoms, doors for covering the outlets to said compartments and one of said compartments provided with screw-capped air-tight cylinder-shaped drawers, a horizontal partition extending across near the lower end of the cabinet, whereby a lower compartment is formed running lengthwise the cabinet, door jambs located a short distance within the outer edge of this compartment, and a door hinged at its upper edge to the cabinet and composed of a wooden centre faced on both sides with sheet metal to give it sufficient weight to fall shut by its own gravity when opened, and sufficient strength to form a brace when shut to the lower edge of the cabinet to prevent bending or yielding at this point during handling, substantially as set forth. 2nd. A kitchen cabinet made of sheet metal and divided into a series of compartments, with doors and covers for the several compartments, a strengthening strap attached to the rear upper edge and extending approximately throughout the width of the cabinet, and the straps pivoted at their lower ends to said strengthening strap and provided with holes at their upper ends. 3rd. A kitchen cabinet subdivided into a series of compartments by sheet metal partitions, one of said compartments having a drawer therein, a block located against one of the partitions and over the drawer and a grinding mill resting against the block and directly over the drawer, the said mill and block being held in place by bolts passing through the mill, block and partition, substantially as set forth.

**No. 47,906. Pneumatic Elevator.**

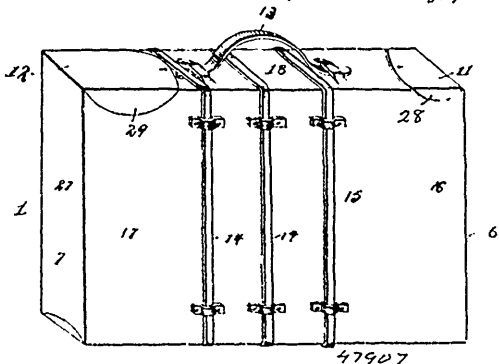
(*Élévateur pneumatique.*)



James Hutchinson Finley, Buffalo, New York, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. In a pneumatic elevator, the combination with a receiver of an exhaust device having its blast or discharge passage connected with said receiver, an elevating tube connected with the suction passage of the exhaust device and a delivery spout entering said receiver and having its receiving end connected with said elevating tube, substantially as set forth. 2nd. The combination with the receiver having an air outlet in its top, of a grain spout having its discharge end connected with said receiver and provided with an automatic valve, an exhaust device having its suction passage connected with the receiving end of the grain spout, and its blast passage opening into the receiver, and an elevator tube connected with the grain spout, substantially as set forth. 3rd. The combination with the receiver, of a grain spout having its discharge end arranged in said receiver and provided with an automatic valve, an exhaust device having its suction passage connected with the receiving end of the grain spout and its outlet opening into the receiver, an elevator tube connected with the grain spout and a deflector arranged in the grain spout opposite the outlet of the elevator tube, substantially as set forth. 4th. The combination with the receiver, of a grain spout having its discharge end arranged in said receiver and provided with an automatic valve, an exhaust device having its suction passage connected with the receiving end of the grain spout and having its outlet opening into the receiver, an elevator tube connected with the grain spout, a deflector arranged in the grain spout opposite the inlet of the elevator tube and pivoted at one end to one side of the grain spout, while its free end is separated from the opposite side of the grain spout by a passage, and an adjusting device connected with said deflector, substantially as set forth. 5th. The combination with the receiver, of a grain spout entering said receiver and a gravity valve applied to the discharge end of said spout and consisting of several pivotally connected sections, substantially as set forth.

**No. 47,907. Packing Case. (Caisse d'emballage.)**

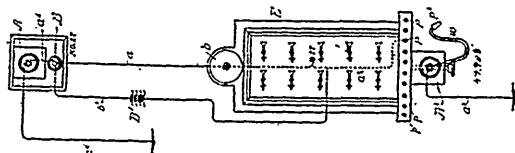


Sarah Abigail Durfee, Decatur, Illinois, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. A hand case comprising a casing provided at its ends with vertical compartments extending from the bottom to the top and open at the latter, said casing having a central compartment open at one side and permanently closed at the top, bottom and other side, the removable boxes arranged in the end compartments, and the tray arranged edgewise in the central compartment, and having its bottom completing the adjacent side of the casing, substantially as described. 2nd. A hand case comprising the casing having the vertical end compartments with open tops, and provided with the central compartment open at one side and permanently closed at the top, bottom and other side, the tray arranged edgewise in the central compartment, and having its bottom completing the adjacent side of the casing, the hinged covers arranged at the top of the casing adjacent to the end compartments, and the handle arranged on the top of the casing between the end compartments, substantially as described. 3rd. In a hand case, the casing constructed of a single piece of material consisting of the central rectangular portion 13, having longitudinal extensions 16 and 17, and forming one side of the casing, the lateral extensions forming the top and bottom of the casing, the folded end portions 20 and 21, forming with the extensions 16 and 17 the end compartments, the cover extensions, and extensions 24 and 25 re-enforcing the bottom of the end compartments, substantially as described.

**No. 47,908. Telephone Annunciator and Call Bell.**

(*Indicateur et timbre de téléphone.*)



Frederick George Warrell, Philadelphia, Pennsylvania, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. The combination in an electric annunciator and telephone system of a central annunciator E, provided with electrically operated indicating hands, each hand connected with one of the terminals of the system, a central telephone receiver and transmitter, a central switch-board connecting said central telephone by means of a switch or plug with each of the respective telephone terminals, a telephone and push button provided at each terminal of the series, said push button adapted to make or break at will the telephone and signalling circuits, independent circuits connecting each terminal with the annunciator and central telephone, a metallic signalling circuit being part of the talking circuit, ground connections provided at each telephone terminal, substantially as described. 2nd. In combination with a central annunciator and telephone, a ground circuit and metallic circuit provided in each terminal connecting a telephone and circuit closer at each terminal with the central telephone and annunciator, in each of which said circuits the ground circuit forms a part of the metallic circuit when closed by circuit closer provided at each terminal, substantially as described.

**No. 47,909. Telegraphic Transmitter.**

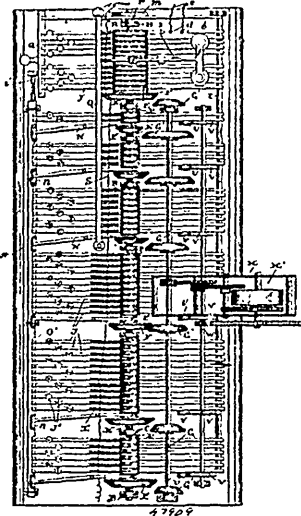
(*Appareil transmetteur de télégraphie.*)

Frank F. Howe, Marietta, Ohio, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. A transmitter comprising a plurality of transmitting devices arranged with two or more of said devices in a series, an operating mechanism adapted to actuate each series at a different speed, and a circuit which is opened and closed by said devices, substantially as shown and described. 2nd. A transmitter comprising several series



of character transmitting devices, the devices representing characters requiring substantially a like number of pulsations being assembled in the same series, an actuating mechanism common to all the series and which actuates each series at a different speed, and a circuit which is opened and closed by said devices, substantially as



shown and described. 3rd. A transmitter comprising character transmitting devices arranged in a series, a gear for each series, a power shaft, gears of different sizes thereon which mesh with the gears on the transmitting devices, and a circuit which is opened and closed through the intervention of said devices, substantially as shown and described. 4th. In a transmitter, a circuit, a circuit closer, a transmitting device movable transversely with relation to the closer and which is normally out of line therewith, a means for actuating the device, a key lever, a frame adapted to be depressed by the lever, a bell-crank connecting the frame and transmitting device whereby when the frame is depressed the said device will be moved in line with the closer, substantially as shown and described. 5th. A transmitter comprising a transmitting device, a rotating mechanism normally out of engagement therewith, a circuit closer with which the transmitting device is normally out of line, and a means for adjusting the transmitting device to its propelling mechanism, which also places it in line with the circuit closer which it operates, substantially as shown and described. 6th. A transmitter comprising a movable transmitting device, a swinging frame beneath the same, a key lever adapted to depress the frame during the latter part of its downward stroke, a circuit, a circuit closer, a connection between the frame and the transmitting device, and a lock for engaging the lever before it has completed its return movement, but after the said frame has returned to its normal position, for the purpose, substantially as shown and described. 7th. A transmitter comprising a transmitting device, a circuit, a circuit closer normally out of line with the transmitting device, a key lever and a mechanism arranged between the same and the transmitting device for moving the latter in line with the circuit closer when the key is depressed, a locking bar for holding the lever depressed, and a connection between the bar and the transmitting device, for the purpose shown and described. 8th. A transmitter comprising a plurality of separately movable transmitting devices, key lever for each device, a mechanism arranged between the levers and transmitting devices for moving the latter, a circuit, a circuit closer, a locking bar which holds the active key lever depressed and all the others raised, and levers fulcrumed between their ends and connected at their inner ends to the transmitting devices and at their outer ends loosely connected to said locking bar, substantially as shown and described. 9th. In a transmitter, a transmitting device, an electric magnet, a circuit in which the indicator and magnet are placed, a mechanism for setting the device in motion, a dog carried thereby, and an armature for the magnet which acts as a stop for said device and which is engaged by the dog, for the purpose, substantially as shown and described. 10th. The combination with a transmitting mechanism, a motor for propelling the same and a winding shaft for the motor carrying ratchets, of a dog adapted to be depressed when the transmitter is set in motion which engages the said ratchet, thus winding the motor, substantially as shown and described.

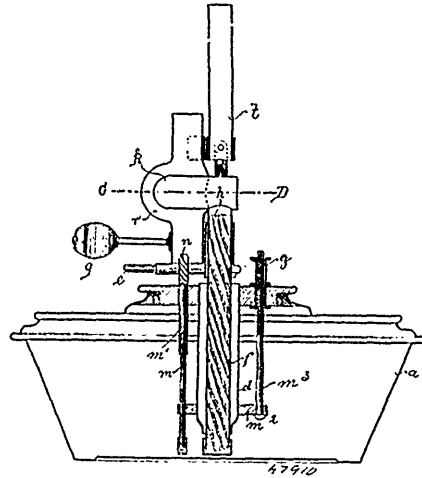
#### No. 47,910. Portable Gas Generating Lamp.

(Lampe-générateur portative à gaz.)

Conrad Schinz, St. Petersburg, Russia, 15th January, 1895; 6 years.

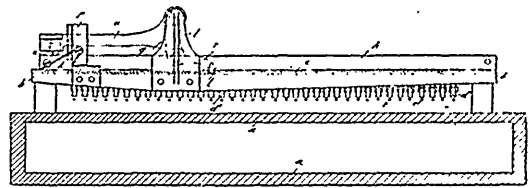
Claim.—1st. An incandescent lamp consisting of the com-

bination of a reservoir, a suction wick extending from the said reservoir to a retort arranged above it, a retort arranged above the said wick and having a nozzle pointed upwardly, a smaller wick arranged under the laterally ex-



tending retort, a chimney to inclose said retort and smaller wick, and an open tube arranged above the said nozzle and means to adjust the position of the said smaller wick, substantially as described. 2nd. In a lamp, the combination of a reservoir, a suction wick extending down into the said reservoir, a tube inclosing said suction wick, an air jacket around said tube at that part of the same which extends down into the reservoir, a laterally extending retort at the top of the said tube, a smaller wick arranged under the said retort, a chimney to inclose said retort and smaller wick, a nozzle at the top of said retort and an open tube arranged above said nozzle, and means for adjusting the said smaller wick, substantially as described and shown. 3rd. In a lamp, the combination of a reservoir, a suction wick arranged therein, a tube inclosing said suction wick, an air jacket around said tube as specified, a laterally extending retort at the top of said tube, a smaller wick arranged under the said retort, a chimney to inclose said retort and smaller wick, stationary rods *c, e*, upon which said chimney may slide, a nozzle at the top of the retort and an open tube arranged above said nozzle, and means for adjusting the position of the said smaller wick, substantially as described.

#### No. 47,911. Damping Device for Musical Instruments. (Sourdine pour instruments de musique.)

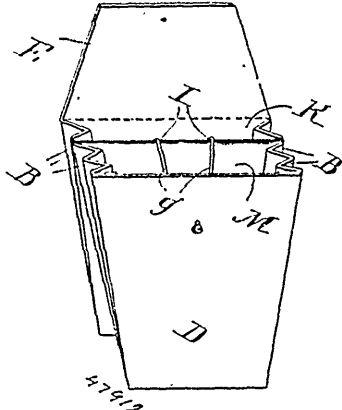


Maximilian Carl Robert Andorff, Markekirchen, Saxony, German Empire, 15th January, 1895; 6 years.

Claim.—1st. An improved damping device for zithers and other musical instruments consisting of a forwarding lever provided with projections engaging at each striking of the strings, under the action of a pressure lever in openings arranged at equal distances in a music sheet or strip near its longitudinal edges, and pushing forward the music sheet or strip to the extent of one row of notes, dampers arranged diagonally and provided with pins by which they are pressed against the strings by means of the music strip or sheet, and a diagonal rule simultaneously pressed against the note sheet, by the action of the lever mechanism with the object of moving forward the music sheet to the extent of one row of notes, and of pressing downwards those dampers the pressure pins of which are not released by the music sheet, and thereby damping those strings which do not properly belong to the chord being struck. 2nd. In a damping device such as described in claim 1, the arrangement of arms *r*, provided with projections *t*, which are pivotally connected with arms *o* and *q* or *u*, mounted on a spindle *m*, the arm *n*, operating a diagonal rule *h*, which stands under the pressure of a spring, by means of an intercalated screw *s*, in such a way that by the projection *t*, engaging in holes *y*, of a music sheet, and by the moving forward of the lever *r*, an even gradual forward movement of the

note sheet or strip is obtained at each depression of the lever *n*, substantially as described and shown.

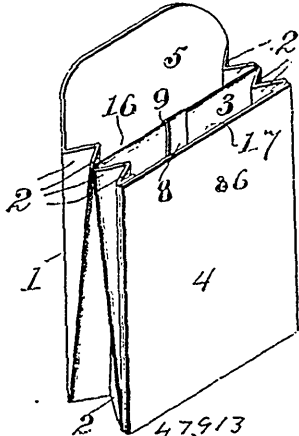
**No. 47,912. Combination Case. (Caisse à combinaison.)**



Alfred J. Estlow, Hartford, Connecticut, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. A compartment case formed from a single blank composing the front section, having side pieces adapted to be folded in crimps upon the front section, to form the sides of the case, the section depending from the front section, two of which are folded between and separated by said crimps, to form partitions, and the other section folded upon the crimped ends and secured thereto, to form the back of the case, leaving compartments open alternately at the top and bottom of the case, as set forth. 2nd. The herein described combination case, struck from a single blank, composed of the front section having crimped side pieces, the partition sections folded between the crimps, and the back section secured to the crimped ends, to form separate compartments open alternately at each end of the case, substantially as set forth. 3rd. In a combination case, the V-shaped front, back and partitions, and the crimped sides, all formed from a single blank by folding the crimped and partition sections between each other upon the front section, and securing the back section to the crimped ends, to form separate compartments opening alternately at each end of the case, substantially as set forth. 4th. The combination with a pocket case having compartments opening alternately at the top and bottom, the wire spring holder bent to form the curve *II*, arms *g*, shoulders *I*, and arms *h*, the said shoulders engaging the top of the compartment partition so as to leave the arms *g*, and *h*, depending in separate compartments opening at the top of the case to retain the contents of the intervening compartments opening at the bottom of the case, as set forth.

**No. 47,913. Combination Case. (Caisse à combinaison.)**

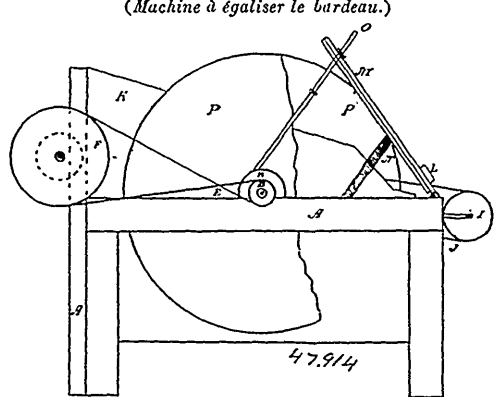


Alfred J. Estlow, Hartford, Connecticut, U.S.A., 15th January, 1895; 6 years.

*Claim.*—1st. A compartment case formed from a single blank by folding the right angle projecting section in crimps upon the upper section, the latter forming the front, and the former the sides of the

case, folding the two sections adjacent to the upper section between the crimps to form partitions, and folding the bottom section constituting the back of the case, upon the ends of the said crimped section, and securing it there, so as to leave the compartments open alternately at each end of the case, as set forth. 2nd. A compartment case formed from a single blank by folding the right angle projecting section in crimps upon the upper section, the latter forming the front, and the former the sides of the case, folding a portion of the side sections inward or toward each other to divide one of the compartments, the two sections adjacent to the upper section, being folded between the crimps to form partitions or compartment walls, and the bottom section, constituting the case back, folded upon the ends of the said crimped sections, leaving the compartments open alternately at each end of the case, as set forth. 3rd. A compartment case formed from a single blank by folding the right angle projecting sections in crimps upon the upper section, the latter forming the front, and the former the sides of the case, the two sections adjacent to the upper section, being folded between the crimps to form partitions or compartment walls, and folding the bottom section, constituting the case back, upon the ends of the said crimped sections, leaving the compartments open alternately at each end of the case, in combination with the plate spring, the arms of which are located in two compartments opening in the same direction so as to grasp the contents of the intervening compartments opening in the opposite directions, as set forth. 4th. The combination with a pocket case having compartments open alternately at the top and bottom, the plate spring holder composed of a single piece of sheet metal, bent in its centre upon itself, and having its ends curled inward, leaving an opening between the arms of the spring from the central bend to the curled ends, the arm being located in two of the compartments opening in the same direction so as to confine the contents of the intervening compartment opening in the opposite direction, as set forth.

**No. 47,914. Shingle Edging Machine. (Machine à égaliser le bardeau.)**



John Henry Aekert, Lucknow, Ontario, Canada, 15th January, 1895; 6 years.

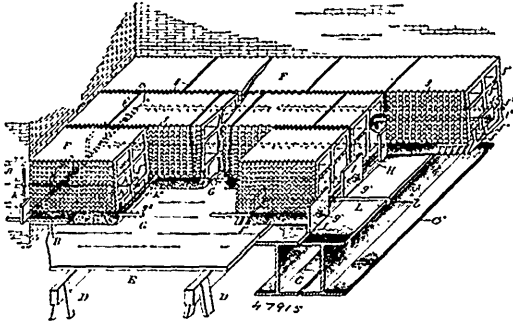
*Claim.*—1st. The combination of two saws *P* and *P*, on one shaft or mandrel *C*, within from six to eighteen inches of each other (or may be worked on two shafts or mandrels same as *C*), substantially as and for the purpose hereinbefore set out. 2nd. The belt *J* and guide box *K*, in combination with said machine and said two saws *P* and *P*, substantially as and for the purpose hereinbefore set forth.

**No. 47,915. Fireproof Floor. (Plancher incombustible.)**

Thomas A. Lee, New York, State of New York, U.S.A., 16th January, 1895; 6 years.

*Claim.*—In combination in a floor or roof, carrying supports therefor, hollow floor blocks cemented together in contiguity and tension rods cemented in and to the base of the said floor, and extending parallel with and from end to end of each course, the upper parts of the said cemented floor blocks forming the compression resisting portion of the floor, and the said cemented tension rods forming with the base of the floor, the tension resisting portion united and parallel with but separated from the said compression resisting portion by the hollows and walls, of the said blocks, substantially as and for the purposes set forth. 2nd. In fireproof construction for floors and roofs, a course of separate blocks united together and having a cavity in each block extending the length of the course, and a tension rod cemented within said cavities and to the said blocks, substantially as and for the purpose described. 3rd. In fireproof construction for floors and roofs composed of courses of separate blocks united together and having registering cavities in the base of said blocks extending the length of each course, the combination of two adjacent courses having meeting cavities, and a tension-rod cemented within said meet-

ing cavities, substantially as and for the purpose described. 4th. In fireproof construction for floors and roofs composed of courses of separate blocks united together and having a cavity in the base of each block extending the length of a course, a tension rod having a cement engaging surface, and cemented within the cavities



in said blocks and to said blocks in each course, substantially as and for the purposes described. 5th. In fireproof construction for floors and roofs composed of courses of separate blocks in contiguity and having registering cavities in the bases of the blocks extending the length of each course, of a tension-rod cemented within the said registering cavities, suitable carrying supports upon which the courses rest at each end, and the means substantially as described for uniting the contiguous sides of the adjacent courses, whereby the strength of one course is imparted to another course continuously throughout the length of the carrying supports, substantially as described. 6th. In a fireproof floor or roof composed of courses of floor blocks in contiguity, one or more tension-rods cemented within the base of the said floor or roof, and one or more metal links connecting the said blocks and rods with each other transversely, substantially as and for the purposes set forth. 7th. In fireproof floors and roofs composed of courses of floor blocks in contiguity, one or more tension-rods cemented within the base of the said floor or roof, and a vertical dowel uniting the courses, substantially as and for the purposes set forth. 8th. In fireproof construction for floors and roofs composed of courses of separate blocks united together and having a cavity in the base of each block registering with each other in the length of said course, the combination of a tension-rod cemented within said cavities, and a vertical dowel uniting said blocks together, substantially as and for the purposes set forth. 9th. In fireproof construction for floors and roofs composed of courses of blocks united together having cavities in the base of each block extending the length of said course, tension-rods cemented within said cavities to said blocks and a link connecting said rods together, substantially as described. 10th. In a floor or roof, hollow floor blocks cemented together and tension-rods formed with irregular surfaces, to insure better grasp for the cement, and cemented in the base of the said floor, extending parallel with and from end to end of the courses to increase the tension resisting strength, whereby the use of I-beams, trussing, or other transverse support, is obviated, the upper part of the said floor-blocks forming the compression registering portion of the floor, and the said tension-rods with the base of the floor forming the tension resisting portion, united and parallel with, but separated from, the said compression resisting portion by the hollows and walls of the said blocks, substantially as and for the purposes set forth. 11th. In fireproof floors and roofs composed of courses of separate blocks united together having a cavity in the case of each block extending the length of the course, the combination of tension-rods within the cavities in said blocks, suitable carrying supports upon which the courses rest at each end, and clamping-rods connected with said supports at one end, and clamped against the inner end of said end blocks at the other, substantially as described.

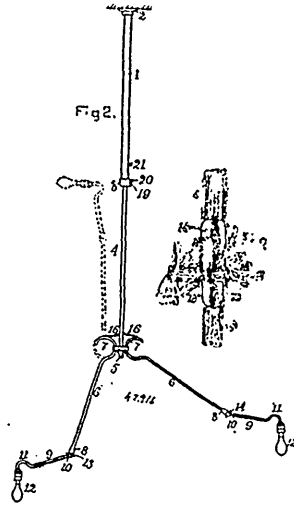
#### No. 47,916. Electric Lamp Bracket.

(Support pour lampes électriques.)

The Faries Manufacturing Company, assignee of Robert Faries, both of Decatur, Illinois, U.S.A., 16th January, 1895; 6 years.

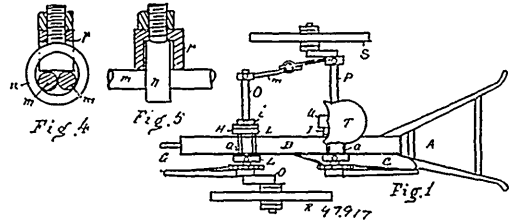
Claim.—1st. An arm for electric lamps, comprising a bracket, or support, having an aperture, and a rod having one end curved and adapted to the aperture of the bracket, having the other end adapted to carry a lamp and having a longitudinal aperture for the passage of a lamp cord, substantially as set forth. 2nd. An arm for electric lamps, comprising a bracket, or support, having an aperture, a rod one end of which is curved and adapted to the aperture of the support, a lamp socket on the swinging end of the rod, and a lamp cord, or circuit wire, connecting with the lamp socket through a longitudinal aperture in the rod. 3rd. An arm for electric lamps, comprising a bracket, or support, having an aperture, a jointed rod one end of which is curved and adapted to the aperture of the support, a lamp socket on the swinging end of the rod, and a lamp cord, or circuit wire, connecting with the lamp socket through a longitudinal

aperture in the rod. 4th. An adjustable carrier for electric lamps comprising two tubes, one longitudinally adjustable in the other, a bracket on the extended end of the adjustable tube, a rod one end of



which is curved and adapted to an aperture in the bracket, and a lamp cord extended through both tubes, coiled in the outer one, and connected with a lamp socket on the swinging end of the rod through a longitudinal aperture in the rod.

#### No. 47,917. Plough Sulky. (Charrua à siège.)



Albert Bess, Hamilton, assignee of Hiram Clauson, Clauson, both in Ohio, U.S.A., 16th January, 1895; 6 years.

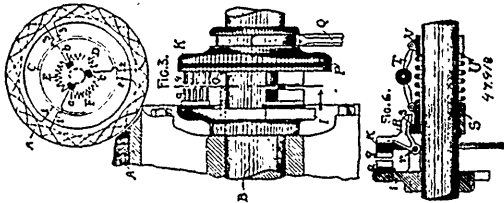
Claim.—1st. In a plough sulky, the combination with two similar crank-shaped axles having similar ground wheels journalled thereon, similar sleeves adapted to the insertion of the respective axles therethrough, and provided at one end with integral segmental racks, of bearings adapted to be detachably and adjustably secured to a plough beam and toward its opposite ends, means to adjustably secure the sleeves to the respective bearings, and levers adjustably secured to the respective axles and adapted to engage with the racks, whereby the axles may be rotatively and independently adjusted in the sleeves. 2nd. In a plough sulky the combination with two similar crank shaped axles, provided with ground wheels at one end, two bearings adapted to be adjustably and detachably secured to and near the ends of a plough beam respectively, of means to adjustably secure the opposite ends of the axles to the respective bearings with the rear axle horizontal and from the land side of the plough, the front axle slanting downwardly from the opposite side of the plough to incline the front wheel outwardly from a vertical position, both axles being pivotally and independently adjustable on the bearings to different angles with the plough beam whereby the direction of the ground wheels may be converged. 3rd. A plough sulky having in combination, crank shaped axles perpendicular to ground wheels thereon, bearings therefor and adapted to secure the axles to the front and rear portions of a plough beam with the respective ground wheels on the furrow and land side thereof, the front axle being extended beyond the land side of the beam, and an extensible brace spanning the distance between the extremity of the axles and on the land side of the beam.

#### No. 47,918. Multiphase Motor. (Moteur multiphase.)

The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Louis Bell, Chicago, Illinois, U.S.A., 16th January, 1895; 6 years.

Claim.—1st. The combination in an electric motor, of a closed circuited secondary member forming the revolving part of the

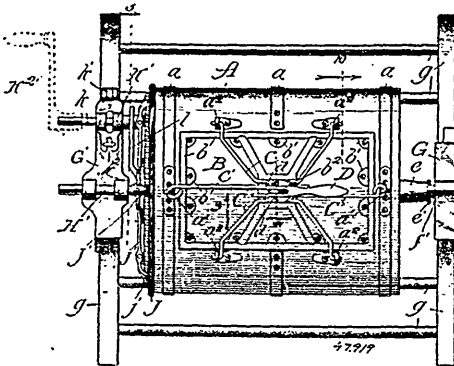
motor, with current impeding means carried by or fixed relatively to, said revolving member for reducing the primary current flowing in said secondary incident to starting the motor, and means for removing said impeding means from circuit when the proper speed has been attained, as set forth. 2nd. The combination in an



electric motor, of a closed circuited secondary member forming the revolving part of the motor, with a non-inductive resistance or resistances carried by or fixed relatively to said revolving member, and means for removing said resistance from circuit when proper speed has been attained, as described. 3rd. The combination in an electric motor of the inductive type, of a revolving secondary member, having a closed circuited winding thereon, a resistance in said winding and moving therewith and a switch for removing said resistance from circuit at will while the machine is running, as set forth. 4th. The combination in an electric motor, of a closed circuited revolving secondary member having a winding comprising two or more coils, as for example an ordinary three-phase winding with a resistance or resistances moving therewith, and through which the circuit of the respective coils is or may be completed, and a switch for removing said resistance or resistances from circuit at will, as described. 5th. The combination in an electric motor, of a closed circuited revolving secondary member having a plurality of coils thereon, each of which is connected to the others through a resistance moving therewith, and a switch adapted to remove all said resistances from circuit simultaneously while the machine is running, as described. 6th. The combination in an electric motor, of a revolving secondary member having a winding comprising a plurality of coils, and resistances moving therewith connecting one end of each coil to the proper end of its neighbouring coil, short circuiting connections around such resistance respectively, and a switch for removing said resistance from circuit while the machine is running, as set forth. 7th. The combination in an electric motor, of a closed circuited secondary member forming the revolving part of the motor, a resistance moving with such member and impeding the primary flow of current therethrough incident to starting the motor, a switch and a speed responsive device automatically throwing said switch so as to remove the resistance from circuit when the proper speed has been attained, as set forth. 8th. The combination in an electric motor, of a closed circuited secondary member forming the revolving part of the motor, a resistance moving with such member and impeding the primary flow of current therethrough incident to starting the motor, a switch and a centrifugal speed responsive device automatically throwing said switch so as to remove the resistance from circuit when the proper speed has been attained, as set forth.

**No. 47,919. Churn and Butter Worker Combined.**

(Barratte et batte à beurre combinées.)

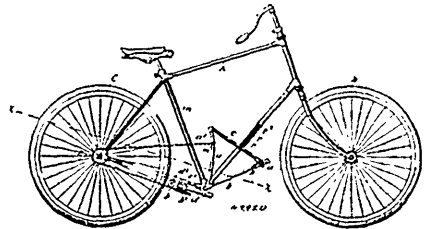


Charles Owens, Cerlaw, Illinois, U.S.A., 16th January, 1895; 6 years.

*Claim.*—1st. In a combined churn and butter worker, a rotatable vessel, having a head rotatably secured to said vessel, and means for immovably securing the head and vessel together when desired, substantially as described. 2nd. In a combined churn and butter worker, the rotatable vessel A, having the head H, churn dashers

carried by the vessel, the roll N, means for securing the head H tightly to the vessel, and means for rotating the vessel and the roll, substantially as described. 3rd. In a combined churn and butter worker, the vessel A, having the head H, churn dashers carried by the vessel, the roll N, means for securing the head H tightly to the vessel, means for transmitting motion from the roll to the vessel so that the latter may be rotated by the movement of the former, or vice versa, consisting of the gear J on the vessel, and the cogwheel K, substantially as described. 4th. In a combined churn and butter worker, a clamping device for fastening the head H tightly to the vessel A, comprising levers pivoted on the head H, their outer ends pressing against the body of the vessel A, and means for raising the inner ends of the levers. 5th. In a combined churn and butter worker, a clamping device for the head H, consisting of the ring L, fitting around the trunnion, or shaft H', and infringing on the cam surface h', the ring M, the levers J' pivoted to the head H, and bearing at one end on the ring M, and at the other end on the body of the vessel A, with suitable means for turning the ring L, on the trunnion H'. 6th. In a combined churn and butter worker, the head H provided with the clamps I, adapted to engage and tightly hold the radial arms h', borne by the trunnion or shaft H', and to be disengaged from said arms when desired. 7th. The lid R adapted to close a window in the end of the vessel A, pressing from the inside outwardly and fastened in position by means of a lever r, pivoted on said lid and pressing at one end on the head H, and provided at the other end with a screw pressing against said head. 8th. In a combined churn and butter worker, the head H having a suitable opening or window for the purpose of observing the process of butter working and the washing of the butter, provided with a suitable lid for tightly closing the opening.

**No. 47,920. Driving Gear and Brake Mechanism for Velocipedes, etc. (Mécanisme conducteur et frein de vélocipèdes, etc.)**

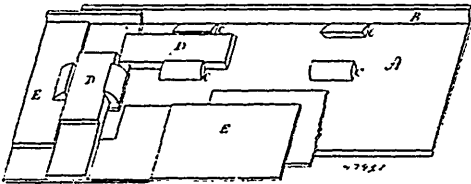


Birger Ljunstrum, Stockholm, Sweden, 16th January, 1895; 18 years.

*Claim.*—1st. In combination, in a bicycle, the frame made up of the head m', the upper and lower inclined bars m' and m'', the seat post m' extending between the inclined bars, the ratchets at the axle of the hind wheel, the chains connected therewith and the treadle frames comprising the arms a adapted to lie along the side of the seat post, the forwardly inclined arms b, the brace c extending between them, said treadle frame being pivoted at the converging point of the arms a, b, to the converging point of the bars m', m'', and the seat post and having the chain clamps secured to the arms a, substantially as described. 2nd. In combination, in a bicycle, the frame, the ratchet-drums at the driving-wheels, the chains extending therefrom, the treadle arms a, the chain clamps carried thereby and adjustable thereof, and the lugs n projecting from the clamps to be engaged by the foot of the rider for moving the same along the treadle arm, substantially as described. 3rd. In combination, in a bicycle, the frame, the driving-wheel, the ratchet-drums, the chains extending therefrom, the treadle arms pivoted to the frame and having perforations or sockets and the chain clamps embracing said arms and including a toothed spring pressed part b' adapted to engage with the perforations in the treadle arms, substantially as described. 4th. In combination, in a bicycle, the frame, the driving-wheels, the ratchet-drums thereon, the treadle, the chain and the chain clamps comprising the pieces b', b'' on opposite sides of the arm, the links connecting said pieces, and the spring b'' between the arm and the piece b'', adapted to press the piece b'' into contact with the arms, substantially as described. 5th. In combination, in a bicycle, the frame, the driving wheel, the driving connections and the treadles for operating the same comprising the arms, the laterally extending pivots c', c'', the tubular bearing c' into which the pivots extend, the ball bearing within the tube and the spring bar c'' connecting the pivots of the treadles, substantially as described. 6th. In combination, the main frame, the driving-wheel, the driving connections thereto, the pivoted treadle arm, the sliding clamp on said arm to which the driving connection is attached and means for adjusting the sliding clamp consisting of the slider moving on the main frame adjacent to the path of the treadle arm and adapted to engage therewith in a certain position of the treadle arm and the means for operating the said slider, substantially as described. 7th. In combination, the frame, the driving-wheel, and driving connections, the treadle, the adjustable clamp, the slider on the main frame for engaging the same and the operating connection

extending therefrom to within convenient reach of the rider when on the seat, substantially as described. 8th. In combination, the frame, the treadsles, the driving connections, the driving-wheel and the ratchet coupling comprising the ring *a*<sup>1</sup> secured to the axle or wheel and having a central peripheral groove and the lateral grooves, the ring *a*<sup>2</sup> surrounding the inner ring and adapted to turn about the same, said outer ring having grooves to correspond with the lateral grooves of the inner ring, the rollers between the central portions of the rings and the balls between the lateral portions of the rings, substantially as described. 9th. In combination, the frame, the driving-wheel, the ratchet-drums, the chain *b*<sup>1</sup> connected thereto, the pulley *b*<sup>2</sup> about which the chain runs when one treadle is depressed, the treadsles connected to the chain, the spring piece carrying the pulley *b*<sup>2</sup> and movably supported on the frame and the brake *d*<sup>2</sup> carried by the moving piece and adapted to be thrust against the driving-wheel when both treadles are depressed simultaneously, substantially as described.

**No. 47,921. Stove Fire Back. (Grille de poêle.)**

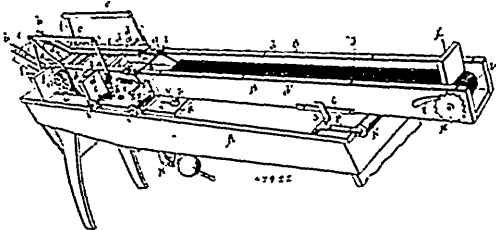


Donald McLennan, Frank Byron Goodman and William Charles McLeod, all of Woodstock, Ontario, Canada, 16th January, 1895; 6 years.

*Claim.*—The combination of stove fire backs and wings or extensions by the application of stove dove-tails or cleats to the said stove fire backs, substantially as and for the purpose hereinbefore set forth.

**No. 47,922. Can Labelling Machine.**

(Machine à étiqueter les boîtes en métal.)

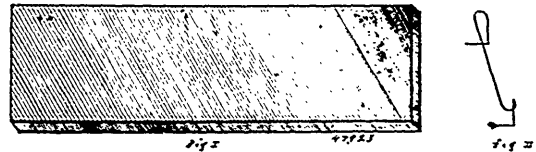


Evan William Cornell and Fred H. Knapp, both of Adrian, Michigan, U.S.A., 16th January, 1895; 6 years.

*Claim.*—1st. In a can labelling machine, the combination with the can run-way and the paste applying mechanism, of the oscillative section of said run-way, and the means connecting said section with said rollers whereby they are rotated by the actuation of said section. 2nd. In a can labelling machine, the combination of the can run-way, the oscillative section thereof, the label receptacle in said run-way, the rotating retaining knives extending into said receptacle and adapted to engage opposite edges of the labels therein and means for connecting said knives with said oscillative section of the run-way. 3rd. In a can labelling machine, the combination of the can run-way, the label receptacle located in said run-way, the knives projecting into said receptacle, the movable follower therein, and means for raising said follower to cause the labels to bear against said knives. 4th. In a can labelling machine, the combination with the pasting mechanism, of the can run-way having a label receptacle therein, the spring restrained crank rod crossing said receptacle and journaled at its ends to the sides thereof, said rod lying adjacent to the face of the labels and adapted to be swung over by the label winding onto the can, and to be returned by the action of its spring as the can rolls from the label, so that the lap end of the label is brought into contact with the paste on the can, substantially as and for the purpose specified. 5th. In a can labelling machine, the combination with the pasting mechanism, of the can run-way having a label receptacle therein, the crank-rod crossing said receptacle and journaled in bearings on the sides thereof, the coiled spring upon said rod, one end of said spring being secured to the rod and the other end to the bearing supporting said rod whereby the crank portion of said rod is held normally adjacent to the labels in said receptacle. 6th. In a can labelling machine, the combination of the can run-way having the label receptacle therein, the retaining knives extending into said receptacle, the movable follower forming the bottom of said receptacle, the arm depending from said follower, and the weighted cam adapted to engage said arm. 7th.

In a can labelling machine, the combination of the can run-way having the label receptacle therein, the flexible apron in said run-way below said receptacle onto which the cans roll by gravity, said apron composed of a series of independent elastic strands. 8th. In a can labelling machine, the combination with the paste applying mechanism, of the can run-way, the flexible apron in said run-way onto which the cans roll by gravity, said apron composed of a series of elastic strands and the means for applying tension thereto, substantially as set forth. 9th. In a can labelling machine, the combination of the run-way having a label receptacle therein, the oscillative rod crossing said receptacle and lying adjacent to the surface of the labels, said rod being adapted to be swung over by the action of the label winding onto the can, and to swing back as the can rolls from the label to draw the lap end of the label from the can. 10th. In a can labelling machine, the combination of the label receptacle, the oscillative-rod crossing said receptacle and adapted to lie adjacent to the labels therein. 11th. In a can labelling machine, the combination of the inclined run-way, the paste applying roller, the label receptacle in said way below said roller, and the inclined apron extending from said receptacle. 12th. In a can labelling machine, the combination of the can run-way having the label receptacle therein, the movable follower forming the bottom of said receptacle, the curved arm depending from said follower and means for guiding and raising said arm. 13th. The combination of the run-way, the label receptacle therein, the oscillative journals provided with V-shaped knives that extend into said receptacle and whose edges terminate on a line with the centre of oscillation. 14th. In a can labelling machine, the combination of the run-way, the mechanism for pasting the cans as they pass along said run-way, the label receptacle for supplying labels to the cans, and means for drawing the lap end of the label across the paste upon the can to apply paste to said lap end thereof, as said label is rolled onto the can.

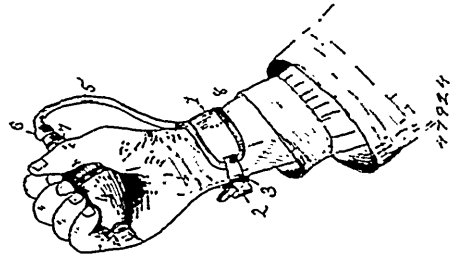
**No. 47,923. Machine for Straightening Boots and Shoes. (Appareil pour redresser les chaussures.)**



George Thomas Baguley, Toronto, Ontario, Canada, 16th January, 1895; 6 years.

*Claim.*—The combination of the plate I, and the toe catch II, and the heel or shank catch III, substantially as and for the purpose hereinbefore set forth.

**No. 47,924. Finger and Wrist Exercising Appliances. (Appareil pour exercer les doigts et le poignet.)**



Robert Barclay, Fort Howard, Wisconsin, U.S.A., 16th January, 1895; 6 years.

*Claim.*—The combination of a hollow wrist-band adapted to encircle the wrist, or other part of the body, a hand-pump adapted to be grasped in the hand, and a tubular connection between the hollow band and the hand-pump, substantially as described.

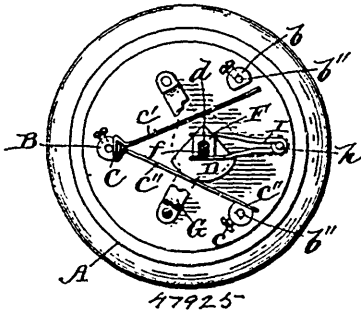
**No. 47,925. Electric Switch. (Commutateur électrique.)**

Edward W. Barker, Charles P. Frank, both of Duluth, Minnesota, and Edward T. Fenwick, Washington, Columbia, all in the U.S.A., 16th January, 1895; 6 years.

*Claim.*—1st. In an electric switch, two movable contact arms electrically connected with a feed pole, in combination with a plurality of contact poles of separate independent circuits, and a movable device located between the arms, which is so constructed and can be operated to cause a contact of said arms directly with one or two poles of the independent circuits, and admits of all or one of the circuits being put on or off at will, substantially as described. 2nd. In an electric switch, two movable contact arms electrically connected with a feed pole, in combination with two contact poles of separate independent circuits, and a movable device

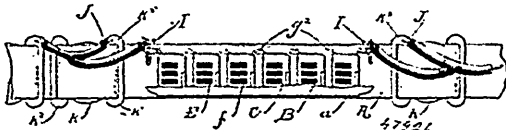
located between the arms, which is so constructed and adapted to be operated as to cause a direct contact of said arms with the poles of the independent circuits, so as to make or break either or both of said circuits without causing an intermediate period between the

Fig. 2.



shifting of the currents, when neither one of the circuits is in operation, substantially as described. 3rd. In an electric switch, two movable spring contact arms electrically connected with a feed pole, in combination with two contact poles of separate independent circuits, and a movable device located between the arms which is so constructed and adapted to be operated as to cause a direct contact of said arms with the poles of the independent circuits so as to make or break either or both circuits without causing an intermediate period, between the shifting of the currents when neither one of the circuits is in operation, substantially as described. 4th. In an electric switch, the combination of a feed pole, movable contact arms connected therewith, contact poles of independent circuits in proximity to said arms, a movable sector adapted to cause the engagement of said arms with said contact poles together or separately without causing an intermediate period between the shifting of the currents when neither one of the circuits is in operation, substantially as described. 5th. In an electric switch, the combination of a feed pole, two movable spring contact arms connected therewith, contact poles of independent circuits in proximity to said arms, a movable sector located between the said arms and adapted to cause the engagement of said arms directly with said contact poles together or separately without causing an intermediate period, between the shifting of the currents when neither one of the circuits is in operation, substantially as described. 6th. In an electric switch, the combination of a feed pole, two movable contact arms connected therewith, a contact pole placed in proximity to said arms, an operating shaft, a sector mounted on said shaft and adapted to cause the engagement of said arms with said contact poles together or separately, substantially as described.

No. 47,926. Electric Bell. (Cloche électrique.)

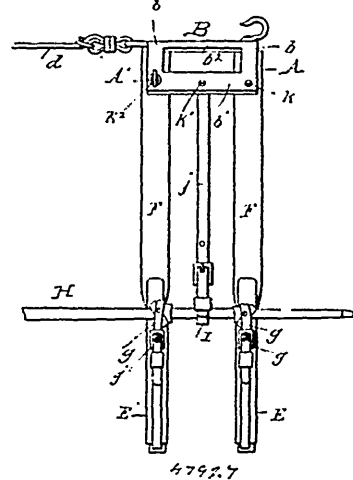


Erastus Monroe Miles, Chicago, Illinois, U.S.A., 16th January, 1895; 6 years.

Claim.—1st. In a battery for electric belts, a cell composed of an outer shell or case F of copper, in combination with an inner plate D, of zinc bent upon itself but with a space between the two sides opening out between the two free edges, and an absorbent strip E, arranged within the said space and surrounding the said inside element D, in the space between the latter and the outside element or shell, substantially as described. 2nd. In a battery for electric belts, the cell, in combination with a hinge device connecting adjacent cells and provided with an eye or loop formed in the hinge itself for making connections, substantially as described. 3rd. In a battery for electric belts, the cells C, in combination with the wire hinges G, connected to opposite elements of adjacent cells, and provided with a loop or eye  $g^2$ , formed by bending the wire into a loop at one end of each hinge, substantially as described. 4th. In a battery for electric belts, a switch or cut-out I, consisting of a single strip or wire bent upon itself and with the ends diverging, substantially as described. 5th. In a battery for electric belts, the cells C, in combination with a hinge connecting adjacent cells and provided with an eye or loop  $g^2$ , the switch or cut-out I, constructed as specified, and the electrode conductors, substantially as described. 6th. In electric belts, an electrode consisting of a disc k, provided with loops  $k^1$ ,  $k^2$  in one piece with said disc, substantially as described. 7th. In an electric belt, the battery cells, in combination with hinge connections between the cells, provided with eyes or loops  $g^2$ , the cut-outs I, constructed as specified, the electrode K, consisting of a

disc k, provided with loops  $k^1$ ,  $k^2$  in one piece therewith, the conductors J, and the belt A, substantially as described.

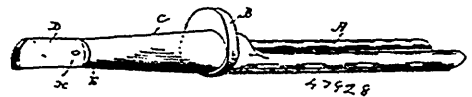
No. 47,927. Harness Saddle. (Selle de harnais.)



William Taylor, Buffalo, New York, U.S.A., 16th January, 1895; 6 years.

Claim.—1st. A harness saddle comprising the two narrow transverse pads arranged with a space between them, and the means for connecting and holding said pads together consisting of a rigid frame extending over them and made of angular transverse portions conforming substantially to the pads, said transverse portions being connected both at their upper and lower ends by rigid longitudinal bars, the thill loops and the straps carrying the same, the said lower longitudinal bars serving as braces for the lower ends of the angular portions and also as a support for the thill straps to which they are connected, substantially as set forth. 2nd. A harness saddle comprising the two narrow pads arranged with a space between them, the means for connecting and holding said pads together consisting of a rigid frame extending over them and made up of angular transverse portions conforming substantially to the pads and connected by rigid longitudinal side bars, the back bands extending down from the pads in front and rear of the saddle, the belly bands connected to the back bands, the thill loops and the straps carrying the same and adjustably connected at their upper ends with the longitudinal bars extending between the pads whereby said straps may be fixed at different points on the side bars to shift the weight of the thills, substantially as set forth.

No. 47,928. Sap Spout. (Siphon pour la sève.)



James F. Warner, Essex, Vermont, U.S.A., 16th January, 1895; 6 years.

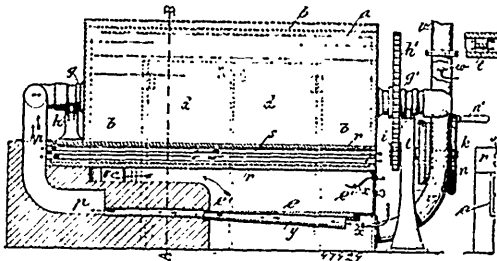
Claim.—1st. A sap spout having an intermediate tapered portion with a flange at its outer end, and a longitudinal opening, an oval portion at its inner end, the greatest diameter of the oval portion being vertical, and provided with a transverse opening communicating with the said longitudinal opening, and a trough at the outer end of the said tapered portion, substantially as described. 2nd. A sap spout having a tapered portion provided with a longitudinal opening, an oval portion at the inner end of said tapered portion, the greatest diameter of said oval portion being vertical for the purpose described and provided with a horizontal transverse opening intersecting the said longitudinal opening, substantially as described. 3rd. A sap spout having an intermediate tapered portion provided with a longitudinal opening, an oval portion at the inner end of said tapered portion provided with a transverse opening communicating with said longitudinal opening, the greatest diameter of said oval portion being vertical and slightly enlarged from its outer toward its inner end, and a trough at the outer end of said tapered portion, substantially as set forth.

No. 47,929. Machine for Drying Brewer's Refuse. Etc. (Machine pour sécher les rebuts de brasseries.)

Richard Cunliffe, Wenste, Manchester, Lancaster, England, 17th January, 1895; 6 years.

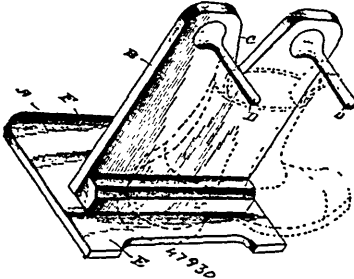
Claim.—1st. In combination with the retort a, a spur-wheel  $h^1$ ,

fixed upon its trunnion  $g^1$ , gearing into a spur pinion  $i$ , fixed upon a shaft  $k$ , carrying a fast and loose pulley  $m, m^1$ , and also a hand-wheel  $n, n^1$ , substantially as and for the purpose set forth. 2nd. In combination with the retort  $a$ , and casing  $b$ , a furnace  $c$ , having



a passage  $o$ , communicating with the space  $c^2$ , between the casing  $b$  and the retort  $a$ , and a passage or pipe communicating with the interior of the retort  $a$ , substantially as and for the purpose set forth. 3rd. In combination with the furnace  $c, c^1, o, r$ , containing one or more series of pipes  $s$ , or perforations  $t$ , open at each end and communicating at the back end with the passage or pipe  $p$ , leading to the interior of the retort  $a$ , substantially as and for the purpose set forth. 4th. In the furnace  $c, c^1, o, r$ , the employment of hollow taper fire-bars  $y$ , the back ends of which are in communication with the passage or pipe  $p$ , leading to the interior of the retort  $a$ , substantially as and for the purpose set forth.

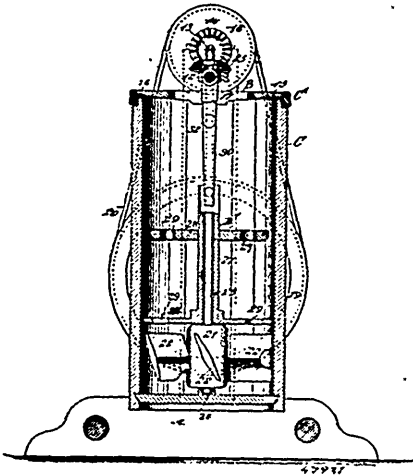
**No. 47,930. Boot-Jack. (Tire-botte.)**



Charles Bisanz, Red Lodge, Montana, U.S.A., 17th January, 1895; 6 years.

*Claim*.—In a boot-jack, the combination with a base-plate, of a perpendicular plate B, attached at one end to the base-plate at an intermediate point of the latter, and provided at the opposite end with a heel notch and parallel perpendicular pins, the portion of the base-plate upon one side of the plate B, being equal in projection with said pins, and the portion upon the other side thereof being designed as a foot-rest when the plate B, is in its vertical position, substantially as specified.

**No. 47,931. Churn. (Baratte.)**



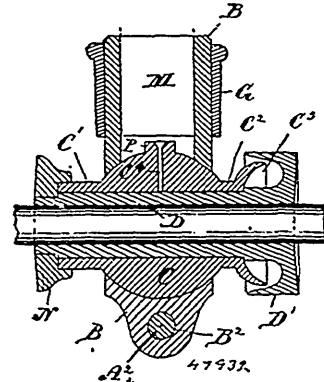
Michael Francis Kelly, Blossburgh, Pennsylvania, U.S.A., 17th January, 1895; 6 years.

*Claim*.—1st. In a churn, a driving mechanism, and a rotary and a

vertically reciprocating dasher operated from the same driving mechanism, as and for the purpose set forth. 2nd. In a churn, the combination, with a driving mechanism, of a rotary and a vertically reciprocating dasher operated from the said driving mechanism, each dasher being capable of independent use, as and for the purpose specified. 3rd. In a churn, the combination, with a driving mechanism, of a dasher shaft provided with a propeller-like dasher secured thereto, the said shaft being in shifting engagement with the driving mechanism, a second dasher mounted to slide upon the dasher shaft, comprising a sleeve and disc-like plates, and a crank connection between the sliding dasher and a crank arm in the driving mechanism, as and for the purpose set forth. 4th. In a churn, the combination, with the body, and a drive shaft located over the body, provided with a crank arm and an adjustable driving gear, of a dasher shaft journaled within the body and extending outwardly therefrom, being provided at its outer end with a gear meshing with that on the drive shaft, a dasher secured to the said shaft and adapted to revolve therewith, comprising a hub and plates projected therefrom, a second dasher having sliding movement on the roller shaft, comprising a sleeve and apertured disc plates connected therewith, an arm attached to the sleeve of the sliding dasher and having removable connection with the crank arm of the crank shaft, substantially as shown and described, whereby one or both dashers may be used in the operation of churning, being driven from the same drive shaft, as and for the purpose specified. 5th. In a churn, the combination, with a body and a driving shaft, of a rotary dasher located in the body, comprising a hub and plates projected from the hub, located diagonally with respect to the axis of the hub, the said plates being substantially diamond shape in cross section, the dashers being adapted to have rotary movement, a second dasher capable of a sliding movement, likewise located within the body and comprising a sleeve and apertured disc plates connected therewith, a shaft connected with the rotary dasher, upon which the sliding dasher is loosely mounted, and a driving connection between said shaft and the drive shaft, and the drive shaft and the sliding dasher, and means, substantially as shown and described, for throwing either dasher out of connection with the drive shaft, as and for the purpose specified.

**No. 47,932. Ball Joint for Disc Harrows.**

(Joint à boulet pour herbes à disques.)



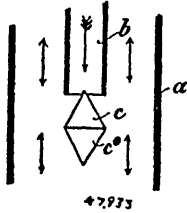
J. H. Whitney, Prescott, Ontario, Canada, 17th January, 1895; 6 years.

*Claim*.—1st. The combination with the gang discs of a harrow, each gang having an axle B, of the sleeve D, slipped on said axles respectively intermediate of two discs, the ball C, having tubular axial extensions  $C^1, C^2$ , slipped on said sleeve, a ball casing comprising two sections A, B, having upward extensions  $A^1, B^1$ , forming a socket M, a ring G, holding said sections together, and a beam K, having ends fitting into said sockets and held by a pin or bolt, to connect the gangs, as set forth. 2nd. In a ball joint for disc harrows, the combination of the ball casing A, B, fitting together, the ball C, inclosed by said casing and having axial extensions  $C^1, C^2$ , tubular through the ball, the washer N, fitting over the said extension  $C^1$ , and the tubular sleeve D, passing through said ball and extensions and washer, and provided with a return flange  $D^1$ , substantially as and for the purpose set forth. 3rd. A ball joint for disc harrows, comprising two sections A, B, fitting together and held by a ring G, and hook-and-eye and having a socket M, to receive the end of the beam of the harrow, as set forth, to connect the gangs, a ball C, inclosed by said sections, and having axial tubular extensions  $C^1, C^2$ , a tubular sleeve D, inserted through said extensions, and a washer N, slipping over the end of said sleeve, substantially as described. 4th. A ball joint for disc harrows composed of two sections A, B, held separately together, and providing a socket M, a ball C, encased by said sections and having tubular axial extensions  $C^1, C^2$ , and a tubular sleeve D, passing through said ball and extensions and adapted to receive the axle to the gang of discs, substantially as described.



**No. 47,933. Furnace for Burning Coal Dust.**

(*Fournaise pour brûler la poussière de charbon.*)



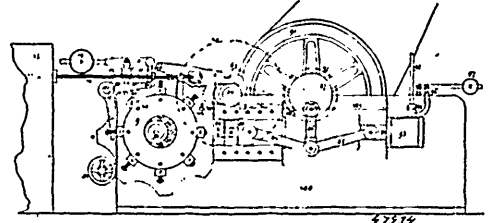
Carl Wegener, Berlin, Prussia, Germany, 17th January, 1895; 6 years.

*Claim.*—1st. In a coal dust burning furnace, the arrangement for mixing the coal dust with air and for conveying the mixture into the combustion chamber by the draught of the chimney or by forced draught, consisting in the combination of air pipe *a*, coal dust supply pipe *b*, and distributing device *c*, placed before the discharge end of the coal dust supply pipe, substantially as and for the purpose described. 2nd. In a coal dust burning furnace of the kind as claimed in the first claiming clause, the arrangement of imparting to the distributing device a rotary movement on its central axis, substantially as and for the purpose described. 3rd. In a coal dust burning furnace of the kind as claimed in the preceding claiming clauses, an arrangement for obtaining the rotation of the distributing device, consisting in a fan-wheel mounted on the same spindle as the distributing cone and disposed according to the direction of the current of air either above or beneath the distributing cone, substantially as and for the purpose described. 4th. In a coal dust burning furnace of the kind, as claimed in the first claiming clause, the arrangement in their pipe, before the distributing device or behind the same, or before and behind the same, of internal spiral surfaces or ridges *s*<sup>1</sup>, *s*<sup>2</sup> and *s*<sup>3</sup>, which leave a central core free, and impart to the current of air, or the mixture of air and dust, a whirling motion, substantially as described with reference to figures 4, 5 and 6 of the drawings. 5th. In a coal dust burning furnace, conical shaped rings *r*, of gradually diminishing diameter arranged within the air pipe at the opening of the same into the combustion chamber, and adjustable in the direction of the axis of the air pipe, substantially as described with reference to fig. 7 of the drawings. 6th. In a coal dust burning furnace alternately operated by forced and natural draught, a device for regulating and sheeting off the supply of air, consisting of a cylindrical slide 47, surrounding the air pipe and which, by means of an outwardly bent edge, works against a flat surface 46, whilst the central blast pipe 48, opening towards the air pipe may be closed by means of a cover tapering in the direction of the inflowing air, substantially as described with reference to figures 8 and 9 of the drawings. 7th. In a coal dust burning furnace, a feed hopper 68, for the coal dust, which hopper has a hinged connection with the supply pipe *b*, the mouth end 69 resting as a hollow cylindrical valve in a socket 7, at the upper end of the feed pipe, substantially as described with reference to figures 8 and 9 of the drawings. 8th. In a coal dust burning furnace, the arrangement of fixed spiral vanes 30, or a series of diverting plates 64, in the passage *a*, conveying the mixture of air and coal dust into the combustion chamber, substantially as described with reference to figures 8, 9, 10 and 11, of the drawings. 9th. In a coal dust burning furnace, the arrangement of an innovable fan wheel 52, in the air, passage beneath the fan wheel the vanes of which fan wheel 52, may be adjusted like louvre boards and form, by reason of their direction, a directing wheel which guides the air to the driving wheel *d*, substantially as described with reference to figures 12 and 13 of the drawings. 10th. In a coal dust burning furnace, a knife disc *g* mounted on a vertical spindle *f* in the upper end of the feed pipe, the knives 29 of which disc may be formed by bending upwards partially cut out parts of the disc itself, substantially as described with reference to figures 14 and 15 of the drawings. 11th. In a coal dust burning furnace, in which a sieve with oscillating or reciprocating motion is disposed in the upper part of the feed pipe, the arrangement, substantially as described with reference to figures 16, 17 and 18 of the drawings, for converting the rotary motion of the spindle into the oscillating or reciprocating motion. 12th. In a coal dust burning furnace, the coal dust feeding arrangement, consisting of radially adjustable scoops or paddles in combination with an annular horizontal disc, substantially as described with reference to figures 19 and 20 of the drawings. 13th. In a coal dust burning furnace in which the current of air is conveyed in a downward direction, a front furnace with vertical combustion chamber in which, by means of an outer casing *A*, an annular chamber *B* is formed for heating the air which passes in at the bottom and out at the top in order to unite with the mixture of air and coal dust descending from the air pipe into the bottom of the front furnace, substantially as described with reference to figures 21 and 22 of the drawings. 14th. In a coal dust burning furnace with front furnace as claimed in the preceding claiming clause, the arrangement of the casing *A* in such a way that a second air heating chamber *C* is formed from which heated air is mixed with the fire gases escaping from the horizontal part of the front furnace, substantially as described with reference

to figures 21 and 22 of the drawing. 15th. In a coal dust burning furnace combined with a flue 57 of a steam boiler lined with refractory material, the arrangement of a space between the upper part of the refractory lining 57 and the flue, which space is connected by openings in the refractory material with the combustion chamber, substantially as described with reference to figure 23 of the drawing. 16th. In a coal dust burning furnace combined with a flue of a steam boiler, the arrangement of an annular passage 60 surrounding the mouth of the pipe *a* for the supply of the mixture of coal dust and air to the combustion chamber, through which annular passage an additional quantity of air may be supplied to the combustion chamber, substantially as described with reference to figures 23 and 24 of the drawing.

**No. 47,934. Automatic Rivet making Machine.**

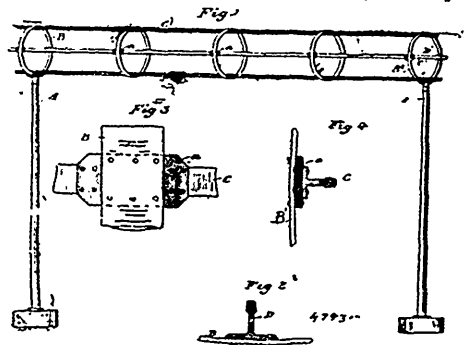
(*Machine automatique à fabriquer les rivets.*)



Rodolph George Beker, and George Edward Small, both of Montreal, Quebec, Canada, 17th January, 1895; 6 years.

*Claim.*—1st. In a rivet or bolt making machine, the combination of feed rollers 16, 17, cog-wheels 20, 21, 22, ratchet 24, and ratchet-wheel 23, rod 31, cams 32, 33, substantially as and for the purposes specified. 2nd. In a rivet bolt making machine, the combination of a star-wheel 10, segment-wheel 63, roller pins 64, 65, substantially as and for the purposes specified. 3rd. In a rivet or bolt making machine the combination of an eccentric 80, ring 79, helix and helix-wheel 81, substantially as and for the purpose specified. 4th. In a rivet or bolt making machine, the combination of the steel rings 69, 70, substantially as and for the purposes specified. 5th. In a rivet or bolt making machine, the combination of a forked lever 11, adjustable by screw bolt 11', substantially as and for the purposes specified. 6th. In a rivet or bolt making machine, the combination of the connecting rods 84, 85, 86, hydraulic cylinder 93, safety valve 96, lever 102, spring lever 103, cock 99, substantially as and for the purposes specified. 7th. In a rivet or bolt making machine, the combination of the grippers 41, 41', 50, rifled tube 42, rifled spindle 44, fork-shaped slide 43, substantially as and for the purposes specified. 8th. In a rivet or bolt making machine, the combination of a screw bolt 53, frames 54, spring 55, lever 11, substantially as and for the purposes specified.

**No. 47,935. Electric Railway. (Chemin de fer électrique.)**

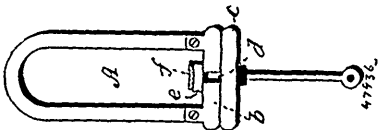


The Thomson Houston International Electric Company, Portland, Maine, assignee of Charles A. Coffin, Boston, Massachusetts, and Albert Wahl, Chicago, Illinois, executors of Charles J. Van Depoele, late of Lynn, Massachusetts, all in the U.S.A., 17th January, 1895; 6 years.

*Claim.*—1st. In an electric railway, a suitable track having upper and lower side rails, a series of concentric rings surrounding said rails, an insulating block between the rings and side rails, the rails being secured to the rings, contact wheels running on the rails, and spring contact blocks also bearing on the side rails, substantially as described. 2nd. In an electric railway, a suitable track having upper and lower side rails, a series of concentric rings surrounding said rails, the upper and lower rails being secured directly to the rings, the side rails being secured to a block of insulating material, the latter secured to the rings, and contact wheels running on the

rails, substantially as described. 3rd. In an electric railway, a suitable track having upper and lower and side rails, a series of concentric rings surrounding said rails to which they are connected, cars travelling on said way, each having upper and lower and side contact wheels, and separate motors for each car, substantially as described. 4th. In an electric railway, a suitable track having upper and lower and side rails, a series of concentric rings surrounding said rails, the upper and lower rails being secured to the rings and the side rails being also secured thereto but insulated therefrom, substantially as described. 5th. In an electric railway, a suitable track having upper and lower and side rails, and a series of concentric rings surrounding and supporting said rails, a car running on said track comprising a suitable frame having side and top wheels running on the side and upper rails, and a lower wheel running on the lower rail, said lower wheel being provided with a motor, substantially as described. 6th. In an electric railway, a suitable track having upper and lower and side rails, and a series of concentric rings surrounding and supporting said rails, a car running on said track comprising a suitable frame supporting side and top wheels running on the side and upper rails, friction blocks spring-supported upon said frame, also bearing on side rails, and a lower wheel running on the lower rail, said lower wheel being provided with a motor, substantially as described. 7th. In an electric railway system, the combination with the main-way of a branch-way consisting of insulated sections of track, and a rheostat bridging two of said sections, and having a connection to the main-way, thereby controlling the starting and stopping of the train, substantially as described. 8th. In the herein described railway system, a vehicle comprising a suitable rectangular frame, a box or casing spring-supported on said frame, wheels journaled in the side of said frame adapted to run on the side rails of the way, and upwardly and downwardly curved bars attached to said frame and supporting upper and lower wheels adapted to run on the upper and lower rail of the way, substantially as described. 9th. The herein described vehicle comprising a rectangular frame, a box or casing spring-supported thereon, wheels journaled in the sides of said frame, friction block spring-supported from the sides of said frame, said wheels and blocks being adapted to bear on the side rails, said frame being provided with downwardly and upwardly curved bars H and I, motor wheels journaled in the former, contact wheels L, supported by the latter, and bars L, L, extending vertically between the ends of said bars H and I, substantially as described.

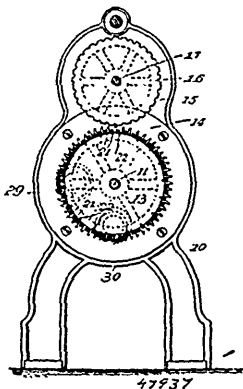
**No. 47,936. Mode of Controlling Magnetic Energy.**  
(*Mode de contrôler l'énergie magnétique.*)



Henry Monroe Paine, Newark, New Jersey, and Albert Russell Brandy, New York, State of New York, both in the U.S.A., 17th January, 1895; 6 years.

*Claim.*—The bi-section of a fixed armature, or the bi-section of any part of a magnet's structure, in combination with a movable paramagnetic body, opening or closing the bi-sectioned space, substantially in the manner and for the purpose set forth.

**No. 47,937. Wood Cutting Machine.**  
(*Machine pour couper le bois.*)



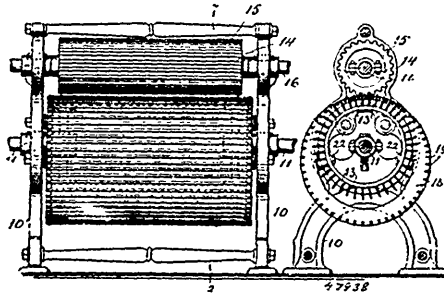
The International Wood Working Machine Company, assignee of William F. Hutchinson, both of Passaic, New Jersey, U.S.A., 17th January, 1895; 6 years.

*Claim.*—1st. A wood-cutting machine, comprising a revoluble

cutting drum with peripheral knives, a bearing drum for the knives of the cutting drum, and a double series of ejectors held between the knives, each series being arranged to move outward towards the knife edges at a different place from the other series, substantially as described. 2nd. A wood-cutting machine, comprising a revoluble cutting drum with peripheral knives arranged in sets, a portion of the knives being curved as shown, and a double set of ejectors arranged to move outward between the knives at different points, substantially as described. 3rd. In a wood-cutting machine, the combination with the cutting drum, having projecting peripheral knives arranged in sets, each set comprising a straight knife and oppositely curved knives on each set of the straight knife, of a double series of ejectors, one series lying between the straight and curved knives and the other series lying between the sets of knives, and mechanism for moving each series of ejectors, outward towards the knife edges at a point different from that at which the other series is moved, substantially as described. 4th. The combination, with the revoluble cutting drum, having peripheral knives, of rollers arranged adjacent to the ends of the drum and in different planes, and a double series of ejectors lying between the knives and projecting into the paths of the rollers, one series being acted upon by one set of rollers only, substantially as described. 5th. The combination, with the cutting drum having peripheral knives, the circular tracks arranged at the ends of the drum and the rollers adjacent to the tracks, one roller projecting further into the tracks than the other, of a double series of ejectors lying between the knives with their ends entering the track, one series having lugs thereon to engage the innermost rollers, substantially as described.

**No. 47,938. Wood Cutting Machine.**

(*Machine pour couper le bois.*)



The International Wood Working Machine Company, assignee of William F. Hutchinson, both of Passaic, New Jersey, U.S.A., 17th January, 1895; 6 years.

*Claim.*—1st. The combination, with a wood-cutting machine, having a revoluble cutting drum with projecting knives and a bearing drum for the knives, of an ejecting cylinder hung on the cutting drum and provided with parallel rods or bars to lie between the knives of the cutting drum, substantially as described. 2nd. The combination, with the revoluble cutting drum having projecting peripheral knives and the bearing drum against which the knives revolve, of an ejecting cylinder hung on the cutting drum and provided with parallel peripheral rods to lie between the knives, and steadying devices for the ejecting cylinder, substantially as described. 3rd. The combination, with the revoluble cutting drum having projecting peripheral knives and a bearing drum for the knives, of the ejecting cylinder hung on the cutting drum and provided with parallel rods or bars to lie between the knives, and bearing rollers arranged within the cylinder to steady the same, substantially as described. 4th. The combination, with the machine frame, the revoluble cutting drum having projecting peripheral knives and the bearing drums for the knives, of the ejecting cylinder having parallel peripheral rods to lie between the knives and open circular ends, and the bearing rollers journaled on the machine frame and turning against the inner edges of the cylinder ends, substantially as described.

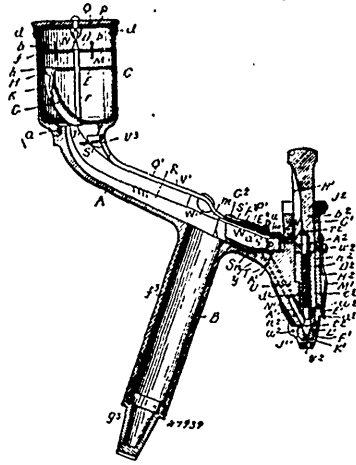
**No. 47,939. Tack Driving Machine.**

(*Machine à chasser la broquette.*)

Clarence Seward Luitwieler, assignee of Charles Willick King, both of Newton, Massachusetts, U.S.A., 17th January, 1895; 6 years.

*Claim.*—1st. In a tack driving machine an inclined race-way, a block or cylinder arranged at the lower end of said race-way to swing back and forth, a longitudinal slot or groove in the side of said cylinder which in its normal position is opposite to or coincident with said race-way to receive a tack therefrom, a shoulder on said cylinder, a passage or opening communicating with the chamber in which said cylinder turns, a spring bearing on said cylinder shoulder to act upon and swing said cylinder to carry the tack in its slot to said passage, and a movable stop or pin to engage with said cylinder.

2nd. In a tack driving machine, an inclined race-way, a cylinder or block at the lower end of said race-way, arranged to swing back and forth, a longitudinal slot or groove in the side of said cylinder arranged to be opposite to or coincident with the inclined race-way, a spring bearing upon a shoulder on said cylinder, a passage opening into the cylinder socket, a tack driver bar adapted to move up and

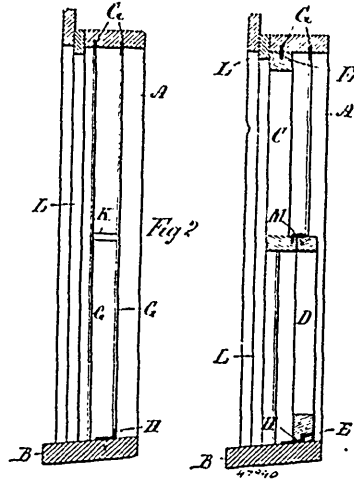


down in a suitable guide-way, a longitudinal groove in said bar, and an incline at its lower end a stop or pin having its inner end arranged to engage with said cylinder and its other end disposed in said driver bar groove and arranged to bear upon said incline. 3rd. In a tack driving machine, an inclined race-way, a cylinder or block at the lower end of said race-way arranged to swing back and forth, a longitudinal slot or groove in the side of said cylinder arranged opposite to or to be coincident with the inclined race-way, a spring bearing upon a shoulder on said cylinder, a passage opening into the cylinder chamber, a movable stop to engage with said cylinder, a driver bar adapted to move up and down in suitable guide-ways and bear upon said stop or pin, and a spring to elevate said driver. 4th. In a tack driving machine, an inclined race-way, a block inserted in a recess in the body of said cylinder having a continuation of said race-way, a cylinder arranged in said block to swing back and forth therein, a longitudinal slot or groove in the side of said cylinder which in its normal position is opposite to or coincident with said race-way to receive a tack therefrom, a shoulder on said cylinder, a passage or opening communicating with the chamber in which said cylinder turns, a spring bearing on said cylinder shoulder to act upon and swing said cylinder to carry the tack in its slot to said passage, and a movable stop or pin to engage with said cylinder. 5th. In a tack driving machine, an inclined race-way in the body of the machine, a block inserted in a recess in the machine forming a part of the race-way, a cylinder or block arranged to swing back and forth in said block, a longitudinal slot or groove in the side of the cylinder arranged to be opposite to or coincident with the race-way, a shoulder on said cylinder, a spring bearing on said shoulder secured to the block, a movable stop or pin in the body of the machine to engage with said cylinder, a driver adapted to move up and down in suitable guide-ways, and bear upon said stop or pin, and a spring to elevate said driver bar. 6th. In a tack driving machine, an inclined race-way, a cylinder arranged to swing back and forth at the end of said race-way, a longitudinal slot or groove in the side of said cylinder arranged to be opposite to or coincident with the end of the race-way, a shoulder on said cylinder, a spring bearing on said shoulder, a transverse open slot or groove in the side of the cylinder and an arm or stripper arranged to project into said transverse groove or slot. 7th. In a tack driving machine, an inclined race-way, a cylinder or block arranged to swing back and forth at the end of said race-way, a longitudinal slot or groove in the side of said cylinder arranged to be opposite to or coincident with the end of the race-way, a shoulder on said cylinder, a spring bearing on said shoulder, a transverse open groove or slot in the side of the cylinder, an arm or stripper arranged to project into said transverse groove or slot, a shoulder in said cylinder, a stop or pin engaging with said shoulder and adapted to move back and forth in guideways, a driver bar adapted to move up and down in guideways, a spring to elevate said driver bar, a longitudinal groove in the side of the driver bar, an inclined bearing at its lower end for the stop or pin to engage therewith or bear thereon. 8th. In a tack driving machine, an inclined race-way, a receptacle for the tacks at the upper end of the race-way, a partition in said receptacle, a curved tube or spout connected by its upper end to said partition, its lower end over the inclined race-way, and a spiral open slot in the side of said tube the length of said tube, and an opening in said partition communicating with said tube. 9th. In a tack driving machine, an inclined race-way, a receptacle for the tacks at the upper end of the race-way, a partition in said receptacle having an opening through it at one side, another partition below the first partition, a curved tube or spout connected

by its upper end to said latter partition, its lower end over the inclined race-way, a spiral open slot in the side of said tube the length of the tube, and an opening in said latter partition communicating with said tube.

**No. 47,940. Window Frame and Sash.**

(Croisite et cadre de fenetre.)

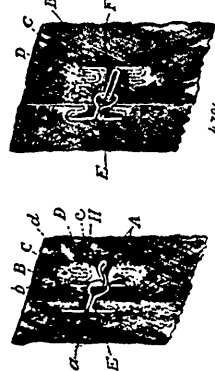


Charles Day Morson, Park Hill, Ontario, Canada, 17th January, 1895; 6 years.

*Claim.*—1st. The combination with the window frame, having parallel tongues G, at the sides, and a tongue at the top and sill, of the upper and lower sliding sashes C, D, having grooves at the side edges and at the top and bottom, and receiving said tongues, as set forth for the purpose described. 2nd. The combination of the upper and lower sliding sashes, the meeting rail of the upper sash provided with a metal strip or tongue M, fitting into a groove in the meeting rail of the lower sash, as and for the purpose set forth. 3rd. The casquets K, secured to the window frame intervening the parallel tongues E, and opposite to the ends of the meeting rails of the sashes, as and for the purpose described.

**No. 47,941. Self-Fastening Hooks and Eyes.**

(Crochet et oillet à fermeture.)

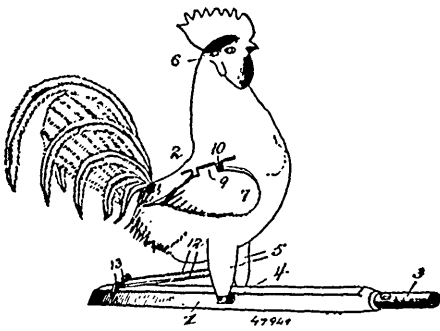


Harry Davidson and Alfred C. Clapp, both of New York, State of New York, U.S.A., 17th January, 1895; 6 years.

*Claim.*—1st. A fastening for hooks, eyes, etc., consisting of a hook, or eye, etc., provided with a pair of oppositely projecting stays, each formed of a wire bent into three substantially parallel arms connected by curves all lying in substantially the same plane, and otherwise arranged substantially as shown and adapted for the purpose specified. 2nd. In a hook and eye fastening, a self-fastening hook, having a pair of oppositely projecting stays or fastenings connected to the inner extremity of and standing beside the hook shank, each stay consisting of a wire bent into three substantially parallel arms connected by curves all lying in substantially the same plane as the shank of the hook, substantially as described. 3rd. In a hook and eye fastening, a self-fastening eye having a pair of oppositely projecting stays or fastenings connected to its ends, each stay consisting of a wire bent into three substantially parallel

arms connected by curves, all lying in substantially the same plane as the eye, substantially as and for the purpose described.

No. 47,942. Toy. (Jeu.)

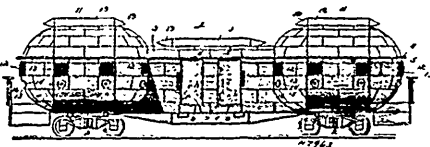


Timothy S. Thorn, Plainfield, New Jersey, U.S.A., 17th January, 1895; 6 years.

Claim.—1st. In a toy, the combination of a base portion, the figure of a fowl mounted thereon, a wing pivotally mounted in each side of the figure and capable of swinging on their fulcrums, each of said wings having fixed thereto inwardly-projecting studs, and a spring-arm arranged within the figure and connected to the studs, said arm being extended out of the figure, and secured to the base and having a normal tendency to cause the wings to lie against the sides of the figure, the arm being adapted to be depressed so as to raise the wings, substantially as described. 2nd. In a toy, the combination of a base or body portion, the figure of a fowl rigidly secured thereto, a wing pivotally mounted on each side of the figure and having fixed thereto an inwardly-projecting stud or arm, and a spring-rod pivotally connected to each of said arms, and extending downwardly through the body of the figure, and thence outwardly and horizontally where it is connected to the main or body portion, said rod being adapted to be depressed to operate the wings and to automatically return said wings to their normal position when the pressure is released, substantially as described. 3rd. A toy comprising in its construction a base portion having a whistle thereon, the figure of a fowl mounted on the base portion, wings pivoted to the sides of the fowl, and a spring-arm passing into the body and connected to the wings, the remaining end of the arm being extended out beyond the fowl, and secured to the base portion so as to be reached by the operator, substantially as described.

No. 47,943. Mail and Express Car.

(Char de malle et exprès.)



Frank Rowley, West Superior, Wisconsin, U.S.A., 17th January, 1895; 6 years.

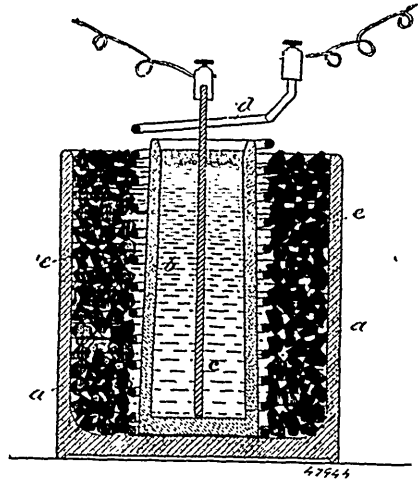
Claim.—1st. In a mail and express car, the metallic car body having a separate roof flanged thereto, and provided with a partitioned intermediate squared portion and opposite enlarged cylindrical end portions leading off from both ends of the squared portion, and having in the sides and ends thereof a series of grated windows and port holes immediately under the windows, substantially as set forth. 2nd. In a mail and express car, an elongated metallic car body provided at both ends with enlarged cylindrical end portions, having in the sides and ends thereof a series of windows and port holes immediately under the windows, exterior protective gratings fitted over said windows, and perforated fire-arm supporting balls mounted for universal movement in the port holes under the windows, substantially as set forth.

No. 47,944. Electric Battery. (Batterie électrique.)

Robert McLauchlan McDonald and Alexander McDonald, both of Dalnair, Lanark, Scotland, 17th January, 1895; 6 years.

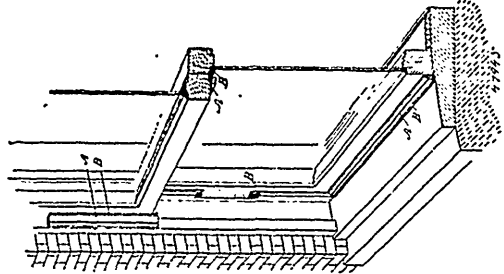
Claim.—1st. An electric battery consisting of an outer cell, an inner porous cell with an element therein, a copper spiral or its equivalent surrounding the inner cell, cinders or like porous carbonaceous substance packed between the copper spiral and the outer cell and suitable liquids placed in the outer and inner cells, substantially as hereinbefore set forth. 2nd. The combination of the outer cell, the inner porous cell, a copper spiral surrounding the inner cell,

cinders or like porous carbonaceous substance placed between the copper spiral and the outer cell, the zinc and the chloride of sodium



and sulphate of copper solutions, substantially as hereinbefore set forth.

No. 47,945. Weather Strip. (Bourrelet de porte.)

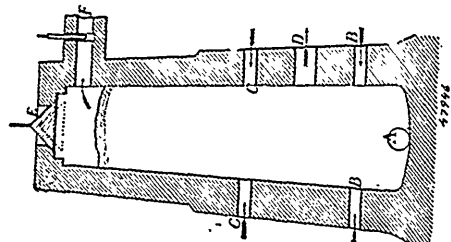


William James Brown, Toronto, Ontario, Canada, 17th January, 1895; 6 years.

Claim.—1st. A weather strip, comprising a rigid wooden portion, and compressible felt portion attached to one side of the wooden portion, and extending beyond the side, so as to form a loose flap, as shown and for the purpose specified. 2nd. A weather strip, comprising a rigid wooden portion, and compressible felt portion attached to one side of the wooden portion, and extending beneath the edge and attached thereto, as shown and for the purpose specified. 3rd. A weather strip, comprising a rigid wooden portion, and compressible felt portion attached to one side of the wooden portion, and extending beyond the front side of the strip, as and for the purpose specified. 4th. A weather strip, comprising a rigid wooden portion having one side recessed throughout its length, a strip of flexible compressible material secured in the recess, so as to be substantially flush with the minor portion of the side and extending downwardly so as to form a free flap beyond the edge of the strip, as and for the purpose specified.

No. 47,946. Method of Producing Potassic Cyanide.

(Méthode de production de cyanide de potassium.)

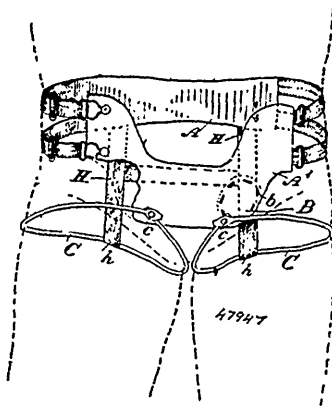


William McDonnell Mackey, Leeds, York, England, 17th January, 1895; 6 years.

Claim.—1st. The herein described method of producing and col-

lecting potassic cyanide, by subjecting in a furnace a mixture of carbonaceous matter, and a suitable compound of potassium to the action of the blasts from two tuyeres or sets of tuyeres so arranged relatively to an outlet for the cyanide vapour or fume that the mixture is dried and heated by the combustion maintained by the one blast before being acted on by the combustion maintained by the other blast. 2nd. A furnace provided with a lower set of tuyeres B, an upper set C, and an intermediate outlet D, substantially as and for the purpose set forth.

**No. 47,947. Hernia Truss. (Bandage herniaire.)**



William Whittier Turver, Toronto, Ontario, Canada, 17th January, 1895; 6 years.

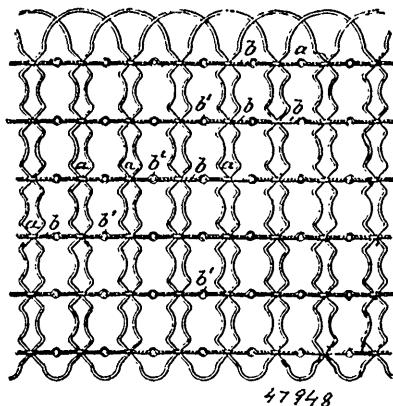
*Claim.*—1st. The combination with a belt of suitable form, of a flat bag of rubber or other suitable elastic material provided with an air valve, a non-elastic and flexible retaining envelope or cover, and means whereby the cover is attached to the belt, as and for the purpose specified. 2nd. The combination with a belt of suitable form of a flat bag of rubber or other suitable elastic material provided with an air valve a retaining envelope or cover comprised of a flexible bag-shaped non-elastic portion of suitable form, and a flat portion to which it is attached around the edge, an opening in the flat-shaped portion for the valve and means for attaching the pad to the belt as and for the purpose specified. 3rd. The combination with a belt of suitable form, of a flat bag or rubber or other suitable elastic material provided with an air valve, a retaining envelope or cover comprised of a flexible bag shaped non-elastic portion of suitable form, and a flat portion to which it is attached around the edge, an opening in the flat-shaped portion for the valve, and an attaching edge around the flat portion outside the top edge of the retaining envelope with holes for the passage of the cords to attach it to the belt, as and for the purpose specified. 4th. The combination with a belt of suitable form, of a flat bag of rubber or other suitable elastic material provided with an air valve, a retaining envelope or cover comprised of a flexible bag-shaped non-elastic portion of suitable form, and a flat portion to which it is attached around the edge and an arc-shaped slot made in the flat portion and means for attaching the pad to the belt, as and for the purpose specified. 5th. The combination with a belt of suitable form, of a flat bag, of rubber or other suitable elastic material provided with an air valve, a retaining envelope or cover, means whereby the cover is attached to the belt, and a perineal band comprised of an inner elastic tube filled with air and an outer retaining tube non-elastic but flexible, and means whereby it is attached to the belt above the pad, as and for the purpose specified. 6th. The combination with a belt of suitable form, of a flat bag of rubber or other suitable elastic material provided with an air valve, a retaining envelope or cover, means whereby the cover is attached to the belt, and a perineal band comprised of an inner elastic tube filled with air and an outer retaining tube non-elastic but flexible and suspending straps for holding the back of the perineal band in position, as and for the purpose specified. 7th. A perineal band for truss belts comprised of an elastic inner tube and non-stretchable flexible outer covering for the tube, the tube being closed at both ends and provided with a rubber cement plug at one end, as and for the purpose specified.

**No. 47,948. Wire Fence. (Clôture en fil de fer.)**

George Lehberger, Newburgh, New York, U.S.A., 18th January, 1895; 6 years.

*Claim.*—1st. Fencing, composed of a continuous line of wire arranged in vertical loops, of parallel branches crossing at the end, the main portions of the adjacent loops being laterally distinct from each other, as set forth. 2nd. Fencing, composed of a continuous line of wire arranged in vertical loops crossing at the end, the main portions of the adjacent loops being laterally distinct from each other, parts of the different loops being parallel and the several loops having their branches touching or approaching at intervals

between the ends of the loops, as set forth. 3rd. Fencing, composed of a continuous line of wire arranged in vertical loops crossing at the end, and having their branches touching or approaching at intervals between the ends of the loops, and longitudinal strands

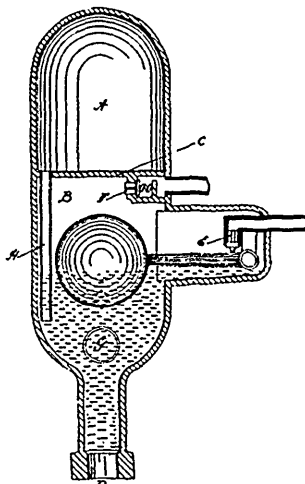


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connecting the branches of the loops, substantially as described. 4th. Fencing, composed of a continuous line of wire arranged in vertical loops crossing at the end, and having their branches touching or approaching at intervals between the ends of the loops, and longitudinal strands connecting the branches of the loops and twisted in opposite directions between the points of crossing the loop, substantially as described.

**No. 47,949. Hot Water Tank.**

(Citerne d'expansion pour chauffage à eau chaude.)



47949

Eugène Salomon Manny et William Robinson, Montréal, Québec, Canada, 10 janvier, 1895; 6 ans.

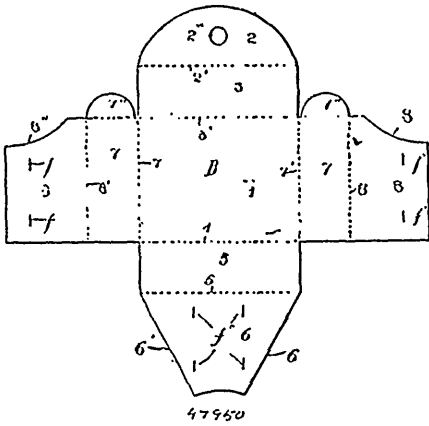
*Résumé.*—1°. Dans un système de chauffage à eau chaude, l'application d'une citerne à compression recevant l'eau de la fournaise par sa partie inférieure à l'aide de l'ouverture D pour la décharger ensuite par l'ouverture du côté G, tel que décrit. 2°. Dans un système de chauffage à eau chaude, l'application d'une citerne à compression à deux compartiments superposés A, B, dont l'un pour l'air comprimé et l'autre pour l'eau et la vapeur, tel que décrit. 3°. Dans une citerne à compression, les compartiments A et B reliés ensemble à l'aide d'un tuyau submergé H disposé à l'intérieur ou à l'extérieur de la citerne tel que décrit. 4°. Dans une citerne à compression la soupape de sûreté F occupant la partie la plus élevée du compartiment inférieur B, tel que décrit. 5°. Dans une citerne à compression, la partie inférieure B pourvue du robinet automatique à flotteur E, tel que décrit, et pour les fins indiquées.

**No. 47,950. Match Box. (Boîte à allumettes.)**

The E. B. Eddy Company, assignee of Henry John Wood, both o. Hull, Quebec, Canada, 21st January, 1895; 6 years.

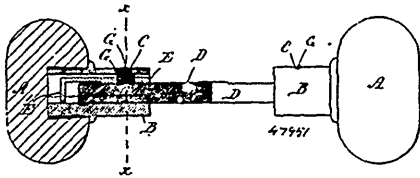
*Claim.*—1st. In a combined match box and safe, the combination of a blank consisting of perforated top, flap 2, top 3, back 4, bottom

5, inner front flap 6 all integrally connected along their horizontal weakened crease lines, a side 7 integrally connected along each weakened vertical crease line of the back and a front flap 8 integrally connected to the vertical weakened crease line of each side equal to



half the width of the back so that the edges of the two meet when folded over the inner front flap and a fastener F provided with tangs passing through the side flaps and inner front flap and clinched on the inside and having its surface roughened, substantially as set forth. 2nd. In a combined match box and safe, the combination of a blank integrally uniting all the parts composing the box along weakened crease lines and having a perforated top flap connected to the top, an inner front flap connected to the bottom and half a front side flap connected to each side which said side flaps are adapted to overlap the inner front flap, and a plate roughened on its outer surface and having tangs adapted to pass through said side flaps and inner front flap and to be clinched on the inside, substantially as set forth.

**No. 47,951. Knob Attachment.** (*Attache de bouton de porte.*)



Ellen Maloney, Rochester, New York, U.S.A., assignee of Thomas A. Hodgson, Ottawa, Ontario, Canada, 21st January, 1895; 6 years.

*Claim.*—1st. The combination with a knob having a tubular shank provided with a radial hole, and a lock spindle provided with a serrated face matching the serrations of a locking plate, of a clamping screw larger than said hole and screwing into said plate, said screw rounded or reduced at the end to partially enter said hole and engage the interior of the shank around the circumference of the hole, whereby unscrewing the screw causes the screw to clamp the spindle and plate in the tubular shank and said shank covers the screw partially, when the knob is attached to the spindle, as set forth. 2nd. The combination of a knob having a tubular shank provided with a radial hole, a lock spindle and locking plate inserted in said shank, said plate having a bent end or leg to keep the plate parallel with the spindle when short-connected, and a screw screwing into said plate and inserted with said spindle into said shank, said screw having near one end an enlargement or shoulder to engage the inside of said shank around the radial hole, and a rounded or reduced end entering said hole when the screw is unscrewed by a tool inserted in said hole, whereby unscrewing the screw causes the thrust of the screw to clamp the plate and spindle together for attachment of the knob, as set forth.

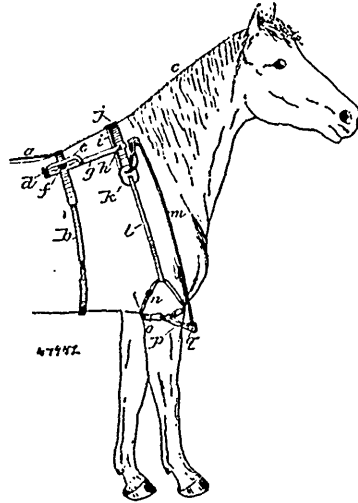
**No. 47,952. Fore-leg Spreader for Horses.**

(*Appareil pour écarter les pattes de devant des chevaux.*)

George Glascock and Alva Glascock, both of Veedersburg, Indiana, U.S.A., 21st January, 1895; 6 years.

*Claim.*—1st. A fore-leg spreader, comprising a saddle piece adapted to rest upon the withers of the animal, a spring rod attached to either side of said saddle piece, and the opposite ends of said rods attached to loops or straps passing around the fore-leg of the animal, substantially as described. 2nd. A fore-leg spreader, comprising the saddle piece having the lower portion extended upward and terminals bent downward, the spring rods attached thereto and

having eyes for attaching the leg straps at their lower ends. 3rd. The fore-leg spreader described, comprising the saddle piece *j*, having



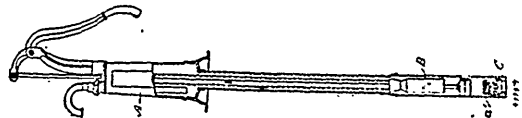
the bent terminals *l*, the spring rods *m* attached thereto and provided with collars at their lower ends, the leg straps *o*, and supporting straps *t* and *n*, substantially as described.

**No. 47,953. Crayon or Pencil.** (*Crayon*)

Anson K. Cross, Boston, Massachusetts, U.S.A., 21st January, 1895; 6 years.

*Claim.*—1st. A pencil or crayon for marking upon a polished surface, consisting of a composition in which ozocerite is the principal ingredient and is combined with colouring matter, substantially as described. 2nd. A pencil or crayon for marking upon a polished surface, consisting of a composition in which ozocerite is the principal ingredient and is combined with colouring matter and some material which will enable the mark to be readily removed by water, substantially as described. 3rd. A pencil for marking upon a polished surface, consisting of a composition in which ozocerite, colouring and soapy materials are used in approximately the proportions set forth, substantially as described. 4th. A pencil or crayon for marking upon a polished surface, consisting of a composition in which ozocerite, colouring matter, aga aga and soapy materials are used in approximately the proportions set forth, substantially as described. 5th. A pencil or crayon for marking upon a polished surface, consisting of a composition in which ozocerite, colouring matter, glycerine and soapy materials are used in approximately the proportions set forth, substantially as described. 6th. A pencil for marking upon a polished surface, consisting of a composition in which ozocerite, colouring matter, glycerine, aga aga and soapy materials are used in approximately the proportions set forth, substantially as described.

**No. 47,954. Pump.** (*Pompe.*)



Philip Andrew Myers, Ashland, Ohio; U.S.A., 21st January, 1895; 6 years.

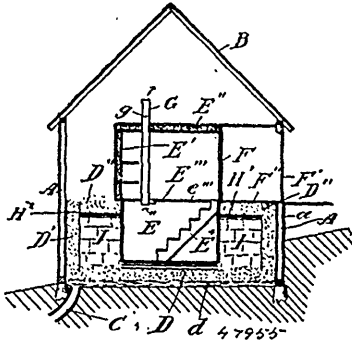
*Claim.*—1st. In combination a glass valve seat, a cap piece carrying the same, a support for the cap piece and securing means for the valve seat attached to the cap independently of the support, therefore, substantially as described. 2nd. In combination, with a pump cylinder, a cap piece secured thereto, a glass valve seat and means for securing said seat to the cap piece independently of the cylinder, substantially as described. 3rd. In combination, with a pump cylinder, the valve and glass valve seat, the spider inclosing the same, and the cap having a threaded portion adapted to be engaged by the threaded end of the said cylinder, and a threaded portion of smaller diameter engaged by the threaded end of said spider, substantially as described.

**No. 47,955. Cold Storage Chamber.** (*Réfrigérateur.*)

John Barrett Van Vlack, Van Vlack, Ontario, Canada, 21st January, 1895; 6 years.

*Claim.*—1st. In a cold storage chamber, the combination of a

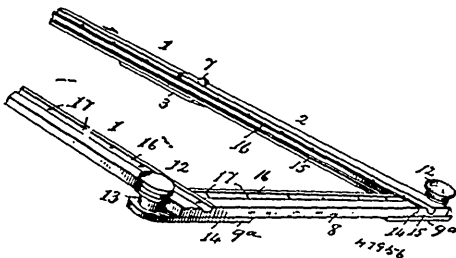
casin air-tight or nearly air-tight at the bottom and sides and provided with trap door at the top, a non-conducting floor upon which said box is placed, a layer of saw-dust under said floor and surrounding space, a layer of straw under said saw-dust, a drain under said straw, walls surrounding said chamber at such a distance as to leave



a considerable space, a thick layer of saw-dust next to said walls, and a thick layer of cooling medium between said saw-dust layer and inner chamber, a ventilator in said chamber and a covering for said chamber, substantially as set forth. 2nd. In a cold storage chamber, the combination of an outer casing A, a, a drain C in the floor, a layer of straw on said floor, a layer of saw-dust upon said straw, a floor c<sup>1</sup>, upon said saw-dust, a box E upon said floor, a top E<sup>11</sup>, on said box, a trap door e<sup>11</sup> in said top, a ventilator G in said top, an upper chamber E<sup>1</sup>, E<sup>11</sup>, over said box with means of ingress and egress, a lining of saw-dust against the inner face of the outer casing, a layer of ice or snow between said saw-dust lining an inner box surrounding said box, a covering of battens laid a distance apart, a layer of boards covering said battens and spaces between them and a covering of saw-dust upon said boards, substantially as set forth. 3rd. In a cold storage chamber, the combination of a box air-tight at sides and bottom, a non-conducting drained floor upon which said box is placed, a thick layer of ice or snow surrounding said box, a thick layer of saw-dust surrounding said ice or snow, a batten and board covering with air spaces on top of said ice or snow and a covering of saw-dust on top of said board covering, substantially as set forth.

**No. 47,956. Lace Curtain Frame.**

(Cadre pour rideaux de dentelle.)

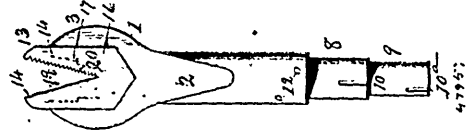


Millie V. Bonsall, Salem, Ohio, U.S.A., 21st January, 1895; 6 years.

*Claim.*—1st. In a frame of the class described, the combination with the meeting side-bar sections, one of which is provided with a mortise, and the other with a tenon adapted to removably enter the same, a cleat secured to one of the sections and overlapping the other, and a bolt removably passed through said cleat and overlapped section, substantially as specified. 2nd. In a frame of the class described, opposite side and end-bars the upper sides of which are provided between their opposite edges with grooves extending lengthwise the bars, and a series of pins arranged horizontally in the inner walls of the grooves, disposed outwardly and arranged below the upper surfaces of the bars, substantially as specified. 3rd. In a frame of the class described, side and end-bars provided in their upper faces between their opposite edges with longitudinal grooves, and a series of pins located in said grooves below the upper plane of same bars, substantially as specified. 4th. In a frame of the class described the combination with an end-bar having an undercut end and a projecting portion below the same, of a side-bar arranged movably upon the projecting portion and beyond whose outer edge said projecting-portion extends and having a rib at its inner edge for engaging the undercut portion, and a binding-device arranged upon that portion of the projecting portion lying beyond the side bar, substantially as specified. 5th. In a frame of the class described the combination with an end-bar having an undercut end and a projecting portion below said end, of a side-

bar mounted upon and adapted to slide over the projecting portion, and having a rib at its inner edge engaging the undercut portion, said projecting-portion extending beyond the side-bar, and a binding knob eccentrically journaled upon the projection beyond the outer edge of the side-bar, substantially as specified.

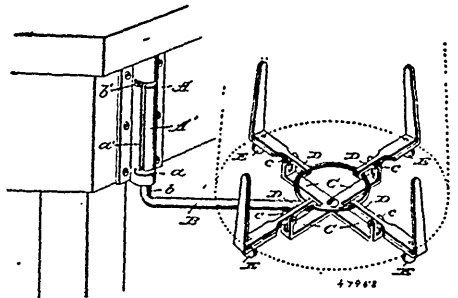
**No. 47,957. Combination Tool. (Outil à combinaison.)**



William Siras Clay, David R. Miller, both of Harrisburg, and Miller I. Kast, Mechanicsburg, all in Pennsylvania, U.S.A., 21st January, 1895; 6 years.

*Claim.*—1st. In a tool of the character described, the combination with the main or body portion provided at one end with a jaw having recesses adapted to receive different sizes of nuts, of a supplementary jaw adapted to detachably fit within the said recesses and provided with a tapered recess or opening, the latter being serrated or toothed and adapted to receive different sizes of pipes, as and for the purpose specified. 2nd. In a tool of the character described, the main or body portion provided at one end with a jaw having recesses adapted to receive different sizes of nuts, and its opposite end being reduced to form cylindrical portions of different diameters, each of said portions being provided with oppositely located notches, for the purpose specified. 3rd. In a tool of the character described, the combination with the main or body portion provided at one end with a jaw having recesses of different sizes, and opposite bearing shoulders intermediate said recesses, of a supplementary jaw adapted to detachably fit within said recesses and provided with bearing shoulders adapted to seat against the shoulder first mentioned, the said supplementary jaw being also provided with a tapered opening or recess, which latter is serrated or toothed and adapted to receive different sizes of pipe, for the purpose specified. 4th. In a tool of the character described, the combination with the main or body portion provided at one end with a jaw having recesses adapted to receive different sizes of nuts, of a supplementary jaw adapted to detachably fit within said recesses, as and for the purpose specified.

**No. 47,958. Coffee-Pot Holder. (Porte-cafétière)**



Charles E. Presnell, Sedgewickville, Missouri, U.S.A., 21st January, 1895; 6 years.

*Claim.*—1st. In a support for the purpose set forth, the combination, of a supporting arm, a plurality of fingers, said fingers having upwardly-projecting portions at their outer ends which overbalance the inner ends, a ring connecting the inner ends of the fingers to each other, the fingers being pivotally attached to cross-bars carried by the supporting-arm and to the ring, substantially as shown and for the purpose set forth. 2nd. In combination with a pivotally-supported supporting-arm having cross-bars with upturned and bifurcated ends, of fingers having slotted portions through which pins carried by the ends of the cross-bars pass, of a ring with which the inner ends of the fingers engage, substantially as shown, whereby the depression of the inner ends of the fingers will cause the grasping portions thereof to move towards a common centre, for the purpose set forth.

**No. 47,959. Coin Feed Gas Meter.**

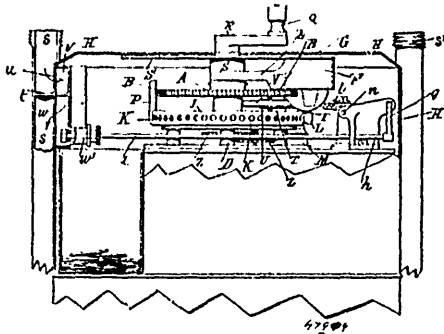
(Gazomètre actionné par une pièce de monnaie.)

Richard Thomas Glover, and John George Glover, both of Clerkenwell, London, England, 21st January, 1895; 6 years.

*Claim.*—1st. The combination of two spirally grooved plates with a valve governing pinion in gear, one of said plates being movable after receipt of a predetermined coin, without affecting the other of the two plates, but over which the pinion can travel as on a rack-bar, as set forth and substantially as shown. 2nd. Fitting two



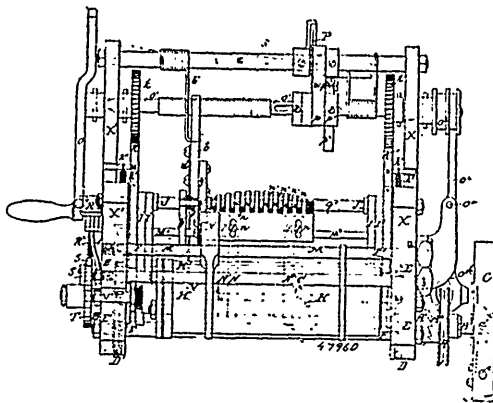
circular plates spirally grooved on their inner faces, one of said plates being fixed on an axle pin and the other loose, said plates having a pinion in gear which is revolved in one direction by the



rotation of the plate when moved by the coin or meter registering mechanism whereby the said pinion is caused to alternately travel over the other plate as on a rack, the pinion serving to actuate the gas inlet valve and index finger, as described and shown. 3rd. In a prepayment meter, the combination of a notched and spirally grooved plate with a coin pocket and divided table having an escape slot and stop arranged in the manner and for the purpose as described and shown.

**No. 47,960. Machine for the Manufacture of Cigars.**

(Machine pour la fabrication des cigares.)

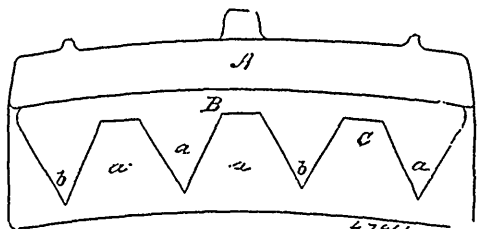


Jean Reuse, Enghien, Belgium, 21st January, 1895; 6 years.

*Claim.*—1st. A cigar making machine characterized by the combination with a mould formed of two crossed pairs of interchangeable jaws alternately opened and closed for shaping the body of the cigar and wrapping the outer leaf thereon, of a movable knife having an upward and downward reciprocatory motion imparted thereto, which cuts off the excess of tobacco at the point end of the cigar, a small mould for shaping and polishing the said end consisting of a fixed and a movable part independent of the knife which cuts off the excess of tobacco at the point end of the cigar, a knife for automatically cutting off the cigars to the desired length, a pump for conveying the gum to the point end, and disconnecting mechanism allowing of the machine being almost instantaneously stopped, the whole substantially as herein described. 2nd. The mechanism for throwing out of gear and stopping the machine consisting of a lever oscillating on a pivot the upper arm of which lever is engaged and works in a helicoidal groove formed in the periphery of a wheel mounted on a shaft actuated by a crank handle and the lower arm of which lever is furnished with a fork between the branches of which turns the upper part of the driving pulley carrying one half of a clutch, the other half of which is keyed on the driving shaft of the machine in combination with spring actuated crank bars mounted in the fly wheel and each forming a projection upon its inner face which when the driving pulley is disconnected comes in contact with the front part of the pulley shifting fork and thus stops the forward rotation of the fly wheel the recoil or backward motion of which is prevented by a vibratory catch or tumbler which lodges itself against the back of the said fork, substantially as herein described. 3rd. The mechanism for operating the knife which cuts off the excess of tobacco at the point end of the cigar wherein the said knife is secured to one end of a lever to which is imparted an upward and downward reciprocatory motion and an extension of which has a slot formed in it through which one of the spindles forming the fulcrum of one of the pairs of jaws is passed, substantially as herein described.

4th. The mechanism for operating the knife by which the thick end of the cigar is cut to the desired length the said mechanism consisting of a sleeve carrying the said knife and loosely mounted on a shaft actuated by a crank handle, a cam-shaped sleeve keyed on the same shaft by the side of the loose sleeve and a curved pawl pivoted to the side of the loose sleeve and engaging with the cam-shaped fixed sleeve so as to turn therewith in order to lower the knife when the crank-handle is turned until the said pawl in rotating comes in contact with a stop which arrests it until the cam-shaped sleeve in turning becomes disengaged thereby allowing a spring to raise the knife again, substantially as herein described. 5th. The mechanism for operating and stopping the movable part of the mould by which the point end of the cigar is shaped, consisting of a vibratory lever carrying the said movable part of the mould and to which motion is communicated in one direction by a spring exerting thereon a constant rearward pressure and in the other direction by one of the rotating spindles actuating the manipulators by the action of which spindle the said movable part of the mould is alternately pressed forward against the action of the spring, in combination with an oscillating lever having a small shoulder against which the vibratory lever carrying the movable part of the mould abuts a spring exerting a constant upward pressure upon the shoulder lever and an operating or governing lever on which pressure is exerted to extend the spring and lower the said shouldered lever so as to free the latter from the lever carrying the movable part of the mould, substantially as herein described. 6th. The gum-pump having an elliptical barrel and elliptical piston which forces the gum out of the pump under the action of a screwed rod which passes through a screwed opening in the piston and causes the said piston to advance when rotatory motion is communicated to the said screwed rod, substantially as herein described.

**No. 47,961. Brake Shoe. (Sabot de frein.)**



Archibald Brake, Toronto, Ontario, Canada, 21st January, 1895; 6 years.

*Claim.*—1st. A brake shoe consisting of a series of chilled metal parts of substantially a triangular form having their bases located along one edge of the shoe with the apex of the triangle extending across the middle of the shoe, and soft metal between the chilled metal parts and the sides and ends of the shoe, substantially as specified. 2nd. A brake shoe consisting of a series of chilled metal parts of substantially a triangular form having their bases located along one edge of the shoe with the apex of the triangle rounded and extending across the middle of the shoe, and soft metal between the chilled metal parts and the sides and ends of the shoe, substantially as specified. 3rd. A brake shoe consisting of a series of chilled metal parts of substantially a triangular form having their bases located along one edge of the shoe with the apex of the triangle extending across the middle of the shoe, a chilled metal strip connecting together the bases of the chilled metal parts along the same edge of the shoe as the bases, and soft metal between the chilled metal parts and the side and ends of the shoe, substantially as specified.

**No. 47,962. Weather Strip. (Dourrelet de porte.)**

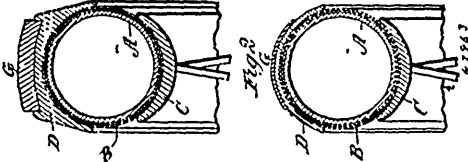


Charles Howell Stainton and Peter Frederic Farrish, both of Toronto, Ontario, Canada, 21st January, 1895; 6 years.

*Claim.*—1st. In a weather strip, a movable bar having a projecting end, in combination with the strip, and means whereby the longitudinal movement of the bar imparts a transverse movement to the strip, substantially as and for the purpose specified. 2nd. In a weather strip, a movable bar having a projecting end, in combination with a wooden strip, provided with a rubber strip, and means whereby the longitudinal movement of the bar imparts a transverse movement to the strip which carries the rubber strip, substantially as and for the purpose specified. 3rd. In a weather strip, a longitudinally movable bar having a projecting end which engages with the door jamb when the door is closed, and a transversely movable strip, in combination with two or more links pivotally connected to the said bar and strip,

and a spring adapted to return the parts to their normal position when the door is open, substantially as and for the purpose specified. 4th. In a weather strip, the combination of the following elements: the longitudinal movable bar B, having a projecting end H, which engages with the door jamb when the door is closed, coil spring G, adapted to return the bar to its normal position when the door is open, the transversely movable strip C, the links E, pivoted to the bar B and the strip C, and pins F, connected to the strip C, and adapted to slide in grooves formed in the body of the weather strip A, substantially as and for the purpose specified. 5th. In a weather strip, the combination of the following elements: the longitudinally movable bar B, having a projecting end H, which engages with the door jamb when the door is closed, coil spring G, adapted to return the bar to its normal position when the door is open, the transversely movable strip C, the rubber strip D, the links E, pivoted to the bar B, and the strip C, and pins F, connected to the strip C, and adapted to slide in grooves formed in the body of the weather strip A, connected to the strip C, substantially as and for the purpose specified.

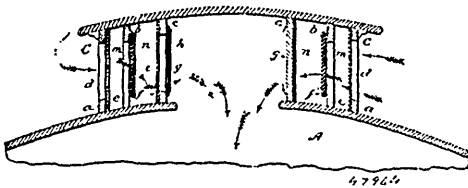
**No. 47,963. Pneumatic Tire. (Bandage pneumatique.)**



Norman Knowles and William Philipson, Washington, Lancaster, England, 21st January, 1895; 6 years.

*Claim.*—In combination, with pneumatic tires of wheels for bicycles, tricycles, carriages and other road vehicles, the use of the rim D, with or without the sole G, substantially as described.

**No. 47,964. Method of and Apparatus for Ventilating Cars. (Méthode et appareil pour ventiler les chars.)**



Marshall Bellingier Stafford, New York, State of New York, U.S.A., 21st January, 1894; 6 years.

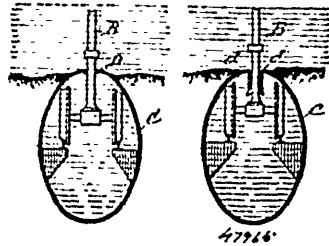
*Claim.*—1st. The method hereinbefore described of ventilating a car and preventing the formation of strong drafts through the same, which consists in forcibly extracting the air from the lower part of the car at one speed and in a definite volume, and admitting fresh air at the upper part of the car at a reduced speed and in a substantially greater volume, whereby the air within the car is maintained in a practically uniform, gradually lowering body, substantially as and for the purposes set forth. 2nd. A car having at or adjacent to its top the inlets composed of the partitions a, b, c, the partition a having the screened opening d, the partition c, the opening e, and valve f, in line with said opening d, and the partition e, the solid section g, in line with said opening e, and the screened openings h, h, at the ends of said section g, substantially as and for the purpose described. 3rd. A car having at or adjacent to its top and at each side thereof, the partition b, provided with an opening e, and the partition c, having the solid section g, in line with said opening e, and the screened openings h, h, at the ends of said section g, substantially as and for the purposes set forth. 4th. A car having at and leading into its bottom the vacuum box composed of the vertical and horizontal flues, the former provided at opposite sides with the downwardly and inwardly inclined deflecting plates w, w, and the latter with the end deflecting plates t, t, substantially as and for the purpose described. 5th. A car having at and leading into its bottom the vacuum box composed of the vertical and horizontal flues, the former provided at opposite sides with the downwardly and inwardly inclined deflecting plates having the leather covering, substantially as set forth.

**No. 47,965. Submerged Way. (Voie submergée.)**

Martin Alberto de Palacio, Madrid, Spain, 21st January, 1895; 6 years.

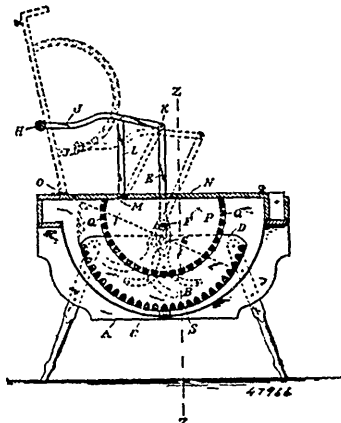
*Claim.*—1st. A submerged way constituted by a track for wheels or runners laid in one or more tubes or channels constructed at the bottom of water, substantially as herein described. 2nd. A submerged way constituted by a track for wheels or runners laid in one or more closed tubes or channels, each presenting one or more longitudinal slots for the passage of the supports of the platform of the vehicle intended to run on such way substantially as herein described. 3rd. A tube or channel for a submerged way presenting a longi-

tudinal slot, of which the edges d, are turned inwards below the level of the track laid in said tube or channel in order that by the introduction of air the level of the water in the tube or channel may be made to descend therein below the said track, substantially as



herein described. 4th. The combination with a submerged way, of a platform of which the supports are affixed to floats which balance totally or in part the weight of the said platform, substantially as herein described. 5th. A submerged way held in suspension at a certain distance from the bottom of the water by means of floats secured to the said bottom by moorings, substantially as herein described. 6th. A submerged way of which the track is supported at a certain distance from the bottom of the water upon rows of piles driven into the ground, substantially as herein described. 7th. The combination with a submerged way constituted by several rows of piles driven into the ground at the bottom of water and of which the heads project above the bottom, of a platform of which the supports are mounted upon runners which slide directly upon the said head, substantially as herein described.

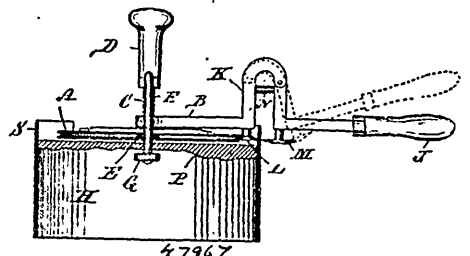
**No. 47,966. Washing Machine. (Machine à laver.)**



Charles Krentziger, Waterloo, Ontario, Canada, 21st January, 1895; 6 years.

*Claim.*—1st. The combination of wash-board B, the metal levers J, secured to the metal forks E, and metal uprights L, the semi-circular boards P, secured to cover N, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the wash-board B, the levers J, forks E, uprights L, the semi circular boards P, and bars Q, secured to cover N, substantially as and for the purpose hereinbefore set forth.

**No. 47,967. Cutter for Trimming Cheese Boxes. (Appareil pour le dressage des boîtes à fromage.)**

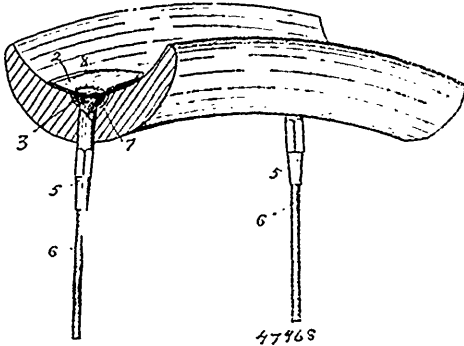


John A. Kinsella, Lancaster, Ontario, Canada, 21st January, 1895; 6 years.

*Claim.*—1st. The combination, with the base A, of the lever B,

pivoted thereto and carrying rollers E, L, traversing said base, a handle J, carrying a rotary knife M, and a gooseneck K, having a hinged joint and connecting said lever and handle, substantially as set forth. 2nd. A cutter for trimming cheese boxes, comprising a circular base A, a V-shaped lever B, pivoted thereto by a post C, provided with a handle or knob D, one arm of said lever carrying a roller E, travelling the circuit of base A, and having a gooseneck F, provided with a roller G, and the other arm of said lever connected to a handle J, by a hinged gooseneck K, and carrying a roller L, said handle having a rotary knife M, offset from said roller L, as set forth.

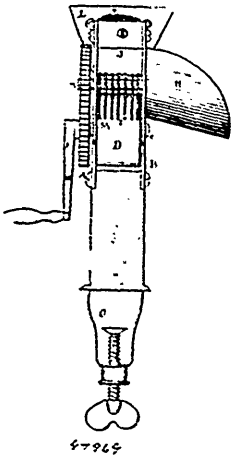
**No. 47,968. Spoke Attachment for Vehicle Wheels.**  
(Attache de jante pour voitures à roues.)



Louis Rastetter, Fort Wayne, Indiana, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. A spoke attachment for vehicle wheels, comprising a concave washer 2, having a bevelled perimeter and provided with a perforated hemispherical socket as described adapted to form a nipple-head seat, the said washer being adapted to conform to the contour of the grooved periphery of the rim, all substantially as set forth and described. 2nd. A spoke attachment for wooden rims for bicycle wheels, consisting of a concave metallic washer, provided with a vertically perforated hemispherical socket, as described, adapted to form a nipple-head seat, the said washer being adapted to conform to the contour of the grooved periphery of the rim, all substantially as set forth and described. 3rd. In a spoke attachment for vehicle wheels, the combination of the concave washer 2, provided with a perforated socket 3 for the purpose set forth, and a bevelled perimeter, the said washer being adapted to conform to the contour of the grooved periphery of the rim as described, with a nipple 5, having a ball-shaped or hemispherical head adapted to fit and form a bearing in the said socket, all substantially as set forth and described.

**No. 47,969. Raisin Seeding Machine.** (Vide raisin.)

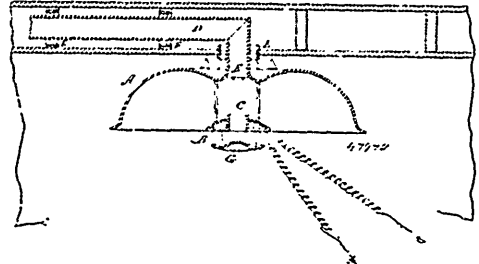


Charles Lourey Spencer, Providence, Rhode Island, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. In a raisin seeding machine, the flexible wire wheels I, arranged upon the shaft n, and secured thereon as a circular grating for the purpose of receiving seeds of raisins between them, substantially as set forth. 2nd. The roller D, in combination with the flexible wire wheels I, for producing lateral pressure in forcing

the seeds of raisins between the rims of said flexible wheels, substantially as herein described. 3rd. The shedder J, in combination with the flexible wire wheels I, said shedder being provided with teeth at its lower end for operating between the rims of the said flexible wire wheels in removing raisins therefrom after being seeded, substantially as set forth. 4th. The combination with the flexible wire wheels I, the sponge r, for containing water for moistening the rims of said wheels, whereby the seeded raisins may be more easily removed therefrom, substantially as specified.

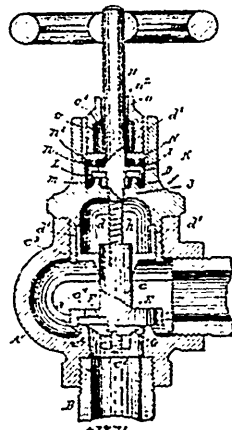
**No. 47,970. Device for Heating and Ventilating Houses, etc.** (Appareil pour chauffer et ventiler les maisons, etc.)



John Cinnamon, New Brighton, New York, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. In a heating device, the combination of a source of heat, a reflector for directing the heat rays in a particular direction, and a screen for intercepting the direct radiation from said source of heat, substantially as set forth. 2nd. In a heating device, the combination of a source of heat, a reflector for directing the heat rays in a particular direction, a reflecting screen for intercepting the direct radiation from said source of heat and returning said direct radiated heat to said reflector, substantially as described. 3rd. In a heating device, the combination of a suspended source of heat, a reflector above said source of heat adapted to direct the heat rays in a particular direction, a reflecting screen below said source of heat for returning the directly radiated heat to the reflector and a ventilating pipe passing through said reflector, substantially as and for the purposes set forth. 4th. In a heating device, the combination of a suspended source of heat, a reflector having a ventilating pipe above said source of heat, an upwardly reflecting screen below said source of heat, and upwardly opening valves in said ventilating pipe, substantially as and for the purposes set forth. 5th. In a heating device, the combination of a suspended source of heat, a reflector having a ventilating pipe, above said source of heat, an upwardly reflecting screen below said source of heat and automatically acting valves in said ventilating pipe, substantially as and for the purposes set forth. 6th. In an apparatus for heating rooms and other places, the combination of an elevated source of heat, means adjacent to said source of heat for allowing the foul air to escape, and a reflector for casting downward the heat rays, substantially as set forth.

**No. 47,971. Steam Valve.** (Soupape à vapeur.)

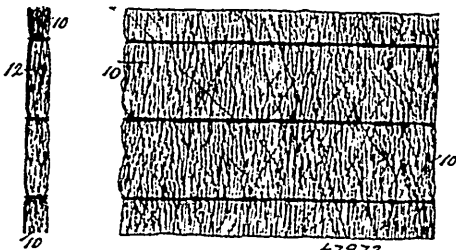


John Nicholas Murphy and Patrick Francis Murphy, both of Springfield, Illinois, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. In a valve, the combination of the body of the valve, the removable top part screwing into said body, the raised annular seat integral with said body, the recessed cap within said body, the

integral stem and the integral screw on said cap, the disc fitting in the recess in said cap, the conical washer and the nut securing said disc in the cap, the screw cap in the removable top part, the upper stem extending through said screw cap and provided with a screw working in the lower stem on and integral with the cap in the body of the valve and the hand wheel secured to the upper stem, as set forth and for the purpose stated. 2nd. In a valve, the combination of the body of the valve, the raised valve seat within said body, the top removably connected with the body, the cap and the stem within the body, the disc in said cap, the screw integral with the said cap and stem, the conical washer retaining the disc in place and adapted to guide the valve into position on the seat, the nut for adjusting said washer, the upper stem screwing into the lower stem, the hand wheel secured to said upper stem, the dome-shaped cavity in the lower end of the removable top part, the channels in the sides of said dome-shaped cavity, the guides on the lower stem adapted to move in said channels, the cylindrical cavity above the dome-shaped cavity, the web between said cavities, the annular raised seat on the upper side of said web, the reduced screw part of the upper stem having a nut working on said screw, the recessed cap integral with the upper stem, the disc fitting in the recess in said cap, the circular plate above said cap, having lugs and provided with an annular ledge bearing on the cap, the channels in which said lugs move, the screw cap above said plate and the oil chamber in said screw cap, as set forth and for the purpose stated. 3rd. In a valve having caps provided with discs, the combination of the body of the valve, the raised valve seat within said body, the cap within said body connected with the valve stem and adapted to rest on said seat, the top part detachably connected with the body and having in its upper part an internal cavity, the stem passing through said top part and connecting with the cap in the body, the means for turning said stem, the raised seat within the upper cavity of top part and the recessed cap adapted to rest on top of said seat, the plate within said cavity having an annular sleeve and having lugs moving in channels in said cavity and a screw cap provided with an oil reservoir and oil hole, as set forth and for the purpose stated. 4th. In a valve having caps provided with discs, the means adapting the upper cap to be removed without disturbing the lower valve, consisting of a top part connected with the body, said top part being provided with a cavity having channels in its sides, a stem extending through said cavity and connecting with the stem of the lower valve in the body, a recessed cap on said stem, a plate above said cap having lugs moving in the channels in said cavity and a screw cap screwing into said cavity above said plate, as set forth. 5th. In a valve the upper and lower recessed caps containing discs and provided with perforations adapted to receive an instrument by which said discs may be pushed out, in combination with the body of the valve having a raised seat, the upper part securing into said body and having a raised seat, the stem on the lower recessed cap, the stem connected with the upper recessed cap and provided with a screw working in the stem of the lower cap, and means for turning the stem of the upper cap, as set forth and for the purpose stated.

**No. 47,972. Sound Deadening Packing for Builders use.** (*Garniture pour amortir le son à l'usage des constructeurs.*)



Samuel Cabot, Brookline, Massachusetts, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. As an article of manufacture, an elastic sheet packing for builders' use, consisting of a layer of dried sea-weed fastened to a base of flexible material, substantially as described. 2nd. An elastic packing for builders' use, consisting of laminated sea-weed which has been dried, inclosed and held within a covering of coarse paper, substantially as described. 3rd. As an article of manufacture, an elastic sheet packing for builders' use, consisting of a layer of dried sea-weed stitched between sheets of thin flexible material, substantially as described.

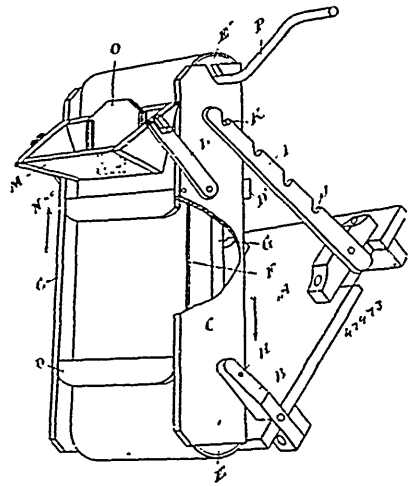
**No. 47,973. Wild Oat Separator.**

(*Séparateur pour l'avoine.*)

James Coltham, Aurora, Ontario, Canada, 22nd January, 1895; 6 years.

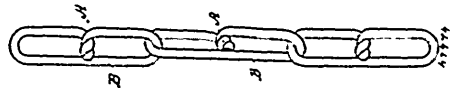
*Claim.*—1st. A wild oat separator, consisting of a conveyor having a traversing jacket to which the wild oats will attach themselves, a hopper above the traversing jacket, and means for causing the revo-

lution of the traversing jacket, substantially as specified. 2nd. A wild oat separator, consisting of a frame capable of being placed in either a horizontal position or at an angle to its horizontal position, two drums journalled one at each end of the frame, a crank con-



lution of the traversing jacket, a traversing jacket passing around the drums, and a hopper located above the traversing jacket, substantially as specified. 3rd. A wild oat separator, consisting of a platform, a frame connected to the platform and capable of being set at an angle thereto, two drums journalled one at each end of the frame, a crank connected to one of the drums, a traversing jacket passing around the drums, and a hopper located above the traversing jacket, substantially as specified. 4th. A wild oat separator, consisting of a platform, two standards rigidly connected to one end of the platform, a frame pivotally connected to the standards, two drums journalled one at each end of the frame, a crank connected to one of the drums, a traversing jacket passing around the said drums, a hopper located above the traversing jacket, and two standards connected to the opposite end of the platform whereby the opposite end of the frame may be raised to any required elevation, substantially as specified.

**No. 47,974. Chain Link.** (*Anneau de chaîne.*)



John Charles Schmidt, York, Pennsylvania, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. A chain link of the character described having its side portions separated from each other and formed of an integral rod or bar of metal with its two ends united firmly by twisting and the united portion of both ends extended across the link between the two separated side portions to form a cross-bar, substantially as described. 2nd. A link for chains, formed of bar or rod metal having the two ends twisted together, the twisted portion extended across the link to form a cross-bar or stud with a seat for the opposite side of the link formed in the end of such twisted portion, substantially as described. 3rd. A link for chains formed of bar or rod metal having the two ends united and twisted together, the twisted portion being extended across the centre of the link to form a cross-bar or stud, said ends being formed to receive the opposite side of the link between them, substantially as described.

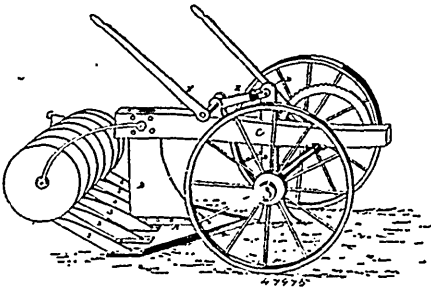
**No. 47,975. Undercut Plough and Subsoiler Combined.**

(*Charrue pour labourer à une grande profondeur.*)

Horace Bartine Martin, Chino, California, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. In an undercut plough, the combination with a suitable draft frame, of a pointed horizontal plate or cutter attached to the frame, to run beneath the surface of the ground, provided at its rear end with a transverse series of knives set parallel to the line of motion and inclined upward and rearward, having their cutting edges standing vertically upward to pulverize the soil by cutting through it from beneath, and to bring stubble, straw, roots and other debris to the surface, substantially as described. 2nd. In an undercut plough, the combination with a suitable draft frame, to which is attached a pointed horizontal plate *p*, provided with a transverse series of knives set parallel to the line of motion and inclined upward and rearward, of a follower attached to the rear part

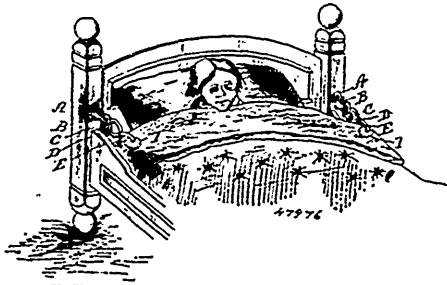
of the frame to force the earth down between the knives to insure their more perfect action, substantially as described. 3rd. In an undercut plough, the combination with a suitable draft frame to



which are attached a horizontal plate to run beneath the surface of the ground provided with a series of knives inclined upward and rearward and a follower attached to the frame and located above the knives, of a sub-soil blade properly attached to the frame, the whole constructed and arranged substantially as and for the purposes set forth.

**No. 47,976. Bed Clothes Holder.**

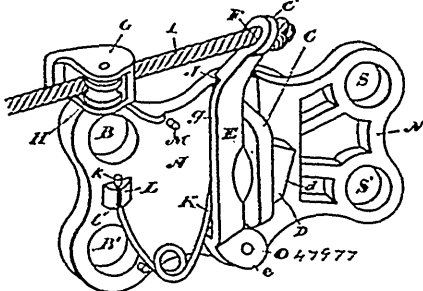
(*Accroche-couvertures de lit.*)



George H. Hollidge, Tacoma, Washington, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—The combination of a pair of pivoted arms provided with gripping jaws at their lower ends, one of said arms being extended past the upper end of the opposing arm and twisted into an opening or loop, means for locking the arms together, an endless elastic band passed into the open ring or loop through the opening therein, and a fastening device carried by said endless band.

**No. 47,977. Sling Lock.** (*Serrure d'élingue.*)

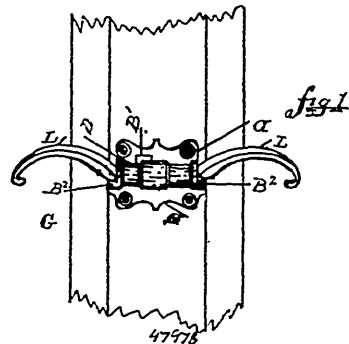


Samuel George Emerson, Tweed, Ontario, Canada, 22nd January, 1895; 6 years.

*Claim.*—1st. In a sling lock, the combination of two coupling sections, one of the coupling sections embodying the base casting, a movable bolt connected to the base casting, a rope for operating it, a sheave connected to the base casting around which is arranged to pass the said rope, and so located relatively to the direction of the movement of the bolt that a pull on the rope will retract the bolt and disengage the sections with the coupling, substantially as specified. 2nd. In a sling lock, the combination of two coupling sections, one of the coupling sections embodying the base casting, having eyes for the sling ropes, a keeper connected to the base casting, a lever, one end of which is pivotally connected to the base casting, whilst the opposite end of the lever is provided with an eye to receive the pull rope, a bolt connected to the lever and arranged

to be operated thereby, the face of the bolt cut-off on a line radiating from the centre of the pivot of the operating lever, an operating spring connected to the base casting and bearing on the back of the operating lever, a sheave connected to the base casting relatively to the direction of the movement of the operating lever, so that a pull on the rope will retract the bolt and disengage the coupling sections, substantially as specified. 3rd. In a sling lock, the combination of two coupling sections one of the coupling sections embodying the base casting, a keeper connected to the base casting, a lever, one end of which is pivotally connected to the base casting whilst the opposite end of the lever is provided with an eye to receive the pull rope, a bolt connected to the lever and arranged to be operated thereby, the face of the bolt cut-off on a line radiating from the centre of the pivot of the operating lever, an operating spring connected to the base casting, and bearing on the back of the operating lever, a sheave connected to the base casting relatively to the direction of the movement of the operating lever, so that a pull on the rope will retract the bolt and disengage the coupling sections, and a stop connected to the base casting to arrest the movement of the operating lever, substantially as specified.

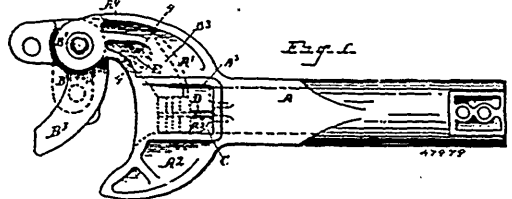
**No. 47,978. Gate Latch.** (*Loquet de barrière.*)



George W. Mallory, Harwich, Ontario, Canada, 22nd January, 1895; 6 years.

*Claim.*—1st. The combination of a supporting plate *a*, having bearings *B*, extending lips *B'*, central spring socket *c*, and lug *B''*, substantially as and for the purposes hereinbefore set forth. 2nd. The supporting plate *a*, bearings *B*, *B'*, extending lips *B''*, central spring socket *c*, with lug *B''*, in combination with rotating shaft *H*, central spiral spring *D*, arms *K*, with locking and rearwardly extending wings *L*, substantially as and for the purposes hereinbefore set forth.

**No. 47,979. Car Coupler.** (*Attelage de chars.*)

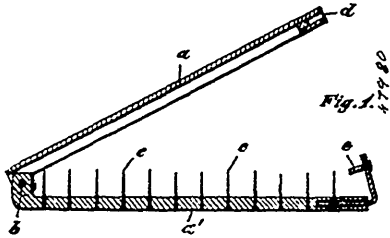


Lewis C. Packham, Detroit, Michigan, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. In a car coupler, the combination of a draw bar provided with a chambered head, a knuckle pivotally connected with said head, a locking block pivotally connected with the draw-bar head at the rear of the base of the block to hold the knuckle in locked position, and a bar pivotally connected with the block and extending upward through the draw bar head, substantially as set forth. 2nd. In a car coupler, the combination of a draw-bar provided with a chambered head, a knuckle pivoted in said head, a supporting wheel within the chambered head and to the rear of the pivotal connection of said knuckle with said head, the tongue of the knuckle formed with an inclined under surface, substantially as set forth. 3rd. In a car coupler, the combination of a draw-bar provided with a chambered head, a knuckle pivoted in said head, a supporting wheel within the chambered head and to the rear of the pivotal connection of said knuckle with said head, the tongue of the knuckle formed with an inclined under surface, and a locking block pivoted at the rear of its base within the draw-bar head to hold the knuckle in locked position, said block provided with an operating bar at its upper end, substantially as set forth. 4th. In a car coupler, the combination of a draw bar provided with a chambered head, a knuckle having a pivotal engagement with said head, and a locking block to hold the knuckle in locked position provided with

an arm at its lower end pivotally connected with the head, said block arranged to be raised and simultaneously moved backward to allow the tongue of the knuckle to move into locked position, substantially as set forth. 5th. In a car coupler, the combination of a draw-bar provided with a chambered head, a knuckle pivotally engaged in said head, and a locking block provided with a rearwardly projecting and pivotally connected with the draw-bar head at the rear of the base of the block, substantially as set forth.

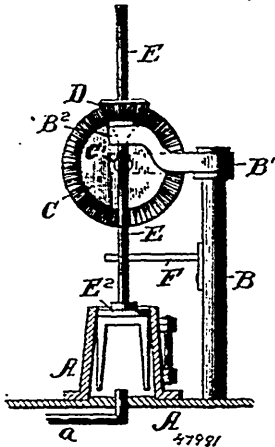
**No. 47,980. Safety Pin.** (*Épingle de sûreté.*)



Arthur Richau, Königsberg, Prussia, Germany, 22nd January, 1895; 6 years.

*Claim.*—1st. A safety clothes-mending pin mainly consisting of two hinged or folding arms either of which is provided on its inner face with means for engaging the cloth located between them. 2nd. A safety clothes-mending pin, mainly consisting of two hinged or folding arms such as *a a'*, one of which is fitted with a set of sharp points or teeth, for the purpose of mending rents or holes in wearing apparel. 3rd. A safety clothes-mending pin having two arms, one of which is provided with a groove and the other with a feather, or with other appliance suitable for fastening the parts of the wearing apparel.

**No. 47,981. Process and Apparatus for Forming and Finishing Hollow Glassware.** (*Procédé et appareil pour former et finir la verrerie creuse.*)



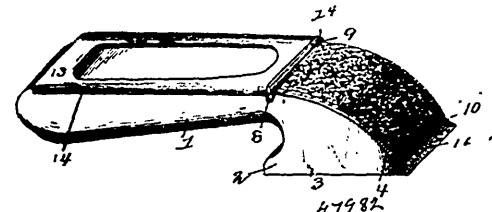
John H. Croskey and Joseph Locke, both of Pittsburgh, Pennsylvania, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. The method of forming or finishing hollow articles of glassware, by centrifugal action, which consists in imparting to the article, while heated, and while in the mould, a rapid axial motion, independently of the mould. 2nd. The method of forming or finishing hollow articles of glassware, which consists in imparting to the punty rod or snap upon which the heated glass is held, and while the latter is within a mould, a rapid rotary axial motion independently of the mould, and causing the glass to thereby expand by centrifugal action. 3rd. The method of forming or finishing hollow articles of glassware, by centrifugal action, which consists in imparting to the punty or snap rod holding the heated glass, a rotary motion in a circular plane so as to cause the article to elongate and then inserting the article in a finishing mould and imparting to the rod an axial motion, so as to cause the article to expand laterally. 4th. A centrifugal machine or apparatus forming or finishing hollow articles of glassware, comprising an axially rotating punty or snap rod, and mechanism for rotating the same. 5th. A centrifugal machine or apparatus for forming or finishing hollow articles of glassware, comprising a punty or like tool having a rotary motion about its axis, and a rotary motion in a circle to which the punty is radial. 6th. A centrifugal machine for making or finishing hollow articles of glassware, comprising a suitable supporting frame and a glass hold-

ing punty or similar tool, mounted on said frame and having a rotary axial motion, a rotary motion in a circular plane to which the punty is radial and a reciprocating motion on a horizontal line, substantially as described. 7th. In a centrifugal glass shaping machine, combination with a detachable punty or similar glass holding tool, of mechanism for rotating said punty, substantially as described. 8th. In a centrifugal machine for forming or finishing hollow articles of glassware, an axially revolvable punty or glass holding rod in the combination with mechanism for rotating the same, substantially as described. 9th. In a centrifugal machine for forming or finishing hollow articles of glassware, the combination of a punty or similar glass holding tool, having a rotary axial motion, and a rotary motion in a circle to which the tool is radial, with mechanism for imparting the required motion to said tool, substantially as described. 10th. In a centrifugal machine for forming or finishing hollow glass articles, a punty or similar glass holding tool, pivotally mounted on a horizontally reciprocable support, in combination with a horizontal rod or slide upon which said support moves, substantially as described. 11th. In a centrifugal machine for forming or finishing glass articles, the combination of an axially and radially revolvable punty or other glass holding tool mounted on a sliding support, of mechanism for revolving said tool, and a retaining or locking device to hold said tool in a horizontal position, substantially as described.

**No. 47,982. Stamp Sticking and Sealing Machine.**

(*Appareil à coller les timbres et sceller.*)

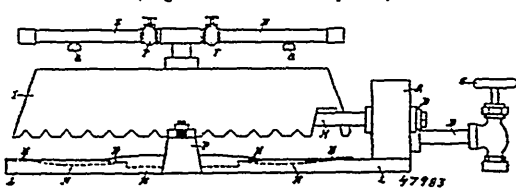


James T. Shaw and James D. Shaw, both of Waco, Texas, U.S.A., 22nd January, 1895; 6 years.

*Claim.*—1st. A device of the class described, comprising a body having a flat lower face and consisting of a bottom portion and opposite sides, and forming a recess or receptacle open at the front and top, a moistening pad located in the recess or receptacle and presenting an outwardly and downwardly inclined exterior face, a handle extending rearward from the top of the body and upwardly offset from the lower face of the latter, and a stamp guide mounted on the upper face of the handle and extending rearward from the top of the moistening pad, substantially as described. 2nd. A device of the class described, comprising a body portion, having a handle and provided in advance of the handle with a downwardly offset recess and having slots at the terminals of the latter, a moistening pad arranged in said recess, a sheer or fabric covering the moistening pad, key-plates at each end of the said sheet, and having the ends wrapped around them and arranged in said slots in the offset portion, whereby the sheet is held in place, and a guide for the stamps at the upper side of the handle, substantially as described. 3rd. A device of the class described, comprising a body having a handle, and provided in advance thereof with a downwardly offset recess, and having its front edge bevelled, a moistening pad arranged in the recess, and a stamp guide located on the handle in rear of the moistening pad, substantially as described.

**No. 47,983. Liquid Fuel Burner.**

(*Foyer à combustible liquide.*)



Allen J. Fowler and John Young, both of London, Ontario, Canada, 23rd January, 1895; 6 years.

*Claim.*—1st. In a liquid fuel burner, a vaporizing chamber *A*, formed with the thickened portion *O*, substantially as shown and described, and for the purpose specified. 2nd. In a liquid fuel burner, a burner pipe *E*, the branch of which is provided with a valve *F*, substantially as shown and described, and for the purpose specified. 3rd. In a liquid fuel burner, a brass burner nozzle or tip *G*, provided with the orifice *g*, and with the concave face *d*, substantially as shown and described, and for the purpose specified. 4th. A superheating chamber *I*, in which are formed the openings *J*, and the perforations *K*, the pipe *H* located in said superheating chamber, the vaporizing chamber *A*, and means for supplying

said vaporizing chamber with liquid fuel, and the burner pipe E having one or more branches, and each branch having a burner nozzle G, in combination with a pan L, provided with the inclined dish-shaped plates N, N, and supports or posts P, P, substantially as shown and described, and for the purpose specified. 5th. A superheating chamber I, in which are formed the openings J, and the perforations K, the pipe H, located in said superheating chamber, the vaporizing chamber A, formed with the thickened portion O, and means for supplying said vaporizing chamber with liquid fuel, and the burner pipe E, having one or more branches, and each branch having a burner nozzle G, in combination with a pan L, provided with the inclined dish-shaped plates N, N, and supports or posts P, P, substantially as shown and described, and for the purpose specified. 6th. A superheating chamber I, in which are formed the openings J, and the perforations K, the pipe H, located in said superheating chamber, the vaporizing chamber A, and means for supplying said vaporizing chamber with liquid fuel, and the burner pipe E, having one or more branches, and each branch being provided with a valve F, and having a burner nozzle G, in combination with a pan L, provided with the inclined dish-shaped plates N, N, and supports or posts P, P, substantially as shown and described, and for the purpose specified. 7th. A superheating chamber I, in which are formed the openings J, and the perforations K, the pipe H, located in said superheating chamber, the vaporizing chamber A, formed with the thickened portion O, and means for supplying said vaporizing chamber with liquid fuel, and the burner pipe E, having one or more branches, and each branch being provided with a valve F, having a burner nozzle G, formed concave at *d*, in combination with a pan L, provided with the inclined dish-shaped plates N, N, and supports or posts P, P, substantially as shown and described, and for the purpose specified.

**No. 47,984. Sheet Metal Pipe. (Tuyau de métal en feuille.)**



John William Abrahams, and Henry Augustus Marlin, both of Allegheny, Pennsylvania, U.S.A., 23rd January, 1895; 6 years.

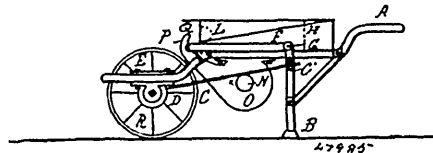
*Claim.*—A knock-down sheet metal pipe constructed of separable and similar semi-sections *a, g*, each of said sections being provided with semi-slip joints *c, d*, loosely interlocked to form a pipe, and the sections assembled to alternate with each other as shown.

**No. 47,985. Portable Forge. (Forge portative.)**

Robert Sebastian Bozon, William Percy Wilson Browne and Arthur Edward Wilson Browne, all of Birmingham, England, 23rd January, 1895; 6 years.

*Claim.*—1st. A portable forge, comprising the hearth, the blower

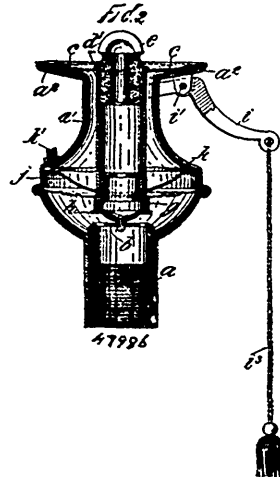
including the driving wheel and the folding frame, for supporting said parts, substantially as described. 2nd. A portable forge, comprising the hearth, the blower including the driving wheel, and the folding frame for supporting said parts, said driving wheel being



arranged to act as a tread wheel when the frame is folded for moving substantially as described. 3rd. A portable forge, comprising the hearth, the folding frame including the handles or side bars, to which the hearth is pivoted and the blower carried by the side bars and arranged to be moved into proper relation to the hearth when the frame is unfolded, substantially as described. 4th. In combination in a portable forge, the hearth the side bars, pivoted thereto, the hinged brace extending from the side bars, to hold the hearth in horizontal position and the fan blower carried by the side bars, and adapted to be moved into proper relation to the hearth when the forge is set up, substantially as described. 5th. In combination, in a portable forge, the hearth, the cover hinged thereto, and the folding frame to which the hearth is pivoted, and the blower carried by the folding frame, the said hinged cover being arranged to form the back of the hearth when raised, substantially as described. 6th. In combination, in a portable forge, the hearth, the folding frame, to which the same is pivoted, said frame including the side bars, the blower carried by the side bars and having the drive wheel journaled in the side bars, and arranged to act as the carrier wheel, substantially as described.

**No. 47,986. Safety Device for Gas Burners.**

(Appareil de sûreté pour becs à gaz.)



Frederic Reiset, Katowah, assignee of Arthur Klinfeldt, Brooklyn both in New York, U.S.A., 23rd January, 1895; 6 years.

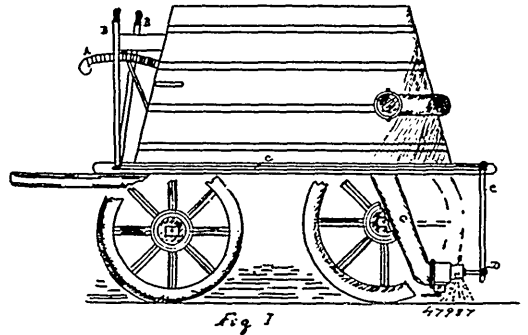
*Claim.*—1st. In a gas cut-off device, the combination with a cylinder having a self-adjusting valve-seat, a burner or valve adapted to move vertically in said cylinder and to rest on said valve seat in its lower position, an expansible metal plate adapted to engage with said burner, and means whereby it may be actuated to raise said burner from its seat, said expansible metal plate being adapted to maintain the burner raised by the expansion of said plate through the heat of the gas flame, and to permit the burner to be lowered by the contraction of said plate when the flame goes out, substantially as set forth. 2nd. In a gas cut-off device, the combination with a cylinder having a self-adjusting valve-seat, a burner or valve adapted to move vertically in said cylinder and to rest on said valve-seat in its lower position, an expansible metal plate adapted to engage with said burner, and means whereby it may be actuated to raise said burner from its seat, said expansible metal plate being adapted to maintain the burner raised by its expansion through the heat of the gas flame and a spring located within the cylinder to lower the burner to its seat when the flame goes out, substantially as set forth. 3rd. In a gas cut-off device, the combination with a cylinder having a self-adjusting valve-seat, a burner or valve adapted to move vertically in said cylinder and to rest on said valve-seat in its lower position, an expansible metal plate adapted to engage with said burner and means whereby it may be actuated to raise said burner from its seat, said expansible metal



plate being adapted to maintain the burner raised by its expansion through the heat of the gas flame, and means located within the cylinder to lower the burner to its seat when the flame goes out, substantially as set forth. 4th. In a gas cut-off device, a burner or valve adapted to move vertically in an inclosing cylinder and an expandible metal plate adapted to engage with said burner, and means whereby it may be actuated to raise said burner from its seat, said plate also adapted to maintain the burner raised by its expansion through the heat of the gas flame, said plate being held on its edges, the dimension of said plate between the points where it is held being greater than the distance between the holding devices, substantially as set forth. 5th. In a gas cut-off device, a burner or valve adapted to move vertically, a spring metal plate adapted to be sprung or curved upward and downward by suitable means to raise and lower said valve or burner to open and close the gas passage, said plate being held at its edges, the dimension of the plate between the points where it is held being greater than the distance between the holding devices, substantially as set forth. 6th. In a gas cut-off device, an expandible metal plate adapted to operate by expansion and contraction through the heat of the gas flame, and connected so as to operate a valve controlling the gas passage, said plate being held at its edges, the dimension of the plate between the points where it is held being greater than the distance between the holding devices, substantially as set forth. 7th. In a gas cut-off device, the combination of a cylinder, a burner or valve adapted to move vertically in said cylinder, an expandible metal spring device adapted to operate by expansion and contraction through the heat of the gas flame to maintain the gas passage opened or closed, said spring device being held on its edges, the dimension thereof between the points where it is held being greater than the distance between the holding devices, substantially as set forth. 8th. In a gas cut-off device, the combination of a valve controlling the gas passage, an expandible metal spring plate adapted to move said valve, said plate being held on its edges, the dimension of the plate between the points where it is held being greater than the distance between the holding devices, means adapted to operate said plate to move said valve to open the gas passage, and means adapted to operate said plate to move said valve to close the gas passage, substantially as set forth. 9th. In a gas cut-off device, the combination of a valve controlling the gas passage, an expandible metal spring plate adapted to engage with said valve, said plate being held on its edges, the dimension of the plate between the points where it is held being greater than the distance between the holding devices, a lever adapted to operate said plate to move said valve to open the gas passage, and a spring adapted to operate said plate to move said valve to close the gas passage, substantially as set forth. 10th. In a gas cut-off device, the combination of a metal cylinder, a burner or valve adapted to move vertically in said cylinder, an expandible metal spring plate held on its edges, the dimension of the plate between the points where it is held being greater than the distance between the holding devices, a lever adapted to operate said plate to raise the valve to open the gas passage, said plate being adapted to maintain the gas passage open by its expansion through the heat of the gas flame, and a spring located in said cylinder adapted to operate said plate to lower said valve to close the gas passage, substantially as set forth. 11th. In a gas cut-off device, the combination of a cylinder, an expandible metal circular plate adapted to be held on its edges, the diameter of the plate being greater than the distance between the holding devices and a valve engaging with said plate adapted to move vertically upwards or downwards in said cylinder by the curving upwards or downwards of said plate, substantially as set forth. 12th. The combination with a gas-pipe leading from a source of supply, of a gas chamber connected therewith inclosed in a gas-tight manner by a flexible cover, a gas-burner, and connected with said flexible cover in a gas-tight manner, and leading into said gas chamber and constituting a valve in co-operation with a seat therefor, and an expandible metallic plate engaging with said gas-burner and arranged in proximity to the flame of said burner so as to be expanded by the heat of the flame, substantially as set forth. 13th. The combination with a gas-pipe leading from a source of supply, of a gas-burner connected therewith and a device adapted to operate by expansion through the heat of the gas flame so as to raise said burner and allow the passage of gas therethrough and to operate by contraction when the flame goes out so as to lower said burner and shut off the supply of gas, substantially as set forth. 14th. The combination of a gas-pipe leading from a source of supply, a gas chamber connected therewith, a gas-burner leading from said gas chamber and a metal rod or plate adapted to curve by expansion so as to raise said burner to allow the passage of gas therethrough and to contract when the flame goes out to lower said burner to shut off the supply of gas, substantially as set forth. 15th. The combination, with a gas-pipe leading from a source of supply, of a gas chamber connected therewith inclosed in a gas-tight manner by a flexible cover, a gas-burner connected with said flexible cover in a gas-tight manner and passing therethrough into said gas chamber and a metal rod or plate adapted to engage with said burner and arranged in proximity to the flame of said burner so as to be expanded by the heat of the flame, substantially as set forth. 16th. The combination, with a gas-pipe leading from a source of supply, of a gas chamber connected therewith provided with a flexible cover, a gas-burner leading from said gas chamber and connected with said flexible cover, and a device adapted to en-

gage with said gas-burner, and to be operated by expansion through the heat of the gas flame so as to allow the passage of gas from said gas chamber into said gas-burner, and to be operated by contraction when the flame goes out so as to shut off the gas, substantially as set forth. 17th. The combination of the gas-burner *d*, *e*, the expandible metallic plate *c*, arranged in proximity to the flame of said burner and below the point of ignition, the flexible cover *f*, the casing *a*, the ring *k*, the arched spring *j*, the adjusting screw *k*<sup>1</sup>, and means for raising the burner to open a valve connected therewith or formed thereby, substantially as set forth.

**No. 47,987. Street Sprinkler. (Arrosoir pour rucs.)**

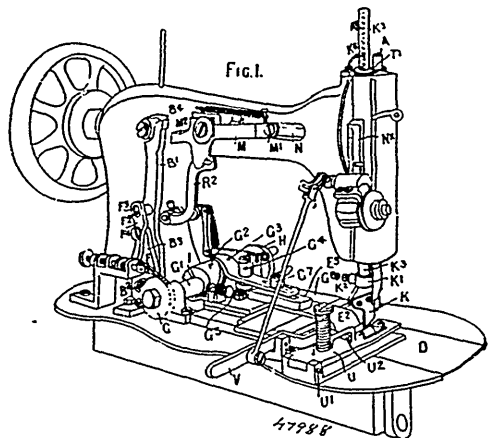


John W. Turriff, assignee of Alexander Gillies, both of Toronto, Ontario, Canada, 23rd January, 1895; 6 years.

*Claim.*—A street sprinkler, comprised of sprinkler E, in conjunction with plunger D, mud receptacle F, tube G, with rod C, lever B, in conjunction with gauge A, all arranged and combined as shown and described.

**No. 47,988. Button Hole Sewing Machine.**

(Machine à coudre les boutonnières.)



John Laird and the Hope Street Factory, both of Belfast, Antrim, Ireland, 23rd January, 1895; 6 years.

*Claim.*—1st. In a button-hole sewing machine, a driving spindle rotating in the arm of the machine and adapted for operating the needle bar, said spindle being provided with a switch cam, in combination with a main lever engaging therewith, a sliding bar arranged below the bed plate and reciprocated by the main lever, said bar engaging elastically with the cloth plate, and means for automatically shortening the stroke of the cloth plate, while the button hole is stitched along the two sides and for giving it the full stroke while the barring stitches are made, substantially as set forth. 2nd. In a button hole sewing machine, the driving spindle with switch cam and a main lever engaging therewith, in combination with the sliding bar C, with enlarged part C<sup>1</sup>, the washers C<sup>2</sup>, C<sup>3</sup>, springs C<sup>4</sup>, C<sup>5</sup>, and abutments C<sup>6</sup>, C<sup>7</sup>, the side slide E<sup>1</sup>, with lug E, between the washers C<sup>2</sup>, and with stops E<sup>2</sup>, E<sup>3</sup>, the feed spindle G<sup>1</sup>, means for rotating the feed spindle, the stop piece I, operating with the stops E<sup>2</sup>, except during the barring operations, and suitable means for rotating the said feed spindle, substantially as set forth. 3rd. In a button-hole sewing machine, the driving spindle with switch cam and a main lever engaging therewith, in combination with the lever F<sup>1</sup>, the feed pawl F operated thereby, the pawl-

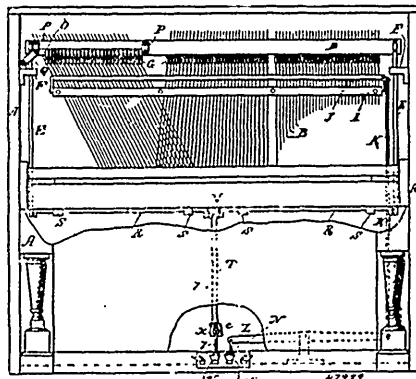
wheel G, the feed spindle G<sup>1</sup>, on which it is fixed, and a brake on said spindle for holding it in the intervals when the pawl F is not active, substantially as set forth. 4th. In a button-hole sewing machine, the feed spindle G<sup>1</sup>, means for rotating it stepwise, a break for holding it between the intermittent motions, a groove cam G<sup>2</sup> on the feed spindle, a lever G<sup>3</sup> engaging with the cam, the cross-slide G<sup>4</sup>, with the cloth plate B<sup>2</sup>, and an adjustable connection between the lever G<sup>3</sup>, and the cross-slide, whereby the latter with the cloth plate is moved there and back the length of a button-hole, substantially as set forth. 5th. In a button-hole sewing machine, the needle bar A, with means for working it up and down, and collars A<sup>4</sup>, and A<sup>5</sup> thereon, in combination with a bar K<sup>2</sup>, which is guided vertically and so as not to turn in its guides and is provided with a knife for cutting the button-hole, collars K<sup>1</sup>, and K<sup>2</sup> thereon, a socket S, free to turn on the bar K<sup>2</sup> between the collars thereon, and means for turning the socket round automatically after each button-hole sewing operation, so that its part S<sup>2</sup>, comes under the collar A<sup>4</sup> on the needle bar and the latter in its descent carries down the cutter bar, and the cutter pierces a hole in the material, whereupon the needle bar in its ascent raises the cutter bar by the part S<sup>2</sup>, coming against the collar A<sup>5</sup> on the needle bar, and the socket S, S<sup>2</sup> is turned back and held up in that position, substantially as set forth. 6th. In a button-hole sewing machine, the feed spindle G<sup>1</sup>, with means for stepwise rotating it and a brake for holding it in the intervals, in combination with a lift cam L, L<sup>1</sup> on the feed spindle, a lever P<sup>1</sup>, a link Q connected thereto, a lever R connected to said link, a lever R<sup>2</sup>, a weight shaft R<sup>1</sup> which carries said two levers, a bar M, the end M<sup>2</sup> of which, once after each button-hole sewing operation, is raised by the lift cam, the main lever B<sup>1</sup> with the projection B<sup>3</sup>, the switch cam B with which the main lever B<sup>1</sup> engages, the sliding bar N, connected to the bar M, the spring N<sup>1</sup> connected to the bar N, and to the arm of the machine, the cutter bar K<sup>2</sup> with swivelling socket S, and collars K<sup>1</sup> and K<sup>2</sup>, and the needle bar A, with collars A<sup>4</sup> and A<sup>5</sup>, all so arranged that when the part S<sup>2</sup> of the socket is, by the lift cam L, L<sup>1</sup>, and the aforesaid connections between it and the socket turned in under the collar A<sup>4</sup>, the cutter bar is caused to be depressed so that the cutter pierces a hole in the material, whereupon the cutter bar is raised again by the collar A<sup>5</sup>, coming against the part S<sup>2</sup>, of the socket S, and the latter is turned back, and the cutter bar held in the raised position, substantially as set forth. 7th. A button-hole sewing machine, consisting of the following main operating parts which are arranged in connection with a bed plate and an arm framing thereon, viz., a driving spindle rotating in the arm framing, the needle bar driven thereby, a spindle below the bed plate also driven thereby and fitted with stitch-forming devices operating with the needle, suitable tension devices, needle plate and presser foot, a switch cam on the driving spindle, a main lever engaging therewith, a sliding bar arranged below the bed plate and reciprocated by the main lever, the cloth plate with side slide, elastic connections between the sliding bar and the side slide, a feed spindle driven by pawl gear from the main lever, a cam thereon and fixed stops for shortening the stroke of the cloth plate while the stitches are made along each side of the button-hole, a groove cam on the feed spindle, a cross slide on the cloth plate, a lever mounted on adjustable fulcrum and meshing with said groove cam and connected to the cross slide for operating it and feeding the cloth along the length of a button-hole and back, a lift cam on the feed spindle, a lever on the arm framing operated thereby once in every button-hole sewing operation so as to raise it into contact with the main lever, a bar connected to the said lever and adapted to slide along the arm framing and provided with a prolongation going down on the head of the arm framing, a cutter bar on the head adapted to work parallel with the needle bar, a socket swivelling on the cutter bar between an upper and a lower collar thereon and provided with a fork which engages with the aforesaid down-going prolongation of the sliding bar on the arm framing, an upper and a lower collar on the needle bar between which said socket when turned is made to engage, whereby the needle bar depresses the cutter bar and the cutter thereon cuts the button-hole slit and then raises it, and a pin on the prolongation of the sliding bar for the fork of the socket to rest on, substantially as described.

#### No. 47,989. Piano. (Piano.)

George Payne Bent, assignee of Martin Henry McChesney and Joseph Gerhard Kunze, all of Chicago, Illinois, U.S.A., 23rd January, 1895; 6 years.

*Claim.*—1st. In a piano, in combination with the strings, the hammers and mechanisms for operating them, a series of tongues having hard strikers or contacts on the faces nearest the strings, said tongues being adjustable to receive the stroke of the hammer at a point opposite to the said hard strikers or contacts and directly behind the hard strikers or contacts, as specified. 2nd. In a piano, in combination with the strings, the hammers and mechanisms for operating them, two or more adjustable slide-bars adapted to move at angles or obliquely to each other, one or more of said bars being adapted to travel in lines parallel or nearly parallel with the inclined strings of the piano, and devices adapted to adjust said slide-bars. 3rd. In a piano, the combination with the strings, the hammers and mechanisms for operating them, an adjustable hammer arrest adapted to arrest the stroke of the hammers as may be desired, and devices to adjust the same, and two or more adjustable slide-bars adapted to move at angles or obliquely to each other, and devices

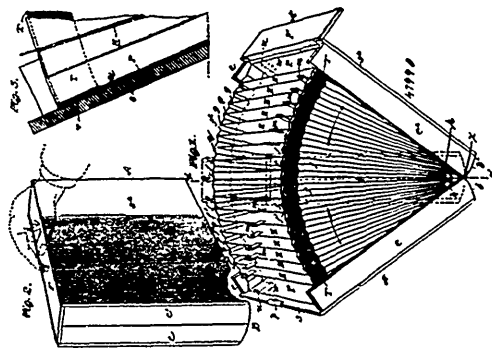
adapted to adjust the same. 4th. In a piano, in combination with the strings, the hammers and mechanisms for operating them, a hammer-arrest adapted to arrest the stroke of the hammers and the devices adapted to adjust the same, and a series of tongues adapted



to receive the stroke of the hammers, when desired. 5th. In a piano, in combination with the strings, the hammers and mechanisms for operating them, two or more slide-bars adapted to move at angles or obliquely to each other, and devices adapted to adjust the same, and series of tongues adapted to receive the stroke of the hammers, when desired. 6th. In a piano, in combinations with the strings, the hammers and mechanisms for operating them, an adjustable hammer arrest adapted to arrest the stroke of the hammers and devices adapted to adjust the same, two or more adjustable slide-bars adapted to move at angles or obliquely to each other and devices adapted to adjust the same, and a series of tongues adapted to receive the stroke of the hammers, when desired.

#### No. 47,990. Receptacle for Letters, &c.

(Receptacle pour lettres, etc.)



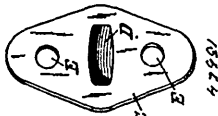
William Allen Cooke, jr., Brooklyn, New York, U.S.A., 23rd January, 1895; 6 years.

*Claim.*—1st. A receptacle for letters, &c., consisting of an expandible pocket file, and an inclosing case composed of two parts hinged together at the back, and provided with a suitable fastening device, the said parts lying on either side of the centre of gravity of the receptacle, and adapted to open automatically when the receptacle is stood on its back and the fastening released, substantially as specified. 2nd. A receptacle for letters, &c., consisting of an expandible pocket file, and an inclosing case composed of two parts hinged together at the back and provided with a suitable fastening device at the front, and having the two sides of the case and the ends of the expandible file connected together by a stronger fabric than that which composes the expandible file, the said two parts of the case lying on either side of the centre of gravity of the receptacle, and adapted to open automatically to the limit of the expansion of the file, and the connecting fabric when the receptacle is stood on its back and the fastening released, substantially as specified. 3rd. A receptacle for letters, &c., consisting in the combination of an expandible pocket file with an exterior case or box made in two parts hinged together at the back, the sides of the file being connected with the sides of the case, substantially as specified. 4th. The combination of an expandible pocket file R, having side plates P, P, with an exterior case A, composed of two parts having back pieces b, b', hinged together, and front closing flap F, hinged to one side of the case, and provided with a device for engaging with the opposite side of the case to fasten the two parts together on their meeting edges, the side plates P, P, and the sides of the case being joined together, the two parts of the case being on opposite sides of the

centre of gravity of the receptacle, and adapted to open automatically when the receptacle is stood on its back B, and the fastening released and to stand on the corner c c of the back when open, substantially as specified. 5th. The combination of an expandible pocket file R, having side plates P, P, an exterior case A, the said side plates and the sides of the case being joined together, the said case composed of two parts having back pieces b, b', hinged together at their meeting edges, and front closing flap F, hinged to one side of the case and provided with a device for engaging with the opposite side of the case to fasten the two parts together, and tapes T T fastened to the ends of the expandible file and having their ends secured between the side plates and the sides of the case, the two parts of the case being on opposite sides of the centre of gravity of the receptacle and adapted to open automatically when the receptacle is stood on its back B, and the fastening released, substantially as specified.

**No. 47,991. Clip for Metal Fabrics and Wire Fences.**

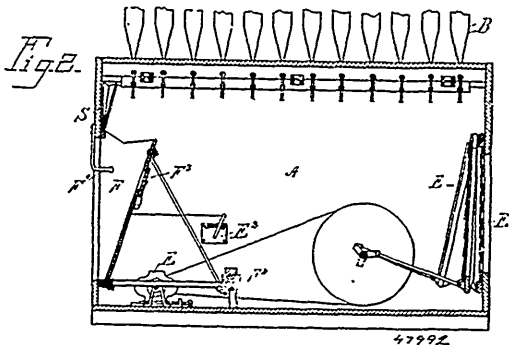
(Lien pour tissus métalliques et clôtures en fil de fer.)



Selden S. Casey, London, Ontario, Canada, 23rd January, 1895; 6 years.

Claim.—1st. As a new article of manufacture, a clip for wire fences, consisting of a folded plate C, in which are formed two separate and independent openings E, E, and a central dish or cup shaped depression D, substantially as and for the purpose set forth. 2nd. A clip for wire fences, consisting of a folded plate C, in which are formed two separate and independent openings E, E, and a central dish or cup shaped depression D, in combination with the vertical and longitudinal wires A, B, respectively, substantially as and for the purpose set forth.

**No. 47,992. Pipe Organ. (Orgue à tuyau.)**

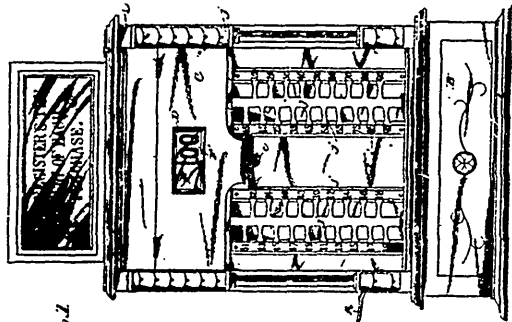


John Turnell Austin, Detroit, Michigan, U.S.A., 23rd January, 1895; 6 years.

Claim.—1st. In an organ, the combination of a wind chest, a pumping bellows and a motor therefor within the wind chest, substantially as described. 2nd. In an organ, the combination of a wind chest, a pumping bellows, a motor therefor, and a pressure regulator located within the wind chest, substantially as described. 3rd. In an organ, the combination of a wind chest, a series of pipes supported on the top thereof, passages connecting the chest with the pipes, valves controlling said passages located within the chest, and an air tight door in the wall of the chest, permitting access to the interior of the chest and to the valves, substantially as described. 4th. In an organ, the combination with a wind chest, a series of pipes supported thereon, passages connecting the chest with the pipes, valves controlling said passages, actuating mechanism for the valves located within the chest and an air tight door in the wall of the chest, substantially as described. 5th. In an organ, the combination of a wind chest, a series of pipes supported thereon, passages connecting the chest with the pipes, valves controlling said passages, located within the chest, and two air tight doors in the wall of the chest having a vestibule between, substantially as described. 6th. In an organ, the combination of a wind chest, a series of passages through the top wall thereof, a series of pipes directly communicating with said passages, and valves located within the chest controlling said passages, substantially as described. 7th. In an organ, the combination of a wind chest having portions formed of bars or planks extending from the inside to the outside, and connecting strips between such bars, of air supply passages from the wind chest, formed entirely in said bars, the pipes connected directly into the outer end of said pass-

ages, and valves controlling the inner ends thereof, substantially as described. 8th. In an organ, the combination of a wind chest, the pipes, passages extending from chest to the pipes, a valve controlling each passage, connection from the stop controlling said valve, and connection from the key for actuating the same, substantially as described. 9th. In an organ, the combination with a wind chest, pipes and passages from the chest to the pipes, a valve controlling each passage, key actuating mechanism therefor and mechanism for setting said valve in operative contact or in operative position controlled by a stop, substantially as described. 10th. In an organ, the combination with a wind chest, pipes and passages from the chest to the pipes, a valve controlling each passage, of key actuating mechanism therefor, mechanism common to each register of pipes for setting the valves of such register in operative or in inoperative position, and stops controlling the same, substantially as described. 11th. In an organ, the combination with a wind chest, the pipes, passages from the chest to the pipes, a valve controlling each passage, a motor device for each register, for moving the actuating devices for the valves into and out of operative position, stops for controlling said motor, and key actuating mechanism for the valves moved into operative position, substantially as described. 12th. In an organ, the combination with a wind chest, the pipes, passages from the chest to the pipes, a valve controlling each passage, a motor device for each register, for setting the actuating devices for the valves, stops for controlling said motors, trackers for actuating the valves, operated from the keys adapted to engage only the set valves, substantially as described. 13th. In an organ, the combination of the valves, a hinged strip upon which the valves of each register are carried, a lever for actuating the valves, and stops controlling said strips whereby the valve levers are moved into and out of operative position, substantially as described. 14th. In an organ, the combination of the valves, a hinged strip, levers upon which the valves are secured, pivoted upon said strip, springs for holding each valve closed, a stop for controlling said strip to move the lever in and out of operative position, substantially as described. 15th. In an organ, the combination of the wind chest, of a bellows for supplying air to said chest located therein, substantially as described. 16th. In an organ, the combination of a wind chest, the air compressing mechanism, the valve-actuating and valve-controlling mechanism all located in said chest, substantially as described. 17th. In an organ, the valve-actuating mechanism comprising a pneumatic motor located on a plank forming a portion of the wall of the wind chest, a passage leading from said pneumatic to a second passage formed through said plank, a valve stem having valves controlling the ports inside and outside the chest, and means for actuating said valves, substantially as described.

**No. 47,993. Cash Register. (Registre de monnaie.)**



Thomas J. Hume, Atchison, Kansas, U.S.A., 23rd January, 1895; 6 years.

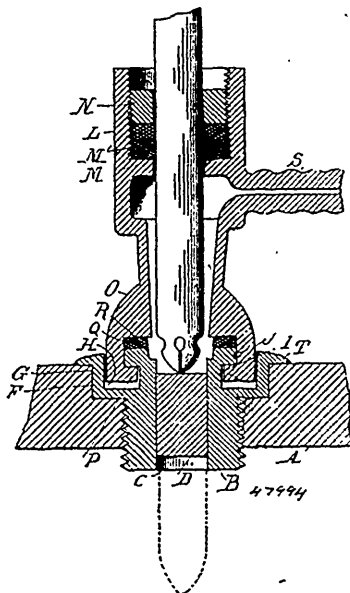
Claim.—1st. In a cash register and indicator, the combination, with a casing having the lower portion of its front wall entirely closed and having an overhanging or projecting upper portion, of suitable registering mechanism within said casing, a rigid longitudinally movable finger-bar adapted to rest in front of said lower portion of the front wall or to be moved into the projecting upper portion, and a connection solely from the upper end of said finger-bar to the internal registering mechanism, whereby access of dust or other foreign matter to the interior of the casing may be avoided. 2nd. In a cash indicator and register, the combination, with a frame having a front plate provided with a plurality of reading openings, of a main shaft carrying indicator drums and registering wheels behind said openings and a casing having a single reading opening registering with one of the openings in the said front plate, substantially as described. 3rd. In a cash indicator and register, the combination, with a casing having the lower portion of its front wall entirely closed and a straight vertically movable finger-bar outside the casing, of a rack-bar parallel thereto and inside the casing and connected to the finger-bar only at one end, a gear-wheel meshing with the teeth of the rack-bar, an indicator drum directly connected with the gear to rotate therewith, and registering wheels indirectly

connected with said gear, substantially as described. 4th. In a cash indicator and register, the combination, with the casing thereof having guides, of a finger-bar vertically movable in said guides, an indicator drum, a direct rack and gear connection between said finger-bar and drum for imparting a rotary reciprocating motion to the drum, and registering mechanism operated by the said rack and gear connection, substantially as described. 5th. The combination, with the casing of a cash indicator and register, of a finger-bar vertically movable in guides, a rack-bar connected at one end to said finger-bar, an indicating drum having a gear meshing with said rack-bar, two registering wheels, one of which is provided with ratchet teeth and the other with means for receiving motion from the rack-bar, a weighted arm pivoted at one end and carrying a pawl engaging said teeth, and means carried by the other registering wheel to elevate said arm, substantially as described. 6th. The combination, with the casing of a cash indicator and register, of a finger-bar vertically movable in guides, a rack-bar connected at one end to said finger-bar, an indicating drum having a gear meshing with said rack-bar, two registering wheels, one of which is provided with ratchet teeth and the other with means for receiving motion from the rack-bar, a weighted arm pivoted at one end and carrying a pawl engaging said teeth, a cam secured to rotate with the other registering wheel, and a rigid projecting arm carried by the weighted arm and resting on said cam, substantially as described. 7th. In a cash indicator and register, the combination, with an indicating-drum, of two registering mechanisms supported by the drum-shaft, one each side of the drum, a weighted frame extending past the drum and carrying a pawl at one end to operate one registering mechanism, and means operated by the other registering mechanism to lift said weighted frame, substantially as described. 8th. The combination, with a rigid and vertically reciprocating finger-bar and indicating and registering mechanisms operated thereby, of a spring-held controlling lever having connection for locking and releasing the said finger-bar relative to motion thereof in either direction. 9th. The combination, with a rigid and vertically reciprocating finger-bar, and indicating and registering mechanisms operated thereby, of a money-receptacle and a spring-held controlling lever having connections for locking and releasing the said finger-bar relative to motion thereof in either direction and permitting the opening of the money receptacle. 10th. The combination, with a rigid and vertically reciprocating finger-bar, and indicating and registering mechanisms operated thereby, of a money receptacle and alarm, and a spring-held controlling lever having connections for locking and releasing the said finger-bar relative to motion thereof in either direction, operating the alarm and permitting the opening of the money receptacle. 11th. In a cash indicator and register, the combination with a spring-opened money receptacle, of a lock for holding the receptacle closed, a controlling lever projecting outside the casing, a spring-held latch lever pivoted to the controlling-lever and having one end bevelled and a recess at its other end, affixed surface for the bevelled end of the latch lever to ride against, a movable pin adapted to be engaged by the said recess, and a connection from the said pin to the lock of the money receptacle, substantially as described. 12th. In a cash indicator and register, the combination, with a vertically movable finger-bar having a series of recesses, of a spring-actuated latch adapted to enter any one of said recesses, a movable bar located on the path of movement of the hand of the operator, connections from said bar to the latch, and a spring to cause the said connections to normally hold the latch out of engagement with said recesses, whereby upon lifting said bar the latch will be permitted to enter a recess and momentarily arrest further elevation of the finger-bar. 13th. The combination with two sets of indicating and registering mechanism, of a peripherally shouldered disc or wheel connected with one of said sets, a stop-pawl or detent to engage the shoulders of said disc or wheel, and means operated by the other set of said mechanisms for vibrating said stop-pawl or detent, substantially as described. 14th. The combination, with a pair of gear-wheels for operating two sets of indicating and registering mechanism, of a ratchet secured to rotate with one gear and a series of shoulders secured to rotate with the other gear, and a rock-shaft having an arm at one end engaging said ratchet, and a stop-pawl at the other end to engage said shoulders, substantially as described. 15th. The combination, with a pair of gear-wheels for operating two sets of indicating and registering mechanisms of a ratchet secured to rotate with one gear, and a series of shoulders secured to rotate with the other gear, and a rock-shaft having an arm at one end engaging said ratchet and an arm at the other end carrying a loosely-pivoted gravity-pawl to engage said shoulders, substantially as described. 16th. In a registering mechanism consisting of a plurality of wheels with suitable transfer devices, the combination, with the highest registering-wheel of the series, of a pin projecting laterally therefrom, and a stop-pin movable into and out of the path of movement of the said wheel-pin, substantially as and for the purpose set forth. 17th. In a cash indicator and register, the combination, with a straight vertically reciprocating finger-bar adapted to operate the parts of the machine to indicate and register any one of a series of different amounts, of mechanism for preventing a second movement of said bar, in an operating direction after it has commenced a return movement until said return movement is completed. 18th. In a cash indicator and register, the combination, with a straight vertically reciprocating finger-bar adapted to operate the parts of the machine, to indicate and register

any one of a series of different amounts, of an alarm and mechanism for preventing the second movement of said bar in an operating direction after it has commenced a return movement until the alarm is operated and the said return movement is completed. 19th. In a cash indicator and register, the combination with a straight vertically reciprocating finger-bar adapted to operate the parts of the machine to indicate and register any one of a series of different amounts, of mechanism for preventing a single indication resulting from success of operations in the same direction. 20th. In a cash indicator and register, the combination, with a straight vertically reciprocating finger-bar adapted to operate the parts of the machine to indicate and register any one of a series of different amounts, of a controlling device and mechanisms connected therewith to prevent successive operations of the indicator and register in the same direction during a single complete operation of the controlling device. 21st. In a cash indicator and register, the combination with a controlling device having connections for normally holding the indicating mechanism against operation, of a shield normally exposing the indicator and connections between said shield and controlling device, whereby movements of said controlling device in one direction conceals the indicator and releases the indicating mechanism. 22nd. In a cash indicator and register, the combination, with the controlling lever having connections for normally holding the indicating and registering mechanism against operation, of an indicator drum, a shield outside of the periphery of the drum, a spring for normally holding the shield to expose the drum, and connections from said shield to the lever, substantially as described. 23rd. In a cash indicator and register, the combination of a pair of indicating drums, of a casing having front and rear reading openings and indicating ribbons attached to and operated by said drum, the characters on the said drums and ribbons being visible through different reading openings. 24th. In a cash indicator and register, the combination with a casing having front and rear reading openings, of a pair of indicating drums visible through one opening and a pair of indicating ribbons attached at one end to said drum and crossing each other and visible through the other reading opening beyond the point of crossing. 25th. In a cash indicator and register, the combination with the casing, having front and rear reading openings, of a pair of indicating drums visible through one opening, a pair of guide-rollers and spring-rollers, and a pair of indicating ribbons attached to the drums, passing over the guide-rollers crossing each other, and connected with the spring-rollers, and visible below their cross point through the other opening, substantially as described. 26th. In a cash indicator and register, the combination with a pair of indicating drums and a pair of crossed indicating ribbons attached to and operated by said drums, of shields for both the drums and ribbons, substantially as described.

#### No. 47,994. Bung Bushing and Tap.

(Dé de bonde et robinet.)



John Mohr, Detroit, Michigan, U.S.A., 23rd January, 1895; 6 years.

*Claim.*—1st. In a bung-bushing and tap, the combination with a bushing mender having a threaded centrally perforated shank, a recessed outer face, and a central projection J, in the recess having

oppositely inclined coupling flanges J, on its sides, spaced apart, a centrally apertured stuffing box having a bell-shaped coupling foot O, formed with inwardly extending lugs P, adapted to engage the flanges J, the packing Q, between the bushing and box, the flange M, in the upper end of the box, the packing M' on the same, the nut N in the upper end of the box, and the nipple S, substantially as described.

**No. 47,995. Cash Register. (Registre de monnaie.)**

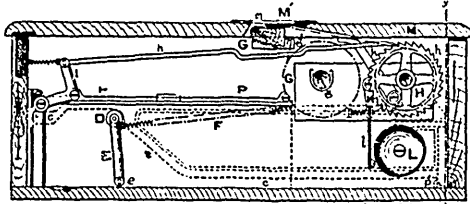
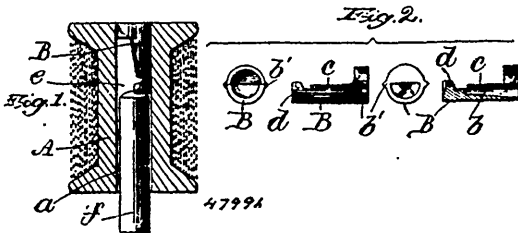


FIG. 1.

Thomas O'Brien, Liverpool, England, 23rd January, 1895; 6 years.

*Claim.*—1st. A cash recorder having a cam surface provided on the money drawer, in combination with a pivotal lever to actuate the drawer, the free end of which is pressed against the drawer and a spring which actuates the lever, the relative positions of the inclined face of the cam and of the operating lever being such that the force of the spring causes the closing of the drawer when the lever presses upon the inclined surface of the cam, substantially as described. 2nd. In a cash recorder, the combination, with the case in which the drawer slides and a money drawer sliding therein, of a cam surface with one face inclined to the other, of a pivoted lever to actuate the drawer the free end of which engages with the cam surfaces and a spring one end of which is attached to the lever and the other end fixed by which the lever is actuated to move the drawer inwards and close it, substantially as and for the purposes described. 3rd. A cash recorder provided with a cam surface having one surface at an angle to the other on the money drawer, in combination with a propelling lever actuated by a spring whereby the drawer is forced inwards, substantially as and for the purposes described. 4th. In a cash recorder, the combination, with the money drawer and an inclined surface thereon of a spring propelled actuating lever and its spring acting upon the drawer to impel it inwards and close it, substantially as and for the purposes described. 5th. In a cash recorder, the combination, with the money drawer A, of a cam plate C attached thereto provided with two operative surfaces one inclined to the other, an actuating or propelling lever E pivoted to a fixed part of the appliance, and a spring F which operates the lever by which the drawer is impelled inwards and closed, substantially as described. 6th. In a cash recorder, the combination, with the case which incloses the drawer and mechanism, the money drawer A, the cam plate C attached to the drawer, and provided with two surfaces c one inclined to the other, the propelling lever E, (provided with a friction roller D), which engages with the cam plate C, and the spring F which actuates the lever arranged to act upon and impel the money drawer inwards to close it, substantially as described. 7th. In a cash recorder, the combination, with the money drawer A, capable of sliding to and fro of the cam plates C, provided with cam surfaces c one at an angle to the other, the pivoted lever E actuated by springs F whereby the action of the springs is utilized to close the drawer when partially open, the pivoted lever actuated by the second cam surface c', the connecting rod and pawl h', the ratchet-wheel h, the paper roller H on to which the paper is rolled, the roll of paper G, the bridge piece G' over which it travels, the spring catch K to prevent the rotation of the roller carried on the plate K', and the lever k for lifting the catch out of contact with the ratchet-wheel h to allow it to be rotated.

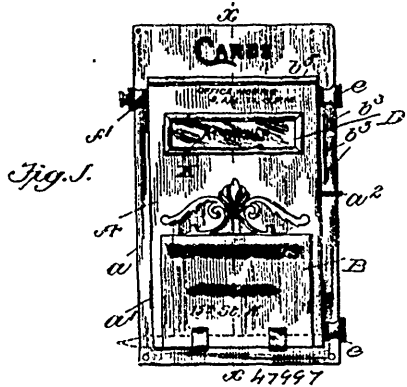
**No. 47,996. Spool. (Bobine.)**



Addison Conkling, Plainfield, New Jersey, U.S.A., 23rd January, 1895; 6 years.

*Claim.*—A spool of thread or thread-spool, the bore of which is provided with a wind sound producing device made either in the form of a whistle or in the form of a reed sound producing device or trumpet.

**No. 47,997. Office Indicator. (Indicateur de bureau.)**



Henry G. Kleuze and Grezella C. M. Fullerton, both of Great Falls, Montana, U.S.A. 23rd January, 1895; 6 years.

*Claim.*—1st. The herein described improved indicator comprising the base plate having a card-receptacle secured thereto, the box or frame hinged or pivoted to said base-plate for covering said receptacle and having an upper slot therein designed to coincide with said card-receptacle when said box or frame is closed, and means for locking said box or frame, substantially as set forth. 2nd. The herein described improved indicator comprising the base-plate having a card-receptacle secured thereto, the same being open at its top and a portion of one side, and the box or frame hinged or pivoted to said base-plate and having a slot in its top and a sight-opening in one side, said slot and sight-opening being designed to coincide, respectively, with the top and open side of said card-receptacle, substantially as set forth. 3rd. The herein described improved indicator comprising the base-plate, the box or frame hinged thereto at one side thereof, and having a front sight-opening, upper and lower rollers located in said box or frame, means for binding one of said rollers, and the indicating ribbon wound on said rollers and designed to be visible at said sight-opening, substantially as set forth. 4th. The herein described improved indicator, comprising the base-plate, the box or frame hinged or pivoted thereto and having a front sight-opening, upper and lower rollers having each a slot one of said rollers having a binding nut thereon, and the indicating ribbon secured at its ends to said rollers, substantially as and for the purpose set forth. 5th. As an improved article of manufacture, the indicator herein described comprising the base-plate having a card-receptacle secured thereto open at its upper end and one side, the box or frame hinged to said base-plate and having a front sight opening, a slot in its top and a sight opening in one side, the card-holder attached to the front of said box or frame, the curved arms extending therefrom, upper and lower rollers, the indicating ribbon wound on said rollers, and the catch for holding said box or frame to said base-plate, substantially as set forth.

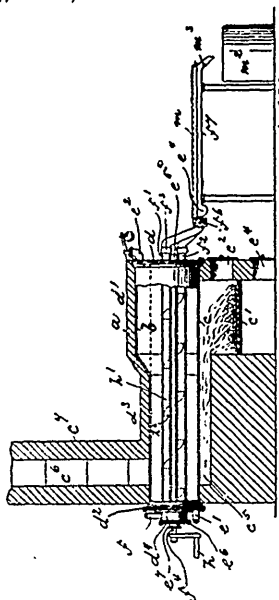
**No. 47,998. Milk Sterilizer.**

(Machine pour stériliser le lait.)

Edward Leslie, Paterson, New Jersey, U.S.A., 23rd January, 1895; 6 years.

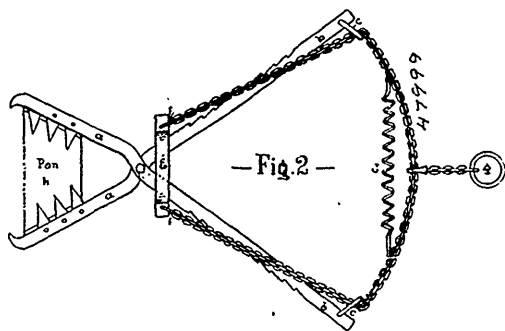
*Claim.*—1st. In a milk sterilizing apparatus, the combination, with the hot water boiler and its heads, a milk conduit arranged in said boiler and extending through said heads, an inflow connection at one end of said milk conduit, an upper and a lower outflow connection arranged at the other end of the same, and a valve arranged in each of said upper and lower outflow connections, all said parts substantially as and for the purposes described. 2nd. In a milk sterilizing apparatus, a cooling table consisting of a slightly inclined top, a reservoir arranged at one end thereof, and a series of diagonal frets arranged in opposite directions on said top, all said parts, substantially as and for the purposes described. 3rd. In a milk sterilizing apparatus, the combination of the hot water boiler, the milk conduit which passes through the same, the head for said conduit provided with the central recess with flaring mouth, the rotatable shaft in said conduit provided with stirring blades and having its end rounded off so as to enter the recess in the head, and one or more arms each provided with a roller which support the end of the shaft when it is withdrawn from its bearing in the recess, substantially as described. 4th. In a milk sterilizing apparatus, the combination, with the furnace, of a hot water boiler arranged in said furnace, a head on each end of said boiler, a milk conduit extending through said boiler and through the heads thereof, an inflow connection on one end of the boiler, an upper and a lower valve controlled outflow connection at the other end thereof and means for cooling the outflowing milk, said means being connected with the upper and lower outflow, all said parts, substantially as and for the purposes described. 5th. In a milk sterilizing apparatus, the combination, with the hot water boiler, a milk conduit arranged in

said boiler, a removable head on one end of said conduit, a fixed head arranged on the other end thereof and provided with a recess, having a flaring mouth, a shaft on said conduit and extending



through said removable head and having its opposite end rounded off and adapted to enter said recess in the fixed head, and a series of stirring blades arranged on said shaft, all said parts, substantially as and for the purposes described.

**No. 47,999. Bear Trap. (Piège)**



Walter R. Kidd, Cardiff, Ontario, Canada, 24th January, 1895; 6 years.

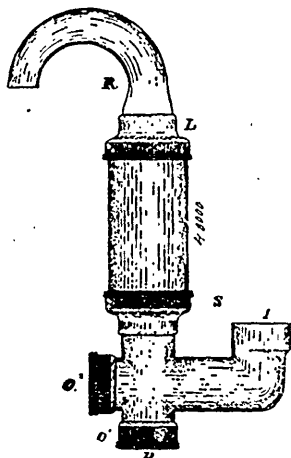
*Claim.*—The combination of the toothed jaws *a, a*, the ratcheted levers *b, b*, the trap pan *h*, the sliding clamp-ring *c*, and the cham and spiral or straight or other spring *j*, substantially as and for the purpose hereinbefore set forth.

**No. 48,000. Filter. (Filtre.)**

Joseph T. B. Selman, Toronto, Ontario, Canada, 24th January, 1895; 6 years.

*Claim.*—1st. A filter having an inlet at its lower end, an outlet at its upper end, a revoluble brush beneath the filtering material which it contains, and a drain opening beneath the brush, substantially as described. 2nd. A filter having filtering beds confined between screens, and a revoluble brush arranged in contact with one of the screens, substantially as described. 3rd. A filter having a filtering bed arranged between screens, a revoluble brush contacting with the screen on the inlet side of the filtering bed, and a drain opening under the brush, substantially as described. 4th. A filter having filtering material confined between screens, a revoluble brush contacting with one of the screens, and a water motor operated by the water passing to the filtering beds, and arranged to turn the brush, substantially as described. 5th. A filter having a discharge spout at the top, an inlet at the bottom, filtering material arranged between the inlet and outlet, suitable confining screens for the filtering material, a revoluble brush arranged beneath the lower screen, a water motor on the same shaft as the brush, and a valve-controlled

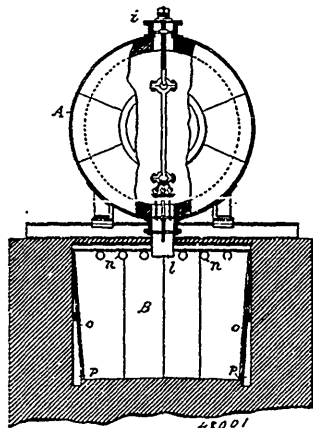
drain opening beneath the brush, substantially as described. 6th. A filtering comprising a T, having an inlet at one end, a valve controlled drain opening in its lower member and a filtering bed in its upper member, a revoluble brush arranged beneath the said filtering



bed, a main barrel attached to the upper member of the T, and provided with filtering material, and a spout secured to the top of the main barrel, substantially as described. 7th. The combination with the T, and the filtering mechanism connected therewith, of the filtering screen in the outlet of the T, the revoluble brush beneath the screen, the motor on the brush shaft, the discs forming the bearings of the said shaft, the inner disc being perforated, and the valve-controlled member below the brush, substantially as described. 8th. The combination with the T, of a valve in one member of the T, an auxiliary filter in the other, and a main filter secured to the member containing the auxiliary filter, substantially as described.

**No. 48,001. Wood Pulp Boiler.**

(Chaudière pour pâte de bois.)



Nils Peter Wedge, Shronthyenn, Norway, 24th January, 1895; 6 years.

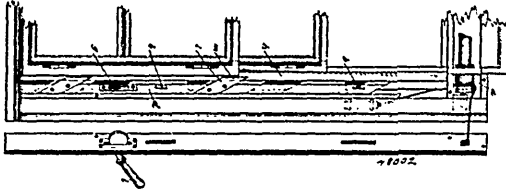
*Claim.*—1st. In combination in a cellulose boiler, the upper and lower manholes, the cover plates thereof, the outside clamps for holding the lower cover plate down upon its seat and the hoisting rod extending from the lower plate up through the boiler and through the upper plate, substantially as described. 2nd. In combination with the boiler, the lower manhole, the cover plate thereof, the screw projecting down therefrom, the yoke *b* engaging the same, the nut for clamping the parts and the hoisting rod passing from the lower cover plate up through the boiler to the upper cover plate, substantially as described. 3rd. In combination with the boiler, the lower manhole, its cover plate and the hoisting means consisting of the bar extending up through the boiler, the upper cover plate through which the upper screw threaded end of the rod extends, the nut on the rod and the casing *j* on the upper plate to which the casing is attached, substantially as described. 4th. In combination with the boiler, the lower manhole, the closing plate thereof, the hoisting rod screw threaded at its upper end and passing through the closing plate of the upper manhole, the adjusting



nut on the threaded end, the cover inclosing the said nut and the nut for holding the cover, substantially as described. 5th. In combination with the boiler having its lower manhole with its cover plate and means for operating the same, the stuff basin, the fluid supply leading thereto by which the material from the boiler may be washed and the connection between the stuff basin and the boiler, substantially as described. 6th. In combination with the boiler, the stuff basin, the connection between them and the slatted walls in the stuff basin adapted to strain the pulp, substantially as described.

**No. 48,002. Air Tight Sliding Window.**

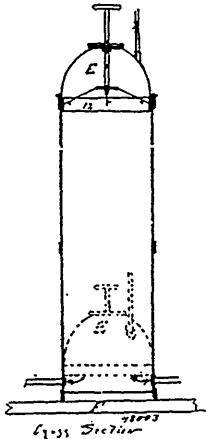
(Fenêtre à coulisse fermée hermétiquement)



Johannes Ehrcke, Schöneberg, Prussia, Germany, 24th January, 1895; 6 years.

*Claim.*—1st. A sliding window adapted to be closed in an air tight manner by the arrangement and combination therewith of a bar such as *d*, a closing device such as *h*, both arranged in the side frame of the window, the part *h* being formed with bevelled shoulders which take into corresponding recesses *f* in the bar *d* and an eccentric *o* to operate said bar *d* and press the closing device *h* against the window sashes so as to tightly close the window constructed and arranged substantially as hereinbefore described. 2nd. In the sliding window specified in claim *1* the arrangement of the angle irons on the abutting or adjacent edges of the window sashes in combination and acting in conjunction with the arrangement of bars taking into grooves on the upper and lower window frame constructed and arranged substantially as hereinbefore described. 3rd. In the sliding windows specified in claim *1* the arrangement and combination therewith of a wire gauze blind in the upper part of the window sash which wire blind is wound off a blind roller situated in the top-frame in proportion as the upper window sash is lowered, constructed and arranged substantially as hereinbefore described.

**No. 48,003. Fog Signal.** (Signal de brume.)

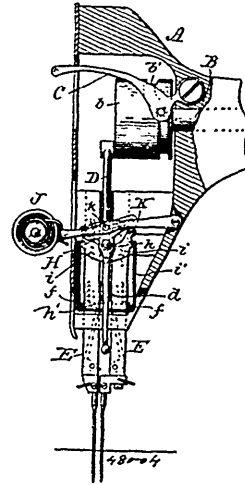


Abner Robert Bostwick and John Duffy, both of Detroit, Michigan, U.S.A., 24th January, 1895; 6 years.

*Claim.*—1st. A signalling apparatus, comprising a tank to contain compressed air and provided with a movable cap constituting a plunger, a signal device to be operated by the compressed air, a valve therefor and mechanism in operative connection with said valve to automatically open the valve at predetermined intervals to release a part of the compressed air to sound the warning, substantially as described. 2nd. In a signalling apparatus, the combination, with a tank to contain the compressed air having an open end and having the signal device connected therewith, of a movable cap constituting a plunger movable in said tank to close the open end, and means for expanding the lower end of said plunger to obtain a tight joint, substantially as shown and described. 3rd. In a signalling apparatus, the combination, with a tank to contain the compressed air and having the signal device connected therewith, and stops at the upper end of the tank, of a movable cap constituting a

plunger within the tank, and means for expanding the said plunger, substantially as and for the purpose specified. 4th. In a signalling apparatus, the combination, with a tank to contain the compressed air and having the signal device connected therewith, a lining within the tank, a band surrounding the upper end of the said tank, and bolts securing the tank lining and band together, and forming stops, of a movable cap constituting a plunger to work in the said tank, and limited in its upward movement by the said stops, substantially as shown and described. 5th. In a signalling apparatus, the combination, with a tank to contain the compressed air and having the signal device connected therewith, of a dome shaped movable cap constituting a plunger to work in said tank, said cap being open at the top, plates for closing the said opening bolted to the cap, the outer plate having a vertical flange to retain weights in position, upwardly inclined rods, and a screw mounted in the said plates and adapted to actuate the said rods to expand the lower edge of the cap, substantially as shown and described. 6th. In a signalling apparatus, the combination, with a tank to contain the compressed air, and having the signal device connected therewith, of a dome-shaped movable cap constituting a plunger to work in said tank having a nut at the top, a hub, rods between the hub and the lower end of the cap, and a screw mounted in the nut in the said cap, and having its lower end in engagement with the said hub, substantially as and for the purposes specified.

**No. 48,004. Sewing Machine.** (Machine à coudre.)



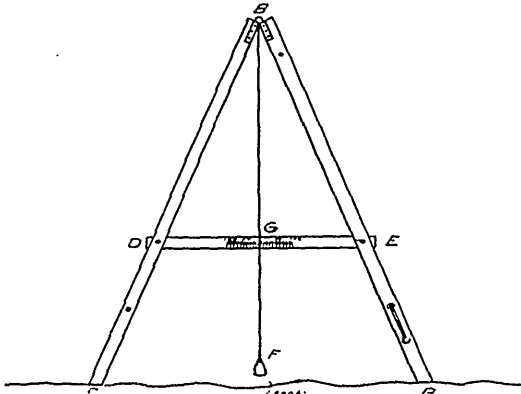
Charles Augustus Hill, Worcester, assignee of Philip Benjamin Laskey, Marblehead, both in Massachusetts, U.S.A., 24th January, 1895; 6 years.

*Claim.*—1st. In a sewing machine, the combination with two needle bars, one of which is provided with a longitudinal slot, of a reciprocating operating device or cross-head normally extending into the said slot, and an adjustable stop carried by and thus movable with the slotted needle-bar and adapted to be thrown into and out of the path of movement of the said reciprocating device or cross-head, to reciprocate the said needle-bar or to permit the same to be stopped while the machine is in operation. 2nd. In a sewing machine, the combination with two needle-bars, of a reciprocating operating device for said bars, means constructed and adapted to disconnect said operating device from one of said bars while the machine is in operation, and a catch, supported by or formed on a stationary part of the head of the machine for holding the needle-bar, which is out of operation in an elevated position when it reaches the limit of its upward movement. 3rd. In a sewing machine, the combination with two needle-bars and a take-up, of a reciprocating operating device for said bars, means constructed and adapted to disconnect one or either of said needle-bars from said operating device while the machine is in operation, a catch, supported by or formed on a stationary part of the head of the machine for holding the needle-bar which is thrown out of operation in an elevated position, and means, operating simultaneously with the disconnecting mechanism, for relaxing the thread of the needle which is to be thrown out of operation so that too much slack will not be drawn by the take-up. 4th. In a sewing machine, the combination with two needle-bars, a take-up, a reciprocating device for operating said needle-bars, and means for disconnecting one of said needle bars from said operating device, of a movable tension device and connections between said tension device and the needle-bar disconnecting-mechanism, whereby said tension device is lifted or moved toward said take-up when the needle-bar is thrown out of operation by the disconnecting mechanism. 5th. In a sewing machine, the combination with two needle-bars, an operating device



vice for said bars and means for disconnecting one or more of said bars from said operating device, of a throat-plate having a throat for the needle which is to be thrown out of operation, and having also a slot into which said throat opens and which slot extends both backwards and forwards from said throat in the line of feed. 6th. In a sewing machine, the combination with the needle-bars B, one of which is provided with a vertical slot, of a reciprocating block or cross-head D, extending into said slot, said needle-bar being provided with a pivoted spring-acted stop E, the upper end of which may be thrown into or out of the path of movement of the reciprocating block or cross-head D, said stop having a lug or projection f, a spring for moving said stop inward to its operative position, a pivot releasing catch or retaining device i, a lever having a part engaging said release device i, and serving to move the same outward against the stress of its spring into position to be engaged by said lug or projection f, on said stop, to withdraw the latter from the path of movement of the cross-head working in the slotted needle-bar, and thus throw said needle bar out of action.

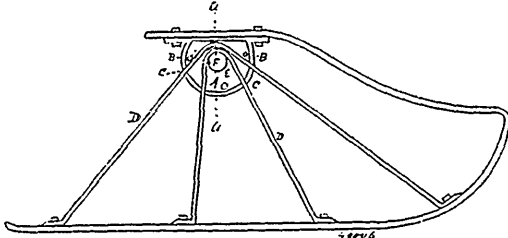
**No. 48,005. Drain Grading Instrument.**  
(Instrument de déclivité d'égouts.)



Allan Ross Davis and John N. Bogart, both of Napanee, Ontario, Canada, 24th January, 1895; 6 years.

*Claim.*—A drain gradient instrument composed of two uprights hinged at their top and held apart by a cross-bar, said bar carrying a scale and a plumb ball F, hinged at B, substantially as shown and for the purpose set forth.

**No. 48,006. Sleigh. (Traineau.)**

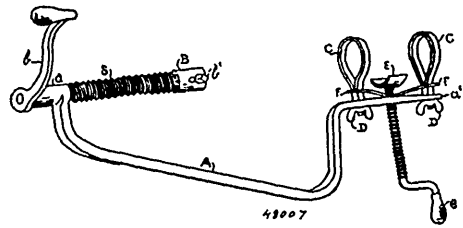


John Bell, Toronto, Ontario, Canada, 24th January, 1895; 6 years.

*Claim.*—1st. In a sleigh hub, the securing of the knees by means of separate parts of sleigh hubs held together by bolts, rivets, screw thread or similar means, with the knees held between two contiguous surfaces. 2nd. In a sleigh hub, the combination of two separate parts of the sleigh hub A, A, each part having surfaces fitted against opposite sides of the knees, these parts either formed entire or constructed of two or more pieces, these separate parts secured together by bolts, rivets, screw-thread or similar means, and the knees held firmly between them, substantially as described. 3rd. The combination of two parts of sleigh hubs, each part having surfaces fitted against opposite sides of the knees, these separate parts secured together and holding the knees between them, and of continuous knees not terminating within the hub but merely having a bend therein, substantially as described. 4th. The combination of two parts of sleigh hub, each part having surfaces fitted against opposite sides of the knees, these separate parts secured together and holding the knees between them, and of continuous knees forming elbows sufficiently past the centre of the hub that the axle or centre of the hub shall be within the bend or elbow, substantially as specified. 5th. In a sleigh hub the wooden cores, one in each end of the hub with bore through the centre to receive axle, as described.

**No. 48,007. Spoke Tenoning Machine.**

(Machine pour emmerraiser les rais.)

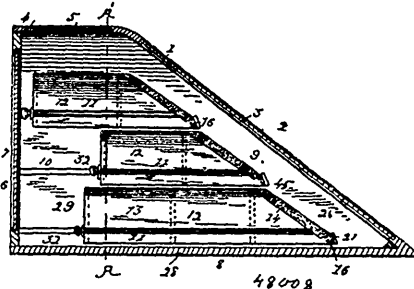


Johann O. Lade, Merrill, Michigan, U.S.A., 25th January, 1895; 6 years.

*Claim.*—In a spoke tenoning machine, the combination with the frame A provided with a tool shaft socket a, at one end, and the other end adapted to receive the adjustable loops C, C, and screw threaded rest E, of the tool shaft provided with the crank b, coiled spring S surrounding the tool shaft B between its socket and the socket for the tool, and the adjustable loops C, C, the adjustable rest E provided with a crank e, and the spring F, substantially as and for the purpose set forth.

**No. 48,008. Display Case for Cutlery.**

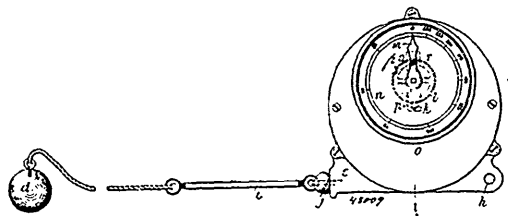
(Caisse d'étalage pour coutellerie.)



William A. Dempsey, New Franklin, Missouri, U.S.A., 25th January, 1895; 6 years.

*Claim.*—1st. An improved display case comprising a tray provide with a downwardly inclined front, the sides of said tray terminating at their front ends in outwardly-flaring portions, and a removable display-rack disposed over said inclined front and having its lower corners recessed to receive said outwardly flaring portions of the tray sides, substantially as set forth. 2nd. An improved display case comprising a tray provided with a downwardly inclined front, a removable display rack disposed over said inclined front and provided with parallel recesses closed at their lower ends and tag-clasps secured to said display-rack beneath each of said recesses, substantially as set forth. 3rd. An improved display-case, comprising a casing, trays sliding therein and each having a downwardly-inclined front, the sides of said trays terminating at their forward ends in outwardly flaring portions 16, removable display-racks disposed over the inclined front of each tray and provided at their lower corners with recesses 17 adapted to receive the portions 16 of the trays, and said display-racks each having recesses or depressions in its surface, and tag-clasps secured to the display racks below each of said recesses or depressions, substantially as set forth.

**No. 48,009. Captive-Ball Apparatus for Practising Golf.**  
(Appareil de balle captive pour jeu de golf.)

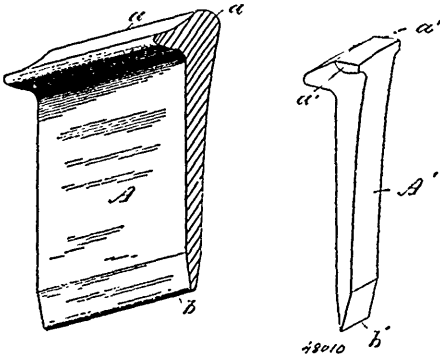


Robert George Graham, London, England, 25th January, 1895; 6 years.

*Claim.*—1st. In captive-ball apparatus attaching the ball to a cord wound upon a pulley or drum, arranged in conjunction with a spring

in such a manner that when the ball is struck the said cord is unwound from the pulley or drum, the spring thereby storing a certain amount of the energy imparted to the ball sufficient to again wind up the cord and return the ball, substantially as described. 2nd. In captive-ball apparatus, the combination, with a pulley or drum upon which the cord to which the captive-ball is connected is wound, of a spring in which a certain amount of the energy imparted to the ball when struck is stored as the cord is unwound from the wheel or drum and an indicating apparatus for indicating the approximate force expended on the said ball, substantially as described. 3rd. In captive-ball apparatus, the combination of a pulley or drum carrying a cord to which the captive-ball is connected, a coiled spring arranged in conjunction with the axis of the said wheel and adapted to be coiled as the cord is unwound from the said drum, and mechanism for indicating the extent of the movement imparted to the said wheel or drum, substantially as described. 4th. The modification of my invention wherein a spiral spring is employed, substantially as described.

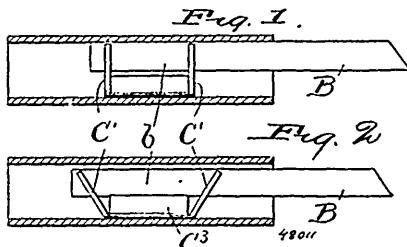
**No. 48,010. Railway Spikes and Method of Manufacturing the same.** (*Cheville de chemin de fer et méthode de fabrication.*)



Graham Fraser, New Glasgow, Nova Scotia, Canada, 25th January, 1895; 6 years.

*Claim.*—1st. The method of manufacturing railway spikes, consisting of producing a rolled blank plate of steel having the desired cross section of the finished spike, but allowing extra material in the head, cutting said plate into strips of the width of the spikes, reheating said strips or spike blanks, upsetting the head to form the dog-ears and sharpening the point, substantially as set forth. 2nd. A railway spike having dog ears and a chisel point produced from a steel blank point cut into strips of the required width and finished by upsetting the extra material of the head to form dog-ears and by perfecting the point, substantially as set forth.

**No. 48,011. Clamping Device.** (*Appareil d'assemblage.*)



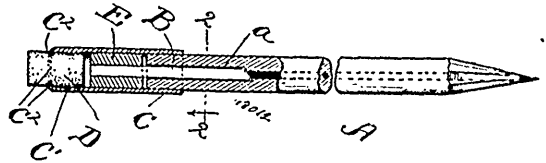
Horace Stephen Buckland, Fremont, Ohio, U.S.A., 25th January, 1895; 6 years.

*Claim.*—1st. A clamping device for securing a knife-blade or working member of a tool into a hollow or chambered handle, ferrule or shell, consisting of two clamping-members located a suitable interval apart, said clamping-members straddling the shank of the knife-blade or member to be secured and clamping the same against the interior surface of the handle, ferrule or shell, substantially as set forth. 2nd. A clamping device, for securing a knife-blade or working-member of a tool into a hollow or chambered handle, ferrule or shell, consisting of two members located a suitable interval apart and adapted to fit the handle, ferrule or shell internally, said members being slotted to straddle the shank of the knife-blade or the member to be secured and clamp the same against the interior surface of the handle, ferrule or shell, substantially as set forth. 3rd. A clamping device for securing a knife-blade or working-member of a tool within a handle, ferrule or holder, consisting of two clamping-members located a suitable interval apart and slotted or cut to receive the blade or working-member of the tool, and suitable

means for holding said securing-members apart, substantially as set forth. 4th. A clamping device for securing a knife-blade or working member of a tool within a handle, ferrule or holder, consisting of two clamping-members located a suitable interval apart, said members straddling or embracing the blade or working-member of the tool, and securing the same within the handle, ferrule or holder, said securing-members being connected by a web and the latter being bent to be engaged by the opposing sides of the securing-members, substantially as set forth.

**No. 48,012. Pencil and Attachment.**

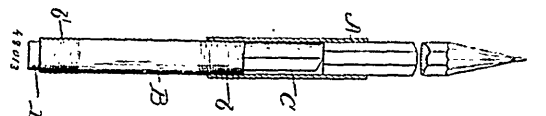
(*Attache pour crayons.*)



Horace Stephen Buckland and Louis Philip Wickland, both of Fremont, Ohio, U.S.A., 25th January, 1895; 6 years.

*Claim.*—1st. The combination with a pencil whose sheath, at the non-writing end of the pencil, is provided with a centrally located hole extending into the pencil a suitable distance, of a knife-blade engaging said hole and suitably secured within a holder removably secured to said end of the pencil, substantially as shown for the purpose specified. 2nd. The combination with a pencil whose sheath, at the non-writing end of the pencil, is provided with a centrally located and longitudinally arranged hole, of a tube removably mounted upon said end of the pencil, said tube, at its outer end, bearing an eraser, and having suitably secured within it a knife-blade extending into the aforesaid hole in the pencil, substantially as shown for the purpose specified. 3rd. A pencil-attachment consisting of a tube adapted to be slipped over the non-writing end of a pencil, a knife-blade projecting from one end of and suitably secured within the tube by means of a plug and an eraser borne at the opposite end of the tube, substantially as set forth. 4th. A combined pencil and knife consisting of a tube C, a plug E, within said tube, a knife-blade B, with said plug and adapted to fit into a pencil, a rubber or eraser D, in the opposite end of the tube, and the tube being bent into said eraser, as at C', substantially as set forth. 5th. A pencil provided with a knife-blade and eraser-bearing attachment, substantially as shown for the purpose specified.

**No. 48,013. Pencil Attachment.** (*Attache pour crayons.*)



Charles Fredric Wickland, Fremont, Ohio, U.S.A., 25th January, 1895; 6 years.

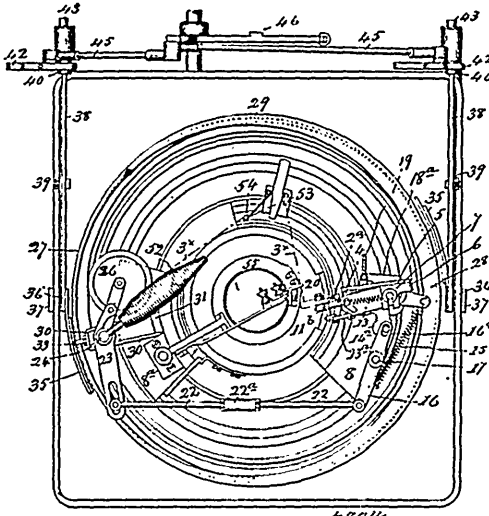
*Claim.*—A pencil attachment consisting of a tubular or hollow member adapted to be connected to the end of a pencil, and a knife-blade and eraser-bearing member adapted to engage the tubular or hollow member internally, the knife-blade and eraser being located at opposite ends of the supporting-member respectively, the latter being adapted to be actuated so as to expose the eraser or the knife-blade as desired, and the tubular or receiving-member having sufficient length to accommodate the reception of the knife-blade of the blade and eraser-bearing member, substantially as set forth.

**No. 48,014. Knitting Machine.** (*Machine à tricoter.*)

Charles Terrot, Canstadt, Wurtemberg, Germany, 25th January, 1895; 6 years.

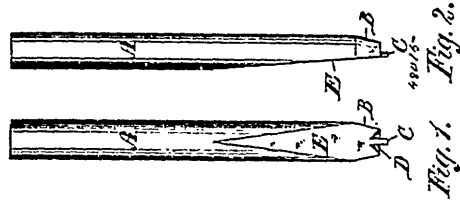
*Claim.*—1st. The combination with a circular series of needles, a needle-actuating cam ring, and a splicing thread guide, of a splicing thread device having jaws adapted to grasp and cut the splicing thread between said thread guide and said needles and hold the end of the said splicing thread until again to be presented to the needles, substantially as described. 2nd. The combination with a circular series of needles, and a splicing thread guide, of a splicing thread device having jaws adapted to clamp said thread near said thread guide, and devices to move said splicing thread device away from said thread guide and put the splicing thread clamped by it in position between and that it may be taken hold of by said needles, substantially as described. 3rd. The combination with a circular series of needles, a needle-actuating cam ring, and a splicing thread guide, of a splicing thread introducing device having jaws, means to move said splicing thread device backward and forward with relation to the direction of rotation of said cam ring, and toward and from the series of needles, and to open and close the said jaws whereby they are made to embrace the splicing thread near said

thread guide, cut the splicing thread, hold its end, and at a later period move toward said needles, deliver the splicing thread preparatory to returning to the said thread guide, substantially as described. 4th. In a circular knitting machine, using a circular series of needles,



a needle-actuating cam ring, a splicing thread-introducing device mounted on said ring, and a splicing thread guide, combined with means to at times move the said thread device faster than the said cam ring in the direction of rotation of the said ring to introduce the thread between the needles at a distance from the said thread guide, and when taken by the needles retire from the splicing thread and return to its starting point near the said thread-guide to regrasp, cut and hold the said splicing thread, substantially as described. 5th. In a splicing apparatus for circular knitting machines, a device for introducing the thread between the needles and holding it until it is engaged thereby, and means for moving the said device again into the track of the thread and also for opening the said device to re-engage and sever the thread in the manner described. 6th. In a splicing apparatus for circular knitting machines, a splicing thread device for introducing the thread between the needles, a splicing cam track, combined with mechanism interposed between said track and said splicing thread device to actuate the latter in the manner described. 7th. In a knitting machine, a splicing thread-introducing device adapted to present its thread directly to the needles of the machine, two splicing thread cam-tracks, actuating mechanism between them and the splicing thread device to cause the latter to grasp and present the thread to the needles, and retire from the thread, cut and re-clamp the same, combined with devices to raise and lower said actuating mechanism to be moved by one or the other of said cam tracks according to which part of the tubular fabric is to receive the splicing thread, substantially as described. 8th. In a splicing apparatus for circular knitting machines, a splicing thread device for introducing a splicing thread between the usual machine needles, two splicing thread cam tracks and an interposed circular ring, a lever having one end co-operating with one of said tracks, mechanism interposed between the said lever and the said splicing thread device to actuate the latter, and means for automatically moving the said lever into and out of contact with the said tracks, for the purpose described. 9th. In a splicing apparatus for circular knitting machines, a device for introducing a splicing thread between the needles, splicing thread cam tracks, mechanism interposed between them and the said splicing thread device to actuate the latter, combined with a cam slide for causing the said interposed mechanism to be actuated by one or other of the said cam tracks as desired, substantially as described. 10th. In a splicing apparatus for circular knitting machines, a splicing-thread device for introducing the thread between the needles, cam tracks and mechanism interposed between them and the said splicing-thread device to actuate the latter, slides having cams for placing the said interposed mechanism in and out of contact with one of said cam tracks, a pattern chain, and devices between it and the slides having cams to operate the latter, substantially as and for the purpose described. 11th. In a circular knitting machine, a device for introducing a splicing thread to the needles and of severing the said thread at the desired times, constructed, arranged and operating, substantially in the manner described. 12th. In a circular knitting machine, a device to grasp a splicing thread, move with it in the direction of travel of the needle-actuating cam-ring, present said thread between the needles, release the thread, move back to its starting point in opposition to the movement of the said cam-ring, then grasp and sever the said splicing-thread preparatory to again moving in the direction of rotation of the said cam-ring to again present the splicing thread to the needles, substantially as described.

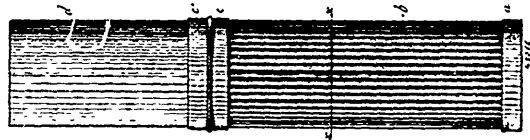
**No. 48,015. Punch for Reducing the Size of Holes in Metal Plates. (Poinçons pour réduire la grandeur des trous dans les plaques métalliques.)**



Isaac Whitesmith, Manilla, Ontario, Canada, 25th January, 1895; 6 years.

*Claim.*—1st. A striking punch for reducing the size of holes in metal plates, comprising a round steel bar or body A, slightly bevelled at one end, a pin C, projecting from the centre of said end, and a groove D, one side thereof forming a continuation or elongation of the body of the punch, said body having a flat surface E, to make the indenting end of the punch half-round in section, as set forth. 2nd. A striking punch or bar half-round at the indenting end, a pin projecting from said end at the middle of the straight side of said half-round end, and a groove semi-circular in length intervening said pin and the exterior circumference of the punch or bar, and forming therewith an indenting or cutting edge, as set forth.

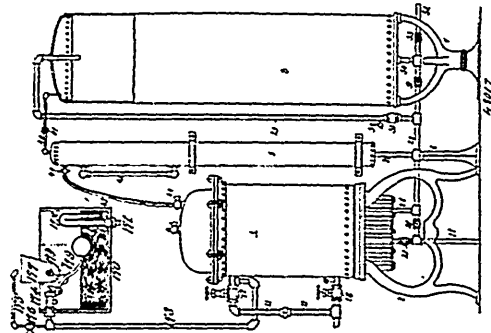
**No. 48,016. Lamp Chimney. (Cheminée de lampe.)**



Carl Günther, Stetten, Prussia, Germany, 25th January, 1895; 6 years.

*Claim.*—1st. "As an article of manufacture, a 'lamp' chimney consisting of two parts, the circumference of the lower part being formed by single rectangular glass bars b, the latter fixed and cemented at both ends into U-shaped metallic rings a, and c, the upper part of the chimney forming a common compact glass chimney d, substantially as set forth. 2nd. A lamp chimney consisting of two parts, the circumference of the lower part being formed by single rectangular glass bar b, the latter fixed and cemented at both ends into U-shaped metallic rings a, and c, the upper part of the chimney which forms a common compact glass chimney d, is fixed with its lower part into an upwards blown margin c', of the ring, substantially as set forth.

**No. 48,017. Water Filter. (Filtre.)**



August Hermann Kohlmeier, St. Louis, Missouri, U.S.A., 25th January, 1895; 6 years.

*Claim.*—1st. In a water filter, the combination of a cylinder having a supply pipe, a filtering block located within the cylinder, a water tank, a perforated pipe for conducting the water from the filtering block to the tank, and an air chamber, the perforations in said pipe being relatively much smaller than the internal diameter of the pipe, so as to retard the backward flow of the water, to avoid danger of breaking the filtering block, substantially as and for the purpose set forth. 2nd. In a water filter, the combination of a cylinder, having a supply pipe, a filtering block located within the cylinder, a sleeve located between the filtering block and the bottom of the cylinder, a tank located beneath the cylinder, and a

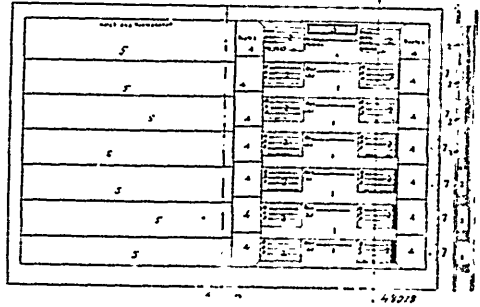
communication between the filtering block and said tank, substantially as and for the purpose set forth. 3rd. In a water filter, the combination of a cylinder, a filtering block located within the cylinder, a sleeve located between the filtering block and bottom of the cylinder, a water tank located beneath the cylinder, and a perforated pipe serving to hold the filtering block and sleeve in place and serving also to form a communication between the filtering block and said tank, substantially as and for the purpose set forth. 4th. In a water filter, the combination of a cylinder, a filtering block located within the cylinder, a sleeve located between the filtering block and the bottom of the cylinder, a tank located beneath the cylinder, a perforated pipe serving to hold the filtering block and sleeve in place, and serving to conduct the water from the filtering block to said tank, and an air chamber, substantially as and for the purpose set forth. 5th. In a water filter, the combination of a cylinder, a filtering block located within the cylinder, a water tank located beneath the cylinder, a communication between the filtering block and said tank, an air chamber, and means for preventing said filtering block from breakage under the pressure of the air contained in said chamber, said means consisting of longitudinal strips and rings, substantially as and for the purpose set forth. 6th. In a water filter, the combination of a cylinder, filtering stones located in the cylinder, a clear water tank communicating with the stones of the cylinder, and an auxiliary cylinder communicating with the filtering stones, substantially as and for the purpose set forth. 7th. In a water filter, the combination of a cylinder, filtering stones located within the cylinder, perforated pipes forming a communication between the stones, and a chamber at the bottom of the cylinder, a clear water tank, a pipe communication between the clear water tank and said chamber, and an auxiliary cylinder communicating with said pipe connection, substantially as and for the purpose set forth. 8th. In a water filter, the combination of a cylinder, filtering stones located within the cylinder, perforated pipes supporting said filtering stones, a clear water tank, a pipe connection between the clear water tank and said perforated pipes, and an auxiliary cylinder communicating with said pipe connection, substantially as and for the purpose set forth. 9th. In a water filter, the combination of a cylinder, filtering stones located within the cylinder, perforated pipes supporting the filtering stones, and forming a communication between the interior of the stones and a chamber at the bottom of said cylinder, a clear water tank, a pipe forming a communication between said chamber and the top of said clear water tank, an auxiliary cylinder communicating with the last-mentioned pipe, and a pipe provided with a valve and forming a communication between the upper end of said clear water tank and said auxiliary cylinder, substantially as and for the purpose set forth. 10th. In a water filter, the combination of a cylinder, filtering blocks located within the cylinder, a wash-out pipe communicating with the bottom of the cylinder, a supply pipe communicating with the upper portion of the cylinder, a branch pipe having a valve, and communicating with said supply pipe, and a perforated ring located at the lower part of the cylinder and communicating with said branch pipe, substantially as and for the purpose set forth. 11th. In a water filter, the combination of a cylinder, filtering stones located within the cylinder, pipes on which the stones are supported, and means for securing the stones to the pipes, consisting of cup-shaped discs for receiving the rounded ends of the filtering stones, and nuts on said pipes, substantially as and for the purpose set forth. 12th. In a water filter, the combination of a cylinder or tank, provided with filtering stones, a supply pipe, having perforated rings or hollow heads for discharging the water on to the filtering stones, substantially as set forth. 13th. In a water filter, in combination with the cylinder or tank provided with filtering stones, and a supply pipe provided with a valve 17, made substantially as herein shown and described. 14th. In a water filter, the combination of a filtering tank, a storage tank, an auxiliary tank, a pipe forming communication between the filtering tank and the auxiliary tank, a pipe forming a communication between the filtering tank and the storage tank, and a check valve in the last-mentioned pipe, substantially as and for the purpose set forth. 15th. In a water filter, the combination of a filtering tank, a storage tank, a supply pipe, a reduction valve located in the supply pipe, a tank, a pipe connecting the supply pipe with said tank, and which communicates with the supply pipe between said reduction valve and the filtering tank, a float valve located in said tank, a discharge pipe provided with a siphon connecting with the said tank, and a pipe 175 for dripping into said tank, substantially as and for the purpose set forth. 16th. In a water filter, the combination of a tank, sectional stones located within the tank, and rings for connecting the sections of the stones together, said rings being approximately wedge-shaped in transverse section, and the ends of the sections being shaped to conform to the shape of the rings, substantially as set forth.

**No. 48,018. Family Register. (Registre de famille.)**

Frederic William Bailey, New Haven, Connecticut, U.S.A., 25th January, 1895; 6 years.

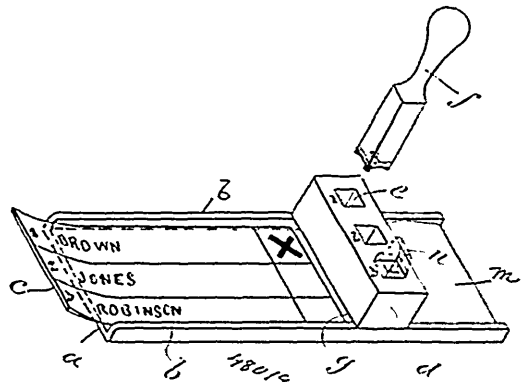
*Claim.*—1st. An ancestral record book, the alternate pages of which are each provided with spaces or divisions for the paternal and maternal ancestry, and the top of the page is provided with a space for the family surname, a portion of each leaf being cut away whereby but one of the spaces for the maternal ancestry will be visible therethrough, substantially as set forth. 2nd. An ancestral

record book, each leaf of which, except the last one is perforated, one side or page of said leaf being provided with spaces for paternal and maternal ancestors, the maternal ancestor spaces registering with the perforations, and the paternal spaces of each page begin-



ning one space nearer the top of the page than the maternal space that is visible through the preceding page, the other page of said leaf being provided with spaces for notes and photographs, substantially as set forth. 3rd. An ancestral record book, in which the entries are made working from the beginning of the book toward the end, and in which one of two opposite pages throughout the book is provided with one or more transverse divisions or sections, extending horizontally on the page, and the right hand page is provided with one or more corresponding transverse horizontal sections, each of said sections having two spaces thereon, one for the paternal ancestry, and the other for the maternal ancestry, and said page provided with openings or perforations, for access to a succeeding page, in combination with a supplemental page, adapted to be attached to the top of the last mentioned page, for the purpose stated, substantially as set forth.

**No. 48,019. Ballot Marker. (Marqueur de bulletin.)**

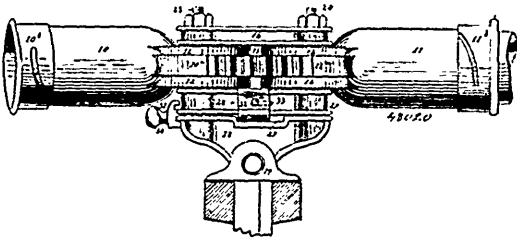


Robert Alexander Aitken, Montreal, Quebec, Canada, 25th January, 1895; 6 years.

*Claim.*—1st. A ballot marking device, comprising a guiding table on and along which the ballot paper is moved and a series of guides above such table for a hand stamp or marking instrument, for the purpose set forth. 2nd. A ballot marking device, comprising a table or base and a transverse guide block above same, the base formed as a guide to direct the ballot paper beneath the block and means for arresting same at the proper point, and the guide block furnishing guides for a hand stamp or marking instrument. 3rd. A ballot marking device, comprising a table or base having upwardly projecting guiding flanges and a transverse guide block above same furnishing a transverse stop across such table and vertical guide holes of angular cross section for a hand stamp or marking instrument, all for the purpose set forth. 4th. A ballot marking device, comprising a table or base having upwardly projecting guiding flanges, a transverse guide block above same furnishing a transverse stop across such table and vertical guide holes of angular cross section for a hand stamp or marking instrument and an inking pad carried by said base, all for the purpose set forth. 5th. A ballot marking device, comprising a guiding table or base on and along which the ballot is moved and a transverse guide block furnishing a series of vertical guides above such table for a hand stamp or marking instrument, and a paper perforator carried by said table in line with said vertical guides, for the purpose set forth. 6th. A ballot marking device, comprising a guiding table or base on and along which the ballot paper is moved and arrested, a transverse guide block furnishing a series of vertical guides above such table for a hand stamp or marking instrument, and a filler plug adapted to be

inserted in either of said vertical guides with means for securing it in place, for the purpose set forth.

**No. 48,020. Oar Lock. (Toiletère.)**

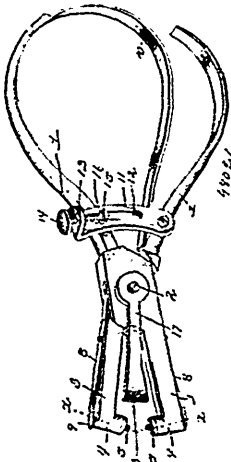


Jacob Peterson, Two Harbours, Minnesota, U.S.A., 25th January, 1895; 6 years.

*Claim.*—1st. An oar lock, the same consisting of sockets adapted to receive sections of an oar, toothed sectors connected with the sockets, said sectors being a frame in which said sectors are pivoted, a swinging base upon which the sectors frame is pivotally supported, and a locking device whereby the sectors may be held rigidly connected and the frame locked to the rocking base, substantially as shown and described. 2nd. In an oar lock, the combination with a frame, toothed and meshing sectors pivoted in the said frame, and sockets secured to the said sectors and adapted to receive sections of an oar, of a swinging base adapted for attachment to the gunwale of a boat, a latch adapted to enter recesses in the sectors and rigidly connect the same, a pivotal connection between the sector frame and rocking base and a handle provided with a locking device, capable of rigidly connecting the frame with the rocking base, the said handle being attached to a latch, manipulating the same, substantially as and for the purpose specified. 3rd. In an oar lock, the combination with a frame, comprising a top and bottom plate, the bottom plate being provided with a recess in its under face and a keeper at one of its ends, toothed sectors pivoted between the plate frames, the teeth of the sectors being in mesh, each sector being provided with a bottom flange at the rear of its teeth, and a socket adapted to receive a section of an oar, of a rocking base provided with a keeper, a pivotal connection between the sector frame and the base, a latch adapted to enter the recesses produced in the flanges of the sectors, and a handle connected with the said latch and adapted for locking engagement with the keepers in the bottom plate of the frame and in the rocking base, substantially as and for the purpose set forth.

**No. 48,021. Watchmaker's Caliper.**

(Compas d'horloger.)

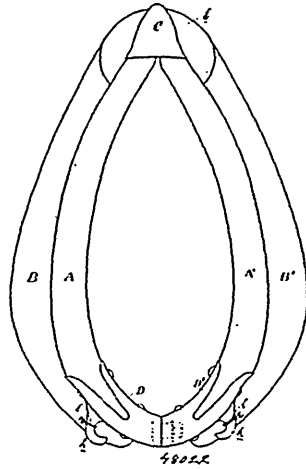


George B. Farrell, East Las Vegas, New Mexico, U.S.A., 25th January, 1895; 6 years.

*Claim.*—The combination with a tool having pivoted jaws and provided with handles, a segmental plate secured at one end to one of the handles and having intermediate of its ends a longitudinal slot, and provided at its other end with an outwardly extending flange or seat 13, arranged at right angles to the body of the plate and provided with a threaded opening, a headed stud projecting outward from the other handle and arranged in the slot of the plate, and a set screw mounted in the threaded opening of the flange or seat 13,

and arranged to engage the head of said stud, substantially as and for the purpose described.

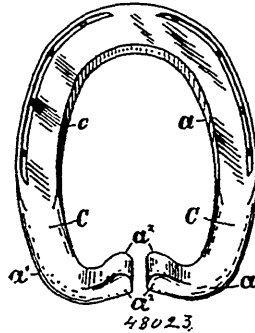
**No. 48,022. Horse Collar. (Collier.)**



Jean Joseph Hector Lafond, et Napoléon Leboeuf, St. Polycarpe, Québec, Canada, 26 janvier, 1894; 6 ans.

*Résumé 1<sup>r</sup>.* Dans un collier d'attelage pour chevaux, de pression entre lettre D, D<sup>1</sup>, fig. 2, la fermeture D, D<sup>1</sup>, avec agrafe g, ouverture h, et crochets k k<sup>1</sup>, en combinaison avec la monture A, A<sup>1</sup> et attelles B, B<sup>1</sup>, le tout tel que ci dessus d'écrit et pour les fins sus mentionnées.

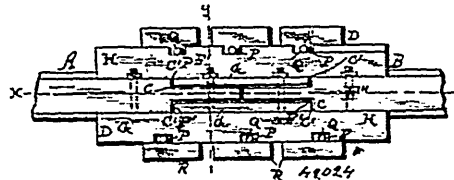
**No. 48,023. Horse-Shoe. (Fer à cheval.)**



Cyrus Coplantz, Joliet, Illinois, U.S.A., 26th January, 1895; 6 years.

*Claim.*—As a new article of manufacture, a horse-shoe consisting of a resilient body portion a, having a flat upper surface and constructed with heel portions a<sup>1</sup>, a<sup>2</sup>, formed on their inner ends with forwardly extending portions a<sup>3</sup>, the said heel portions a<sup>1</sup>, a<sup>2</sup>, being also resilient and being closely adjacent to, but separate from each other at their inner ends, and also extending inward and downward, so as to entirely clear the frog of the hoof, and having the rounded bottom surface C, substantially as set forth.

**No. 48,024. Railway. (Chemin de fer.)**

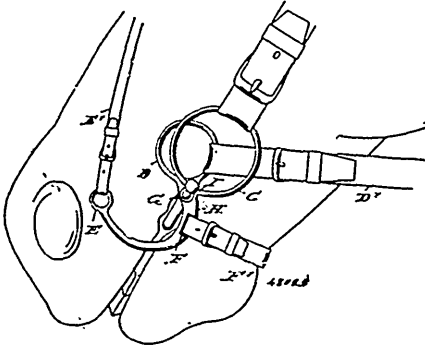


Christian Frederick Laib, New London, Wisconsin, U.S.A., 26th January, 1895; 6 years.

*Claim.*—The combination with the ties or sleepers and the rails having their treads cut away upon opposite sides of the web to form shoulders C<sup>1</sup> C<sup>1</sup>, of the fish-plates D, arranged upon opposite sides of the rails and cut away toward their ends to form shoulders F<sup>1</sup> F<sup>1</sup>,

abutting against the shoulders  $C^1 C^1$ , said fish-plates having upwardly extending tread portions  $G$ , lying flush with the treads of the rails, the said rails being provided with openings  $L$ , and said fish-plates being provided with slots  $M$ , adapted to align with said openings  $L$ , and bolts passing through the said openings, and slots and carrying nuts, whereby to adapt said rails to have a longitudinal movement independently of the fish-plates, and the fish-plates provided with notches or recesses  $P$ , and bolts passing through the latter and into the ties to adapt both the rails and fish-plates to have a longitudinal movement independently of the ties or sleepers, as and for the purpose specified.

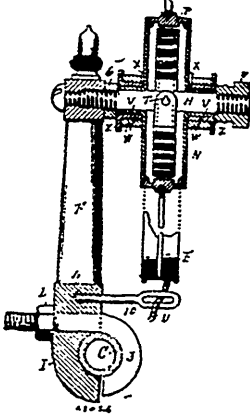
**No. 48,025. Bridle Bit. (Mors de bride.)**



Melvin F. Bigelow, Alden, Iowa, U.S.A., 26th January, 1895; 6 years.

*Claim.*—1st. A bit comprising a mouth piece provided with a depressed central portion, said central portion being covered with a ball of non-abrading material, check pieces secured to said mouth piece and provided with means at one end for securing to them driving lines, and having means at the other end for securing an overdraw check thereto, a chin strap slot on each check piece, and an auxiliary driving ring loosely connected to each check piece. 2nd. A bit comprising a mouth bar, and check pieces at the ends of the mouth bar, the check pieces having rings at the ends and slots intermediate the ends, substantially as described.

**No. 48,026. Reducing Wheel for Steam Engine Indicators. (Roue de réduction pour indicateur de machine à vapeur.)**

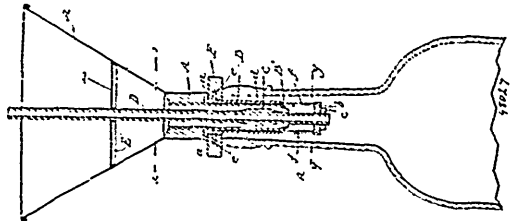


James Stanley Calkins, Hastings, and Smith T. Rose, Kalamazoo, both of Michigan, U.S.A., 26th January, 1895; 6 years.

*Claim.*—1st. In a reducing device for steam engine indicators, a spring-tensioned reversible wheel to which the engine cord is attached, a suitable support, and an axle upon which said wheels turn first in one direction and then the other, said axle being threaded alike at each end for detachable attachment to said support, thus making the axle reversible end for end to reverse the wheel the other side to, substantially as set forth. 2nd. The combination of a spring-tensioned reversible wheel to which the engine cord is attached, a pillar, a detachable clamp at the lower end of the pillar for detachably attaching said pillar to some suitable support in proper position and location relative to the particular reversible position of the wheel, and an axle upon which said wheel turns, said axle being threaded alike at both ends for detachable attachment to the pillar, substantially as set forth. 3rd. A reducing device for

steam engine cylinders, comprising a suitable support, an axle having each end adapted for detachable attachment to said support, thus making the axle reversible, and on said axle a spring-tensioned wheel to which the engine cord is attached, and pulleys of different sizes attached to the sides of said wheel and partaking of its movements, substantially as set forth. 4th. The combination, of a spring-tensioned reversible wheel to which the engine cord is attached, a suitable support adapted for detachable attachment to the engine, a reversible cord guide, and an axle upon which said wheel turns, said axle being threaded alike at each end for detachable attachment to said support, thus making it reversible end for end to reverse the wheel the other side to, substantially as set forth. 5th. A reducing device for steam engine indicators, comprising a suitable support, an axle threaded alike at each end for detachable attachment to said support, thus making the axle reversible, a spring-tensioned wheel on said axle, to which wheel the engine cord is attached, said wheel being provided with lateral hub-projections, a jam-nut on the axle next to its support, and a nut on the other end of said axle, said nuts keeping the wheel and pulleys in place, substantially as set forth. 6th. A reducing device for steam engine indicators, comprising a pillar, a detachable clamp at the lower end of said pillar, a reversibly cord-guide, an axle threaded alike at both ends for detachable attachment to said pillar, thus making the axle reversible, on said axle a spring-tensioned wheel to which the engine cord is attached, and indicator cord pulleys attached to the sides of the wheel and partaking of its movements, substantially as set forth.

**No. 48,027. Automatic Funnel. (Entonnoir automatique.)**



Ferdinand S. Bond, assignee of Robert Alex. Brown, both of Philadelphia, Pennsylvania, U.S.A., 26th January, 1895; 6 years.

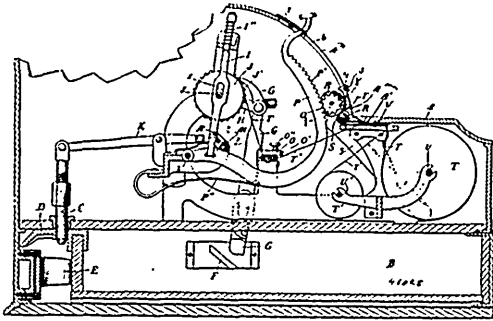
*Claim.*—1st. A funnel comprising a body, a rubber collar surrounding the same and adapted to seal the mouth of a bottle, an air tube supported therein and extending vertically therethrough to temporarily cut off the flow of the liquid in the funnel, connections from the collar to the air tube whereby the same is raised with the collar, and a gravity valve secured upon the air tube to normally close the funnel, and co-operating with the air tube to instantaneously and automatically cut off the flow of the funnel when the raising thereof counteracts the flow checking of the air tube, substantially as shown and described. 2nd. A funnel comprising a body, an air tube therein, a normally closed gravity valve upon the air tube, and a collar surrounding the stem of the funnel and detachably secured to the air tube, whereby the attachment or removal of the parts from the main body are permitted, substantially as described. 3rd. A funnel comprising a body, an air tube therein, a normally closed valve upon the air tube, and a collar surrounding the stem of the funnel detachably secured to the air tube and adjustable thereon, whereby the raising of the collar will open the valve wholly or partially as desired, substantially as shown and described. 4th. A funnel comprising a body, an air tube therein, a valve thereon adapted to close the stem of the funnel, a disc upon the air tube, a collar surrounding the stem of the funnel, and open connections from the collar to the disc, whereby the air tube is raised when the collar is rested upon a bottle, substantially as shown and described. 5th. A funnel comprising a body, a collar surrounding the same exteriorly, an air tube extending vertically through the funnel from the top thereof to below the stem and connected to the collar, a gravity valve mounted upon the air tube and adapted to rise when the collar is lifted, and a sieve above the valve through which the air tube extends, substantially as shown and described. 6th. A funnel comprising a body, having its body enlarged at the bottom, a flange upon said body, a rubber collar surrounding the funnel below the flange and sliding thereon, an air tube extending vertically through the funnel, a disc mounted thereon, a tube connecting the disc to the rubber collar and having openings or outlets, and a gravity valve mounted upon the air tube, substantially as shown and described.

**No. 48,028. Manual Recorder and Cash Drawer. (Régistre manuel et tiroir à argent.)**

Harry Martin Geiger, Grand Rapids, Michigan, U.S.A., 26th January, 1895; 6 years.

*Claim.*—1st. In combination with a cash drawer and a suitable case supporting the same, two strips of paper, or other suitable material, for receiving written or printed entries, a printing ribbon or strip placed between the strips of paper at the point where the

entry is made, key mechanism for opening the drawer and simultaneously operating the two strips of paper, and suitable mechanism for moving the strips of paper receiving the impressions, and a strip containing the copy, substantially as described. 2nd. In combination with a cash drawer, key mechanism for moving the drawer, and



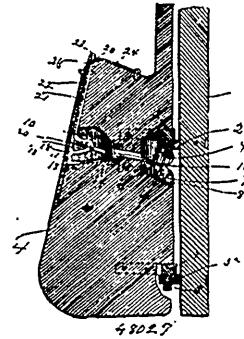
the two independent strips of paper adapted to receive impressions thereon, a printing strip placed between the paper strips at the point where the entry is made, suitable rolls for carrying the paper strips and mechanism for moving the free end of one of the strips of paper containing the entry without the case, substantially as described. 3rd. In combination with a cash drawer and case, two independent paper strips for receiving the entry, a roll for supporting each strip of paper, a printing ribbon or sheet between the paper strips at the point where the entry is made, friction rolls for moving the free end of one of the strips to a point outside of the supporting case, and a suitable roll for winding the other strip within the case, substantially as described. 4th. In combination with a cash drawer and case, key mechanism for unlocking the drawer, a spring for pushing the drawer outwardly when unlocked, two paper strips adapted to receive entries thereon, a printing ribbon between the two paper strips at the point where the entry is made, friction rolls for directing the free end of the paper strip that contains the entry or statement for the purchaser, substantially as described. 5th. The combination with a cash drawer and case, of two strips of paper adapted to receive printed or written entries thereon, a printing strip between the paper strips at the point where the entry is made, friction rolls adapted to direct one end of one of the strips without the case, a bar or strip supporting the friction rolls, and pivoted arms supporting said bar and friction rolls in position for use, and also holding the same so as to be swung out of position in order to obtain access to the paper, substantially as described. 6th. In combination with a cash drawer, a locking device for retaining the drawer closed, a spring for opening the drawer automatically, a push-rod adapted to unlock the locking device, a key-bar or rod adapted to operate the push-rod, and a spring adapted automatically to bring said key-rod into normal position, substantially as described. 7th. In combination with a cash drawer and case, for supporting the same, two strips of paper adapted to receive entries thereon, a printing strip between said paper strips at the point where the entry is made, friction rolls adapted to direct the one end of one of the strips of paper without the case, a key-rod provided with mechanism for operating the friction rolls, a push-rod operated by the key-rod, a locking device operated from the push-rod, and a spring adapted to bring the key-rod and push-rod to normal position when pressure is released from the key-rod, substantially as described. 8th. In combination with a cash drawer and case for supporting the same, two strips of paper supported on rolls, a printing strip between the paper strips at the point where the entry is made, friction rolls for operating and directing the free end of one of said strips to a point without the case and a pivoted support for said friction rolls, substantially as described. 9th. In combination with a cash drawer and case supporting the same, locking mechanism for retaining the cash drawer closed, a spring for automatically opening said drawer, friction rolls for directing one end of one of the paper strips without the case, a roll within the case adapted to wind up the other paper strip after the same has received an entry, mechanism for operating said roll consisting of a push-rod and a key-rod, and a shaft for giving direction to the paper strip wound within the case, substantially as described.

**No. 48,029. Rudder Lock. (Serrure de gouvernail.)**

Harry L. Bowdoin, Wilmington, North Carolina, U.S.A., 26th January, 1895; 6 years.

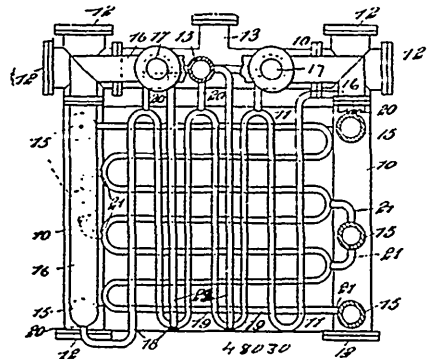
*Claim.*—1st. The combination, with the stern post of a vessel and its eyes, of a rudder having pintles for removably engaging the eyes, a pivoted locking block arranged below one of the pintles and arranged to engage the under side of the receiving eye, the links pivoted together and connected with the rudder and the locking block, and means for swinging the links upward and downward to operate the locking block, substantially as described. 2nd. The combination, with the stern post of a vessel and its eyes, of a rudder having pintles for removably engaging the eyes, a locking block pivoted to the rudder

and located below one of the pintles and engaging the under side of the adjacent eye, the pivoted links disposed substantially horizontally and connected with the rudder and the locking block and forming when lowered a brace to prevent inward movement of the



pivoted locking block and an upward extending operating rod connected with the links and resting upon the same and serving as a weight to hold the links downward, substantially as described. 3rd. The combination, with the stern post and eyes of a vessel, of a rudder and its depending pintles for removably engaging said eyes, a pivoted locking block arranged below one of said eyes in the forward edge of said rudder, an operating rod, connections between the same and the locking block for causing a swinging movement of the block at a vertical movement of the rod, and means for causing said vertical movements of the rod, substantially as described. 4th. The combination, with the stern post and its eyes of a vessel, of a rudder having depending pintles in its forward edge for removably and loosely engaging the eyes, a metal bearing plate arranged in the forward edge of the rudder below the uppermost pintle, a locking block pivoted between the ears and having its upper end recessed to receive the pintle, a metal U-frame arranged in an after recess in the rudder and having its forward end perforated, a connecting-bar passed through the perforation, and loosely connected at its front end with the locking block, an angle-lever having its opposite ends connected to the rod, and to the frame, and the reciprocating operating rod arranged in a channel in the rudder and pivoted at its lower end at an intermediate point on the angle, substantially as described.

**No. 48,030. Steam Generator. (Générateur de vapeur.)**



Charles William Vanderburg, Wellington, British Columbia, Canada, 26th January, 1895; 6 years.

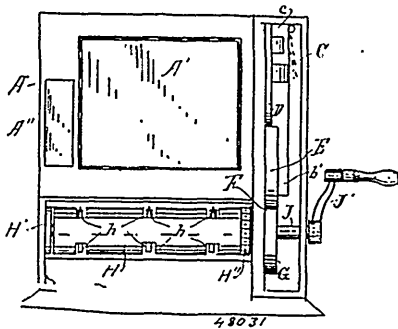
*Claim.*—1st. A steam generator comprising a plurality of connected water or mud drums forming the base of the generator and arranged on three sides thereof, a dry steam pipe supported at the top of the generator and extending around the same sides being arranged above and parallel with the said drums, water pipes arranged on three sides of the generator and extending vertically from the drums to the steam pipe and connecting the same, a feed water inlet in one of the drums, a steam outlet from the steam pipe, a plurality of generating coils extending across the generator and arranged one above the other in a horizontal plane, each of the coils connecting with vertical water pipes in three sides of the generator, and intermediate generating coils connecting with vertical water pipes on two opposite sides of the generator, substantially as described. 2nd. A steam generator, comprising a plurality of water or mud drums forming the base of the generator and arranged on three sides thereof, one of the drums having a suitable feed water inlet and outlet, a steam pipe arranged at the top of the generator and extending around three sides of the same, vertical pipes arranged on three sides of the generator and connecting the steam pipes and water drums, horizontal coils of pipes connected with the



vertical pipes on three sides of the generator and extending transversely across the generator, intermediate coils connecting with the vertical pipes on opposite sides of the generator and dry steam coils arranged vertically above the horizontal coils and connected with the upper horizontal coil, and also with one of the vertical pipes, substantially as described.

**No. 48,031. Coin Actuated Vending Machine.**

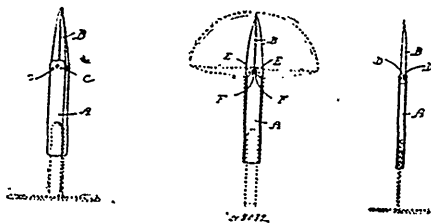
(Machine de vente actionnée par une pièce de monnaie.)



William S. Burnet, Milwaukee, Wisconsin, U.S.A., 28th January, 1895; 6 years.

*Claim.* 1st. The combination in a coin-actuated vending machine, of a storage compartment for papers, a roller in said compartment, rods supported in said roller and provided with points that project through and engage the paper to draw them out, cranks on said rods, and an eccentric to actuate them to draw the points out and in, a crank, an eccentric, a lever, a spring and catch to actuate the roller, substantially as specified. 2nd. In a coin-actuated vending machine, a roller, points supported upon rods in said roller for delivering the vended article, a crank, lever and spring and a catch for actuating the same, and a coin chute having the outer plate divided and pivoted to swing, a magnet back of said swinging portion, wires upon said swinging portion in position to rest between the magnet and the outer wall of the chute, and an inwardly projecting incline on the inner surface of the swinging portion of the chute in position to cause the entrance of the coin to swing it out, substantially as stated. 3rd. The combination, in a coin-actuated vending machine, of a storage compartment, a roller for delivering the vended articles, cranks and levers for actuating the same, with a chute, the outer wall of which is divided and a portion pivoted to swing, a magnet back of said swinging portion, wires secured to the swinging portion in position to lie between the magnet and the coil and allow the coin to pass between them and the swinging portion in their course through the chute, an incline on the swinging portion of the chute in position to cause the entering coin to swing it out and draw the adhering dummy coin off of the magnet, and the chute so divided that one or more coin may be used to actuate the lever, substantially as shown and described.

**No. 48,032. Paper Dividing File. (Serre-papier trieur.)**



Francis Gourdeau, Ottawa, Ontario, Canada, 28th January, 1895; 6 years.

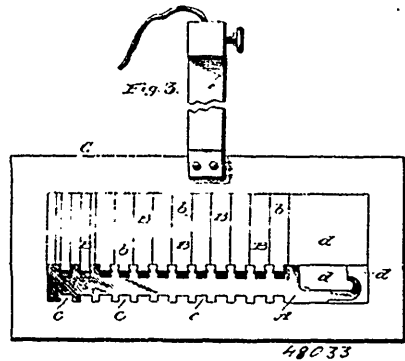
*Claim.*—The above described dividing file, composed of the tube A having spring sides, arms B pivoted to the sides of the tube, and having the notches E and F, and the knobs D fixed to the spring sides of said tube, substantially as shown and described.

**No. 48,033. Matrix Bar. (Barre de matrice.)**

Alexander Sweney Capehart, Bismark, North Dakota, U.S.A., 28th January, 1895; 6 years.

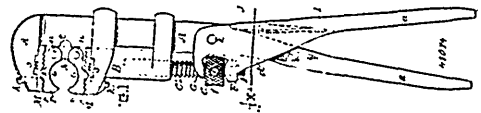
*Claim.*—1st. A matrix or matrix-bar, the body of which is formed with a recess open at the front end and on the two sides, and containing a filling of metal electro-deposited therein, and having in its front the desired intaglio character, as set forth. 2nd. A matrix or matrix-bar, the body of which is formed with an undercut recess open at the front and on the two sides, and containing a filling of metal electro-deposited therein and bearing on its front the de-

sired intaglio character, as set forth. 3rd. A matrix-bar, the body of which has in one edge a plurality of separate and independent recesses, each open at the front and on the two sides of the bar and



containing a filling of metal electro-deposited therein and having in its front the desired intaglio character, as set forth. 4th. The method herein described of manufacturing matrices or matrix-bars, which consists in forming in the body of the matrix or matrix-bar, a recess open at the front and on the two sides, inserting into the open mouth of the recess the male type or character, so that its cameo face shall project a suitable distance into the recess and towards the rear wall thereof, protecting the type and bar by insulating the material except at the points where the electro-deposit is to be made, and then electro-depositing a suitable metal so as to fill the recess and produce in intaglio the type character, substantially as and for the purposes hereinbefore set forth.

**No. 48,034. Pipe-Wrench. (Clé à écrou.)**



Edward Wright, Worcester, Massachusetts, U.S.A., 28th January, 1895; 6 years.

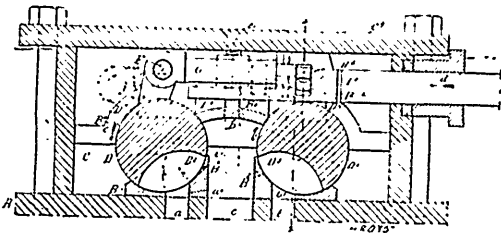
*Claim.* 1st. The within described pipe-wrench, comprising in combination, the main bar having the fixed jaw at its end, the movable jaw sliding on said main bar, the jaw-operating lever pivoted to the main bar and having its handle-arm at the back of the bar handle, its cheeks projecting forward at the sides and provided with a back-support and engaging fingers at the front of the bar, the adjusting screw threaded into the movable jaw, having a rosette head perforated with transverse holes therethrough, said rosette engaged between said back-support and fingers for control by the operating lever, the threaded step arranged through said back support and axially engaging with said rosette and the expanding spring between the bar and operating lever, all substantially as set forth. 2nd. In a wrench, the jaw-facing plate, having a transverse dove-tailed projection on its seating face, in combination with the wrench-jaw, having a corresponding dove-tailed groove transversely across its face into which the dove-tail part of said plate is introduced by lateral insertion, and the vertically disposed pin arranged through the outer end of the wrench-jaw and engaging with said jaw-facing plate, as set forth. 3rd. The combination with the wrench-bar having the fixed jaw, the movable jaw sliding thereon, and the operating lever pivoted to said bar, of the protector or jaw-guards fitting between said fixed jaw and movable jaw at their front ends, their rear ends linked or hinged together and the jaw-adjusting screw having its rosette-head provided with transverse holes, substantially as set forth. 4th. The wrench-jaw guard, or protector for finished pipe, consisting of a pair of jaw-sections having their rear ends connected together by a hinging joint, their inner faces formed with semi-cylindrical cavities to receive a pipe, and their exterior adapted for seating between the jaws of the wrench, as set forth. 5th. The protector or jaw guard formed of two parts or sections having semi-circular smooth faces for gripping finished pipe, and provided upon the exterior outer ends with elevated bearing lugs that engage the jaw-facing plate or wrench-jaw, the inner ends of said guard sections being connected together by a series of links and hinging pivots, the dimension of the guard being less at the rear end than at the front end, substantially as set forth.

**No. 48,035. Balance Valve. (Soupape équilibrée.)**

Brainerd Washington Smith, Delphos, George Swiers, Dayton, Joseph Kuhns, Delphos, all in Ohio, U.S.A., 28th January, 1895; 6 years.

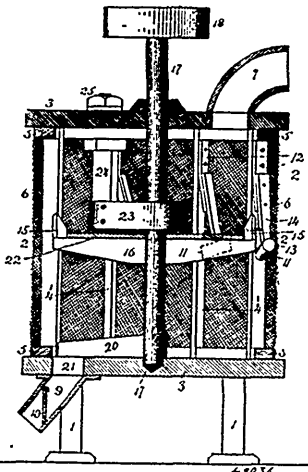
*Claim.*—1st. A valve mechanism, comprising two segmental valve

seats held in the steam chest and provided with ports leading to the cylinder ports, cylindrical valves mounted to turn in the seats and each having a cavity adapted to connect the interior of the steam chest with the corresponding cylinder port and the latter with the



exhaust chamber, lugs projecting from the said valves, a link connecting the two lugs with each other, and a valve stem connecting with one of the lugs, the said valve stem being provided with a head having vertically disposed slots engaging square portions of the pin in one of the lugs, substantially as shown and described. 2nd. A valve mechanism, comprising two segmental valve seats held in the steam chest and provided with ports leading to the cylinder ports, cylindrical valves mounted to turn in the seats and each having a cavity adapted to connect the interior of the steam chest with the corresponding cylinder port and the latter with the exhaust chamber, lugs projecting from the said valves, a link connecting the two lugs with each other, and a valve stem connecting with one of the lugs, the said valve stem being provided with a head adapted to engage with its top surface the under face of the steam chest cover, the said head being also provided with rearward extensions travelling on a rib forming part of the bridge for the said valve body, substantially as shown and described. 3rd. A valve mechanism, comprising a segmental valve seat held in the steam chest, a cylindrical valve mounted thereon, a lug projecting from the valve, a link connected with the lug, and a stud attached to the steam chest and with which said link is adapted to be connected to lock the valve, substantially as described.

**No. 48,036. Dust Collector. (Aspirateur de poussière.)**



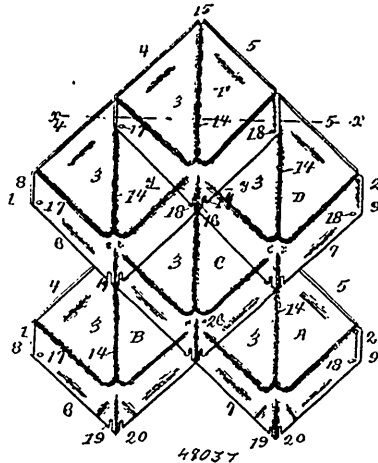
Robert McWilliams, West Newton, Pennsylvania, U.S.A., 28th January, 1895; 6 years.

*Claim.*—1st. In a dust collector, the combination of a cylinder composed of a top and bottom portion and side pieces connecting them, a series of hammers hinged to said side pieces, a cloth covering the cylinder, and a shaft carrying a number of cams adapted to engage and operate the hammers, revolving in said cylinder, substantially as shown and described. 2nd. In a dust collector, the combination of a cylinder having inlet and outlet openings, a shaft revolving within said cylinder and carrying a number of cams, and a scraper moving over the lower head of the cylinder, and a series of hammers hinged within the cylinder and adapted to be engaged by said cams, substantially as and for the purpose set forth. 3rd. In a dust collector, the combination of a cloth covered cylinder provided with inlet and outlet openings, a shaft carrying a number of cams, a disc, and a scraper revolving within said cylinder, a series of hammers hinged within said cylinder and adapted to be engaged by said cams, and a scraper suspended from the upper head of said cylinder over the said disc, substantially as shown and described. 4th. In a dust collector, the combination of a cylinder composed of a top and bottom, provided with an inlet opening and with a valved outlet opening, a number of side pieces connecting the said top and bottom

a cloth covering said cylinders, a series of hammers hinged within the cylinder of the said side pieces and provided with projections, a shaft located within the cylinder, and carrying a number of cams which engage with the projections on the hammers and a disc, a scraper suspended from the cylinder top and over the disc, and a scraper carried by said shaft and working on the bottom of the cylinder, substantially as shown and described and for the purpose set forth.

**No. 48,037. Metallic Roofing Tile.**

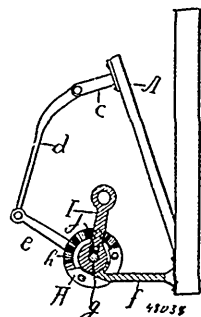
(Tuile métallique pour toitures.)



Ephraim Benj. Repp, Washington, Columbia, U.S.A., 28th January, 1895; 6 years.

*Claim.*—1st. A roofing tile having upward-turned flanges on its upper sides as 4 and 5, and extending along the cut-away portions 8 and 9, as and for the purposes set forth. 2nd. A roofing tile having cut-away portions 8 and 9 at each side, each having an upward flange, one of said flanges forming a rib, and a nail-hole in the apex of said rib, as and for the purposes set forth. 3rd. A roofing tile having a notch in its upper end and a rib on one side with a nail-hole in its apex, whereby the tiles are secured in position on the nail passing through the rib of one tile will pass through the notch of the tile immediately below it, substantially as described. 4th. An approximately rectangular roofing tile having cut-away sides 1 and 2, and provided with a rib 9, at one side 2, and an upward projecting flange 8, at its side 1, as and for the purpose set forth. 5th. A roofing tile having holes 17 and 18 at the lower ends of the cut-away sides 1 and 2, and provided with points 19 and 20, at its central lower end, as and for the purposes set forth. 6th. A roofing tile having a nail-hole 24, at the apex of a rib running along one side of the tile, and a raised portion 26, to accommodate the head of nail passed through a similarly-situated nail-hole, of an under tile, as and for the purpose set forth. 7th. A roofing-tile having ribs 10 and 11, and flanges on the upper sides 4 and 5, said ribs and flanges meeting each other at their outer extremities, as set forth.

**No. 48,038. Transom Fastener. (Attache de ventilateur.)**

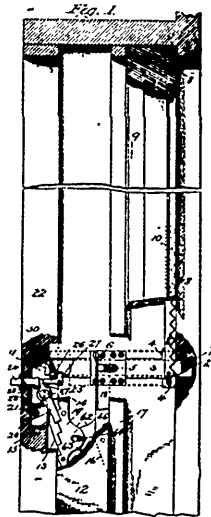


Edward S. Merrill, Portland, Maine, U.S.A., 28th January, 1895; 6 years.

*Claim.*—1st. The herein described device for operating and securing transom lights, consisting of a shaft journaled in suitable bearings, a lever connecting said shaft with each transom light, a handle lever secured to said shaft and having a transverse opening

through it adjacent to said shaft, a D-shaped spring passing through said opening and having its ends projecting upward at each side of said lever, a cylindrical casing for inclosing the base of said lever, said casing having a peripheral slot or opening within which the lever swings, the sides of said opening having corrugations, into which the ends of said spring fit to hold said lever in place. 2nd. The herein described device for operating and securing transom lights consisting of a shaft journaled in suitable bearings, a lever connecting said shaft with each of the transom lights, a handle lever secured to said shaft, a spring secured to said lever and having a free end extending out from the side thereof, a cylindrical casing for inclosing the base of said lever, said casing having a peripheral slot or opening, the sides of which are provided with corrugations, into which the end of said spring fits to hold said lever in place.

**No. 48,039. Sash Lock. (Serrure de fenêtre.)**



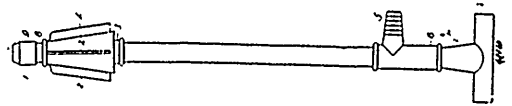
Lewis Cass Miller, St. Louis, Missouri, U.S.A., 26th January, 1895; 6 years.

*Claim.*—1st. In a sash lock or fastener, the combination, with mechanism for locking the top and the bottom sash in the operation of lowering the bottom sash, of means formed to have a detachable key engage therewith for releasing the bottom sash, substantially as and for the purposes described. 2nd. In a sash lock or fastener, the combination, with a rack-bar provided for each the top sash and bottom sash, a sliding bolt to lie transversely across the meeting rails of the two sashes and engage the locking-bar of one sash, a pawl to engage the rack-bar of the other sash, said pawl and bolt being thrown into position with their respective rack-bars by the operation of lowering the bottom sash so as to lock both top and bottom sashes, and independent cams, one to engage a portion of the locking bolt to move it into locking engagement with its sash when the bottom sash is lowered and the other to engage with a portion of the bolt to move it into its unlocking position when raising the bottom sash, substantially as and for the purposes described. 3rd. In a sash lock or fastener, the combination, with a rack-bar for the top sash and a rack-bar for the bottom sash, of a locking-bolt to lie transversely across the meeting rails of the top and bottom sashes and engage the rack-bar of the top sash, a pawl to engage the rack-bar of the bottom sash, a cam for the front edge of the bottom sash having an actuating face so formed that during a partial movement of the cam it will actuate the locking bolt and during its further movement it will hold the bolt in its locking position, a second cam for the rear edge of the bottom sash having an actuating face so formed that during a partial movement of the cam it will act upon a portion of the bolt to throw the bolt into its unlocking position while during its further movement it will be non actuating, and means for releasing the pawl from the rack-bar of the bottom sash when said sash is to be raised, substantially as and for the purposes described. 4th. In a sash lock fastener, the combination of a rack-bar for the top sash, a rack-bar for the bottom sash, a pawl to engage the rack-bar of the bottom sash to lock said sash, means for releasing said pawl from its rack-bar, a dog to engage said pawl and hold it out of engagement with the rack-bar for a period, and a locking bolt to engage the rack-bar of the top sash to lock the same and actuating said dog to release the pawl when the bolt is thrown into its unlocking position whereby said pawl will resume its normal position to engage the rack-bar of the bottom sash as the latter is lowered, substantially as and for the purposes described. 5th. In a sash lock or fastener, the combination, with a locking bolt placed transversely across the meeting rails of the top and the bottom sash and adapted to engage a part of the top sash to lock the sash, of a cam for the bottom sash having an actuating face so formed that

during a partial movement of the cam it will actuate the locking bolt and during its further movement it will hold the bolt in its locking position, and means for adjusting laterally said cam relatively to the portion of the bolt with which it engages, substantially as and for the purposes described. 6th. In a sash lock or fastener, the combination, with a rack-bar for the top sash, of a locking-bolt to lie transversely across the meeting rails of the top and bottom sash and engage the rack-bar of the sash, said bolt being formed in sections adjustable one in relation to the other to lengthen or shorten the bolt, and means for actuating said bolt in the movement of the bottom sash, substantially as and for the purposes described.

**No. 48,040. Steam Boiler Flue Cleaner.**

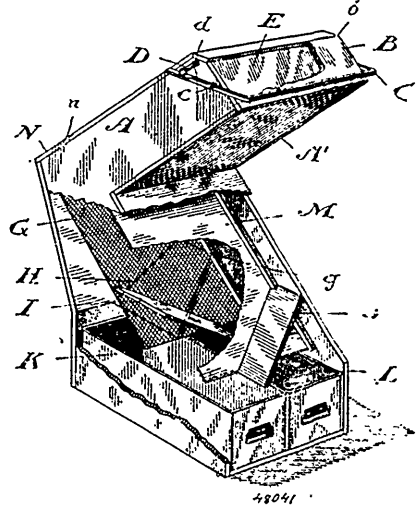
(Nettoyeur de tube de chaudière à vapeur.)



William Thomas Coggeshall, Melrose, Massachusetts, U.S.A., 28th January, 1895; 6 years.

*Claim.*—In a steam boiler flue cleaner, the combination with the conical blower head formed with a tapering bore and provided with a series of peripheral flanges, of the nipple S fitting in the contracted end of said head, the reduced coupling 9, connected with said nipple, and the steam pipe connected with said coupling, of larger diameter than the escape opening in said coupling, substantially as described.

**No. 48,041. Cinder Sifter. (Crible à cendres.)**

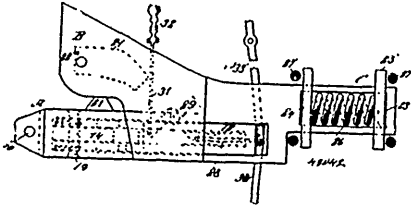


Luther Lewis Smith, Toronto, Ontario, Canada, 28th January, 1895; 6 years.

*Claim.*—1st. In an ash sifter, the combination of an L, or elbow-shaped box, stationary screens suitable placed therein and substantially at right angles to each other, a receptacle for the ashes, a receptacle for the cinders, and means for directing the screened ashes, and the cinders into their appropriate receptacles, substantially as described and specified. 2nd. In an ash sifter, the combination of an L, or elbow-shaped box with an opening on the upper part of the box, a valve near the upper opening, a weighted arm rigidly attached to the end of the valve spindle and operated by the projecting end of the bail so as to open the valve when the bail is depressed, and close the same when the bail becomes raised to its normal position, substantially as described and specified. 3rd. In an ash sifter, the combination with box A, provided with lid B, of valve E, and means for opening and closing the same, the upper stationary screen F, lower stationary screen G, the chute board M, the lower ash deflecting board H, cinder deflecting board I, the upper ash deflecting board J, the ash receptacle K, and cinder receptacle L, substantially as described and for the purpose specified. 4th. In an ash sifter, the box A, provided at its top with a lid covered opening, in combination with upper stationary screen F, and chute board M, substantially at right angles to each other, the upper ash deflecting board J, and the ash receptacle K, substantially as described and for the purpose specified. 5th. In an ash sifter, the box A, provided with lid B, in combination with the upper stationary screen F, lower stationary screen G, placed substantially at right angles to the screen F, the cinder deflecting board I, and cinder receptacle L, substantially as described and for the purpose

specified. 6th. In an ash sifter, the box A, provided with lid B, in combination with the upper stationary screen F, lower stationary screen G, placed substantially at right angles to the screen F, the lower ash deflecting board H, and ash receptacle K, substantially as described and for the purpose specified. 7th. An ash sifter comprising the following elements, I or elbow-shaped box A, lid B, pivoted bail C, pivot e, projecting end e', weighted arm D, valve spindle H, valve E, upper stationary screen F, lower stationary screen G, chute board M', lower lid N', lower ash deflecting board H, cinder deflecting board I, upper ash deflecting board J, ash receptacle K, and cinder receptacle L, and door O, substantially as described and specified.

**No. 48,042. Car Coupler. (Attelage de chars.)**



Carman Frost, Hewletts, New York, U.S.A., 28th January, 1895; 6 years.

*Claim.* 1st. A car coupling, comprising a draw-head and a coupling section located side by side, a space intervening the two sections at the forward end of the coupler, a coupling dog located in the coupling section, and a recess adapted to receive a coupling dog, located within the draw head section, and a draw-bar located at the rear end of the coupler, the centre of the draw-bar being substantially on a line with the central portion of the forward end of the coupler, as and for the purpose set forth. 2nd. A car coupler, comprising a coupling section and a draw-head located at one side of the said coupling section, a dog located in the draw-head, a keeper adapted to receive the coupling dog of an opposing section, located within the draw-bar, and means, substantially as shown and described, for lifting the coupling dog, as and for the purpose set forth. 3rd. A car coupler provided with a coupling section, a coupling dog loosely located in the said section, capable of rising and falling, being adapted to gravitate downward, a draw-bar section located at one side of the coupling section and provided with a keeper to receive the coupling dog of an opposing coupler, and a slide having an inclined face and adapted to meet a corresponding face on the coupling dog, as and for the purpose set forth. 4th. A car coupler comprising a coupling section, a coupling dog located within the said section, adapted to have free upward and downward movement, said coupling dog being provided with a vertical slot and flanges at each side of its upper portion, a pin passed through the slot of the coupling dog and secured in the coupling section, a slide having inclined faces adapted to engage with the flanges of the coupling dog, a draw-head section located at one side of the coupling section and provided with a keeper, and means, substantially as shown and described, for manipulating the slide, as and for the purpose set forth. 5th. A car coupler, comprising a draw-head, a coupling dog located in the said draw-head, provided with a vertical slot and a flange at its upper forward portion upon opposite faces, said flanges being provided with an inclined rear face and a straight, forward face, a spring having bearing against the coupling section and against the upper portion of the coupling dog, a slide bifurcated at one end to receive the coupling dog, and provided with inclined faces meeting corresponding faces on the dog flanges, a pin supporting the coupling dog in the coupling section, being passed through the slot thereof, a draw-head located at one side of the coupling section and provided with a keeper, a draw-bar section located at the rear of the coupler and centrally with respect to its forward end, and shifting levers, substantially as shown and described, acting upon the said slide, as and for the purpose set forth.

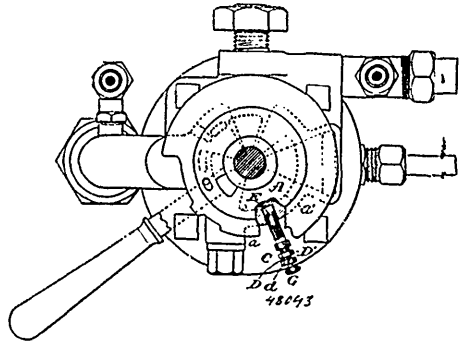
**No. 48,043. Low Pressure Alarm for Air Brakes.**

(Indicateur de pression pour frein atmosphérique.)

Francis Leonard Street, Neodesha, Kansas, U.S.A., 28th January, 1895; 6 years.

*Claim.*—1st. A low pressure alarm for automatic air brake systems, consisting of a valve or equivalent piston or diaphragm with valve attached thereto, controlling an outlet from the train pipe, an audible alarm communicating with said outlet, and a spring for opening said valve when the train pipe pressure falls below a predetermined point, said outlet communicating continuously with the entire train pipe as long as the valve remains open, substantially as described. 2nd. A low pressure alarm for automatic air brake systems, consisting of a valve controlling an outlet from the train pipe, a spring arranged to open said valve when the air pressure falls to a given point in the train pipe, and a whistle adapted to be sounded by the escaping air, said outlet communicating continuously with the train pipe as long as the valve remains open, substantially as

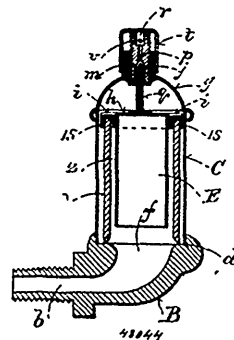
described. 3rd. The combination with an engineer's valve, having the cavity a', and a passage from the said cavity to the atmosphere, when the engineer's valve is in the running position, of a valve controlling said passage, a whistle communicating with said passage



and a spring adapted to open the valve and permit the air to escape when the train pipe pressure falls below a predetermined point, substantially as described. 4th. The combination with the engineer's valve, having the cavity a', and a recess a, at one side thereof, and provided with a passage leading to the atmosphere and adapted to register with the recess a, when the valve handle is in the running position, of a valve controlling said passage, a whistle communicating with said passage, and a spring adapted to open said valve when the train pipe pressure falls below a given point, substantially as described. 5th. A low pressure alarm for automatic air brake systems, consisting of the casing e, the valve c, seating against the end of the casing, the tubular screw D, an audible alarm communicating with said tubular screw D, and the spring F, arranged between the valve stem and the screw and adapted to force the valve away from its seat, substantially as described. 6th. The combination with the casing C, of the valve E, seating against the end of the casing and having a stem c, the tubular screw D, the spring F, between the screw and the valve stem, and the whistle G, attached to the outer end of the screw, substantially as described. 7th. In an automatic air brake system, the combination with the train pipe and brake mechanism, of a low pressure alarm connected with the train pipe, and means for rendering said alarm inoperative when the brakes are applied, substantially as described. 8th. In an automatic air brake system, the combination with the train pipe and brake mechanism, of a low pressure alarm connected with the train pipe, a stop-cock controlling said alarm, and connections between said stop-cock and brake mechanism, whereby the latter are adapted to open and close said stop-cock, substantially as described. 9th. In an automatic air brake system, the combination with the train pipe and brake mechanism, of a low pressure alarm, connected with the train pipe, a normally open stop-cock in the low pressure signal pipe, and connections between said stop-cock and the brake mechanism, whereby said cock is closed by the movement of the brake mechanism in applying the brakes, substantially as described.

**No. 48,044. Automatic Relief Valve for Radiators.**

(Soupape automatique de sûreté pour radiateurs.)

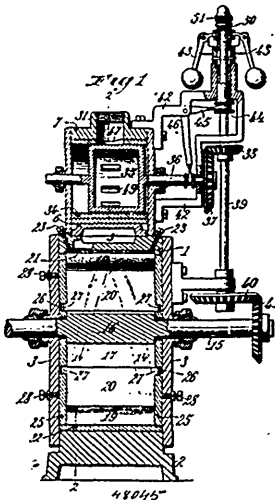


Albert Sawyer Hodge and Joseph Henry Hodge, both of Boston, Massachusetts, U.S.A., 28th January, 1895; 6 years.

*Claim.*—1st. A relief valve mechanism for radiators, comprising a casing, a connection opening into the bottom thereof from the radiator, a tube of expansible material disposed around the mouth of said connection, a flanged float supported by said tube, air-openings in said flange, a valve seat in the top of said casing and a valve on said float adapted to engage said seat, all being arranged to operate, substantially as described. 2nd. In a relief valve for

radiators, a cylinder of heat expansible material disposed within the valve casing around the inlet, a valve seating in said casing, a float secured to said valve and pendant within said cylinder, said float being so disposed that air expelled from the radiator may pass between it and said cylinder, substantially as described. 3rd. The connection B, provided with the duct *b*, a casing supported on said connection and provided with the relief valve seat, a cylinder of expansible material disposed within the casing around the mouth of said duct, and a float pendant within said cylinder and bearing a valve adapted to engage said seat, substantially as described. 4th. In a device of the character described, the connection, a casing provided with the adjustable plug *j*, and the valve seat *m*, and port *p*, in combination with the expansible cylinder and the pendant drum therein bearing a valve adapted to engage said seat, all being arranged to operate, substantially as described. 5th. The connection and casing provided with the adjustable valve seat, in combination with the hard rubber cylinder D, the float E, pendant therein and bearing a valve adapted to engage said seat, substantially as described. 6th. The connection and casing provided with the adjustable valve seat, in combination with the expansible cylinder D, closed float E, having the notched supporting flange *h*, and bearing a valve adapted to engage said seat, all being arranged to operate, substantially as specified. 7th. In a device of the character described, the connection and casing, in combination with the adjustable plug *j*, in said casing provided with the valve seat and port, the expansible cylinder disposed around the inlet in said connection, the closed float E, disposed within said cylinder and provided with the flange *h*, having the notches *i*, and the valve *q* on said float adapted to engage said seat, substantially as described. 8th. In a relief valve for radiators, a valve and post, cylinder or float of heat expansible material for automatically closing said valve, in combination, with a metallic material on said heat expansible material for preventing it from sticking to the float or valve casing when super heated, substantially as described. 9th. In a relief valve for radiators, the combination of a casing, a connection opening into the bottom thereof from the radiator, a heat expansible material within said casing, a valve seat opening through the casing, a float actuated by said expansible material for operating said valve and a metallic facing on said expansible material, substantially as and for the purpose set forth.

**No. 48,045. Rotary Engine. (Machine rotatoire.)**

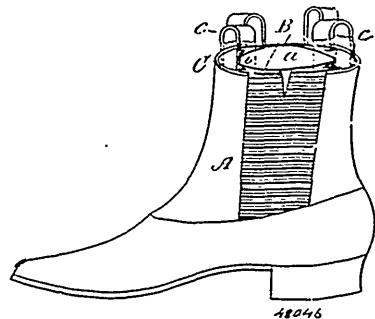


David Franklin Allen, Richburg, New York, U. S. A., 28th January, 1895; 6 years.

*Claim*.—1st. The combination with a stationary casing having the adjustable wear-plate 22, and steam ports 13; exhaust 5, and channels or passages 14, diverging from the steam ports to the opposite ends of the wear-plate, of an engine shaft 15, a rotatable piston cylinder 16, carried by said shaft and having radially slidable pistons 20, provided with lugs 27, and jointed piston-heads 19, cam races engaging the lugs of the piston and having their upper portions concentric with the internal surface of the casing above and around the engine-shaft, and their lower portions concentric with the said wear-plate, a reversing valve 6, governing the steam ports and exhaust, and an expansion cut-off valve arranged above the reversing valve, substantially as and for the purposes described. 2nd. The combination with a stationary casing having steam ports, and a rotatable piston-cylinder having radially slidable pistons, of an automatic expansion cut-off valve composed of a horizontal hollow valve cylinder having approximately triangular ports, and a horizontal interior hollow valve cylinder having a series of ports, means for rotating and horizontally moving one of said hollow cylinders by the rotation of the piston cylinder, devices for varying the horizontal

throw of the rotating cylinder, and a reversing valve interposed between the automatic expansion cut-off valve and the piston cylinder, substantially as described. 3rd. The combination with a stationary casing having steam ports, and a rotatable piston cylinder having radially slidable pistons, of an automatic expansion cut-off valve composed of a horizontal valve cylinder having suitable ports, and a horizontally rotating and reciprocating hollow valve cylinder having a series of ports, a governor-shaft geared to the shaft of the piston cylinder, and to the rotating and reciprocating cylinder, a governor mounted on the governor-shaft and connected with the rotating and reciprocating valve cylinder for reciprocating the latter horizontally, and a reversing valve governing the ports of the stationary casing, substantially as described. 4th. The combination with a stationary casing having steam ports, and a rotatable piston cylinder having radially slidable pistons, of an automatic expansion cut-off valve composed of a horizontal hollow valve cylinder having suitable ports, and a horizontally rotating and reciprocating hollow valve cylinder having a series of ports, a governor-shaft geared to the shaft of the piston cylinder and to the rotating and reciprocating valve cylinder, a governor mounted on the governor shaft and having a vertically movable sleeve, connections between the said sleeve and the rotating and reciprocating valve cylinder for moving the latter horizontally by the action of the governor, and a reversing valve governing the ports of the stationary casing substantially as described. 5th. The combination with a stationary casing having steam ports, and a rotatable piston cylinder, having radially slidable pistons, of an expansion cut-off valve composed of a stationary hollow valve cylinder provided with approximately triangular ports, and a rotating and lengthwise reciprocating hollow valve cylinder provided with a series of ports, the area of which is more or less placed in communication with the triangular ports by shifting the valve cylinder lengthwise, gearing between the engine shaft and the rotatable valve cylinder, a governor, and connections between the governor and the rotatable valve cylinder for automatically shifting the latter lengthwise, substantially as described. 6th. The combination with a stationary casing having steam ports, and a rotatable piston cylinder having radially slidable pistons, of an expansion cut-off valve composed of a stationary hollow valve cylinder having approximately triangular ports, and a rotating and lengthwise moving hollow valve cylinder having a series of ports, the area of which is more or less placed in communication with the triangular ports by the lengthwise movements of the rotating valve cylinder, gearing between the engine shaft and the rotating valve cylinder, a governor, connections between the governor and the rotating and lengthwise moving valve cylinder, and devices for varying the lengthwise throw of the rotating hollow cylinder, substantially as described.

**No. 48,046. Boot and Shoe. (Chaussure.)**



Thomas Francis Marshall, Oakland, Alameda County, California, U. S. A., 28th January, 1895; 6 years.

*Claim*.—1st. A boot or shoe having an elastic gore, a water-tight lining for the gore and a bellows fold connecting the edges of the lining with the boot or shoe, the members of the bellows fold lying normally beneath the edges of the lining and meeting at an angle to lie substantially flat on each other and covered and concealed by said lining, substantially as described. 2nd. A boot or shoe having an elastic gore, and a water-tight lining connected with the shoe by a bellows connection, and elastic strips forming an additional connection between the said lining and the shoe, substantially as described. 3rd. The boot or shoe having a lining for the elastic gore, the said lining being continuous with the bellows folds and arranged substantially as shown and described.

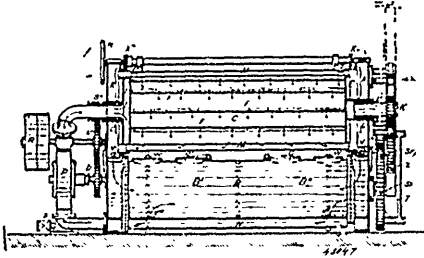
**No. 48,047. Method of Washing Fabrics.**

(Méthode de laver les tissus.)

Heinrich Treichler, Zurich, Wollishofen, Switzerland, 28th January, 1895; 6 years.

*Claim*.—1st. A method of washing and rinsing fabrics and other washable objects whereby the washing or rinsing liquid is forced under pressure in the form of jets on the objects treated which are at the same time subjected to a reciprocating motion, the liquid

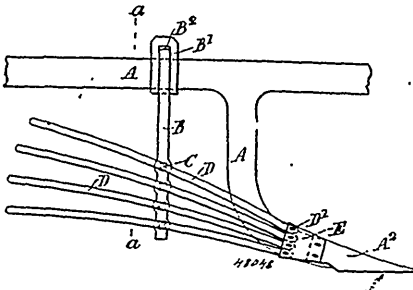
being at once conducted away from the said objects in order to afford in addition to the chemical action of the liquid, a mechanical action of the strongly impinging jets, substantially as described. 2nd. An apparatus for carrying out the method of operating referred to in the first claim, consisting of an oscillating perforated



drum containing the objects to be treated into which drum the liquid is forced under considerable pressure in the form of jets, by means of a pump, and from which the liquid is at once discharged into a receiver below, in order that the impinging force of the jets may not be weakened, the liquid removed being used over again, substantially as described. 3rd. In apparatus such as is referred to in the second claim, the arrangement of a distributing chamber between the pump and the washing drum in order to insure a uniform distribution of the pressure liquid to the several jet pipes in the drum, substantially as described. 4th. In apparatus such as is referred to in the second claim, constructing the receiver below the washing drum with two compartments, each of which communicates through a valve with a casing surrounding the washing drum, whereby the washing liquor or the rinsing water is made to flow rapidly from the drum into a special compartment of the receiver to be subsequently used over again, substantially as described. 5th. In apparatus such as is referred to in the fourth claim, constructing the casing surrounding the washing drum with an opening closed by a door, which can either be brought uppermost to coincide with the door of the drum for introducing the objects to be treated, or can be brought lowermost for the removal of the objects, the casing having a passage at each end for the discharge of the liquid, substantially as described.

#### No. 48,048. Skeleton Mould Board for Ploughs.

(Moule pour les oreilles des charrues.)



Samuel Salter, Wal Wal, Victoria, Australia, 28th January, 1895; 6 years.

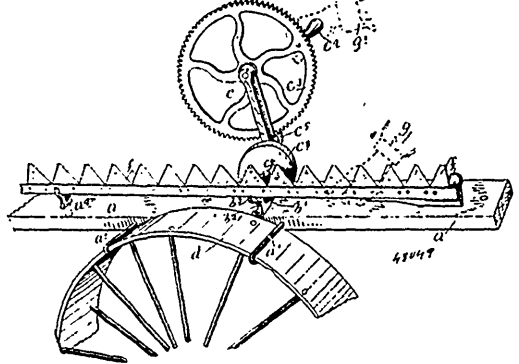
*Claim.*—1st. A bracket or bar as B clamped to the plough frame combined with screw stays, as C the fore ends of which are screwed to the prongs of the mould board, substantially as herein described and as illustrated. 2nd. The prongs of skeleton mould boards having an eye at their fore ends to allow of their being bolted to the foot or share plate and having at about midway of their length an adjustable supporting screw stay or bolt as C, substantially as herein described and as illustrated. 3rd. A skeleton mould board for ploughs constructed in accordance with my improvements as above claimed and as herein described and illustrated.

#### No. 48,049. Grinding Machine. (Machine à mouder.)

Jacob H. King, Piqua, Ohio, and William J. Dean, Minneapolis, Minnesota, both in the U.S.A., 28th January, 1895; 6 years.

*Claim.*—1st. In a portable grinding apparatus, the combination with a base provided with suitable attachments for detachably connecting it with the rim of a wheel, said base having a series of vertical holes through its body near each end, a bracket rigidly secured upon said base between its ends and having a sleeve, a fixed support rising from said bracket, and a removable support having a forked upper end and cylindrical stem adapted to be removably seated in any of said vertical holes through the base, of a standard fitting in said sleeve with vertical and axial adjustments, a horizontal shaft journaled through said standard, a grinding wheel on said shaft

and rotating between said standard and the fixed support, and means for rotating said shaft from its other end, as and for the purpose set forth. 2nd. In a portable grinding apparatus, the combination with a base provided with suitable attachments for detachably connecting

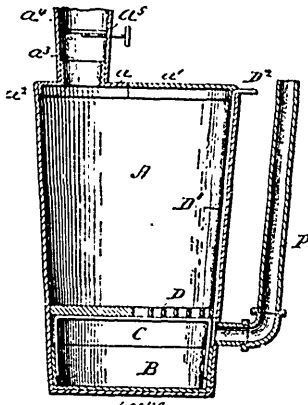


it with the rim of a wheel, a bracket rigidly secured upon the upper face of said base between its ends and having a cylindrical sleeve hanging over one side of the base, a set-screw through the outer side of said sleeve, a fixed support rising from said bracket opposite said sleeve, and a removable support having a stem adapted to be adjustably and detachably connected with either end of the base, of a standard comprising a single casting whose lower cylindrical end fits in said sleeve with vertical and axial adjustments, a horizontal shaft journaled through said standard, a grinding wheel on one end of said shaft and rotating in a vertical plane between said standard and the fixed support, and means for rotating said shaft, as and for the purpose set forth. 3rd. In a portable grinding apparatus, the combination with a base having a series of vertical holes through its body near each end, a bracket rigidly secured upon said base between its ends and having a cylindrical sleeve, a fixed support rising from said bracket and having near its upper end a horizontal block projecting toward said sleeve and an upwardly projecting lug, and a removable support having a forked upper end and a cylindrical stem adapted to be removably seated and to turn axially in any of said vertical holes through the base, of a standard fitting in said sleeve with vertical and axial adjustments, a horizontal shaft journaled through said standard, a grinding wheel on said shaft and rotating in a vertical plane between said standard and the fixed support, and means for rotating said shaft, as and for the purpose set forth. 4th. In a portable grinding apparatus, the combination with a base, a bracket rigidly secured upon the center of said base between its ends and having a cylindrical sleeve, a fixed support rising from said bracket and having near its upper end a horizontal block projecting toward said sleeve, and an upwardly projecting lug in rear of the block and a removable support adapted to be detachably and adjustably connected with either end of the base, of a standard fitting said sleeve with vertical and axial adjustments, a horizontal shaft journaled through said standard, a grinding wheel on one end of said shaft and rotating in a vertical plane between said standard and the fixed support, and means for rotating said shaft from its other end, as and for the purpose set forth. 5th. In a grinding machine, the combination with a shaft, a grinding wheel mounted thereon, and means for adjusting the wheel longitudinally on the shaft, of a moistener consisting of a collar having a dish or cup-shaped open face adjacent to the wheel and a closed bottom remote from the wheel, means for filling the cup with moistening liquid, and a porous disc mounted on the shaft adjacent to the wheel and clamped against the wheel by the edges of the cup, as and for the purpose set forth. 6th. In a grinding machine, the combination with a shaft, and a grinding wheel mounted thereon, of a moistener movable longitudinally on said shaft and consisting of a collar having a dish or cup-shaped open face adjacent to the wheel and a closed bottom remote from the wheel, a removable packing within the cup susceptible of retaining a moistening liquid, a porous disc clamped between the edges of the cup and the contiguous face of the wheel, a filling orifice in the cup, and means for clamping and holding the cup and wheel in position, as and for the purpose set forth. 7th. A grinding wheel provided with an automatic moistener, which turns with the wheel and delivers the water on to the grinding surfaces thereof, under the centrifugal motion of the wheel and the action of gravity, substantially as described. 8th. The combination with a grinding wheel and its shaft, of a cup-shaped disc securable to said shaft and a sheet of porous material clamped between the said disc and the said wheel, and means for the admission of water to said disc, and holding the same therein, substantially as described. 9th. A grinding machine for siekles or other articles, comprising an anvil or fixed rest for the part subject to the grinding action, and a grinding wheel which is angularly adjustable with respect to the face of said anvil, substantially as and for the purpose set forth. 10th. The combination with the base bar having clamps for securing the same in a fixed horizontal position, of a bed-bracket fixed to the

face of said base-bar and having an anvil and a socket, a bearing standard mounted in said socket and adjustable therein, a horizontal grinding wheel shaft mounted on said standard and provided with a grinding wheel, and driving mechanism for said grinding wheel, also supported by said standard, substantially as and for the purpose set forth.

**No. 48,050. Heater for Stock Troughs.**

(*Chauffeur pour auges.*)

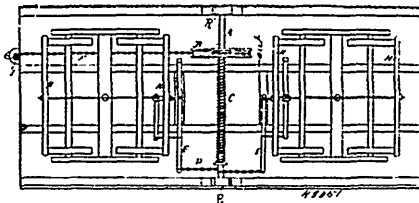


Alphonzo Hayward, Marsaw, Indiana, U.S.A., 29th January, 1895; 6 years.

*Claim.*—In a water heater, the combination of a cylindrical body of conical form which is reduced at its lower end and closed at the bottom and open at the top, an ash pan removably fitted in the lower part of said body, and having a pair of upwardly projecting parallel handles or bails which form a horizontal rest at a distance above the said ash pan, a grate removably mounted on the top of said handles or bails and having a vertical rod attached to one side thereof, an air pipe tapped into the said body between the grate and ash pan extending above the top of said body, and a removable cover having an upwardly extending smoke pipe, said heater being adapted to be placed in a water tank or other receptacle, substantially as described.

**No. 48,051. Car Brake Attachment.**

(*Attache pour freins de chars.*)

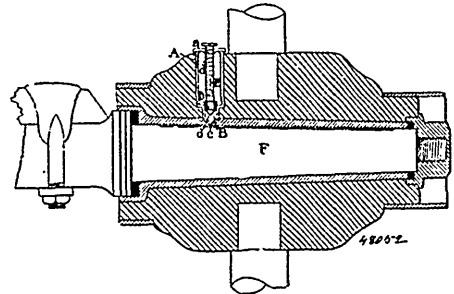


Nelson Lampman, Woodstock, Ontario, Canada, 29th January, 1895; 6 years.

*Claim.* 1st. The combination with the brake attachment of a car, of a shaft A, a suitable connection between the shaft and the brake attachment including a chain adapted to be wound on the shaft a spirally coiled spring mounted upon and tending to turn the shaft and set the brakes, and means for locking the shaft in position to hold the spring coiled or under tension, and the brakes off, substantially as set forth. 2nd. The combination with the brake attachment for a car, a shaft A, a connection between the shaft and brake attachment, a coiled spring C, surrounding the shaft and tending to turn it so as to set the brakes, a wheel B, and secured to the shaft, and a chain F, secured to the periphery of the wheel and adapted to rest in a groove therein, substantially as set forth. 3rd. The combination with the brake attachment of a car of a spring-actuated shaft connected therewith and tending normally to set the brakes, the brake-rod or shaft G, the connection between the said brake-rod and the spring-actuated shaft whereby the brakes may be withdrawn from the wheels when the shaft G is turned, and the locking detent for the shaft or rod G, substantially as set forth. 4th. The combination with a brake attachment of a car, of a spring-actuated shaft connected therewith and tending normally to apply the brakes, a shaft connected therewith by means of which the said spring-actuated shaft may be moved to release the brakes, a detent for locking the said brake-releasing shaft, and a trip mechanism for releasing the said detent, substantially as set forth. 5th. The combination with a brake attachment, or a car, of a shaft A, connected

with the brake apparatus, a coiled spring C, tending to turn the shaft and apply the brakes, a wheel B, upon the shaft, the vertically disposed shaft G, at the end of the car provided at its upper end with a hand-wheel, the connecting chain between the said shaft and the wheel B, a detent for holding the said parts in position with the spring C, under tension and the brakes off, and a trip mechanism on the top of the car for releasing the said detent, substantially as set forth. 6th. The combination, with a brake mechanism of a car, of spring-actuated mechanism which tends normally to apply the brakes, a detent for holding such mechanism in position with the brakes off, and a trip for the detent adapted to be moved in opposite directions and constructed to operate the detent whichever way it be moved, substantially as set forth. 7th. The combination, with a brake mechanism of a car, of spring-actuated mechanism which tends normally to apply the brakes, a detent for holding such mechanism in position with the brakes off, and a trip for the detent consisting of a rocking arm provided with a head having projections adapted to engage and move the detent and arranged upon opposite sides of the axis on which the arm rocks whereby the detent will be operated in whichever direction the arm be rocked, substantially as set forth. 8th. The combination, with a brake mechanism of a car, of spring-actuated mechanism which tends normally to apply the brakes, a detent for holding such mechanism in position with the brakes off, consisting of the spring-actuated rod K, provided with a plate L, and a trip mechanism for operating the said detent provided with the studs or pins arranged to bear upon the said plate and disposed on opposite sides of the axis on which the said trip turns whereby the detent will be operated whether the trip be moved in one direction or the other, substantially as set forth. 9th. The combination, with a brake mechanism of a car, of a spring-actuated mechanism which tends normally to apply the brakes, a detent for holding such mechanism in position with the brakes off, and trip for the detent provided with two arms disposed on opposite sides of the foot-board of the car and each provided with means for engaging with a rope, substantially as set forth. 10th. The combination, with a brake mechanism of a car, of a spring-actuated mechanism which tends normally to apply the brakes, a detent for holding such mechanism in position with the brakes off, and a trip for the detent provided with a spring-actuated rope clamp, substantially as set forth.

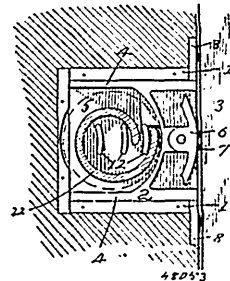
**No. 48,052. Lubricator.** (*Lubricateur.*)



Charles C. Young, Ellsworth, Maine, U.S.A., 29th January, 1895; 6 years.

*Claim.*—A lubricator, consisting of the combination of an oil cup, having a chamber communicating with and located above a smaller chamber, terminating at its lower extremity in a discharge passage, and a plunger having a screw-threaded shank operating in the cover of said large chamber and a point shaped and fitted to be introduced into and fill said small chamber and to be raised out therefrom, the shank of said plunger being gouged or slotted longitudinally for a portion of its length toward its lower end.

**No. 48,053. Sash Holder.** (*Arrête-croisêe.*)



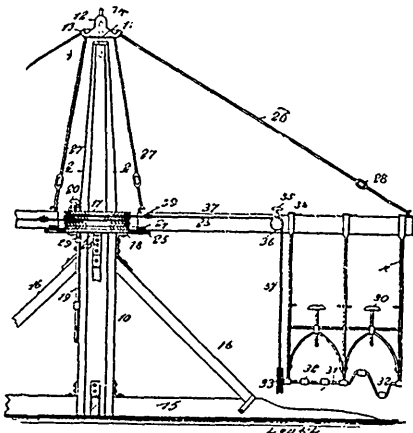
Joseph Weldon, Elmore, Ohio, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. In a sash holder, the combination of a casing, a sliding block or bolt mounted in the casing and provided with a



series of lugs, an actuating cam mounted on the casing and provided with a spindle and having a spiral cam flange engaging said lugs, whereby the sliding block or bolt is moved inward and outward, and a sash engaging head carried by the block or bolt, substantially as described. 2nd. In a sash holder, the combination of a casing, a sliding block or bolt conforming to the configuration of the casing and mounted therein and provided at one side with a recess, and having a front recess, a series of lugs mounted in the recess at the side of the block or bolt, the outermost lug forming a stop, a cam head pivotally mounted in the front recess and provided with teeth, and an actuating cam having a spiral flange engaging said lug, substantially as described. 3rd. In a sash holder, the combination of a casing, a sliding block or bolt mounted therein, and consisting of a central flange or web and opposite side portions, the latter projecting outward in advance of the web and forming a front recess, a cam head having a convex outer face and provided thereon with oppositely shouldered teeth and pivotally mounted in the front recess between the projecting portions, a series of lugs mounted on the web, and an actuating cam having a spindle and journaled on the casing and provided with a spiral flange to engage said lug, substantially as described.

**No. 48,054. Merry-Go-Round. (Carrousel.)**

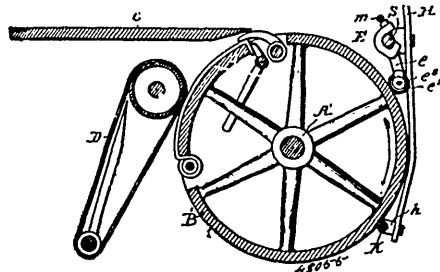


The Halyon Cycle Company, assignee of Milton T. Weston, both of Kenton, Ohio, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. In a carousel or like machine, the combination with a mast, and a grooved drum secured to the mast, of arms pivotally supported by the mast and adapted to revolve around the drum, carriages supported by the arms, drive shaft located in the carriages, and a belt connection between the carriage shafts and the drum, each belt travelling in a groove of the drum, substantially as and for the purpose specified. 2nd. In a carousel or like machine, the combination with a mast, a drum secured upon the mast and provided with peripheral grooves, and a cap pivoted upon the mast, of connected arms held to travel around the mast adjacent to the drum, supporting devices connecting the arms with the pivoted cap, and friction rollers carried by the arms and adapted to travel upon the periphery of the drum, carriages suspended from the arms, drive shafts located in the carriages, cables connecting the carriages with the drum, each cable being passed over a groove of the drum, and a take-up mechanism over which the cables also pass, substantially as shown and described. 3rd. In a carousel or merry-go-round, the combination, with a mast, a cap pivoted thereon, and a drum constructed in two sections, an inner section secured to the mast and an outer section peripherally grooved and capable of turning upon the inner section, and a locking device capable of connecting the two drum sections in a rigid manner, of connected arms held to revolve around the mast adjacent to the drum, friction rollers carried by the arms and engaging with a fixed guide upon the mast, supporting devices connecting the arms with the pivoted cap, carriages supported by the arms, drive shafts located in the carriages, and cables connecting the carriage shafts with the drum, each cable passing over a different groove in the drum, and guide pulleys over which the cables likewise pass, as and for the purpose specified. 4th. In a carousel, or merry-go-round, the combination, with a mast, a cap pivoted thereon, and a drum constructed in two sections, an inner section secured to the mast and an outer peripherally grooved section capable of turning upon the inner section, and a locking device capable of connecting the two drum sections in a rigid manner, of connected arms held to revolve around the mast adjacent to the drum, friction rollers carried by the arms and engaging with a fixed guide upon the mast, supporting devices connecting the arms with a pivoted cap, carriages supported by the arms, a pulley located upon each carriage shaft, adjustable guide pulleys located upon the arms, and cables passed over the pulleys on the carriage shafts, over the guide pulleys and around the

drum, each cable being located in a different groove in the drum, as and for the purpose set forth.

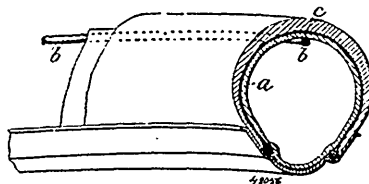
**No. 48,055. Perforating Attachment for Printing Presses. (Appareil à perforer pour presses à imprimer.)**



Charles Lynn Smith, Henry C. Dunlay and George Steimmetz, all of Philadelphia, Pennsylvania, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. The combination in a printing press with the feeding-table, the cylinder and its band rods, the shafts which the same form of the frame of the machine, the type bed, and the delivery fly, of a puncturing device, supported upon one of said band rod shafts in the manner described, and so combined and arranged with relation to the rotating cylinder of the press that the paper fed forward by the rotation thereof to the type-form shall contact with said puncturing device in its passage to the delivery-fly of the press, substantially as and for the purpose described. 2nd. The combination with the rotating impression cylinder of a printing press, and its delivery mechanism, and band rods H with means such as rods S and K to support the same adjacent to the periphery of the cylinder, of a puncturing device mounted on one of said supporting rods in a dependent or inwardly projecting position with relation to the said rod, consisting of a hub E adjustably secured upon said shaft and carrying a finger e slotted at its extreme end, with a perforating wheel e<sup>2</sup> journaled in said slot, substantially as described.

**No. 48,056. Pneumatic Tire. (Bandage pneumatique.)**

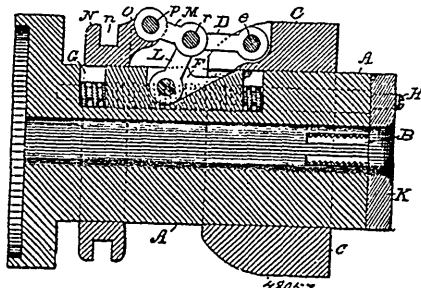


Granville Hawley, Egerton Cooke and Thomas Cooke, of Brunswick Square, County of London, England, 29th January, 1895; 6 years.

*Claim.*—1st. The combination with the air tube of a pneumatic tire, of a ring adapted to support the air tube within the arch of the outer cover, substantially as described. 2nd. In a pneumatic tire, the combination with an air tube and an outer cover of a ring adapted to support the air tube within the arch of the outer cover, substantially as described.

**No. 48,057. Machine for Threading Bolts.**

(Machine à fileter les boulons.)

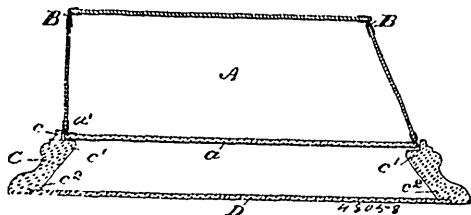


Michel D. Luehrs, Cleveland, Ohio, U.S.A., 29th January, 1895; 6 years.

*Claim.* 1st. In a bolt-cutter head, the combination with the barrel and the die-ring sliding thereon, of a toggle connecting the

barrel and die-ring, a clutch-ring sliding on the barrel, and a link pivoted at one end to the clutch-ring and at the other to the centre joint of the toggle, substantially as described. 2nd. In a bolt-cutter head, the combination with the barrel and the die-ring sliding thereon, of a toggle adjustably connecting the barrel and die-ring a clutch-ring sliding on the barrel, and a link pivoted at one end to the clutch-ring and at the other to the centre joint of the toggle, substantially as described. 3rd. In a bolt-cutter head, the combination with the barrel and the die-ring sliding thereon, of a toggle having immovable pivotal connection to the die-ring and movable pivotal connection to the barrel, a clutch-ring sliding on the barrel, and a link pivoted at one end to the clutch-ring and at the other to the centre joint of the toggle, substantially as described. 4th. In a bolt-cutter head, the combination with the barrel and the die-ring sliding thereon, of the link D, pivoted to the die-ring, the link L, pivoted to a block sliding in the barrel, and adjusting screw engaging said sliding block and having bearing in the barrel, a clutch-ring sliding on the barrel, and a link pivoted at one end to the clutch-ring and at the other by a common pivot to the links D and L, substantially as described.

**No. 48,058. Glass Box. (Boîte en verre.)**

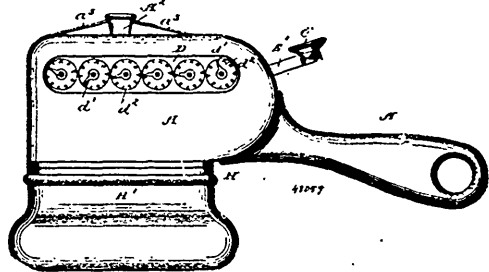


Ann Fannie Potts, Toronto, Ontario, Canada, 29th January, 1895; 6 years.

*Claim.*—1st. The combination with a glass box having sides with ribbon-bound edges suitably connected together, of an outwardly flaring moulding provided with a bead *c*, within which fits the bottom of the box and internal shoulder *c'*, to which the edges of the bottom of the box are secured, as and for the purpose specified. 2nd. The combination with a glass box having sides with ribbon-bound edges suitably connected together, of an outwardly flaring moulding provided with a bead *c*, within which fits the bottom of the box and internal shoulders *c'*, to which the edges of the bottom of the box are secured and bottom shoulders *c''*, to which the edges of the supplemental bottom *D*, are secured to form a box underneath as and for the purpose specified.

**No. 48,059. Fare-Box and Register.**

(Boîte à billets et registre.)

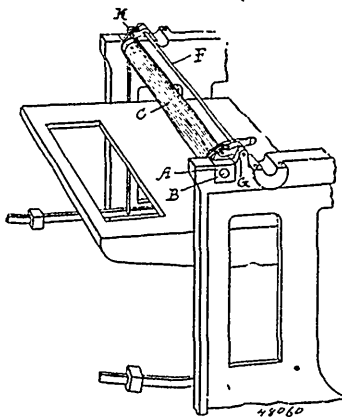


Frank Becker Wagner, assignee of Edward Beech Baker, Andrew Ward Foote and Frank Becker Wagner, all of Cleveland, Ohio, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. In a fare-box, the combination, with a fare receptacle, of a roller journaled at the entrance to said receptacle, a surface opposed to said roller, and means for rotating said roller, substantially as set forth. 2nd. In a fare-box, the combination, with a fare receptacle, of two rollers journaled at the entrance to said receptacle to have the fare passed between them, and means for rotating one of said rollers, substantially as set forth. 3rd. In a fare-box, the combination, with a fare receptacle, of a yielding roller journaled at the entrance to said receptacle, a surface opposed to said roller, and means for rotating the roller, substantially as set forth. 4th. In a fare-box, the combination of a fare receptacle, two yielding rollers journaled at the entrance to said receptacle to have the fare pass between them, and means for rotating one of said rollers, substantially as set forth. 5th. In a fare-box, the combination with a fare channel and a fare receptacle having its entrance registering with the inner end of said fare channel, of a roller journaled between the inner end of the fare channel and the entrance to the receptacle, a surface opposed to said roller, and means for rotating said roller, substantially as set forth. 6th. In a fare-box and register, the combination, with a fare receptacle, of a roller

journaled at the entrance to said receptacle, a surface opposed to said roller, a registering device, and means for simultaneously rotating the roller and actuating the registering device, substantially as set forth. 7th. In a fare-box and register, the combination of a fare receptacle, a roller journaled at the entrance to said receptacle, a surface opposed to said roller, and a trigger connected to rotate the roller and to actuate the registering device, substantially as set forth. 8th. In a fare-box and register, the combination of a casing having a handle, a fare receptacle beneath said casing, a roller journaled in the casing and at the entrance to said fare receptacle, a surface opposed to said roller, a register in the casing, and a trigger projecting out of said casing over the handle of the same and connected to simultaneously rotate the roller and actuate the register, substantially as set forth. 9th. In a fare-box and register, the combination of a casing, a fare receptacle upon the under side of the casing, a fare spout and channel in the casing and opposed to the entrance to the fare receptacle, two rollers journaled to have their touching portions in a line with the inner end of the fare channel and the entrance to the fare receptacle, and a trigger connected to rotate one of said rollers and to project from the casing, substantially as set forth. 10th. In a fare-box, the combination of a casing, a fare channel secured within the casing and below the top of the same and having a transparent side, means for feeding the fares from said fare channel, and an inclined chute in the top of the casing bearing against the transparent side of the channel, whereby the contents of the fare channel may be inspected from the top of the casing, substantially as set forth. 11th. In a fare-box and register, the combination of a fare receptacle, two rollers journaled at the entrance to said receptacle, and between which the fare may be fed into said receptacle, a register, an alarm, and means for simultaneously rotating one of the rollers and actuating the register and thereupon sounding the alarm, substantially as set forth. 12th. In a fare-box, a fare spout having lips projecting from the opposite sides of the spout towards the median line of the same, substantially as set forth. 13th. In a fare-box, a fare spout having lips projecting from the opposite sides of the spout and one above the other, substantially as set forth. 14th. In a fare-box, a fare spout having inwardly inclined lips projecting from opposite sides of the spout and one above the other, substantially as set forth. 15th. In a fare-box, the combination of a fare feeding mechanism, a trigger connected to actuate such mechanism and having a projecting arm, a gong, a bell crank having a hammer upon one arm and having its other arm engaged by the arm upon the trigger, a spring connected to rock the bell crank to strike the gong, and an inclined lug over which the arm of the bell crank may ride and be disengaged from the arm of the trigger, substantially as set forth. 16th. In a fare-box and register, the combination of a fare channel, a fare receptacle having its entrance opposed to the inner end of the channel, two rollers journaled to have their touching portions in a line with the inner end of the fare channel and the entrance to the fare receptacle and one of said rollers having a pinion upon its shaft, a register, a shaft connected to actuate said register, a cog-wheel secured upon said shaft in meshing with the pinion, a sleeve upon the shaft and provided with a trigger for rocking it, and a ratchet and pawl connection between said sleeve and the cog-wheel, substantially as set forth. 17th. In a fare-box, the combination with a fare receptacle, of a revoluble fare feeding device journaled at the entrance to said receptacle, a surface opposed to said device and against which the latter may rotate, and means for rotating said device, substantially as set forth. 18th. In a fare-box, the combination with a casing containing the fare feeding mechanism and having a frame upon its under side, of a fare receptacle fitting upon said frame, and a lock for the two parts, substantially as set forth.

**No. 48,060. Planing Machine. (Machine à raboter.)**

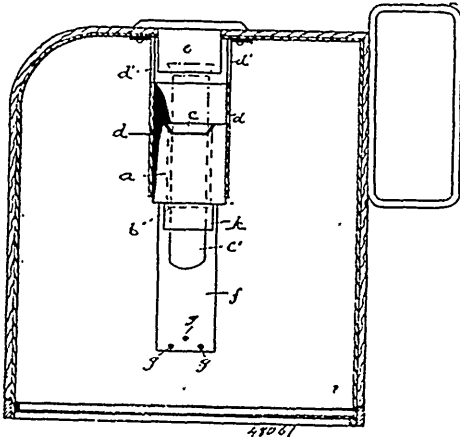


William Clark, Galt, Ontario, Canada, 29th January, 1895; 6 years.

*Claim.*—In a planing machine, the combination of the feed or de-

livery roll movably journaled in the framework, and means for holding the roll in its proper relation to the table, of the machine when displaced by the passage of the material between the roll and table, substantially as specified. 2nd. In a planing machine, the combination of the feed or delivery roll, a rock-shaft journaled in the frame above the roll and a pivotal connection between the journals of the roll and the rock-shaft, substantially as specified. 3rd. In a planing machine, the combination of the feed or delivery roll vertically movable bearing boxes for the journals of the roll, a rock-shaft journaled in the frame above the roll, two links connected to the rock-shaft and located one above each of the bearing boxes and a pivotal connection between the links and the bearing-boxes, substantially as specified. 4th. In a planing machine, the combination of the feed or delivery roll, vertically movable bearing boxes for the roll, a rock-shaft journaled in the frame above the roll, two links connected to the rock-shaft located one above each of the bearing boxes, a snug connected to each of the bearing boxes and a pivot-pin passing through each of the snugs and its respective link, substantially as specified.

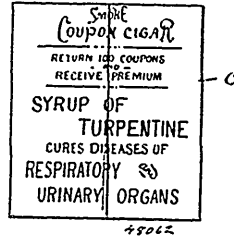
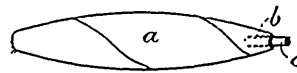
**No. 48,061. Fare-Box. (Boîte à billets.)**



John Humble and James Steel, Cote St. Paul, Quebec, Canada, 29th January, 1895; 6 years.

*Claim.*—1st. A fare-box having an obstructing guard section located and suitably supported at a point beneath the receiving chute and adapted to present the apex of an angle in line with said chute for the purpose set forth. 2nd. A fare-box having an angular obstructing guard section located and suitably supported at a point beneath the receiving chute, a guide in said section, and a wedge piece movable in said guide and having a head adapted to form the apex of said angular section in line with said chute, for the purpose set forth. 3rd. A fare-box having an obstructing guard section located and suitably supported at a point beneath the receiving chute and adapted to present the apex of an angle in line with said chute and adjacent depending legs extending below such guard, for the purpose set forth. 4th. A fare-box having an obstructing guard section located and suitably supported at a point beneath the receiving chute and adapted to present the apex of an angle in line with said chute, adjacent depending legs extending below such guard section and cross-bars connecting such legs at their lower ends, for the purpose set forth. 5th. A fare-box having an angular obstructing guard section located and suitably supported at a point beneath the receiving chute, enclosing walls for same with openings at top and bottom hinged gates adapted to close the bottom openings when the box is turned upside down, as set forth. 6th. A fare-box having an angular obstructing guard section located and suitably supported at a point beneath the receiving chute, enclosing walls for same with openings at top and bottom and hinged gates provided with projecting lugs *m*, and adapted to close the bottom openings when the box is turned upside down, as set forth. 7th. A fare-box, having an obstructing angular guard section, located and suitably supported at a point beneath the receiving chute, and formed of inclined side plates presenting the apex of an angle in line with said chute, and having a movable wedge piece composed of an angular head adapted to form a portion of the apex of the guard when in its normal position, and a stem piece carrying such head, the guard section containing a guide for such stem, substantially as described. 8th. A fare-box, having an obstructing guard section located and suitably supported at a point beneath the receiving chute and comprising the angular guard proper, movable wedge piece, depending legs and cross bars, substantially as described. 9th. A fare-box, having an obstructing guard section located and suitably supported at a point beneath the receiving chute and comprising the angular guard proper, movable wedge piece enclosing walls with openings at top and bottom, hinged gates for closing the bottom openings, depending legs and cross-bars, substantially as described.

**No. 48,062. Advertising Device. (Appareil de publicité.)**

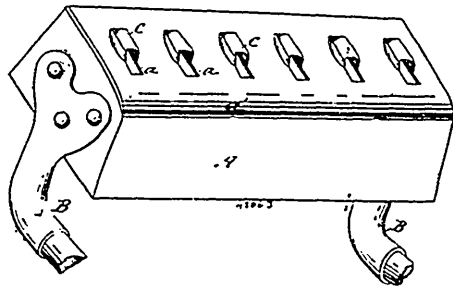


Bernard Goldstein, Montreal, Quebec, Canada, 29th January, 1895; 5 years.

*Claim.*—1st. As an advertising medium, a sheet of paper bearing printed advertising matter and adapted to be rolled up and inserted in a recess in the end of a cigar. 2nd. The combination, with a cigar having a recess *b* in its mouth end, of a sheet of paper *c*, bearing advertising matter and adapted to be rolled up and inserted in such recess, for the purpose set forth.

**No. 48,063. Wood Block Flooring.**

(Pavage en bloc de bois.)



James Godfrey Wilson, Fort Washington, New York, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. A composite flooring made up of strips or blocks of wood with dovetail grooves or channels cut on the undersides thereof laid upon a hydraulic cement foundation having inclined channels or dovetailed grooves formed in the upper surface thereof after laying, in combination with an intermediate layer of a bituminous compound or mastic which entering the said channels or dovetailed grooves of said foundation and also of said wood blocks will doubly key and hold fast the one to the other. 2nd. The herein described method of forming a dovetail groove in plastic material by one continuous operation, consisting in forming a substantially rectangular groove and forcing in the sides radially by downward pressure. 3rd. The herein described implement for forming dovetail or other shaped channels in any plastic material, having the combined cutters and forming tools, together with the upper plate for smoothing the surface after the cutting has been done. 4th. In an implement of the character specified, the combination of a receiver for the material removed, containing a series of orifices in its bottom cutters arranged opposite said orifices having side and bottom cutting edges, and inwardly curved sides forming dovetails, substantially as described.

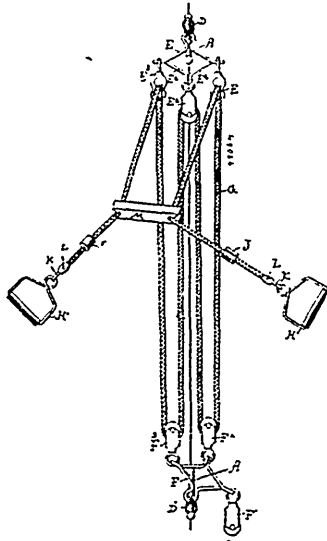
**No. 48,064. Exercising Apparatus.**

(Appareil gymnastique.)

Alexander Anderson Whiteley, Chicago, Illinois, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. In an exercising machine, the combination of two pulleys attached to a supporting frame, with three pulleys attached to a second supporting frame, and a cord elastic substantially throughout its length running over all of such pulleys, substantially as described. 2nd. In an exercising machine, the combination of pulleys adapted to be secured in sets on the wall or the like, with an elastic cord passing about such pulleys and from one set to the other, and an adjustable stop or stops near the free ends of the cord so

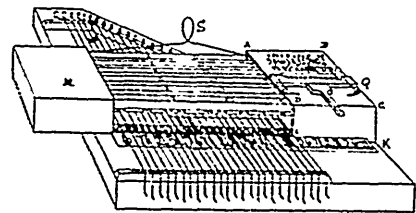
positioned that when the ends are freed, the cord connecting the pulleys is kept taut. 3rd. In an exercising machine, the combination of pulleys adapted to be attached to the wall or the like in sets or groups, with an elastic cord passing about such pulleys and con-



necting the sets or groups, and a stop near each end of such cord to engage the case of the last pulley and prevent the cord passing through, said stop consisting of a collar or the like with a central aperture of less cross-section than the cross-section of the cord, and a slot opening into such aperture, said slot of less width than the diameter of the aperture. 4th. The combination in an exercising machine of two sets of pulleys, means for attaching said pulleys to a wall or the like so that one set will be above the other, a long elastic cord provided at each end with a removable handle and passing over one more pulley in one set than in the other set, said cord having the two handle ends projecting from the same set, whereby the handle ends may be quickly changed so as to project from either set at will by removing the handles and disengaging one end of the cord from a pulley in one set and passing the other end over a pulley in the other set. 5th. The combination in an exercising machine of two quadrangular pulley supporting frames each having a pulley connected to three of its angles and being suspended by the other angle, a long elastic cord passing over all but one of said pulleys, and means of changing the position of the cord so that the idle pulley may be upon either of the two pulley supporting frames, whereby the distance between the axes of the working pulleys is varied when the position of the cord is changed. 6th. A pulley supporting frame for an exercising machine consisting of a wire bent into the shape of a quadrangle and provided at each angle with a loop, substantially as described. 7th. In an exercising machine, a supporting hook consisting of an expansible loop portion with a large loop and downwardly projecting separated spring hook ends, normally tending to be further separated, in combination with a pulley support having an eye to receive and compress such spring ends. 8th. In an exercising machine having pulley supporting parts and an elastic cord, the combination with said parts of a double clamp or the like adapted to be clamped on to the free ends of the cord and to be adjustable therealong, said clamp consisting of a body portion with holes at each end, said holes of less cross section than the elastic cord, and slots affording an entrance to such holes, said slots of less diameter than the holes. 9th. In an exercising machine, the combination of pulleys and supporting parts and an elastic cord with a double handle end piece consisting of a cord, a ring, hook or pulley secured to the middle thereof, and adapted to be attached to one end of the principal cord, and handles adapted to be secured to the ends of the double handle pieces. 10th. In an exercising machine, the combination of an elastic cord with suitable supporting parts, a handle at one end of said cord whereby the same may be used as an exercising apparatus, and a stop adjustable along said cord and adapted to engage one of the cord supporting parts and keep the cord taut. 11th. In an exercising machine, a foot piece or stirrup consisting of two loops, one for the ankle and the other for the foot, and a connecting part adapted to be attached to the end of the exerciser cord. 12th. In an exercising machine, a foot piece or stirrup consisting of two loops, one for the ankle and the other for the foot, and a connecting part adapted to be attached to the end of the exerciser cord, said loops made throughout substantially their entire length of elastic bands or material. 13th. In an exercising machine, a cord and coupling consisting of a rigid or non-elastic case to which the cord is adapted to be secured at one end, and a hook swivelled to such case at the other end, said hook provided with a head entirely surrounded by the case, the axes of cord, coupl-

ing and hook being substantially in the same line. 14th. In an exercising machine, an end coupling piece consisting of a case having a long aperture diminishing in cross-section toward its outer end and into which the wrapped end of the cord is adapted to be permanently received, a transverse aperture through which the end of the cord is projected to be wrapped, a hook swivelled at the outer end of such case, the axes of the cord, case and hook and the axis of rotation of the hook being substantially in the same line. 15th. In an exercising machine, a pulley provided with bearing parts having pyramidal-shaped opposed recesses, combined with a pulley wheel having laterally conical shaped bearings adapted to be received into the pyramidal recesses. 16th. In an exercising machine, a pulley provided with a case having bearing parts with opposed recesses and a pulley wheel having laterally projecting cone shaped bearings projecting into such recesses, whereby a practically noiseless pulley is secured. 17th. In an exercising machine pulley, a case provided at its lower extremity with screw plugs, the inner ends of which are recessed in opposition to each other, and a grooved pulley wheel having laterally projecting conical shaped bearings adapted to be received into such recesses, said recesses pyramidal in shape, whereby the bearing surface approximates a line. 18th. In an exercising machine, a case consisting of a single piece provided at its lower extremity with screw plugs, the inner ends of which are recessed in opposition to each other, and a grooved pulley wheel having laterally projecting conical shaped bearings adapted to be received into such recesses, and a swivelled eye to support said pulley, said swivelled eye provided with a head entirely surrounded by the material of the case.

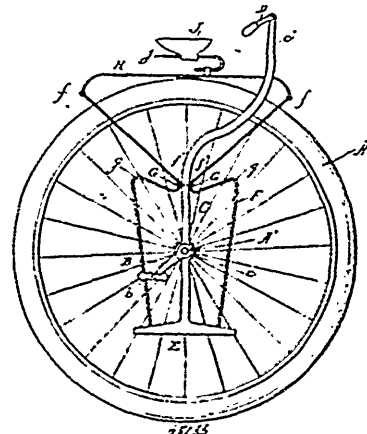
No. 48,065. Autoharp. (*Autoharpe.*)



Robert James Sprott, Collingwood, Ontario, Canada, 29th January, 1895; 6 years.

Claim.—1st. A transposer for autoharps, a frame inclosing transposing bars, said bars being movable vertically, and carrying dampers on their side next the musical chord, substantially as shown and described. 2nd. A transposer for autoharps composed of a frame made movable, and set at right angles to the musical chords, having at each end notched uprights in which the transposing bars are placed, said frame being provided with a handle S to adjust the same, an indicator P, and a key board K, substantially as shown and for the purpose set forth. 3rd. An autoharp transposer having an index plate A, B, C, D, provided with a toothed regulator Q, into which engages the indicator P, all substantially as shown and described.

No. 48,066. Monocycle. (*Monocycle.*)



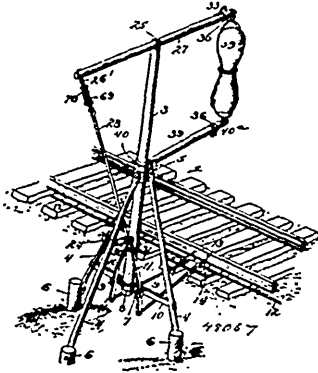
François Xavier Guay, St. Maurice, Three Rivers, Quebec, Canada, 29th January, 1895; 6 years.

Claim.—1st. In a monocycle, the combination with uprights provided with a handle bar at their tops, of a wheel journalled in the uprights and provided with driving cranks, a saddle, and a spring frame attached to the uprights and supporting the saddle, substan-

tially as set forth. 2nd. In a mono-cyclo, the combination with the uprights provided with cross-pieces at their lower ends and a handle bar at their tops, of a wheel journalled in the uprights and provided with driving cranks, a saddle, a spring frame having its lower ends secured to the said cross-pieces and supporting the saddle, and links connecting the middle portions of the said spring frames with the uprights between the cranks and the handle bar, substantially as set forth.

**No. 48,067. Crane for Mail Bags.**

(Grue pour les sacs de malle.)

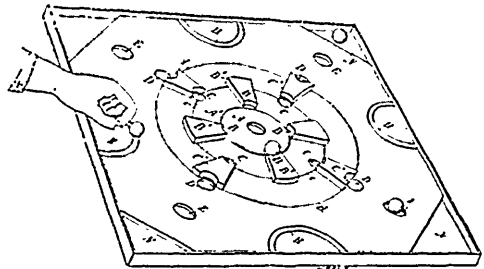


Martin Grosz, Emporia, Kansas, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. A crane for supporting mail bags preparatory to catching, and consisting of an arm or jib pivoted to the crane and adapted to have the mail bag attached to one end, a chain connected to the remaining end of the arm and having two eyes therein at different points throughout its length, both of which eyes are adapted to removably engage the mast, a lever connected to one eye, and trip mechanism adapted to be operated by a passing car, whereby one of the eyes of the chain is disengaged and the bag allowed to fall until stopped by the second eye, substantially as and for the purpose described. 2nd. A crane for supporting mail bags preparatory to catching, and consisting of an arm pivoted to the mast and adapted to have the mail bag attached to one of its arms, a chain connected to the remaining arm and having two eyes therein arranged at different points along its length, a pin passing horizontally through the mast and having its ends projected beyond each side thereof, the eyes being adapted to engage the respective ends of the pin, a lever pivoted to the mast and connected to one of the eyes of the chain whereby upon operating the lever the eye to which it is connected is disengaged from the pin and trip mechanism connected to the lever, and adapted to be operated by a passing car, whereby upon operating the lever one of the eyes is released and the bag allowed to drop until stopped by the second eye, substantially as and for the purpose described. 3rd. A device for supporting mail bags preparatory to catching, and consisting of a mast, an arm pivoted thereto and adapted to have the bag connected to one end thereof, said arm being capable of normally holding the bag out of the way of passing trains, and of dropping so as to place the bag within the reach of said trains, and trip mechanism connected to the arm and adapted to be engaged by the trains, whereby the arm is operated, substantially as specified. 4th. A crane for supporting mail bags preparatory to catching, and consisting of a mast, an arm pivoted thereto and adapted to have the mail bag attached to one end, a chain connected to the remaining end, and having two eyes thereon arranged at different points throughout its length and adapted to engage a stud on the mast, a lever connected to one of the eyes, a cord connected to the lever, and trip mechanism on the track and connected to the cord and adapted to be operated by a passing car, whereby the lever is made to release one of the eyes on the chain and the bag allowed to drop until stopped by the second eye, substantially as specified. 5th. A detent adapted to be attached to a car and to operate a trip arranged on the track, said detent consisting of a vertically reciprocating bar, and a hammer section pivoted to the lower end of the bar and a spring located at each side of the hammer and operating to hold the hammer yieldingly in position, the hammer being adapted to engage the trip and effect the operation thereof, substantially as described. 6th. Detent mechanism adapted to be applied to a mail car and to operate a trip arranged on the track, said mechanism comprising the combination of a vertically reciprocating reciprocating bar, a horizontal shaft connected thereto, a mail catching hook, a crank arm on the horizontal shaft, and a connecting rod pivotally connected to the horizontal shaft and to the hook, whereby the shaft is rocked as the hook is moved and the vertically reciprocating bar moved in its characteristic lines, substantially as described. 7th. Detent mechanism adapted to be applied to a mail

car and to operate a trip arranged on the track, said mechanism comprising the combination of a vertically reciprocating bar, and a mail catching hook pivotally connected to the bar, whereby as the hook is rocked the bar is raised or lowered, substantially as described. 8th. In a mail crane, the combination of a mast, a collar rigidly mounted off the mast and loosely embracing the same, whereby the mast is allowed a rotary movement, the said collar having a stud projecting radially therefrom, a second collar fixed to the mast and engaging the first collar, whereby it is supported, the said second collar having two inclined arms adapted to lie one on each side of the stud, whereby the mast is held stationary against ordinary strain and whereby it is allowed to revolve under the influence of undue strain, and bag-supporting arms secured to the mast, substantially as described.

**No. 48,068. Parlor Game. (Jeu de salon)**

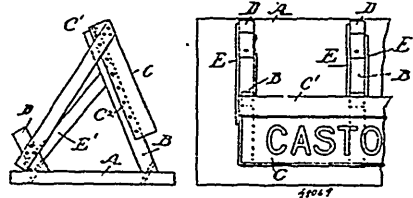


Howard Ashton Felt, Robert Samuel McLaughlin, and Martin Luther Evely, all of Oshawa, Ontario, Canada, 29th January, 1895; 6 years.

*Claim.*—A parlor carom game comprising a board having a centrally raised disc with central pocket, tapered blocks secured on the board abutting the edges of the disc, situated diametrically opposite each other and provided with pockets at the inner end, and tapered blocks secured on the board circumferentially outside the former blocks and between them, having the ends bounded by circles concentric to the central pocket, situated diagonally opposite each other, and provided with pockets at each end, diagonally situated wells, corner pockets, and side delivery spaces all bounded by a suitable raised edge, as and for the purpose specified.

**No. 48,069. Advertising and other Signs.**

(Annonces et autres enseignes.)



Robert Henderson, New York, State of New York, U.S.A., 29th January, 1895; 6 years.

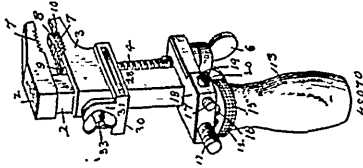
*Claim.*—An inclined sign comprising a series of posts secured to a horizontal support and at an acute angle thereto, a board located against the post and secured thereto through the medium of a longitudinal flange resting on the upper ends of the posts and end flanges abutting the outermost posts throughout the width of the board, a series of stakes similarly secured to the support, parallel with the posts and within the angle of their incline, a brace secured to each end stake and against the upper portion of the respective end of the board and forming an acute angle therewith, similar braces in a common plane secured each to one of the intermediate stakes and its respective post, and a final series of braces in a common plane secured to the posts below the first series and to the stakes, at acute angles to the former, whereby wind pressure against the rear of the board will tend to force the posts into the base and wind pressure on the face of the board will bear downwardly upon the posts and pass over the board.

**No. 48,070. Combination Tool. (Outil à combinaison.)**

Samuel J. Johnston, Leesburg, Virginia, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. In a tool of the class described, the combination of the tool shank provided at one end with a stationary jaw, the sliding jaw mounted on said shank, both of said jaws being provided on their opposing faces with transverse gripping teeth or serrations, longitudinal tapered registering angular notches or grooves, and directly opposite broad receiving recesses or pockets at the inner extremities of said angular notches or grooves, and said

sliding jaw being further provided on its inner gripping face near its outer end with a transverse rounded nail groove, and a handle adjustably attached to one end of said shank, substantially as set forth. 2nd. In a tool of the class described, the combination with the tool shank carrying a fixed and an adjustable jaw, of a detach-



able handle, two fastening means for the handle on the shank, one at right angles thereto and the other parallel therewith, and a catch device for the handle adapted to lock the same in its attached position at right angles to the shank, substantially as set forth. 3rd. In a tool of the class described, the combination of the shank carrying a fixed and an adjustable jaw and provided at one end with a cross-arm having separate right-angularly disposed screw studs or posts, a handle spindle provided with an interiorly threaded end adapted to engage either of said studs or posts, a turning handle loosely mounted on said spindle, and a catch device for said spindle arranged in a line with one of said studs or posts, substantially as set forth. 4th. In a tool of the class described, the combination of a shank carrying a fixed and an adjustable jaw and provided at one end with a cross-arm having at one end separate right-angularly disposed screw-studs or posts, a handle spindle provided with an interiorly threaded end adapted to engage either of said studs or posts and a finger collar at its threaded end provided in its outer face with a series of notches, and a spring actuated catch stud or pin mounted on said cross-arm in a line with one of said studs or posts and adapted to engage the notches of said collar, substantially as set forth. 5th. In a tool of the class described, the combination of a shank carrying a fixed and an adjustable jaw, and provided at one end with a cross-arm, a tubular handle spindle adapted to be adjustably attached to said cross-arm and provided in its outer end with a squared socket, and a brace-arm provided with a squared end adapted to be fitted in the socket of said handle spindle, and having a threaded bit holding opening or socket, substantially as set forth. 6th. In a tool of the class described, the combination with the tool shank carrying a fixed jaw and a sliding jaw working on said shank, of an adjustable U-shaped clamp fitted to said sliding jaw and adapted to engage the edge of a bench or table, substantially as set forth. 7th. In a tool of the class described, the combination with a tool shank carrying a fixed jaw and a sliding jaw mounted on said shank and provided in one side with a threaded opening, a transverse guide-plate or bar attached to one side of said sliding jaw, a U-shaped clamp-yoke embracing said sliding jaw and provided with opposite slotted arms receiving the extremities of said guide plate or bar, and a clamp-plate having a threaded opening, and a clamp screw mounted in the threaded opening of said clamp plate, substantially as set forth.

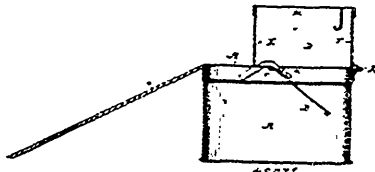
**No. 48,071. Welding Compound.**

(Composition pour souder.)

Hiram G. Hicks, Walpole, New Hampshire, U.S.A., 29th January, 1895; 6 years.

*Claim.*—A compound for use in welding, refining or treating steel, composed of borax, salamménia, carbonate of iron and silicic oxide combined in the proportions substantially as specified and prepared in the manner, substantially as described.

**No. 48,072. Animal Trap. (Piège.)**

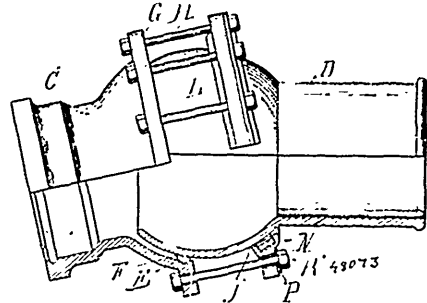


Ebenezer B. Stevens, Globeville, Colorado, U.S.A., 29th January, 1895; 6 years.

*Claim.*—In an animal trap, a receptacle forming a cage, and having a removable cover, a hinged trap door in said cover, a weighted, counterbalancing arm adjustably attached to said door and projecting down through a slot therein into the receptacle, a narrow, covered run-way inclosing said door, an opening in one end of said run-way, a screen or grating forming the other end of said run-way, openings in said cover, slides arranged to close said openings, a platform removably supported at one end upon said receptacle, and a stop pin adapted to be inserted in the receptacle either above or below the free end of said door, substantially as specified.

**No. 48,073. Ball and Socket Joint.**

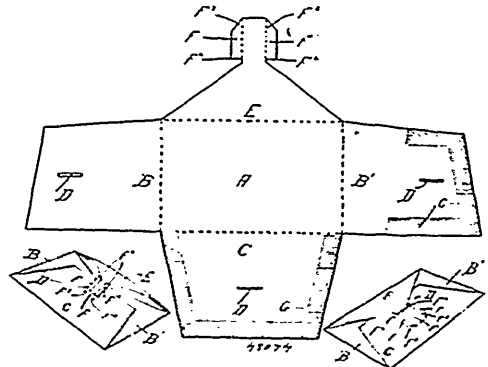
(Joint à boulet et joint sphérique.)



Miciah Walker, Port Huron, Michigan, U.S.A., 29th January 1895; 6 years.

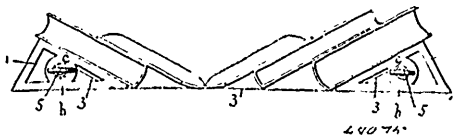
*Claim.*—1st. In a flexible pipe joint, the combination with a ball member, of a socket member, a ring surrounding the ball member, a series of springs interposed between the ring and ball, and a series of adjusting bolts connecting the ring to the socket member, substantially as described. 2nd. In a flexible pipe joint, the combination with a ball member, of a socket member, a recessed ring surrounding the ball member, adjusting connecting bolts between the ring and socket member, and a spring secured in the recess of the ring and bearing on the ball, substantially as described. 3rd. In a pipe joint, the combination of the ball and socket members of a ring surrounding the ball, semi-elliptical spring supported in the ring and having extending portions bearing against the ball and tension bolts on the socket member engaging the ring, substantially as described. 4th. In a flexible pipe joint, the combination with a ball and socket member, of a separate ring surrounding the outer end of the ball, having a depression of its inner face, a series of springs fixed in the depression, a series of packing strips O in the ring, and the bolts H connecting the ring and socket, substantially as described.

**No. 48,074. Safety Envelope. (Enveloppe de sûreté.)**



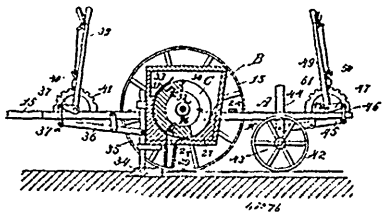
John Henry Buckley, Milltown, New Jersey, U.S.A., 29th January, 1895; 6 years.

*Claim.*—1st. A safety envelope, comprising a central body having side and bottom flaps, folded thereon and provided with aligning slots, an upper flap, a tongue upon said upper flap of substantially equal width with and adapted to enter the slot, and flanges hinged to each side of the tongue and folding thereon, and adapted when opened to prevent beyond said slots to engage the edges thereof and lock the flaps together, as well as to prevent the withdrawal of the tongue, substantially as shown and described. 2nd. A safety envelope comprising a central rectangular body having side and bottom flaps folded thereon and secured together and provided with aligning longitudinal slots therein, an upper flap secured to said body, a straight tongue projecting from said upper flap, of substantially equal width with, and adapted to enter the slots, flanges hinged to each side of the tongue from the top thereof approximately to the junction of the flap therewith, said flanges being adapted to fold on said tongue to enter the slots, and when opened out to project beyond the said slots to engage the edges thereof and lock the flaps together, tapered side portions upon the upper ends of said flanges to prevent the same from catching between the flaps, and square shoulders upon the lower ends thereof to prevent the withdrawal of the tongue without tearing off the flanges, substantially as shown and described.

**No. 48,075. Book Holder. (Porte-livre.)**

Benjamin Ives Gilman, Boston, Massachusetts, U.S.A., 29th January, 1895; 6 years.

*Claim.*—In a book holder, the combination, with two triangular frames, and a flexible connection between said frames, of means for connecting one or both ends of said connection to said frames, to vary the length of the holder, consisting of a rod journaled in one of the frames, and provided with a longitudinal slot therein, adapted to receive one end of said connection, and means for turning said rod to wind or unwind said connection and means for preventing said rod from turning, substantially as set forth.

**No. 48,076. Seed Planter. (Semoir.)**

Caleb Eliphalet Packard Hobart, Cherokee, Iowa, U.S.A., 29th January, 1895; 6 years.

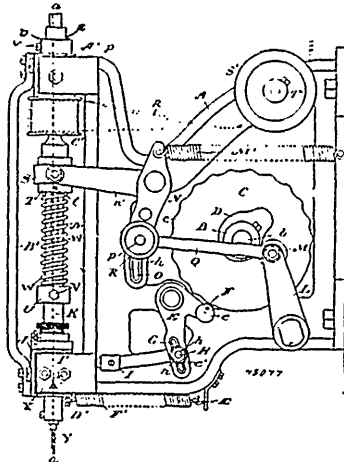
*Claim.*—1st. In a planter, the combination with a frame, an axle mounted in the frame, and a wheel loosely mounted upon each end of the axle and having the inner face of its hub made conical, of seed boxes on opposite sides of the frame, seed dropping wheels mounted on the axle in the said boxes, conical sockets adapted to receive the conical end of the hubs, said sockets being fitted to slide on but to turn with the axle, and a lever mechanism for operating the sockets, substantially as described. 2nd. In a planter, the combination with a frame, an axle mounted in the frame, wheels on the axle and having the inner faces of their hubs made conical, seed boxes on the frame, and dropping wheels in the seed boxes, of conical socket adapted to receive the conical ends of the hubs, said sockets being fitted to slide on the axle but to turn therewith, a pivoted operating lever, pivoted shifting bars engaging the sockets, and links secured to the shifting bars and to the operating lever on opposite sides of its pivot, substantially as described. 3rd. In a planter, the combination, with a wheeled frame, seed boxes carried thereby and seed droppers in the boxes, of plows having their shanks sliding in ways on the front part of the seed boxes, pivoted links having one end connected with the plow shanks, a crank shaft, links connecting the first named links with the cranks of the said shaft, and a lever for operating the shaft, substantially as described. 4th. In a planter, the combination, with a wheeled frame, and seed dropping mechanism carried thereby, of standards fitted to slide in ways in the rear part of the frame, an axle mounted in the lower ends of the standards, a roller at each end of the axle, pivoted links having one end connected with the standards, a crank shaft, links connecting the first named links with the cranks of the said shaft, and a lever for operating the shaft, substantially as described.

**No. 48,077. Machine for Boring Piano or Organ Key-Boards. (Machine pour perforer les claviers d'orgues et pianos.)**

Joseph M. Loose, Toronto, Ontario, Canada, 29th January, 1895; 6 years.

*Claim.*—1st. In a machine for boring piano and organ keys, the combination, with the motion transmitters and the framework, of means for automatically and successively at one operation of the machine cutting an oval hole to a predetermined depth and then boring a round hole from any part of the plane of the oval hole, substantially as specified. 2nd. In a machine for boring piano and organ keys, the combination, with the motion transmitters and the framework, of means for automatically and successively at one operation cutting an oval hole to a required depth, and then boring a round hole from any part of the plane of the oval hole, and means for adjusting the machine to cut an oval hole of any required and predetermined depth, and for boring a round hole of any required and predetermined depth, substantially as specified. 3rd. In a machine for boring piano and organ keys, the combination, with the framework of a cutting tool, means for transmitting a rotary motion to the cutting tool, means for transmitting a vibratory movement to the cutting tool simultaneous with the rotary movement, sub-

stantially as specified. 4th. In a machine for boring oval holes in piano and organ keys, the combination, with the framework of a hollow cutting tool, means for transmitting a combined rotary and vibratory motion to the cutting tool to cut an oval hole, a bit within the cutting tool, means for causing the descent of the bit after the cut-



ting tool has ceased cutting to bore a round hole as a continuation of the oval hole through the remainder of the material, substantially as specified. 5th. In a machine for boring oval holes in piano and organ keys, the combination, with the framework of a cam having a corrugated periphery journaled in the framework, a traveller rolling on the periphery of the said cam, a spindle journaled in the framework, a cutting tool connected to the spindle means for transmitting movement from the traveller to the spindle and cutting tool, means for transmitting a rotary motion to the spindle and cutting tool, and means for automatically lowering and raising the spindle, substantially as specified. 6th. In a machine for boring oval holes in piano and organ keys, the combination with the framework of a cam having a portion of its periphery corrugated and the remainder smooth journaled in the framework, a traveller rolling on the periphery of the said cam, and adapted to receive a vibratory motion therefrom, a spindle journaled in the framework, a cutting tool connected to the end of the spindle, means for connecting the traveller with the spindle and transmitting a vibratory motion from the said traveller to the said spindle, means for transmitting a rotary motion to the said spindle and cutting tool, means for raising and lowering the said spindle and cutting tool, and means for arresting the descent of the said spindle, substantially as specified. 7th. In a machine for boring oval holes in piano and organ keys, the combination with the framework of a hollow spindle journaled in the framework, a hollow cutting tool connected to the said spindle, means for raising and lowering the said spindle, means for imparting to the spindle a rotary and also a vibratory motion, a bit within the said spindle arranged to pass out through the end of the cutting when the spindle has stopped its descent, substantially as specified. 8th. In a machine for cutting oval holes in piano and organ keys, the combination with the framework of a hollow spindle journaled in the framework, a hollow cutting tool connected to the lower end of the said spindle, a bit within the said spindle and adapted to pass out through the end of the cutting tool, means for forcing the said bit downwards through the said spindle, means for raising and lowering the said spindle and arresting its downward descent, means for imparting a rotary motion to the said spindle, and means also for imparting a vibratory motion to the said spindle simultaneous to the rotary motion, substantially as specified. 9th. In a machine for boring oval holes in piano or organ keys, the combination with the framework of a spindle journaled therein a cutting tool connected to the lower end of the said spindle a sliding bearing for each end of the said spindle, a cam journaled in the framework, a traveller rolling on the face of said cam, and a connection between said traveller and said sliding bearing to transmit motion from the said cam to the said bearing, substantially as specified. 10th. In a machine for cutting oval holes in piano or organ keys, the combination with the framework of a hollow spindle journaled therein, a hollow cutting tool connected to the lower end of the said spindle, a bit within the said spindle and adapted to move out through the end of the cutting tool, a sliding bearing for each end of the said spindle, a cam having a serrated face, a traveller rolling on the face of the said cam, a connection between the said roller and the lower one of the sliding bearings, means for imparting a rotary motion to the spindle, means for raising and lowering the spindle, means for arresting the descent of the spindle, means for forcing the bit through the lower end of the cutting tool after the descent of the spindle has been arrested, and means for returning the bit into the spindle and returning the spindle to its normal position, substantially as specified. 11th. In a machine for boring oval holes in piano or organ keys, the combination with the

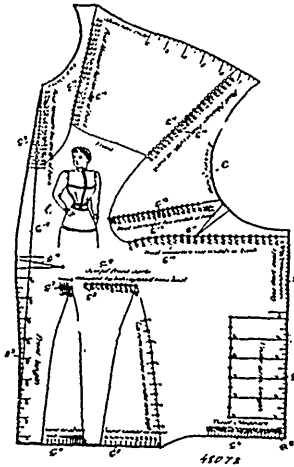


framework of a hollow spindle journaled therein, a hollow cutting tool connected to the lower end of the said spindle, a sliding bearing for each end of the said spindle, a connecting bar securing together the said bearings, a cam having a serrated face, a traveller rolling on the face of the said cam, a connection between the said roller and the lower one of the sliding bearings, means for imparting a rotary motion to the spindle, means for raising and lowering the spindle, means for arresting the descent of the spindle, means for forcing the bit through the lower end of the cutting tool after the descent of the spindle has been arrested, and means for returning the bit into the spindle and returning the spindle to its normal position, substantially as specified. 12th. In a machine for boring oval holes in piano or organ keys, the combination with the framework, the cam C journaled in the framework having about two-thirds of its periphery serrated and the remainder plain, a traveller F, rolling on the periphery of the cam, a bell crank lever E journaled in the framework, the traveller F, journaled in one arm of the bell crank lever E, a pitman I, one end of which is adjustably connected to the other arm e', of the bell crank lever E, the opposite end of the pitman I, connected to the sliding bearing J, for the hollow spindle K, in order that a vibratory motion can be transmitted from the traveller F, whilst rolling on the serrated part of the periphery of the cam C to the sliding bearing J, substantially as specified. 13th. In a machine for boring oval holes in piano or organ keys, the combination with the framework, the cam C, journaled in the framework having about two-thirds of its periphery serrated and the remainder plain, a traveller F rolling on the periphery of the cam, a bell crank lever E, journaled in the framework, the traveller F, journaled in one arm of the bell crank lever E, a pitman I one end of which is adjustably connected to the other arm e', of the bell crank lever E, the opposite end of the pitman I, connected to the sliding bearing J, for the hollow spindle K, in order that a vibratory motion can be transmitted from the traveller F, whilst rolling on the serrated part of the periphery of the cam C, to the sliding bearing J, and the spring F', one end of which is connected to the sliding bearing J, and the opposite end of the spring connected to the framework, substantially as specified. 14th. In a machine for boring oval holes in piano or organ keys, the combination with the framework, sliding bearings mounted in the framework, a hollow spindle journaled in the sliding bearings, means for connecting together the said sliding bearings, an adjustable collar mounted on the spindle above the lower bearings, a movable collar working up and down the said spindle located between the adjustable collar and the upper bearing, a spring between the adjustable collar and the movable collar, a vertical slot in the said spindle, a bit within the spindle, a pin passing through the said movable collar and slot and connected to the bit, a hollow cutting tool connected to the lower end of the hollow spindle the said bit adapted to be moved out through the lower end of the hollow cutting tool, a bell crank lever N, one arm n', of which is connected to the movable collar and the opposite arm n, provided with a slot O, a pitman Q one end of which works in the slot O, and the opposite end of which is connected to a lever L, a traveller M journaled in the lever L, a cam C mounted upon a spindle B journaled in the framework, a cam D mounted upon the hub b, of the cam C on which rolls the traveller M, a spring M' connected to the upper end of the bell crank lever N and to the framework, a spring F' connected to the lower sliding bearing and to the framework, a traveller F rolling on the face of the cam C, a bell crank lever E in one arm of which is journaled the traveller F, a slot G formed in the other arm of the bell crank lever E, a pitman I one end of which works in the said slot and the opposite end of which is connected to the lower one of the sliding bearings, substantially as specified. 15th. In a machine for boring oval holes in piano or organ keys, the combination, with the framework, sliding bearings mounted in the framework, a hollow spindle journaled in the sliding bearings, means for connecting together the said sliding bearings, an adjustable collar mounted on the spindle above the lower bearing, a movable collar working up and down the said spindle located between the adjustable collar and the upper bearing, a spring between the adjustable collar and the movable collar, a vertical slot in the said spindle, a bit within the spindle, a pin passing through the said movable collar and slot and connected to the bit, a hollow cutting tool connected to the lower end of the hollow spindle, the said bit adapted to be moved out through the lower end of the hollow cutting tool, a bell crank lever N, one arm n' of which is connected to the movable collar and the opposite arm n, provided with a slot O, a pitman Q one end of which works in the slot O, and the opposite end of which is connected to a lever L, a traveller M journaled in the lever L, a cam C mounted upon a spindle B journaled in the framework, a cam D mounted upon the hub b of the cam C, on which rolls the traveller M, a spring M' connected to the upper end of the bell crank lever N and to the framework, a spring F' connected to the lower sliding bearing and to the framework, a traveller F rolling on the face of the cam C, a bell crank lever E in one arm of which is journaled the traveller F, a slot G formed in the other arm of the bell crank lever E, a pitman I one end of which works in the said slot and the opposite end of which is connected to the lower one of the sliding bearings, and means for imparting a rotary motion to the said hollow spindle, substantially as specified. 16th. In a machine for boring oval holes in piano or organ keys, the combination, with the framework of a cutting tool mounted therein, means for imparting to the cutting tool a rotary vibratory

motion to enable it to cut an oval hole, substantially as specified.

**No. 48,078. Dress Cutting System.**

(*Système de tailler les vêtements.*)

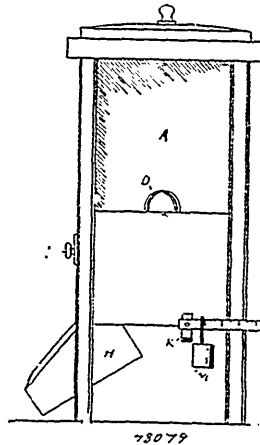


Emma M. Hout, Lewiston, Maine, U.S.A., 29th January, 1895; 6 years.

*Claim.*—A system of cutting dresses composed of charts or templates A, B, C, D and E, and a square G, the ones A, B and D having waist slot scales a<sup>10</sup>, b<sup>10</sup>, and d<sup>10</sup>, also width of back scales a<sup>1</sup>, a<sup>1</sup>, b<sup>1</sup>, c<sup>2</sup>, c<sup>16</sup>, c<sup>14</sup>, c<sup>12</sup>, and c<sup>11</sup>, also dart scales c<sup>4</sup>, c<sup>5</sup>, c<sup>7</sup>, c<sup>8</sup>, and dart curve g<sup>6</sup>, on square G, shoulder length scales a<sup>2</sup>, a<sup>3</sup>, b<sup>6</sup>, d<sup>6</sup>, underarm length scales H<sup>1</sup>, b<sup>2</sup>, d<sup>4</sup>, hip measure scales b<sup>4</sup>, d and g<sup>1</sup>, on square G, high point of sleeve scale c<sup>11</sup>, under for basque scales c<sup>20</sup>, and c<sup>11</sup>, upper for basque scales c<sup>19</sup> and c<sup>16</sup>, high point scale c<sup>13</sup>, an under scale c<sup>18</sup>, an upper scale c<sup>15</sup>, and scales c<sup>7</sup>, c<sup>8</sup>, c<sup>4</sup>, e and c<sup>1</sup>, substantially as described and for the purposes set forth.

**No. 48,079. Combined Scales and Coffee Case.**

(*Basculé et boîte à café combinées.*)



John T. Whelstine and Thomas C. Baker, both of Washington, Kansas, U.S.A., 29th January, 1895; 6 years.

*Claim.*—In an automatic measuring device, the combination of a receptacle, a discharge orifice, a tilting box beneath the orifice having both a counterpoise and a graduating weight, a permanent partition for closing said box when in a horizontal position, a cut-off for the orifice, and mechanism for operating the cut-off by hand and by the movement of the tilting box.

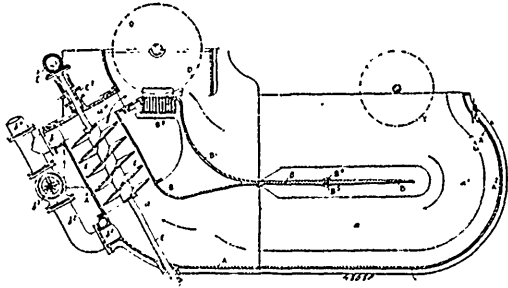
**No. 48,080. Rag or Beating Engine.**

(*Machine à battre les guénilles.*)

John Shank, St. Katherine's Works, Sciems, Edinburgh, Scotland, 29th January, 1895; 6 years.

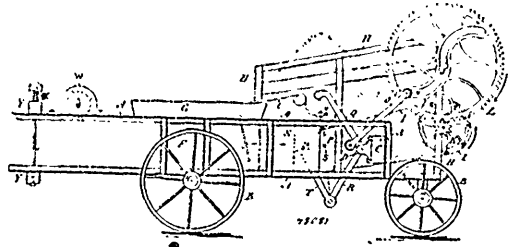
*Claim.*—1st. In beating engines, the combination with a vat shell

A, of a mid-feather partition B, B<sup>1</sup>, B<sup>2</sup>, dividing it off into pulp circulating spaces a to a<sup>4</sup>, substantially as set forth. 2nd. In beating engines, the combination with a vat shell A, of a mid-feather partition B, dividing it off into pulp circulating spaces a, a<sup>1</sup>, said



mid-feather being pivoted or hinged at B<sup>1</sup>, or made removable, substantially as set forth. 3rd. In beating engines, the combination comprising a deep vat shell A, a mid-feather partition B, and a recess B<sup>2</sup>, near end of said partition to carry the fixed block D<sup>1</sup>, of beating roll D, substantially as set forth. 4th. In beating engines, the combination comprising a deep vat shell A, a mid-feather partition B, with recess B<sup>2</sup>, for fixed block D<sup>1</sup>, of beating roll D, and a feeding screw worm E, interposed in the lower pulp, circulating space a<sup>2</sup>, between vat shell A, and fixed end face B<sup>2</sup>, of mid-feather B, substantially as set forth. 5th. In beating engines, the combination comprising a deep vat shell A, a mid-feather partition B, and a movable flap plate G at upper part of pulp, circulating space a, substantially as set forth. 6th. In beating engines, the combination comprising a deep vat shell A, a mid-feather partition B, and water jet cleaning out pipes F, substantially as set forth.

No. 48,081. Hay Press. (*Presse à foin.*)



Peter Lord, Iberville, and Pascal Amesse, Montreal, both in Quebec, Canada, 29th January, 1895; 6 years.

Claim.—1st. In a hay press, the cog-driving-wheel L, having diametrically an S-shaped cam path J, in combination with a pitman O, levers Q and R, rods S, and lever T, as set forth to effect two pressing strokes of the plunger at one rotation of said wheel, as set forth. 2nd. The combination with the cog-wheel L, having an S-shaped diametrical cam path J, of the pitman O, having a friction roller N, travelling in said cam path, and a friction roller at the opposite end, levers Q, and R, pivoted at one end to a thrust or resistance block C, and the other ends connected by a rod S, said lever Q, bearing on the lower friction roller at the lower end of the pitman, and a lever T, connecting the plunger and lever R, as set forth. 3rd. The spring fork U, attached to the rod S, for automatic action in pressing the hay into the hopper and baling chamber, in combination with the levers Q, R, T, pitman O, and cog-wheel L, having diametrically an S-shaped cam path J, as set forth. 4th. A hay press having a measuring indicator W, near the discharge end, said indicator comprising a rotary-wheel to have frictional contact with a bale and a pointer and an index, operating as set forth. 5th. The yoke Y, having springs Z, as and for the purpose set forth.

*CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO  
THE FOLLOWING PATENTS.*

3805. THOMAS ALVA EDISON, 2nd five years of Patent No. 33,323, from the 2nd day of January, 1895. Method of Recording and Re-producing Sound, 2nd January, 1895.
3806. JOHN R. NOYES, 3rd five years of Patent No. 20,856, from the 20th day of January, 1895. Sugar Making Apparatus, 5th January, 1895.
3807. GEORGE HENRY SMITH, 2nd five years of Patent No. 33,496, from the 23rd day of January, 1895. Apparatus for Producing Manifold Copies, and in Materials to be Used for this Purpose, 5th January, 1895.
3808. THE R. BLISS MANUFACTURING CO., (assignee), 2nd five years of Patent No. 33,486, from the 22nd day of January, 1895. Gate for Railway Cars, 5th January, 1895.
3809. FRANCIS GORDAN DAVIS, 2nd five years of Patent No. 33,499, from the 23rd day of January, 1895. Spring Platforms for Vehicles, 5th January, 1895.
3810. ADOLPHE SOMMER, 2nd five years of Patent No. 33,576, from the 4th day of February, 1895. Compounds of Chloride of Sulphur with Patty Bodies, 5th January, 1895.
3811. LUDWIG BARTHELMES, 2nd five years of Patent No. 33,381, from the 9th day of January, 1895. Art of Making Pianos, 9th January, 1895.
3812. CHARLES S. BRADLEY, 2nd five years of Patent No. 33,407, from the 15th day of January, 1895. Dynamo Electric Machine, 9th January, 1895.
3813. JOHN THOMAS WILLIAMS, 2nd five years of Patent No. 33,393, from the 11th day of January, 1895. Electro-Magnetic Transmitter, 10th January, 1895.
3814. PETER ABRAHAMSON, 2nd five years of Patent No. 33,533, from the 28th day of January, 1895. Improvements in Ventilators, 14th January, 1895.
3815. NATHANIEL GREENING, 2nd five years of Patent No. 33,507, from the 24th day of January, 1895. Loom, 14th January, 1895.
3816. NATHANIEL GREENING, 2nd five years of Patent No. 33,519, from the 25th day of January, 1895. Loom for Wire Weaving, 14th January, 1895.
3817. ADOLPH SOMMER, 2nd five years of Patent No. 33,618, from the 7th day of February, 1895. Lubricant and Paint Oil, 16th January, 1895.
3818. THE METALLIC ROOFING COMPANY OF CANADA, (assignee) 3rd five years of Patent No. 21,393, from the 10th day of April, 1895. Metallic Shingles or Roofing Plates, 16th January, 1895.
3819. THE METALLIC ROOFING COMPANY OF CANADA, (assignee) 2nd five years of Patent No. 33,484, from the 22nd day of January, 1895. Sheet Metal Shingle, 16th January, 1895.
3820. JOHN McBAIN, 2nd five years of Patent No. 33,489, from the 23rd day of January, 1895. Extension Top Table, 16th January, 1895.
3821. THE BELL TELEPHONE COMPANY OF CANADA, (assignee), 2nd five years of Patent No. 34,000, from the 1st day of April, 1895. Electric Current Arrester, 17th January, 1895.
3822. JOSEPH SMITH HATTERY and JOHN VAN LIEW, 2nd five years of Patent No. 33,524, from the 25th day of January, 1895. Coupling for Gas and other Pipes, 19th January, 1895.
3823. BARTHOLOMEW COTTAM, 2nd five years of Patent No. 36,443, from the 22nd day of April, 1895. Bird Bread, 19th January, 1895.
3824. OTIS BROTHERS & COMPANY, 2nd five years of Patent No. 33,654, from the 10th day of February, 1895. Electrically Controlled Elevators, 19th January, 1895.
3825. JAMES ALEXANDER SWORD, 2nd five years of Patent No. 33,473, from the 22nd day of January, 1895. Shirt, 19th January, 1895.
3826. JOHN MITCHELL ALLEN, 3rd five years of Patent No. 20,946, from the 23rd day of January, 1895. Art or Process of Making Paper Pulp and Paper, 19th January, 1895.
3827. NOAH WILLIAM HOIT, 2nd five years of Patent No. 33,704, from the 14th day of February, 1895. Separating Machine, 22nd January, 1895.
3828. LAZARE WEILLER, 2nd five years of Patent No. 33,509, from the 24th day of January, 1895. Manufacture of Metallic Alloys or Compounds, 22nd January, 1895.
3829. GEORGE SHIRAS CLARK, 2nd five years of Patent No. 33,556, from the 4th day of February, 1895. Safety Vaults and Like Structures, 22nd January, 1895.
3830. PETER KELLS DEDERICK, 2nd five years of Patent No. 33,570, from the 4th day of February, 1895. Baling Press, 22nd January, 1895.
3831. EDWARD ETHEL GOLD, 2nd five years of Patent No. 33,596, from the 6th day of February, 1895. Steam Trap and Valve, 24th January, 1895.
3832. FRANK LOOMIS PALMER, 3rd five years of Patent No. 21,170, from the 26th day of February, 1895. Machine for Sewing or Quilting Fabrics, 24th January, 1895.
3833. GEORGE H. VAN VLECK, 2nd five years of Patent No. 33,521, from the 25th day of January, 1895. Apparatus for Distilling and Deodorizing Petroleum, 24th January, 1895.
3834. WILLIAM ATWOOD ROYCE, 2nd five years of Patent No. 33,548, from the 1st day of February, 1895. Drive Point for Driven Wells, 24th January, 1895.
3835. THE WATEROUS ENGINE WORKS CO., 2nd five years of Patent No. 33,584, from the 4th day of February, 1895. Friction Clutch Pulley, 25th January, 1895.
3836. HENRY COX, 2nd five years of Patent No. 34,109, from the 15th day of April, 1895. Atmospheric Gas Burner, 29th January, 1895.
3837. DE WITT CLINTON PRESCOTT, 2nd five years of Patent No. 33,960, from the 19th day of March, 1895. Band Saw Mill, 29th January, 1895.
3838. ADOLPH SOMMER, 2nd five years of Patent No. 33,619, from the 7th day of February, 1895. Waterproofing and Preserving Leather and Hide, 30th January, 1895.
3839. PETER ABRAHAMSON, 2nd five years of Patent No. 33,747, from the 18th day of February, 1895. Ventilator, 30th January, 1895.
3840. J. O. WISNER SON & CO., (assignee), 2nd five years of Patent No. 33,574, from the 4th day of February, 1895. Grain Drill and Broad Cast Seeder, 30th January, 1895.
3841. J. O. WISNER SON & CO., assignee, 2nd five years of Patent No. 33,643, from the 10th day of February, 1895. Drill hoe and Seeder Tooth Attachment for Grain Drills and Broad Cast Seeders, 30th January, 1895.
3842. THE PATTERSON & BRO. CO., assignee, 2nd five years of Patent No. 33,821, from the 23rd day of February, 1895. Drill Hoe, 30th January, 1895.



## TRADE-MARKS

Registered during the month of January 1895, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

5144. JOSEPH MIZAEI FORTIER, Montreal, Que. Cigars, 2nd January, 1895.
5145. NELSON Z. GRAVIES, Philadelphia, Pennsylvania, U.S.A. Varnishes, Paints, Japans and analagous materials or compounds, 2nd January, 1895.
5146. E. T. DANIELS & CO., St. Dunstan's Hill, London, England. Tea, 3rd January, 1895.
5147. WARRICK BROTHERS, 18 Old Swan Lane, London, England. Chemical substances prepared for use in medicine and pharmacy, such as Capsules, Pills, Medicated Fufubes, 3rd January, 1895.
5148. NEWTON, CHAMBERS & CO., LD., Thorncliffe Iron Works and Collieries, near Sheffield, England. General Trade Mark, 3rd January, 1895.
5149. G. H. MUMM & CIE., Reims, Marne, France. Vins de Champagne, 3 janvier, 1895.
5150. F. F. DALLEY & E. A. DALLEY, Hamilton, Ont. Shoe-blackening, 7th January, 1895.
5151. JOSEPH MIZAEI FORTIER, Montreal, Que. Cigars, 7th January, 1895.
5152. MOFFITT-WEST DRUG CO., St. Louis, Missouri, U.S.A. Liquid tonic medicine and cure for diseases of the liver, 7th January, 1895.
5153. S. C. WELLS & CO., Le Roy, New York, U.S.A., and Hamilton, Ont. A medicine, 7th January, 1895.
5154. CHARLOTTE NELLOVE, Toronto, Ont. A Patent Medicine, 8th January, 1895.
5155. A. CLUBB & SONS, Toronto, Ont. Tobaccos, Cigars, Cigarettes & Pipes, 9th January, 1895.
5156. THE AMERICAN AXE AND TOOL CO., New York, U.S.A. Scythes, 9th January, 1895.
5157. } VEUVE POMMERY, FILS & CIE., Reims, Marne, France. Champagne  
5158. } Wine, 12th January, 1895.
5159. THE BABCOCK & WILCOX CO., Elizabethport, New Jersey and New York, N. Y., U.S.A. Steam Generators, 14th January, 1895.
5160. JOHN ROBERTSON & SON. 6 Candle Lane, Seagate, Dundee, Scotland. Scotch Whisky, 14th January, 1895.
5161. TARR & WONSON, LD., Gloucester, Mass., U.S.A. Paint, 15th January, 1895.
5162. CANADA IRON FURNACE CO., LD., Montreal, Que. Mineral Water, 15th January, 1895.
5163. WILLIAM ARCHIBALD WILSON. Yokohama, Kanagowa Ken, Japan, trading as WILSON & CO. Tea, 16th January, 1895.
5164. HODGSON, SUMNER & CO., Montreal, Que. General Trade Mark, 16th January, 1895.
5165. THE COLLIERY ENGINEER CO., Scranton, Pennsylvania, U.S.A. Books, Pamphlets, Newspapers and other Publications, 18th January, 1895.
5166. D. RITCHIE & CO., Montreal, Que. Tobacco and Cigarettes, excepting Cigars, 19th January, 1895.
5167. D. RITCHIE & CO., Montreal, Que. Tobacco, Cigars and Cigarettes, 19th January, 1895.
5168. THE GOOLD BICYCLE CO., LD., Brantford, Ont. Bicycles, 21st January, 1895.
5169. THE CLAUSS SHEAR CO., Fremont, Ohio, U.S.A. General Trade Mark, 25th January, 1895.
5170. H. & A. SAUNDERS, Toronto, Ont. Jewellery, 26th January, 1895.
5171. WILLIAM STENHOUSE & CO., 80 West Regent St., Glasgow, Scotland. Whisky, 28th January, 1895.

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5172. CHEMISCHE FABRIK AUF ACTIEN, (vorm E. Schering), Berlin, Germany. General Trade Mark, 28th January, 1895.
5173. J. S. HAMILTON, Brantford and Pelee Island, Ont. General Trade Mark, 28th January, 1895.
5174. NELSON RATTEBURY, Charlottetown, P.E.I. Tea, 29th January, 1895.
5175. JOSEPH MIZEL FORTIER, Montreal, Que. Cigars, 30th January, 1895.
5176. DR. F. VON HEYDEN NACHFOLGER, Radebeul near Dresden, Saxony, Germany. A Chemical Substance adapted for use as a medicine, 30th January, 1895.
5177. DR. F. VON HEYDEN NACHFOLGER, Radebeul, near Dresden, Saxony, Germany. A Chemical Substance adapted for use as a medicine, as an ingredient for food, and for use in manufactures and arts, 30th January, 1895.
5178. I. M. MAYELL & CO, London, Ont. Baking Bowder, 31st January, 1895
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## COPYRIGHTS

Entered during the month of January, 1895, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

7707. VOICES FROM NATURE. Poems. Vol. I. By Peter E. McKay, Toronto, Ont., 2nd January, 1895.
7708. REVISED PRICES OF BOECKH'S STANDARD BRUSHES, BROOMS AND WOODENWARE. SPRING 1895. Charles Boeckh & Sons, Toronto, Ont., 2nd January, 1895.
7709. BELL TELEPHONE COMPANY OF CANADA, LIMITED, OTTAWA EXCHANGE SUBSCRIBERS' DIRECTORY, JANUARY, 1895. The Bell Telephone Company of Canada, Ltd., Montreal, Que., 3rd January, 1895.
7710. HISTORY OF CANADA. By J. Frith Jeffers, M.A. New and Enlarged Edition. The Canada Publishing Co., Ltd., Toronto, Ont., 4th January, 1895.
7711. THE DOCKET. A Record of the Courts, Vol. VI. No. 1. A. H. O'Brien, Toronto, Ont., 4th January, 1895.
7712. AU SECOURS. To the Rescue. Quick Step March for Pianoforte. By Willem Vandervell. Beal & Co., London, England, 5th January, 1895.
7713. ANSWERS TO CUTHBERT'S EXERCISES IN ARITHMETIC. PARTS I and II. For Teachers' Use. The Copp, Clark Co. Ltd., Toronto, Ont., 7th January, 1895.
7714. DANSE ANCIENNE. Old Dance. For Piano, by Henry Jacobsen. Whaley, Royce & Co., Toronto, Ont., 7th January, 1895.
7715. THE READER'S COMPANION. A Record of Books Read and of Passages of Special Interest contained in them. Dermot McEvoy, Peterborough, Ont., 7th January, 1895.
7716. DOMINION OF CANADA HOTEL GUIDE. Davis & Henderson, Toronto, Ont., 7th January, 1895.
7717. HOTEL REGISTER WITH DOMINION OF CANADA HOTEL GUIDE ATTACHED. Davis & Henderson, Toronto, Ont., 7th January, 1895.
7718. PHANTOM FROLICS. Gavotte for Piano. By John C. Bonner. A. & S. Nordheimer, Toronto, Ont., 8th January, 1895.
7719. JOHNSON'S PHONOTYPY. A new method of Indicating the Sound of Letters. By George Washington Johnson, Toronto, Ont., 8th January, 1895.
7720. SIGH NO MORE, LADIES. Song. Words by Shakespeare, Music by Eva M. Lemox. The Anglo-Canadian Music Publishers' Association Ltd., London, England, 8th January, 1895.
7721. PTARMIGAN; OR A CANADIAN CARNIVAL. Libretto of a Comic Opera in Two Acts. Jean Newton McIlwraith, Hamilton, Ont., 8th January, 1895.
7722. THE SHIP THAT CARRIED ME OVER. Song. By Egbert Ripple. Whaley, Royce & Co., Toronto, Ont., 9th January, 1895.
7723. THE COMMERCIAL TRAVELLERS' HOTEL GUIDE. VOL. I. 1st JANUARY, 1895. Henry John Ashman, Montreal, Que., 9th January, 1895.
7724. THE TROJAN HOOKS. March by S. J. Chapleau. John H. Parker, Montreal, Quebec, 10th January, 1895.
7725. PAS DES AMPHORES. 2e Air de Ballet pour piano par C. Chaminade. The Anglo-Canadian Music Publishers' Association, Limited, London, England, 10th January, 1895.
7726. I AM WAITING. Song. Words and Music by Julian Jordan. The Anglo-Canadian Music Publishers' Association, Limited, London, England, 12th January, 1895.
7727. ON MUSIC'S PINIONS. Song. Words and Music by Julian Jordan. The Anglo-Canadian Music Publishers' Association, Limited, London, England, 12th January, 1895.
7728. THE DOMINION AYRSHIRE HERD BOOK. Containing the Pedigrees of Ayrshire Cattle, Volume II. New Series with Appendix. Agriculture and Arts Association, Toronto, Ont., 12th January, 1895.



7729. THE DOMINTON SWINE BREEDERS RECORD. VOLUME IV. Agriculture and Arts Association, Toronto, Ont., 12th January, 1895.
7730. THE CITY OF LIGHT. Sacred Duet and Chorus, by Vic Steinberg. Whaley, Royce & Co., Toronto, Ontario, 14th January, 1895.
7731. WILL YOU NOT WALTZ WITH ME, LOVE. Song. Words and Music by Pembroke Halloric. Whaley, Royce & Co., Toronto, Ontario, 14th January, 1895.
7732. REVUE CANADIENNE. JANVIER 1895. C. O. Beauchemin et Fils, Montréal, Qué., 14 janvier 1895.
7733. THE INDICATOR, JANUARY, 1895. Issued in the Interests of Real Estate. Stephens & Warncke, Montreal, Que., 14th January, 1895.
7734. BELL TELEPHONE COMPANY OF CANADA, Limited, TORONTO, AND TORONTO JUNCTION EXCHANGES. SUBSCRIBERS' DIRECTORY, ONTARIO DEPARTMENT, DECEMBER, 1894. The Bell Telephone Company of Canada, Limited, Montreal, Que., 15th January, 1895.
7735. BUSTE DE FEU SON HONNEUR LUC LIETELIER DE SAINT-JUST, LIEUTENANT-GOUVERNEUR DE LA PROVINCE DE QUEBEC. Louis Morency, Québec, Qué., 15 janvier 1895.
7736. PLANT SCHEDULE BRYOPHYTES. By D. P. Penhallow, Montreal, Que., 15th January, 1895.
7737. THE BOLD SEA ROVER. (In England's Olden Time.) Words and Music by F. J. Biggs, London, England, 16th January, 1895.
7738. HISTORY OF ST. JOHN'S LODGE, FREE AND ACCEPTED MASONS, OF ST. JOHN, N.B., TOGETHER WITH SKETCHES OF ALL MASONIC BODIES IN NEW BRUNSWICK, FROM A.D. 1784 TO A.D. 1894. By Wm. F. Bunting, St. John, N. B., 18th January, 1895.
7739. BERCEUSE. (For Piano.) By Wm. Caven Barron. Whaley, Royce & Co., Toronto, Ont., 19th January, 1895.
7740. THE DIVISION COURTS ACT AND AMENDMENTS THERETO, VOLUME II. By James Bicknell and Edwin E. Seager, of Toronto and Hamilton, respectively, Ont., 19th January, 1895.
7741. THE BREWER'S GHOST. (No. 1. Haunted Hearts Series.) By Commandant H. H. Booth, Toronto, Ont., 19th January, 1895.
7742. ONE HUNDRED YEARS. (A Correct Calendar of the 19th Century.) William Barclay Stephens, Montreal, Que., 19th January, 1895.
7743. OUR LAND FOR CHRIST. (Canadian Christian Endeavour Hymn.) Music by Alex. Wills. Eliza Wills, Toronto, Ont., 19th January, 1895.
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