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Refrigerator. George A. Bowen.	53,342	Sap bucket cover and spout combined. Louis Gaucher.	52,715
Refrigerator. George B. Zantzinger.	54,336	Sap tank. William E. Burt.	54,042
Refrigerator. The G. F. Quinn Refrigerator Company	52,623	Sash. Hermann Selk.	52,481
Refrigerator. The Portable Refrigerator and Freezing Co.	53,900	Sash balance. James Anderson.	53,276
Refrigerator car. Joseph Thomas, et al.	53,621	Sash balance. Joseph H. Bane, et al.	50,966
Refrigerator crate. Joseph Thomas, et al.	53,622	Sash balance, lock and fastener. Alonzo T. Martin.	51,411
Refrigerator shelf. Frances M. Lochen	54,208	Sash fastener. Frederick E. Jarvis.	53,702
Register. George A. Norcross, et al.	51,142	Sash fastener. George Menzies.	51,504
Register for beer engines. James Daniel Hannah, et al.	53,883	Sash holder. Charles Hadden.	53,016
Register for letter carriers. John D. Miller, et al.	53,680	Sash holder. Eugene E. Hull.	53,008
Registering machine. Luther E. Allen.	53,348	Sash holder. George E. Schairer.	50,956
Rein holder. William Beine.	53,817	Sash holder. Lewis A. Heinzerling.	52,173
Rheostat. The Canadian General Electric Company	50,996	Sash holder. Willard E. Dowling.	52,972
Ribbon spool. John Leask.	53,140	Sash holder. Willard L. Bellinger.	51,318
Rice cleaning machine. Gim Fook Yuen.	52,891	Sash holder. William Austin Hutchinson.	53,818
Rifle. Albert G. Dougherty, et al.	54,387	Sash lock. Philip Stover Riddelle.	51,265
Rifle. Edwin James Cashmore.	51,492	Sash lock. Thomas W. Crozier.	53,531
Rinser for the nose and throat. Alphons Rapp.	51,506	Sash lock and balance. Robert K. Brown.	51,993
Rivet setting machine. Herbert S. Crombie.	52,136	Sash lock and lift. Donald Fletcher.	54,382
Rivets, studs, etc. Process of making. The Indianapolis Chain and Stamping Company	54,281	Sash lock, etc. Walter Barnhart.	51,472
Riveting machine. Chester B. Albree.	52,632	Sash operating device. Peter Marshall.	53,532
Riveting machine. Christian A. Skeie.	52,331	Sash pulley housing. John H. Shull, et al.	53,566
Roach trap. Silas P. Burgess.	51,139	Saucepan. L. J. Painter.	51,293
Road breaking machine. Harry Morrison.	51,206	Saucepan, etc. Thomas Llewellyn.	53,293
Road grader. John Henemann.	51,514	Saucer. Carl Koster.	51,429
Road grading machine. Alexander Barhite.	52,145	Saw. Charles T. Redfield.	52,502
Road scraper. John Cussons Steele.	52,321	Saw. Henry J. Frederick.	52,366
Robbers. Device for protecting against. Geo. H. Jackson.	52,666	Saw guard. Louis Come Rinquette.	51,041
Rock crusher and grinder. Kinkead Mill Company.	53,436	Saw-horse. Albert Clymer.	51,758
Rock drill. R. P. Elmore.	52,484	Saw machine. Charles E. Turnock.	52,600
Rock drill. William H. Dixon, et al.	51,102	Saw mill. William H. English.	52,015
Rock drill casings. Joseph W. Cameron.	51,652	Saw mill set works. Henry McDermott.	51,179
Rock drill feed. John George Leyner.	53,225	Saw set. A. J. Grinnell.	54,210
Rock drill sharpening process and apparatus. Thomas Henry Bradbury.	52,554	Saw set. Jacob F. Strahle.	54,379
Rods. Stock for threading and cutting off. Albert W. Bartholomew.	53,944	Saw set. Robert Dillon.	52,176
Roller bearing. Frank Mossberg.	51,902	Saw set. Silas Toles.	53,326
Roller bearing. Herbert H. Ellis, et al.	53,520	Saw set and gauge. George Hope.	52,223
Roller bearing. James D. Mattison, et al.	53,547	Saw set and tooth holder. The Spelman Manufacturing Co.	53,964
Roller bearing. Lee Oliver Gilliland.	53,919	Saw stretching machine. Elisha B. Rich.	52,372
Roller bearing. William H. Woodcock.	53,406	Saw swage. B. La Fleur.	52,099
Roller bearing. Pierre Dansereau.	51,783	Saw swage. Thomas Seely.	53,081
Roller skate. Samuel Martin.	52,486	Saw teeth. Side dresser for. George McClellan Brown.	53,890
Rolling pin. Frank E. Wolff, et al.	52,249	Saw vise. Harry C. Hawkins.	52,607
Roofers' seaming tool. Emma H. Heberling.	52,312	Saws: see Jointer and gauge for saws.	
Roofing board. Shiloh W. Durham.	54,118	Sawing machine. Christian M. Hillebrand.	52,448
Roofing composition. Daniel Allen.	51,100	Sawing machine for sawing logs. John Howard Estabrooks, et al.	53,820
Roofing composition. Isaac H. Culp.	52,084	Scales. Charles F. Edminster.	52,695
Roofing tile. Gustav Schulze.	51,275	Scales. Walter F. Stimpson.	53,197
Root cutter. John Sillick.	51,251	Scales. Weight and cost indicating apparatus for. The Combined Weight and Cost Indicating Scale Co.	53,733
Rope fastener and loosener. Axel Sabroe.	51,675	Scarf and hat pin. Finn Fosheim.	52,905
Rossing machine. Albert E. Beals.	53,388	Scarf pin. Harry V. Ashby.	53,040
Rotary brush. Henry Eummelen.	52,739	School desk and seat. John Smith, et al.	52,091
Rotary cutter. Ambrose Stevens Vose.	53,762	School desk and seat. Warren Lafayette Starkey.	51,996
Rotary cutter. Christopher G. Bartlett.	51,039	Scoop knife. Harry F. Postley.	51,055
Rotary cutter. George D. Gillette.	53,442	Scoop shovel. Daniel A. Daly.	53,665
Rotary engine. Isaac N. Forrester.	53,411	Screen. George D. Henry.	52,679
Rotary engine. Oscar E. Morse.	51,079	Screen. Jacob M. Fleming.	53,389
Rotary engine. Peter A. Larson.	54,383	Screen. Adjustable rotary. Hugh P. Grugin.	53,728
Rotary engine. William E. Prall.	53,251	Screen for stoves. Henry Eummelen.	53,438
Rotary engine or pump. Henry Saxton.	51,644	Screw. Hermann Schwartzenhauer.	53,674
Rubber articles. Machine for making. Henry G. Wolcott.	52,754	Screw and nipple making machine. The Cleveland Machine Screw Co.	54,052
Rubber boot. Samuel J. Harris.	52,267	Screw propeller. Alfred Wells Case.	51,490
Rubber condenser. Thomas G. Beaumont.	53,529	Screw thread cutter. Paul M. Wiebe.	53,517
Rubber heel. Thomas J. Williams.	52,755	Sea cock for vessels. Pardon T. Perkins, et al.	51,953
Rubber tire. John D. Beebe.	52,985	Sea waves. Apparatus for utilizing. Bernard M. Fletcher.	53,563
Rug weaving system. Frederick Bullock, et al.	51,211	Sea lock. Patrick H. Conger.	51,871
Rule. August Mundt, jr.	53,672	Seat tilting spring. Charles F. Davy.	51,480
Rule. John Daniel Maier, jr.	53,852	Seed distributor. Samuel Hardley.	54,002
Ruling machine. Ellis Graber, et al.	52,436	Seed planter. Hiram A. Bacon.	53,623
Runner or covering for sidewalks, steps, stoops, etc. Archie L. Ross, et al.	52,945	Seeder. Asa S. Linthicum.	52,997
Saccharine making system. Constantin Fahlberg.	51,556	Seeder. Delmer H. Moore, et al.	52,593
Saccharine preparation system. Raoul Pelissier.	51,579	Seeder. E. P. Ferguson.	51,252
Sack filling and sewing machine. Arthur T. Timewell.	51,233	Seeder. Matthew Moody & Sons.	53,656
Sad iron. Edmond Gagnon, et al.	52,386	Seeder. William L. Marshall.	52,151
Saddle bridge. Gabriel F. Fortier.	52,823	Seeding machine. Massey-Harris Company.	53,187
Safety check for boilers. Frank Albin, et al.	53,516	Self-sealing bottle. William E. Foster.	54,111
Safety lamp cylinders. Cleaner for. G. Grossmann.	51,166	Selvage weaving art and apparatus. George Browning, et al.	54,426
Safety pin. John Murray Guilbert.	51,381	Separator. Orrin B. Peck.	51,227
Sailing vessel. Ronald Gillis.	53,060	Sewage apparatus. Amasa S. Glover.	51,621
Sales book. Frederick W. Jeffery.	51,428	Sewer trap. George A. F. R. Janin.	54,403
Sales book. Henry D. Keith.	52,025	Sewer trap. Joseph Ellis.	52,472
Salt manufacturing machine. Thomas Craney.	51,963	Sewer trap. Jules Colas.	51,797
Salt trough. Christopher M. Arthur.	51,198	Sewing machine: see Wire sewing machine.	
Sand band. Harry W. Russel.	51,077	Sewing machine. Daniel Jones.	51,433
Sand blast. Frederick W. King.	52,288	Sewing machine. Earle H. Smith.	51,397
Sand blast. Morgan & Wright.	53,971	Sewing machine. Harry Manning.	53,094
Sand box. Jacob A. Rose.	53,819	Sewing machine. Matthias Koch.	52,343
		Sewing machine. The Goodyear Shoe Machine Company.	54,063

Sewing machine. The New Branston Two Reel Sewing Machine Company.	53,022	Slide for coasting. Edouard Gauthier	52,429
Sewing machine. The Union Special Sewing Machine Co.	54,142	Slipper sole. Samuel Borchardt	51,939
Sewing machine attachment. Johannes H. H. Wühl	51,050	Slot drill. John C. Harrison	51,760
Sewing machine attachment. John D. Schoonmaker	51,144	Sluice for lock gates. Eugène S. Manny	53,859
Sewing machine feeding device. The Union Special Sewing Machine Company.	54,158	Smelter for ores. Charles Bishop	52,181
Sewing machine for soles. Z. T. French, et al	53,280	Smelting furnace. Christopher Cunningham	52,354
Sewing machine spool holder. Helen L. Webster	54,175	Smelting furnace. James A. McArthur	51,703
Shade. Arthur F. Espersen	53,597	Smelting furnace. John D. McDonald	53,565
Shade holder. Henry Hazlitt Forsyth	51,022	Smelting furnace. John S. Loder	54,440
Shade holding mechanism. Henry H. and William H. Forsyth	53,256	Smelting furnace blast heater. The Colorado Iron Works	53,183
Shade roller tip. Jacob Myers	52,909	Smoke box. Alexander K. Kirkpatrick	52,106
Shaft bearing. Andrew Wilson, et al	53,130	Smoke condenser. George Heinkel	51,805
Shaft bearing. Orrin B. Read	52,587	Smoke consuming furnace. Franz Josef Reimesch	52,894
Shaft bearing. Pomeroy W. Power	52,586	Smoke jack. Howard Bruyn, et al	51,306
Shaft bearings. Edwin J. Armstrong	52,847	Smoke purifier and consumer. Thomas C. Young, et al	51,720
Shaft coupling. Chauncey C. Brown	51,876	Smoke stack. Charles Pickering	52,998
Shaft drive and clutch. Thomas H. Worrall	52,596	Smokeless composition system and apparatus. Meylert M. Armstrong	51,330
Shaft-holder and anti-rattler. Alexander M. Stewart	52,177	Smokeless gunpowder. The American Smokeless Powder Company	51,129
Shaft support. James Q. Lemmon	51,008	Snap. John T. Nalley	53,385
Shaft support. Stephen R. Peters, et al	52,464	Snap. William Grant Kelly	53,004
Shaft support and anti-rattler. Frederick Hanson	51,770	Snap hook. Frank and Ira F. White	51,056
Shaft tug. Jefferson P. Crews	51,647	Snap hook. James C. Covert	51,588
Shaving brush and soap-holder. Francis N. Denison	50,997	Snap hook. Reuben C. Eldridge	54,337
Sheet metal. Treatment of. William E. Harris	52,555	Snow guard. Charles H. Gilman	54,204
Shelf for baking ovens. Clarence R. Bonnett	52,345	Soap cup. Leo Frank	51,517
Shell fuse. George M. Hathaway	51,231	Socks. Manufacture of india-rubber. James Stansfield	53,843
Shingle planer. Knute Lauritz, et al	52,817	Sod cutter. George Lane	51,826
Ship model. Otto Hartwich	51,395	Sod cutter and cultivator. William Maloney	54,373
Shipping receipt book. John D. D. Mortimer	50,982	Soldering iron. Robert McShane	53,062
Shirt collar band. Morison Kyle	51,554	Soldering iron. The Sprague Manufacturing Co	53,955
Shirt making system. Max Louis Schloman	52,235	Soldering machine. Mathias Jensen, et al	51,946, 51,947, 51,948
Shock-cover. Hiram Walker	52,178	Soldering torch, acid bottle and blow-pipe. Device for combining. Russell A. Willson	53,788
Shoe. Adam Reed, et al	54,190	Sole. Herman Mayer	53,451
Shoe. Alexander M. Bollinger	51,521	Sole. Matthias Koch	54,395
Shoe. Charles Bellerive	53,196	Sole laying machine. Erastus E. Winkley	51,507
Shoe. George W. W. Sleeper	52,932	Soot catcher. Gabriel A. Pickle	52,843
Shoe. John E. Kennedy, et al	53,430	Spark arrester. Martin M. Wilson	53,229
Shoe. McKay Neverslip Shoe Co.	53,823	Speculum. Veterinary mouth. Henry Francis Condon, et al	53,735
Shoe. Susannah Trimble	52,988	Speech transmitting system. Alexander W. Hall	51,364
Shoe brush. Francis Burdett	51,337	Speed changing mechanism. Harry H. Cummings, et al	51,212
Shoe fastener. Leonard A. Fortier	54,178	Spike extractor. Artemus Welsh	53,915
Shoe fastening machine. Schindler Brothers	54,329	Spike pulling implement. Frederick L. Graves, et al	51,512
Shoe holder. Anthony B. Crocco	52,833	Spinning machine. John Good	53,175
Shoe shaper. Joseph W. Skinner	51,005	Spinning top. Alfred P. Monnier, et al	53,894
Shoe upper. Louis and Joseph Tremblay	52,947	Splint. John H. Rankin	52,544
Shooting stand. Otto C. Krause	53,636	Spoke thimble. Donald J. McLeod, et al	53,555
Show case. Felix E. Mistrot	54,136	Spoon. Edward F. Head	52,462
Show case. Joseph T. Robin	54,276	Spoon bait. Elias O. Pealer	54,055
Show case. Samuel R. Waldron	52,068	Sprayer. James Henry Werry	51,326
Shutter. Andrew Schmitt	51,685	Sprayer. Lyman B. Wood	54,209
Shuttle threader. Rémi Brodeur	52,379	Spraying machine. Joseph H. Potter	53,664
Sickle grinder. Perry Howard Cazier, et al	51,450	Spring. Enoch L. Canover, et al	54,372
Sieve and strainer. Thomas S. Fair	52,010	Spring bed. William R. Boisvert	52,580
Sifting machine: see Separator.		Spring for carriages. Charles Fournier	53,684
Sifting machine. William D. Gray	52,405	Spring mattress. Adelbert H. Gale	51,920
Sight for firearms. Lloyd H. Chase	51,011	Spring mattress. Robert G. Vincent	51,984
Sign. Abraham B. Gehman	51,353	Spring roller. Enoch Broberg	52,602
Sign letter. Frederick H. Colburn	51,359	Spring winding mechanism. John Burry	51,307
Sign letter. George James Bellamy Rodwell	53,706	Sprinkler. Jessie L. Phillip	52,663
Sign letters. Albro Silver, et al	51,089	Sprinkler for plants, etc. Francis N. Denison	52,416
Signal. John F. Barker	53,357	Sprinkler for potato vines. Thomas Laughlin	51,752
Signal and lockout system. The Bell Telephone Company of Canada	53,553	Sprocket chain. Benjamin F. Sparr	52,147
Signal for preventing collision on railways. Pierre Bernier	53,747	Sprocket chain. Erick Juno Swedlund	53,494
Signal for railways. Alexander Lefebvre	54,408	Sprocket chain. Fanning Ball Bearing Chain Company	52,157
Signal valve. John R. Ide	52,925	Sprocket chain. Frederick Meyers	52,729
Silo. William A. Van Deusen	52,021	Sprocket chain coupling block. Otis J. Merritt, et al	54,056
Skate. George Brimstin	53,360	Sprocket wheel. Harry Morrison	53,982
Skate. Jacob Stutz-Müller	53,637	Sprocket wheel and chain. Perry G. Gardner	53,082
Skate. Samuel L. Schwartz	52,594	Square. Charles Herndon Biggs	51,614
Skewer pointing machine. Frederick Harrison	51,135	Square and bevel. John McLean	52,315
Skewer pointing machine. Thomas W. Hamlin	51,420	Stacking machine. Octavus E. Adolph	52,983
Skirt attachment. Mary C. P. Hooper	52,899	Stage illusions. Apparatus for producing. Phineas B. Myers	51,051
Skirt binding system. De Lotbinière MacDonald, et al	52,563	Stall. Reuben C. Eldridge	52,660
Skirt binding system. Joseph J. Westgate	52,556	Stall floor. Charles B. Emery	52,846
Skirt holder. Katie D. Head	53,154	Stamp for marking. Wilber B. Smith	51,146
Skirt protector. Harvey Feder	53,558	Stamp holder and ink-pad. John H. Kleine	51,379
Skylight support. Charles Escher	54,122	Stamp mill: see Ore crusher.	
Slab sawing machine. Austin W. Goodell	52,718	Stamp mill. Isaac Barton Hammond	51,188
Sled. John Berry	53,446	Stamps to letters. Machine for affixing. George H. Cove	53,856
Sled. John Ledman, et al	51,868	Stamping device for cartoons and cards. Arthur Friedheim	52,956
Sled propelling device. James C. Robertson	54,558	Staple driver. John R. Kline, et al	54,168
Sleeping car. Charles W. Bradstreet	51,708	Staple puller. Albert H. Russell	52,812
Sleeping car berth register. Stephen C. Skauks	53,177	Starch mangle. Thomas Whitworth	53,887
Sleeve link. Saunders, Lorie & Co.	54,138	Starch. Process of manufacturing. Julius Kentorowicz	53,785
Sleigh. Aimé Taillefer	53,424	Station indicator. A. J. Roy	52,132
Sleigh. Charles W. Schultz	51,475	Station indicator. William R. Ramsay, et al	52,387
Sleigh. Seth C. Nutter	53,496	Stave-making machine. American Barrel Stave Machine Company	51,841
Sleigh attachment. Charles Lusted	52,362	Stave-making machine. John O. Storvik	51,544
Sleigh knee. Franklin De F. Smith, et al	52,766		

Stave-preparing machine. John W. Lahey, et al.	51,569	Straw carrier and grain separator. Osman H. Anderson.	53,501
Steam boiler. D. McDonald, et al.	54,127	Straw cutter. John Addison Smith.	50,983
Steam boiler. Gardner Clish, et al.	54,127	Street car fender. George A. Parmenter.	53,122
Steam boiler. John Albert Fish.	51,260	Street cleaner. Russell G. Olmstead.	54,354
Steam boiler and coupling. Edward Sanford Clark.	53,783	Street cleaning machine. Samuel Stephens.	53,017
Steam boiler safety device. George J. N. Carpentier.	52,724	Street sweeper. Andrew J. Reynolds, et al.	51,499
Steam engine. Alonzo W. Eldridge, et al.	52,799	Street sweeper. Frank C. Curry.	51,258
Steam engine. Harker Mullen.	52,262	Street scraper. George Thomas Dixon.	53,960
Steam engine. James T. Halsey.	52,253	Street sweeper. Napoleon B. Miller, et al.	51,858
Steam engine. Jean Jacques Heilmann.	52,423, 52,424	Street sweeper. Samuel Stephens.	54,352
Steam engine. John V. Rice.	51,531, 51,532	Street sweeping machine. David F. Graham, et al.	53,403
Steam engine. Joseph Hardill.	53,477	Street sweeping machine. Roland D. Overholt.	53,657
Steam engine. Samuel Marley, et al.	52,338	Strength testing apparatus. John Currie.	52,203
Steam engine. William Fitch Cleveland, et al.	53,776	String fastener. Charles C. Pine.	53,417
Steam engine. Operating system. Alfred Hogg.	52,852	Stringed musical instrument: see Musical instrument.	
Steam exhaust. Wilhelm Schmidt.	54,185	Stringed musical instrument. Daniel Mayer.	51,128
Steam gauge alarm. Harry Browning, et al.	52,005	Stringed musical instrument. Flagg Manufacturing Co.	51,932
Steam generator. Edouard Empain.	53,310	Stringed musical instruments. Means for playing. William S. Reed.	53,281
Steam generator. Edward D. Meier.	52,608	Structural arrangement for buildings. Edward L. Pease.	52,164
Steam generator. John Ellison Dane.	54,133	Stump extractor. Charles N. Blood.	51,539
Steam generator and condenser. Frederick Ijuström.	53,923	Stump extractor. John A. Coates.	50,945
Steam hammer. George Smith.	52,616	Stump extractor. Michael A. Kennedy.	52,568
Steam injector. Patrick Brownley, et al.	54,077, 54,082	Submarine search lamp. Dolphis Gauthier, et al.	54,139
Steam pump. Albert F. Hall.	53,629	Suction device. Joseph S. Taylor, et al.	53,146
Steam pump. Gustaf F. Flodman.	52,403	Suction device for paper-making machines. Vacuum Wet Machine Company.	51,488
Steam pump. James B. Erwin.	52,134	Sugar, etc. Process of treating. Ferdinand G. Wiechmann.	52,004
Steam pump. Jay Byron Rhodes, et al.	53,821	Sulphuric acid. Method of making. Nathaniel P. Pratt.	52,895
Steam separator. Harrison Safety Boiler Works.	52,669	Sulphurous acid. Dr. Franz Hartmann.	52,045
Steam shovel. Daniel H. Kelley.	53,835	Sunken vessels. Apparatus for raising. Albert H. Wolf, et al.	54,287
Steam valve. Charles Schneider.	52,992	Sunken vessels. Machine for raising. Alfred Leech.	52,191
Steel and iron manufacture. Benjamin P. Stockman.	51,952	Sunken vessels. Methods of raising. Joseph Grant, et al.	53,055
Steel shingle. Robert Hill.	51,699	Support for wash tubs, etc. Jordan Post.	52,443
Steering apparatus. Joachim Johannsen.	51,888	Suppository mould. William Henry Dickson.	50,942
Steering apparatus for ships. George F. Woodman.	52,699	Surgical compressor. Horace D. Taggart, et al.	52,728
Step-ladder. Frank White.	53,930	Surgical splint. Edward A. Tracy.	52,525
Step-ladder. Harvey Bowman.	54,198	Suspender. Alfred Brown.	53,499
Stereoscope. Daniel B. Marsh.	54,164	Suspender. Emil L. Krebs.	52,073
Stereoscope. Hawley C. White.	51,171	Suspender. John Smith.	53,554
Stereoscope. Raoul Harilaos.	53,713	Suspender for stove cover lifters. James L. Kerstetter.	53,951
Stirrer for ore-roasters. Camil Pilon.	54,434	Swage gear. Richard Jones.	51,808
Stock car. William Cline, et al.	52,803	Swath turning machine. George E. Nelson.	52,022
Stock watering apparatus. Samuel and John Montgomery.	51,000	Swimming apparatus. William James Morley.	55,866
Stone crusher. George W. Stuart.	51,924	Swimming appliance. William Luce.	54,140
Stone cutting machine. Francois X. Landry, et al.	51,093	Switch. Multifuse Switch Company.	53,405
Stone drill. Hermann Schwartzenhauer.	54,049	Switch. U. Gibeault.	52,167
Stone finishing machine. Stephen Hernon.	51,859	Switch. William D. Murphy.	52,569
Stone. Method of making artificial. Peter Kleber.	53,886	Switch-board for telephone exchanges. The Bell Telephone Company of Canada.	53,905
Stone. Method of making waterproof. Peter Kleber.	53,840	Switch-board system. The Bell Telephone Company of Canada.	54,223
Stone moulding tool. James Peckover.	51,264	Switch for electric lights. Ernest Blasser.	51,143
Stone planer. Michael James Campbell.	51,406	Switch for electric lights. William E. Goucher.	52,856
Stone. Process of making. Robert Allan Pyne, et al.	53,879	Switch for railways. Joseph P. Hasty.	52,494
Stone separator. Byron E. Bechtel.	52,092	Switch for storage batteries. John Hopkinson.	52,966
Stone wagon. David N. Butterfield.	52,797	Switch lock. Carl H. Schager, et al.	52,824
Stop-cock lock. Charles Heyman.	54,340	Switch stand. Canada Switch and Spring Co.	51,824
Stop-motion for twisting machines. Thomas Henry Smith.	51,585	Swivel. David S. Haskell, et al.	52,737
Stopping device: see Bottle stopper.		Swivel. Reuben C. and Herbert Marion Eldridge.	53,322
Stopping device. Thomas Burnbridge.	53,402	Syringe. Charles Ver Treese Pollock.	51,267, 51,268
Storage battery. Alexander Schanschneff.	51,546	Syringe. Hypodermic. Gustav R. Schimmel.	53,814
Storage battery. John Joseph Rooney.	51,581	Table. George Shear, et al.	51,257
Storage battery. Jules Julien.	54,258	Table. James R. Baker.	52,411
Storage battery. Ludwig Epstein.	51,045	Table and bath tub combined. William H. Link.	53,962
Store truck. Arthur Hitchins.	53,626	Table and kit case. William Edwards Baxter.	51,609
Stove. Co-operative Foundry Co.	52,767	Table waiter. Francis A. Clay.	53,226
Stove. Eugene S. Manny.	51,983	Tack driver. William T. Hoofnagle.	51,065
Stove. Frank V. Knauss.	52,717	Tack holder for lasts. Irving O. Littlefield, et al.	53,240
Stove. Frederick W. Moffatt.	53,303	Tack machine. Russell Hathaway, et al.	51,222
Stove. Godfroi Chapleau.	52,260	Tail fastener. Will-ve T. Merriman.	53,874
Stove. James Fleming.	53,078	Tail-guard for horses. Peter Von Lackum.	52,079
Stove. John A. Crossman.	52,851	Tanning process. Charles Knees, et al.	52,054
Stove. Leonard Meyer.	51,176	Tanning. Process of manufacturing extract for. Max Höning.	53,838
Stove. Mark W. Foster.	53,088	Tanning system and apparatus. Eugene Worms.	51,074
Stove. Ophni L. Gadoury.	54,059	Tap. Arthur E. Mears, et al.	51,248
Stove. The Gem City Stove Manufacturing Co.	51,277	Tap. Franklin A. Errington.	52,557
Stove. Walter Darby, et al.	51,715	Tap. Herbert Credington.	51,366
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Smith, Wilber Brooks. Stamp	51,146	Stephenson, William. Traction engine, thresher and gang plow combined	51,157
Smith, Wilson W. Corn harvester	52,597	Stern, Arnold and Bernhard, et al. Bottle stopper	52,248
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ERRATUM.

On page XX of Annual Index to Inventions, the words "Washing Machine. Enoch Ritchie. 51,790" were inadvertently omitted.

The Canadian Patent Office

RECORD



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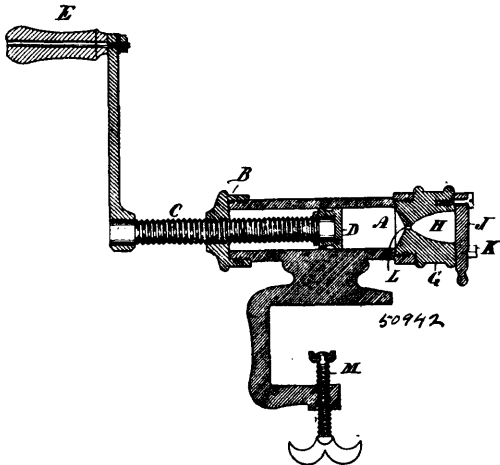
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INVENTIONS PATENTED.

NOTE.—Patents are granted for 18 years. The term of years for which the fee has been paid, is given after the date of the patent.

No. 50,942. Suppository Machine and Mould.
(Machine et moule pour suppositoires.)



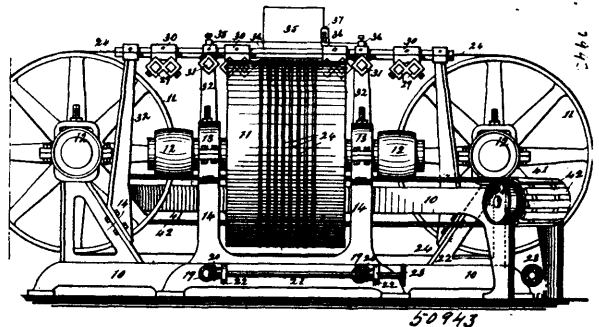
William Henry Dickson, assignee of Robert Murray Dickson, both of Ottawa, Ontario, Canada, 3rd January, 1896; 6 years. (Filed 14th December, 1895.)

Claim.—1st. A suppository machine comprising the tube A, provided with cap B, screwing thereto at one end, a screw shaft C, screwing through said cap and provided with a loose rotary plunger D, fitting within said tube, a crank handle E, or means for rotating said shaft, and a mould G, having one or more suppository recesses H, and provided with a door J, and fastening K, as set forth. 2nd. A suppository machine comprising a tube A, provided with a clamp M, screw shaft C, plunger D, handle E, and mould G, as set forth.

No. 50,943. Machine for Cutting Wood.
(Machine à découper le bois.)

William F. Hutchinson and Edwin Gould, both of New York, State of New York, U.S.A., 3rd January, 1896; 6 years. (Filed 11th December, 1895.)

Claim.—1st. A wood cutting machine, comprising a plural series of band saws, the cutting portion of one series crossing above the

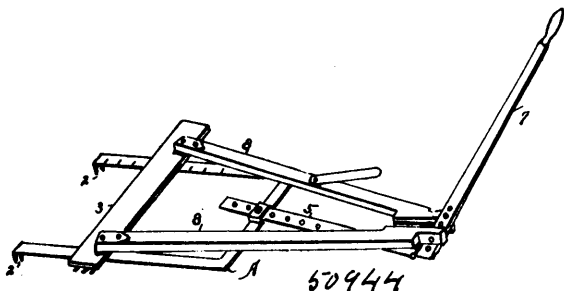


cutting portion of the opposite series, both such series running substantially horizontal and with their toothed edges uppermost, and a wood guide supported above the saws whereby a block of wood dropped upon the saws will be sawn and the pieces dropped between the saws, substantially as described. 2nd. A wood cutting machine, comprising a plural series of band saws, the cutting portion of one series crossing above the cutting portion of the other series, both such series running substantially horizontal and with their toothed edges uppermost, a wood guide supported above the saws to guide a block of wood to them, and means for adjusting the guide, substantially as described. 3rd. The combination with a series of band saws, of the wood guide enclosing adjoining sides of the work and serving as an abutment to guide the wood to the saws, the guide having slots therein to receive the saws, substantially as described. 4th. The combination of the supporting cross-bars, the saw guides carried thereby, the crossing series of saws travelling through the guides, a wood guide supported above the saws, and means for supporting the guide from the cross-bars, substantially as described. 5th. A wood cutting machine, comprising a double series of band saws, the cutting portion of one series travelling above the cutting portion of the other series and the two series crossing as specified, and an angular guide for wood held on adjustable supports above the saws and provided with slots to receive and guide the saws, substantially as described. 6th. The combination of the series of band saws, the drums which carry them, the sliding bracket supporting one of the drums, and a screw and gear mechanism for adjusting the bracket, substantially as described. 7th. The combination, with the band saws, of an elongated brace for each saw, the brace being of substantially the same thickness as the saws and being supported at its ends while its top edge is fitted snugly to the lower edge of the saw, substantially as described. 8th. A wood cutting machine, comprising a plural series of band saws, the cutting portion of one series travelling above the cutting portion of the other series, each such series running substantially horizontal and with their toothed edges uppermost, a wood guide supported above the intersecting points of the saws to guide a block of wood to the saws, and a carrier travelling beneath the saws and adapted to receive the wood which drops from them, substantially as described.

No. 50,944. Carpet Stretcher. (Tendeur de tapis.)

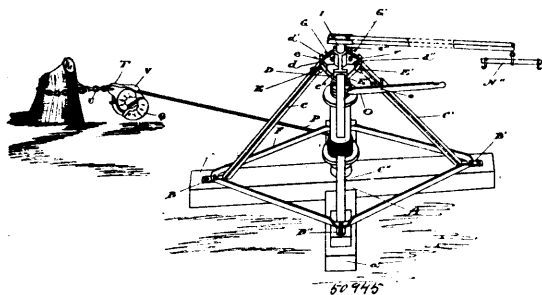
Frederick M. Zander, Dayton, Ohio, U.S.A., 3rd January, 1896; 6 years. (Filed 11th December, 1895.)

Claim.—In a carpet stretcher, the combination with the herein described U-shaped metal frame and the adjustable bar connecting



the said frame with the foot of the operating lever, with the sliding block 3, provided underneath with spurs, the bars 8 hinged at one end to the sliding block, and their opposite ends pivotally attached to and forming the fulcrum of the adjustable operating lever, substantially as and for the purpose herein set forth.

No. 50,945. Machine for Extracting Stumps. (Arrache souche.)



John A. Coates, Victoria, British Columbia, Canada, 3rd January, 1896; 6 years. (Filed 7th December, 1895.)

Claim.—1st. In a stump extracting machine, a fastening device for ropes consisting of a disc having side flanges to provide a circumferential recess, one of said flanges having two tangential grooves arranged on opposite sides of the middle of the disc, the other flange having a tangential recess, substantially as specified. 2nd. In a stump extracting machine, a frame consisting of a base, a series of standards, the lower end of which are secured to the base, and the upper ends of which are held together by a cap or head, a vertical shaft journaled in the cap or head and in the base, a drum loosely mounted on the shaft, a clutch member connected to the drum adapted to engage with a clutch member connected to and revolving with the shaft, substantially as specified. 3rd. In a stump extracting machine, a frame consisting of a base, a series of standards the lower ends of which are secured to the base, and the upper ends of which are held together by a cap or head, a vertical shaft journaled in the cap or head and in the base, a drum loosely mounted on the shaft, a clutch member connected to the drum adapted to engage with a clutch member connected to and revolving with the shaft, and a head removably connected to the drum, substantially as specified. 4th. In a stump extracting machine, a frame consisting of a base, a series of standards, the lower ends of which are secured to the base, and the upper ends of which are held together by a cap or head, a vertical shaft journaled in the cap or head and in the base, a drum loosely mounted on the shaft, a clutch member connected to the drum adapted to engage with a clutch member connected to and revolving with the shaft, a head removably connected to the drum, an arm seat connected to the upper end of the vertical shaft, and a lever adapted to raise the drum and disengage the clutch members, substantially as specified.

No. 50,946. Bottle Stopper, etc.

(Bouchon de bouteille, etc.)

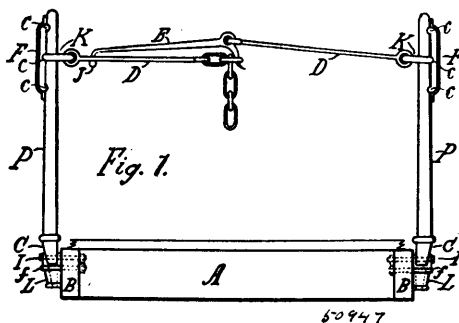
Thomas C. Newman, Chicago, Illinois, U.S.A., 3rd January, 1896; 6 years. (Filed 11th December, 1895.)

Claim.—1st. The combination with a bottle, of a cork and lengths of wire which are suitably secured in said cork and extending longi-



tudinally therefrom down opposite sides of the bottle a suitable distance, and a seal for fastening the said wires together in such a manner as to prevent the withdrawal of said cork without breaking said wire or the said seal. 2nd. The combination with a bottle having longitudinal grooves extending down the side thereof, and label therefor, of a cork, two lengths of wire suitably secured in said cork and extending longitudinally down the sides of said bottle, and a seal for fastening the ends of said wire so that they pass under said bottle, as and for the purpose set forth. 3rd. The combination with a bottle having longitudinal grooves extending down the sides thereof, and having a concavity or pocket in the bottom of the same, and label therefor, of a cork, two lengths of wire suitably secured in said grooves and under said label and to and beyond the bottom of the bottle, and a seal for fastening the lower ends of said wire, as and for the purpose set forth.

No. 50,947. Car stake. (Epee de chars.)



John S. Miller, Truro, Nova Scotia, Canada, 3rd January, 1896; 6 years. (Filed 11th December, 1895.)

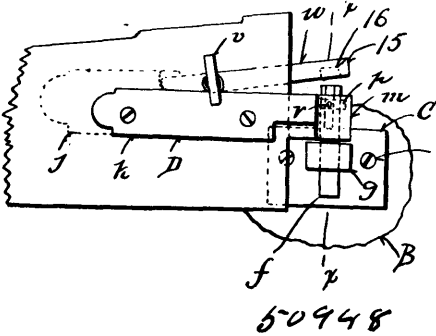
Claim.—1st. The stake socket L, substantially as and for the purpose hereinbefore described. 2nd. The combination of the stake socket L, with the stake P, substantially as and for the purpose hereinbefore described. 3rd. The combination of the stake P, with the binding rod D, D, and the lock lever E, substantially as and for the purpose hereinbefore described. 4th. The combination of the stake socket L, and the stake P, with the binding rod D, D, and the lock lever E, substantially as and for the purpose hereinbefore described.

No. 50,948. Blind Hinge. (Penture.)

Neil McKinnon, Newport, Rhode Island, U.S.A., 3rd January, 1896; 6 years. (Filed 11th December, 1895.)

Claim.—In a blind hinge, the member C provided with a pintle f, having the squared or grooved upper end in combination with

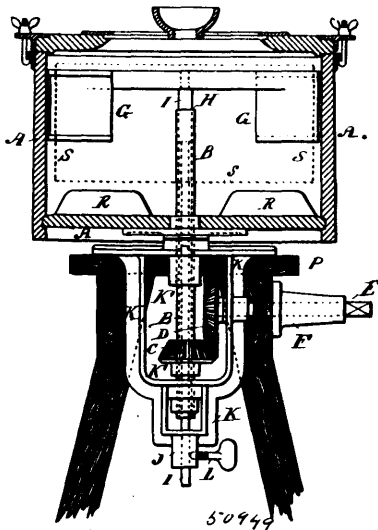
the leaf D, provided with arms *j, k*, pivoted to swing vertically on the blind and provided with the head 15, for engaging the upper



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end of the pintle, and a key adapted to be operated from the inner face of the blind and actuating said lever, substantially as described.

No. 50,949. Centrifugal Churn. (Baratte centrifuge.)



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Sydney Cheeld, Waterside Ironworks, Buckingham, England, 3rd January, 1896; 6 years. (Filed 14th December, 1895.)

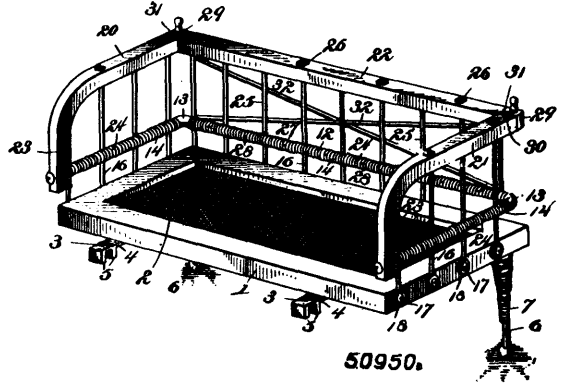
Claim.—In a centrifugal churning apparatus, the combination with the revolving vessel A, of one or more stationary flanged scoops, vanes, or deflectors G of curved form, so placed that the outer part or front of the curve stands in a plane presented at a slight angle, or more or less tangentially to the inner surface of the said vessel, while the inner or hinder part of the scoop stands in a plane which, if extended, would pass clear of the axis, and at the same side thereof as the scoop, and cut the opposite side of the revolving vessel at a point nearly opposite that at which the front part of the scoop begins to act in the cream, substantially as described.

No. 50,950. Crib for a Child. (Berceau d'enfant.)

William W. Pursell and Jennings U. Kurtz, both of Berwick, Pennsylvania, U.S.A., 3rd January, 1896; 6 years. (Filed 9th December, 1895.)

Claim.—1st. In a crib, a rectangular main frame, in combination with a supplemental frame superposed thereon, and held in place by means of coiled wire springs, and downwardly extending spring arms, substantially as and for the purpose described. 2nd. In a crib, a rectangular main frame having a woven wire centre, in combination with a superposed supplemental frame secured thereto, and the side and end top rails pivoted to said supplemental frame, and supported by means of coiled wire spring sections, and the upwardly extending arms thereof, substantially as described. 3rd. In a crib, a rectangular main frame, in combination with a supplemental frame superposed thereon, side and end rails pivoted to the latter and adapted to be folded inward for the purpose described, the flexible and vertically compressible supporting legs, and the coupling plates having a hinged connection with the crib for attaching the latter pivotally to the side bar or frame piece of an ordinary bed, whereby the crib may be folded down at the side of the bed without being detached therefrom, substantially as described. 4th. In a crib, a rectangular main frame, in combination with flexible supporting legs each of which comprises a

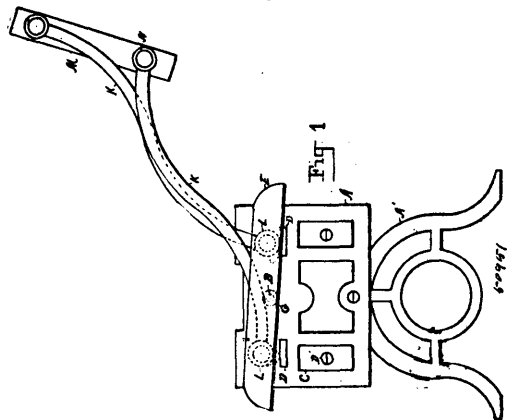
rigid lower portion and an upper flexible portion, said lower portion being adjustable relatively to the upper portion whereby the height



50950.

of said flexible legs may be adjusted, and the spring-supported side and end top rails adapted to be folded inward, substantially in the manner and for the purpose described. 5th. A crib made in a form adapting it to be pivotally attached to an ordinary bed, and consisting of a rectangular main frame, side and end top rails, having a pivotal connection therewith and formed with dove-tailed grooves in their adjacent ends, dove-tailed corner blocks for securing the side and end top rails together, flexible supporting legs located beneath the main frame, and suitable coupling plates having a hinged connection with the crib for attaching the latter pivotally to said bed, all arranged and adapted to operate as specified. 6th. In a crib, a rectangular main frame, a supplemental superposed frame, and side and end rails pivoted thereto, in combination with the spring wire sections interposed between the main frame and the side and end rails for flexibly supporting the latter, and adapting them to be folded in the manner substantially as described. 7th. In a crib, a rectangular main frame, a superposed supplemental frame supported thereon, the side and end top rails pivotally connected with said supplemental frame, the spring wire sections interposed between the main frame and the top rails, and the screws for fastening the downwardly projecting arms of the end rails to the supplemental frame, substantially as described. 8th. In a crib, a rectangular main frame, a supplemental superposed tubular frame, and the side and end top rails, in combination with a series of coiled spring wire sections for supporting the supplemental frame and top rail, arranged in opposing pairs or sets, one of said sections surrounding the supplemental frame, and extending thence downward to and secured to the main frame, and the other surrounding the supplemental frame and extending from thence upward to and connecting with one of the top rails, substantially as and for the purpose described. 9th. In a crib, a main supporting frame, a supplemental superposed frame, and the side and end top rails pivoted thereto, in combination with a series of coiled spring wire sections arranged in pairs or sets, each alternate section surrounding the supplemental frame and extending from thence downward to and connecting with the main frame, and every other alternate section surrounding the supplemental frame and extending from thence upward to and connecting with a top rail, whereby the top rails are flexibly supported with relation to the main frame, and at the same time are adapted to be folded in the manner, substantially as and for the purpose described.

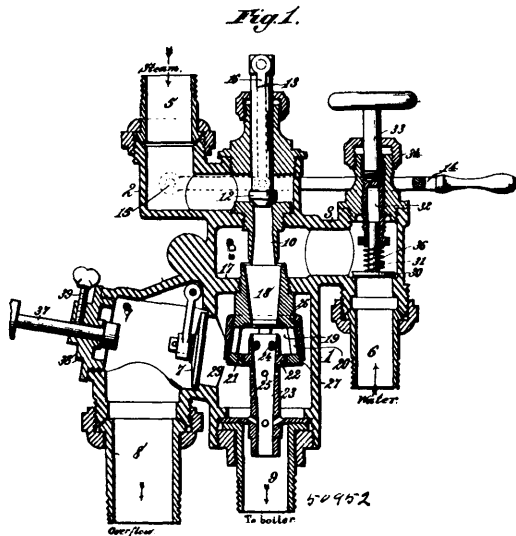
No. 50,951. Car Seat. (Siège de charrs.)



The Scarritt Furniture Company, assignee of Samuel Hoffman, both of St. Louis, Missouri, U.S.A., 3rd January, 1896; 6 years. (Filed 9th December, 1895.)

Claim.—In a reversible car seat, the combination of the plate A, having thereon the central bearing or boss B, and stops or lugs D, D, on opposite sides of said bearing, the seat supporting plate E, having a central bearing or bushing G, rotatably connected with the boss or bearing B, and fulcrum lugs F, F, on opposite sides of said bushing G, and the intersecting arms K, K¹, pivoted to the fulcrum lugs and each having a cam L, to engage the stops D, D, the said central bearings being arranged with respect to the stops D, D, and fulcrum lugs so as to serve as a common support for the arms K, K¹, substantially as shown and described.

No. 50,952. Injector. (Injecteur.)



Looren Edwin Hogue, Greenville, Pennsylvania, U.S.A., 4th January, 1896; 6 years. (Filed 7th December, 1895.)

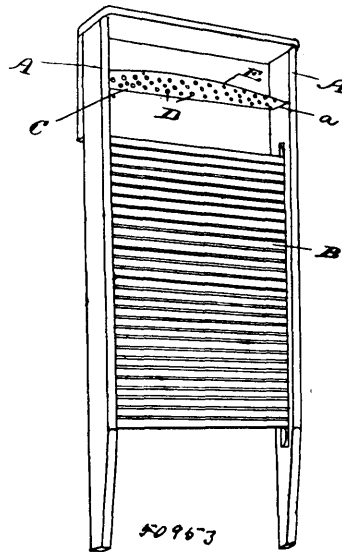
Claim.—1st. The combination in an injector, of a combining-tube having its upper end formed with upper and lower perforations 24 and 25, and a surrounding chamber constructed with separated, bevelled, or inclined upper and lower ground valve seats 26 and 27, and a vertically movable sleeve 28, having its upper and lower end portions constructed with internal ground valve faces adapted to fit air and water-tight against the said bevelled or inclined upper and lower valve seats, for the purpose of sealing the upper and lower ends of the valve-sleeve air and water-tight when a vacuum has been created and the injector is working to force water into a boiler, substantially as described. 2nd. The combination in an injector, of a combining-tube having its upper end portion provided with a surrounding chamber constructed with upper and lower bevelled or inclined ground valve seats 26 and 27 of different diameter, and lateral perforations 19 between said valve seats, and a vertically movable, conical valve-sleeve having its upper and lower end portions constructed with internal valve faces adapted to fit air and water-tight against the said upper and lower valve seats, for sealing the upper and lower ends of the valve-sleeve air and water-tight when a vacuum has been created and the injector is working to force water into the boiler, substantially as described. 3rd. The combination with the overflow valve of an engine, of a lengthwise movable spindle adapted to bear against and hold the overflow valve rigid on its seat, and a set screw for holding the spindle in a fixed position, substantially as described. 4th. The combination with an injector having a pivoted, swinging overflow valve, of a lengthwise movable smooth spindle adapted to slide lengthwise in a bearing in the injector casing, and a device carried by the injector casing and adapted to bind against the surface of the said smooth spindle for holding the latter in a fixed position, substantially as described.

No. 50,953. Wash-Board. (Planche à laver.)

Margaret Wiseman, Clinton, Ontario, Canada, 4th January, 1896; 6 years. (Filed 12th December, 1895.)

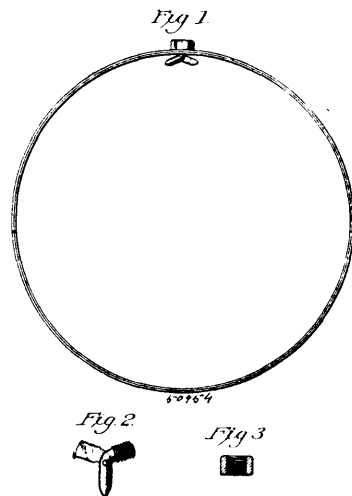
Claim.—1st. The combination of a wash-board, of a soap tray removably connected to the wash-board, above the rubbing surface, substantially as specified. 2nd. The combination of a wash-board, horizontal grooves formed in the inner faces of the sides of the wash-

board, between the top of the rubbing surface and the top of the wash-board, and a soap tray supported in the horizontal grooves, a



series of perforations in the soap tray, and a flange extending along the front edge of the tray, substantially as specified.

No. 50,954. Pipe Fastener for Fastening Metal Pipe Joints. (Attache de tuyau de poêle.)



James L. Kennedy, Weeping Water, Nebraska, U.S.A., 4th January, 1896; 6 years. (Filed 7th December, 1895.)

Claim.—1st. A pipe fastener consisting of two bars, angular in form, and pivoted together at their angles, and means for retaining two of the limbs in parallelism, whereby the other two may be made to extend in opposite directions. 2nd. A pipe fastener consisting of two bars, substantially semi-circular in cross-section, and annular in form, pivoted together at their angles and means for retaining two of the limbs in parallelism, consisting of a thread thereon, and nut adapted to engage the thread, whereby the other limbs may be made to extend in opposite directions, all substantially as set forth.

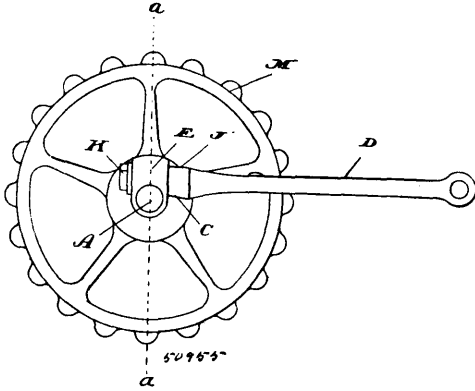
No. 50,955. Driving Gear for Velocipedes.

(*Mécanisme conducteur pour velocipèdes.*)

David S. Henderson, Brantford, Ontario, Canada, 4th January 1896; 6 years. (Filed 7th December, 1895.)

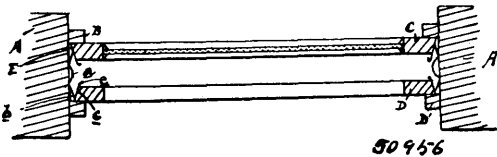
Claim.—1st. In a driving gear for velocipedes, the combination of the crank hub, an enlargement for the crank hub, a bore through the enlargement at right angles to the crank axle, the crank fitted into the bore, substantially as specified. 2nd. In a driving gear for velocipedes, the combination of the crank axle, of a separable hub mounted on the crank axle, an enlargement for the separable hub, a bore through the enlargement at right angles to the plane of the crank axle, the crank, a turret for the crank, adapted to pass through the bore and lock the hub and the crank to the crank axle, and means for securing

the turret to the hub, substantially as specified. 3rd. In a driving gear for velocipedes, the combination of the crank axle, a recess in



the side of the crank axle, a separable hub mounted on the crank axle, an enlargement for the separable hub, a bore through the enlargement, the crank, a turret for the crank having a flattened surface, adapted to engage with the recess in the crank axle, substantially as specified. 4th. In a driving gear for velocipedes, the combination of the crank axle, a recess in the side of the crank axle, a separable hub mounted on the crank axle, an enlargement for the separable hub, a bore through the enlargement, the crank, a turret for the crank having a flattened surface, adapted to engage with the recess in the crank axle, and a sprocket-wheel connected to the hub, substantially as specified.

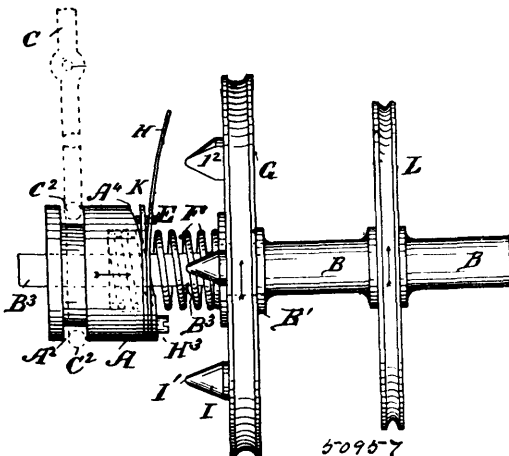
No. 50,956. Sash-Holder. (Arrête-croisée.)



George Edward Schairer, Saline, Michigan, U.S.A., 4th January, 1896; 6 years. (Filed 9th December, 1895.)

Claim.—1st. A sash-holder consisting of a spring having one edge bent back at an incline and a curved spreading extension and securing means engaging the extension for varying the pitch of the bent edge, substantially as described. 2nd. In a window, the combination with a frame, the stop and sash, the latter having a bevelled side edge, of a fastener consisting of a substantially V-shaped spring interposed between the sash and frame with its apex adjacent to the stop, and arranged to press outwardly from the frame in the direction of and against the bevelled edge of the sash whereby the spring will force the sash against the stop, substantially as described. 3rd. A sash-holding spring, consisting of a strip of metal having its edge bent back to form a substantially V-shaped holding portion, the outer edge of the bent back portion being turned up to form a stop, and a securing means passing through the strip at a point beyond the V-shaped section, substantially as described.

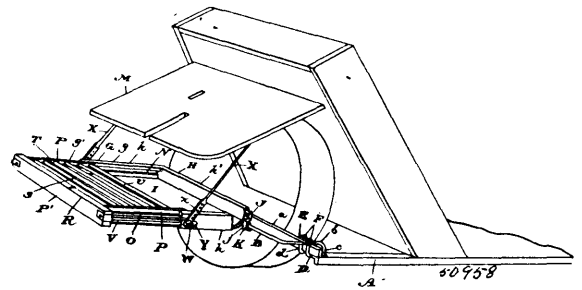
No. 50,957. Clutch for Machinery. (Embrayage.)



Joseph Samuel Beeman, Camberwell, Colony of Victoria, 4th January, 1896; 6 years. (Filed 12th December, 1895.)

Claim.—1st. In clutches for machinery, a spring as F in combination with the two engagement members of a clutch, substantially as and for the purpose set forth. 2nd. In clutches for machinery, a flexible or spring plate as H in combination with the two engagement members of a clutch, substantially as and for the purpose set forth. 3rd. In clutches for machinery, in combination a spring as F, a loose clutch member as G, and a flexible plate as H, substantially as and for the purposes set forth. 4th. In clutches for machinery, in combination a non-spring plate as H, the blocks as I, having antifriction points as I¹, and faces cut aslant as I², and provided with a flexible medium at their base, substantially as and for the purposes set forth. 5th. In clutches for machinery, a block as A, having an annular recess as A³, and on which is mounted a plate as H, substantially as and for the purposes set forth. 6th. In clutches for machinery, in combination the plate as H², screws as H³, annular plate as H¹, and flexible backing plate as K, substantially as and for the purposes set forth. 7th. In clutches for machinery, in combination, the stud as E, clutch plate as H, flexible backing plate as K, and block as A, substantially as and for the purpose set forth.

No. 50,958. Grain Binder. (Lieuse à grain.)



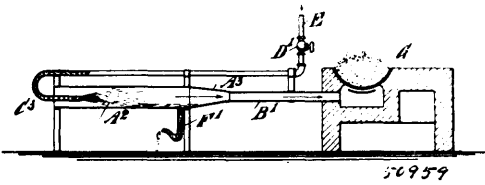
Henry Michael Glancy and James Nelson, both of Belhaven, Ontario, Canada, 4th January, 1896; 6 years. (Filed 7th December, 1895.)

Claim.—1st. In a harvester binder, the combination with the binding attachment of a receptacle adapted to receive the grain shelled by the binding attachment during the binding of the sheaf, substantially as specified. 2nd. In a harvester binder, the combination with the binding attachment of a receptacle located below the binding attachment to receive the grain shelled during the binding of the sheaf, consisting of telescopic sections, and means for supporting the sections in position, substantially as specified. 3rd. In a harvester binder, the combination of the binding attachment of a receptacle located below the binding attachment, consisting of telescopic sections, stays connected to the receptacle and to the under side of the deck, a rail connected to the main frame of the binder, and travellers connected to the receptacle adapted to travel on the rail, substantially as specified. 4th. In a harvester binder, the combination with the binding attachment of a receptacle located below the binding attachment, consisting of a stationary section, and a movable section adapted to slide into or out of the stationary section, a grating for the top of the sliding section, slotted plates connected to each side of the sliding section, overlapping the sides of the stationary section, bolts passing through the slot in the plates and through the sides of the stationary section, stays connected to the said bolts and to the under side of the deck of the harvester binder, substantially as specified. 5th. In a harvester binder, the combination with the binding attachment of a receptacle located below the binding attachment, consisting of a stationary section, and a movable section adapted to slide into or out of the stationary section, a grating for the top of the sliding section, slotted plates connected to each side of the sliding section, overlapping the sides of the stationary section, bolts passing through the slot in the plates and through the sides of the stationary section, stays connected to the said bolts and to the under side of the deck of the harvester binder, a rail connected to the main frame of the binder, and travellers connected to the stationary section adapted to move on the said rail, substantially as specified. 6th. In a harvester binder, the combination with the binding attachment of a receptacle located below the binding attachment, consisting of a stationary section, and a movable section adapted to slide into or out of the stationary section, a grating for the top of the sliding section, slotted plates connected to each side of the sliding section, overlapping the sides of the stationary section, bolts passing through the slot in the plates and through the sides of the stationary section, stays connected to the said bolts and to the under side of the deck of the harvester binder, a rail connected to the main frame of the binder, travellers connected to the stationary section adapted to move on the said rail, arms extending from each end of the rail, resting on the top of the main frame, and bent downwardly parallel with the inner face of the main frame, and hook-shaped, and L-shaped clip fitted on the hook-shaped end of the said arms, extending up the outer side of the main frame, the top of each of the clips bifurcated to receive the arms of the said rail, a plate fitted on the bifurcated end of each

the said clips, and nuts holding the said plate tightly against the top of the said arms, substantially as specified.

No. 50,959. Hydraulic Air-Blast Apparatus.

(Appareil soufflant hydraulique.)

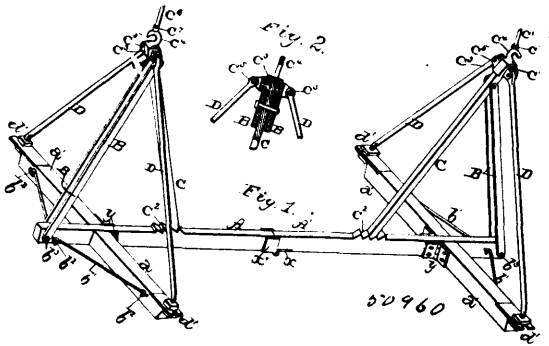


Henry Austin Rogers, and Isaac H. Rogers, both of Bingham Canon, Utah, U.S.A., 4th January, 1896; 6 years. (Filed 14th December, 1895.)

Claim.—A hydraulic air-blast apparatus, comprising a straight hollow cylinder open at one end and contracted at the opposite end, an air pipe connected to said contracted end, and a water nozzle located in the cylinder and provided with two branches extending in opposite directions from the median plane of the nozzle and longitudinally of the cylinder, substantially as described.

No. 50,960. Hammock Supporter.

(Support de hamac.)

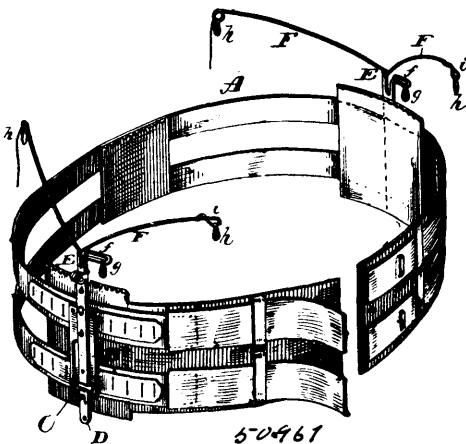


Martin Keegan, sr., Trenton, New Jersey, U.S.A., 7th January, 1896; 6 years. (Filed 13th December, 1895.)

Claim.—In a folding hammock support the beam A, A, formed of two or more component parts joined together by the hinge X, having projecting sides X¹, overlapping and bracing the joints of said beam, and also having the folding arms A¹, pivoted in pairs to opposite sides of the beam A, A, and secured thereto in working position by hooks b, and staples b², and having bracketts a², fitted to their outer extremities, in combination with the side stays D, swivel ears C⁵, castings C³, fore-feet C, and back stays B, all substantially as shown and described.

No. 50,961. Garment Supporter.

(Support de vêtement.)



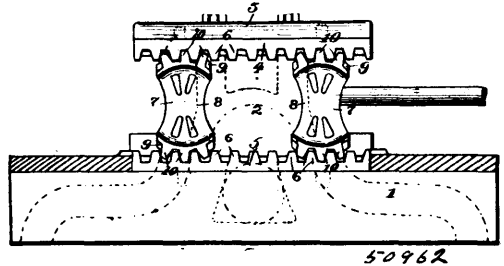
Alva Silas Grimm, St. Mary's, West Virginia, U.S.A., 7th January, 1896; 6 years. (Filed 13th December, 1895.)

Claim.—1st. A garment supporter, consisting of a suitable belt, vertically adjustable bars connected thereto, hinged or jointed

brackets upon the upper ends of the arm having laterally extended and elongated loops, and suitable arms attached to the bracket, said elongated loops and arms adapted for the attachment thereto of suitable elastic button-loops, substantially as and for the purpose set forth. 2nd. A garment supporter, consisting of a suitable belt, suitable bars adjustably connected thereto, a spring latch device for holding the bars in their adjusted position, jointed brackets upon the upper ends of the bars provided with laterally extended and elongated loops, and spring wire arms connected to the brackets, substantially as and for the purpose specified.

No. 50,962. Rolling Support for Balanced Slide Valves.

(Support pour tiroir équilibré.)



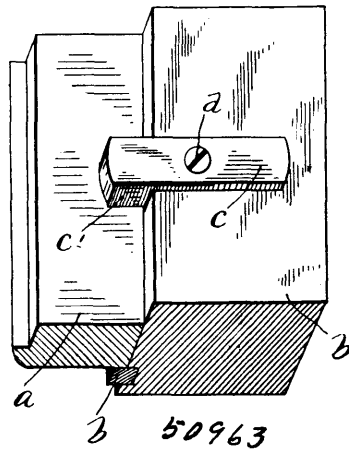
Warren Tyler Reaser, Lincoln, Nebraska, U.S.A., 7th January, 1896; 6 years. (Filed 16th December, 1895.)

Claim.—A rolling support for balanced slide valves consisting of a single hollow casting having opposite parallel side plates, integral segmental bearing ends connecting the ends of the side plates, toothed segments formed integrally at the ends of one of said side plates at one side edge of the bearing ends, an interior central longitudinal brace web integrally connecting said bearing ends, and an integral central transverse brace connecting the opposite side plates at their centers and integrally intersecting said brace web at right angles thereto, substantially as set forth.

No. 50,963. Button for Sashes, Etc.

(Bouton pour croisées, etc.)

Fig. 1



John Burns, Minneapolis, Minnesota, U.S.A., 7th January, 1896; 6 years. (Filed 9th December, 1895.)

Claim.—As a new article of manufacture, a button for sashes, screens, doors, etc., comprising the body portion, having the straight back surface and provided with the central passage and the abrupt shoulder or offset, said parts operating substantially as and for the purpose set forth.

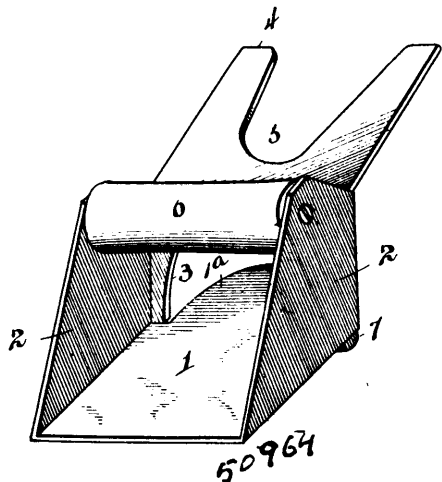
No. 50,964. Boot-Jack.

(Tire-bottes.)

Richard Jacks, Quincy, California, U.S.A., 7th January, 1896; 6 years. (Filed 9th December, 1895.)

Claim.—1st. A device for putting on boots, comprising an open frame or stirrup, a semi-cylindrical rib or support secured beneath said stirrup, and a roller interposed between the side arms or ears of said stirrup, substantially as and for the purpose described. 2nd. In a boot-jack, an open frame or stirrup, in combination with a roller mounted within said frame or stirrup at or near the top thereof, and a rearwardly projecting fork located about in the same horizontal plane with said roller, all arranged and adapted to operate in the

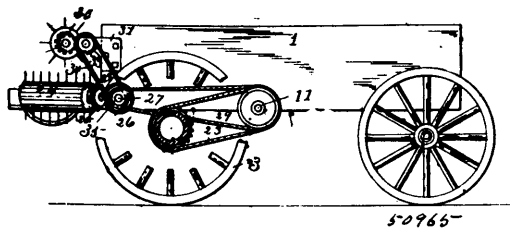
manner specified. 3rd. In a boot-jack, an open frame or stirrup made from a single piece of sheet metal, comprising an extended



base, inclined side arms at right-angles to said base, and a rearwardly extending fork also formed integrally with said stirrup, in combination with a roller interposed between the side arms of said stirrup, and a semi-cylindrical rib or support located beneath said stirrup, substantially as and for the purpose described.

No. 50,965. Manure Spreader.

(Machine à distribuer le fumier.)



Daniel Bolivar Merrell, Avon, New York, U.S.A., 7th January, 1896; 6 years. (Filed 11th December, 1895.)

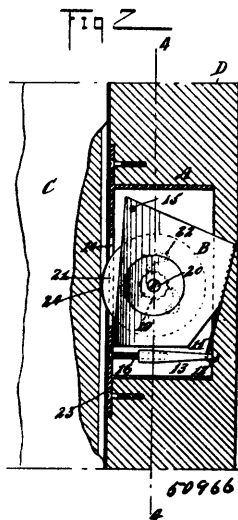
Claim.—1st. In a manure spreader, the combination with feeding devices, of the two beaters arranged at an angle to each other, and driving devices for rotating said beaters, substantially as described. 2nd. In a manure spreader, the combination with the reciprocating bottom having the pointed rear end, and a feeding device operated thereby, of the two rotary beaters at the rear of said bottom arranged at an angle to each other, substantially as described. 3rd. In a manure spreader, the combination with the two reciprocating bottom sections having the inclined rear ends, the ratchet-bar between them, one of said sections having a ratchet, and the follower having the two pawls, of the two rotary beaters at the rear, set at an angle to each other, substantially as described. 4th. In a manure spreader, the combination with the body and feeding devices, of two lower rotary beaters arranged at an angle to each other and a transversely extending rotary beater or spreader arranged over the two lower beaters, substantially as described. 5th. In a manure spreader, the combination with the sides and feeding devices, of the bottom having the stationary and the adjustable abutments, and the rotary cam arranged between them for causing the reciprocation of said bottom, substantially as described. 6th. In a manure spreader, the combination with the reciprocating bottom composed of the two sections, one of them facing the ratchet, the stationary ratchet between, and the movable follower having the pawls, of the rotary shaft having the cams, the stationary abutment on each of the bottom sections, the movable abutments and connections for simultaneously adjusting the latter, substantially as described. 7th. In a manure spreader, the combination with the reciprocating bottom section, the stationary roller thereon, the adjustable slide having the inclined edges, and the roller, and the adjustable wedge engaging said slide, of the rotary shaft having the cam engaging the rollers, substantially as described.

No. 50,966. Sash Balance. (Contre-poids de croisée.)

Joseph Henry Bane, Boston, and Leonide Brodeur, Barre, both of Massachusetts, U.S.A., 7th January, 1896; 6 years. (Filed 14th December, 1895.)

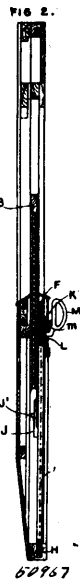
Claim.—1st. In a window-sash balance, a pivotal housing, a spring carried thereby, an adjusting device connected with the spring and adapted for engagement with a fixed support, a friction-wheel

mounted to revolve within the said housing and adapted for engagement with a sash, discs mounted to revolve in the said housing



and provided with ratchet-wheels, and pawls carried by the friction-wheel and engaging with the said ratchets, as and for the purpose set forth. 2nd. In a window-sash balance, a casing adapted to be introduced in the hanging style of the sash and provided with an opening in its face place, a housing pivoted in the said casing, a spring extending below the pivot of the housing, an adjusting device carried by the casing and connected with the said spring, a friction-wheel mounted to revolve in the housing and extending through the opening in the face plate of the casing, and friction discs controlled by the friction-wheel when said wheel is turned in a predetermined direction, as and for the purpose specified.

No. 50,967. Apparatus for Raising and Lowering Window-Sashes. (Appareil pour soulever et abaisser les croisées.)



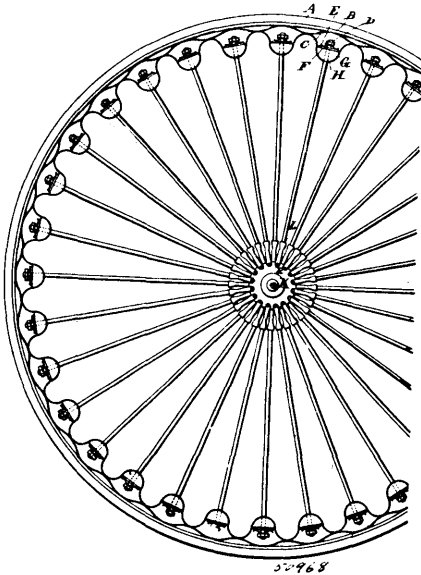
Watkin Hall, Great Crosby, England, 7th January, 1896; 6 years. (Filed 10th December, 1895.)

Claim.—1st. The improvements in apparatus for opening and closing railway carriage and other window-sashes, which consists in supporting them on endless chains passing round rotatable chain-wheels or pulleys fixed to the door or frame and counterbalanced by springs, whereby the sashes are in stable equilibrium in all positions, and so require little force to move them up or down or hold them in position, substantially as described. 2nd. The improvement in or appertaining to apparatus for opening and closing railway carriage and other window-sashes, which consists in supporting the sashes on

a travelling band or chain counterbalanced by a spring or springs and operated through suitable interposed gearing by means of a handle, thereby raising or lowering the sashes, also means for locking same in any desired position, substantially as described. 3rd. The arrangement substantially as set forth in figure 7 for counterbalancing a window-sash or the like by means of springs coupled to and acting on one or more eccentrics, whereby the sash is in stable equilibrium in all positions, and the variation of the spring resistance overcome. 4th. In combination with a window-raising device, one or more counterbalancing springs and eccentrics arranged in such manner that as the force of the spring increases the leverage thereon is reduced, and thus the pressure of the spring is counterbalancing the sash is practically uniform. 5th. The general arrangement and construction of the improved apparatus for opening or closing railway carriage or other window-sashes, substantially as described and shown on the accompanying drawings.

No. 50,968. Corrugated Spring Steel Tyre.

(*Bandage en ressort d'acier.*)



William George Crossley, and Eliza Anne Crossley, both of Auckland, New Zealand, 7th January, 1896; 6 years. (Filed 10th December, 1895.)

Claim.—1st. In a corrugated spring steel tyre substantially as described the two corrugated hoops C, C, and H, H, H. 2nd. The combination in a corrugated spring steel tyre, substantially as described of one or more rims of steel secured to the two corrugated hoops together with the spoke connections.

No. 50,969. Conveyor Chain. (*Chaîne sans fin.*)

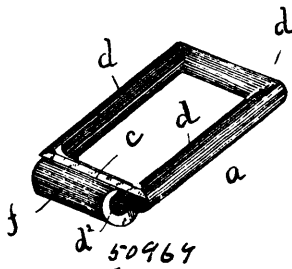


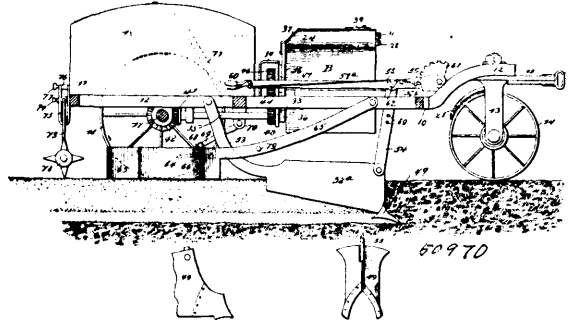
Fig. 1

Stephen Essex, Providence, Rhode Island, U.S.A., 7th January, 1896; 6 years. (Filed 17th December, 1895.)

Claim.—1st. A chain link having a hooked portion and a bearing shoulder adjacent thereto and at the front side of the hook socket to bear on the side bar of the adjacent link forward of the fulcrum point thereof to hold the links substantially in the same plane and rigid against movement in one direction, substantially as described. 2nd. A chain link having a hooked portion and a bearing shoulder adjacent thereto and at the front side of the hook socket to bear on

the side bar of the adjacent link forward of the fulcrum point thereof to hold the links substantially in the same plane and rigid against movement in one direction, said shoulder being carried by an extension of the side bar bent over the hoop socket to the front side thereof, substantially as described. 3rd. A chain link, having a hooked portion and an extension from the side bars bent over the hook socket and forming a lateral extension of the hook, said extension providing a shield for the joint between the links and having a bearing shoulder at the front in the plane of the upper sides of the bars. 4th. In combination in a link chain, the hook having the hook portions with the side bar extensions having bearing shoulders at their front ends to bear on the side bars of the adjacent links forward of the fulcrum point whereby the links will be maintained in the same plane against movement in one direction and the flights or carriers attached to the rigid side of the said chain, substantially as described.

No. 50,970. Cane Planter. (*Plantoir.*)

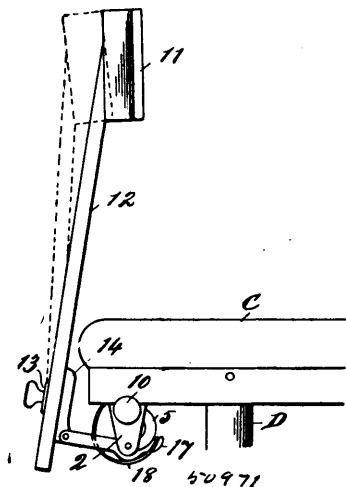


Antonio Martin Rivero, Havana, Cuba, 7th January, 1896; 18 years. (Filed December 6th, 1895.)

Claim.—1st. In a cane planter, a dropping box adapted to receive the cane to be planted, knives held to reciprocate across a face of the box, cutting the introduced cane into lengths, and a regulating device carried by the box, whereby the cane may be cut into long or into short lengths, substantially as shown and described. 2nd. In a cane planter, a planting box provided with a removable partition and an opening at one of its ends divided by the said partition, the box being open at its lower end, a knife held to reciprocate across the open end of the box, and means, substantially as described, for regulating the length of the cut cane, as and for the purpose specified. 3rd. In a cane planter, a planting box having an opening at one of its ends, the said end being inclined in direction of the opposite end of the box, a knife held to reciprocate across the opening in the box, a partition located within the box and extending up to the open portion thereof, the said box being provided with an opening at its lower end, and an interchangeable driving mechanism operating the said knife, as and for the purpose set forth. 4th. In a cane planter, a planting box having an opening at one of its ends, and means for adjusting the length of the cane to be contained in the box, a knife held to reciprocate across the opening in the end of the box, doors located within the box and capable of transversely closing same, trip devices carried by the door and operating from the knife, and means, as shown and described, for reciprocating the knife, substantially as and for the purpose set forth. 5th. In a cane planter, a furrow opener provided with an essentially inverted V-shaped share, whereby a furrow is made comprising a central ridge, and a ditch at each side of the ridge, enabling two pieces of cane to be planted in the furrow, substantially as specified. 6th. In a cane planter, the combination with the planting box adapted to receive cane, having a partition dividing it into compartments, and a knife reciprocating across both compartments, of a plough provided with fenders at its sides, the said fenders being located beneath the planting box, one at each side, the plough being connected with the forward end of the fenders, and a substantially inverted V-shaped share, whereby a furrow is made with two separate troughs, and whereby the cane from each compartment of the drop box will be deposited in an independent trough in the same furrow, as and for the purposes specified. 7th. In a cane planter, the combination with a furrow opener and a planting box located above the opener, provided with a reciprocating knife, and means for driving the same, and devices for regulating the length of the cane to be cut, of a furrow closer located at the rear of the furrow opener, a lever connected with the furrow opener, through the medium of which the said opener may be raised or lowered independently of the furrow closer, or whereby the closer may be elevated with the furrow opener, and an independent lever controlling the movement of the furrow closer, as and for the purpose set forth. 8th. In a cane planter, a marker pivotally connected with the planter at the rear thereof, and capable of being carried from side to side of the planter, sockets adapted to receive the carrying arm of the marker, and means substantially as described, for holding the marker in the position in which it is set, as specified. 9th. In a cane planter, the combination with the wheels thereof, of scrapers attached to fixed supports, extending

diagonally across the wheels, engaging with said wheels at an angle to their periphery, and having their faces convex, as and for the purpose specified.

No. 50,971. Piano Stool. (Banc de piano.)



Charles Munz, Detroit, Michigan, U.S.A., 7th January, 1896; 6 years. (Filed December 14th, 1895.)

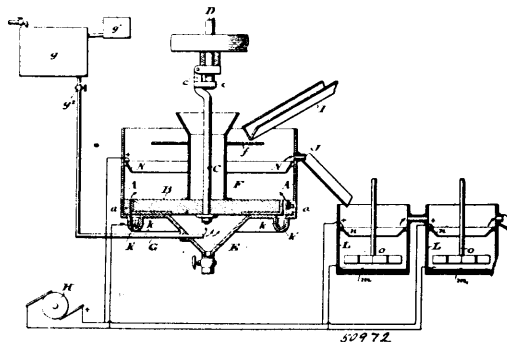
Claim.—1st. In a stool, the combination of the standard having a vertical aperture therein, the seat, the tube depending centrally from the seat, a rack bar pivotally supported in the lower end of the aperture in the standard and extending into the tube, and a pawl pivoted in the tube and adapted to engage the rack bar, substantially as described. 2nd. In a stool, the combination of the centrally apertured standard, the seat, a tube depending centrally from the seat, a rack bar having a head at its lower end, a bearing in that standard in which said head is pivoted, said rack bar extending in which the said head is pivoted, said rack bar extending into the tube, a pawl pivoted in the tube and adapted to engage said rack bar, and a spring actuated pin extending to the side of the seat for controlling said pawl, substantially as described. 3rd. In a stool, the combination with the base, the seat, the tube depending centrally from the seat, the rack bar entering said tube, a conical head F, at the lower end of said rack bar, two part bearing embracing said head and in which the rack bar is pivotally supported, a pawl pivoted in the tube and adapted to engage with the rack bar, and a pin extending to the side of the seat for actuating said pawl, substantially as described. 4th. In a stool, the combination of the standard for supporting the seat, a socketed base in which said standard turns, a head at the lower end of said standard, a pivot block made in two halves and adapted to embrace the pivotal point at the lower end of the socket in the standard and devices for detachably securing the pivot block in position, substantially as described. 5th. In a stool, the combination of the standard, a rack bar pivotally supported in an aperture therein, a seat, a centrally depending tube on the seat entering the aperture in the standard, a pawl lever pivoted in the tube, and an elastic support for the seat, substantially as described. 6th. In a stool, the combination of the standard, a rack bar pivotally supported in an aperture therein, a seat, a centrally depending tube on the seat entering the aperture in the standard, a pawl lever pivoted in the tube, and a spring connecting the upper end of the rack bar with the pawl lever, substantially as described. 7th. In a stool, the combination of the standards, a rack bar pivotally secured in an aperture therein, a seat, a tube depending from the seat and embracing the rack bar, a pawl lever pivoted in the tube, the spring connected to the top of the rack bar and the bottom of the pawl lever, the lugs Q on the pawl lever, and lugs e on the rack bar acting as stops to limit the movement of the tube, substantially as described. 8th. In a stool, the ratchet and pawl raising and lowering device, of the push pin for the pawl formed of the pin k, having the grooves m, and apertures i, the wire pin h, engaging the pawl lever and lying in the groove, the offset i, entering the aperture j, and the securing block secured in the groove over the pin, substantially as described.

No. 50,972. Mill for Pulverizing and Amalgamating Ores. (Moulin pour pulvériser et amalgamer le minéral.)

John W. Bailey, Denver, Colorado, U.S.A., 7th January, 1896; 6 years. (Filed December 16th, 1895.)

Claim.—1st. In an ore pulverizing and amalgamating device, the combination of opposing crushing surfaces whereby the ore is pulverized and an amalgamating device consisting of a metal plate, and a mercury trough, situated each on opposite sides of the space between the crushing surfaces, and electrically connected so as to

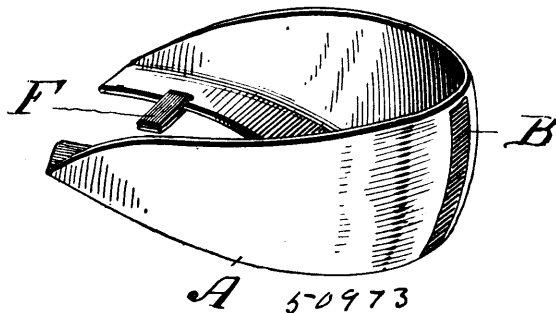
form respectively anode and cathode, substantially as set forth 2nd. In an ore pulverizing and amalgamating device, the combina-



tion of opposing crushing surfaces whereby the ore is pulverized, and an amalgamating device consisting of suitable electrodes, insulated from each other and from the crushing surfaces, and so situated that the entire space within which the crushing takes place is within the sphere of the electrical action between the electrodes, substantially as described. 3rd. In an ore pulverizing and amalgamating device, a cylindrical pan, a cylindrical muller, means for rotating said muller within said pan, an annular insulated trough filled with mercury situated below the periphery of the muller, an annular insulated metal plate situated above the periphery, and suitable electric connections whereby the metal plate becomes an anode and the mercury a cathode, substantially as described. 4th. In an ore pulverizing and amalgamating device, the combination of opposing crushing surfaces, whereby the ore is pulverized, an amalgamating device consisting of a metal plate, and a mercury trough situated on opposite sides of the space between the crushing surfaces and electrically connected so as to form respectively anode and cathode, a reservoir and connections whereby a continuous flow of an electrolytic solution through the space between the crushing surfaces is maintained, and one or more secondary amalgamating devices to which the pulp and solution pass continuously after the action of the primary amalgamator, substantially as described. 5th. In an ore pulverizing and amalgamating device, the combination of opposing crushing surfaces, whereby the ore is pulverized, an amalgamating device consisting of a metal plate, and a mercury trough situated on opposite sides of the space between the crushing surfaces and electrically connected so as to form respectively anode and cathode, a reservoir and connections whereby a continuous flow of an electrolytic solution through the space between the crushing surfaces is maintained, one or more secondary amalgamating devices to which the pulp and solution pass continuously after the action of the primary amalgamator, and suitable electrical connections within said secondary amalgamating devices to maintain an anode and cathode therein, substantially as described.

No. 50,973. Counter for Boots and Shoes.

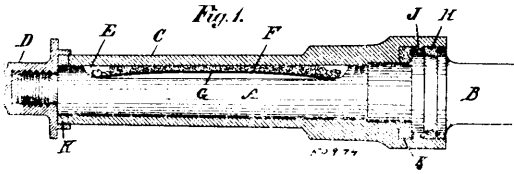
(Contre-fort pour les chaussures.)



Thomas H. Donovan, Washington, Columbia, U.S.A., 7th January, 1896; 6 years. (Filed December 18th, 1895.)

Claim.—1st. The combination with an aluminum boot or shoe counter, of a metallic spring embedded in the outer rear face of the counter, substantially as described. 2nd. The combination with an aluminum boot or shoe counter having its rear portion provided with metallic spring, of elastic connections whereby the counter is permitted to yield to the movements of the heel of the wearer, substantially as shown and described. 3rd. The combination with the insole of the boot or shoe, of an aluminum counter secured to the insole by means of flat elastic strips passed through elongated openings provided adjacent to the inner edges of the bottom portion of the counter, said strips being nailed or otherwise fastened to the insole, substantially as shown and described.

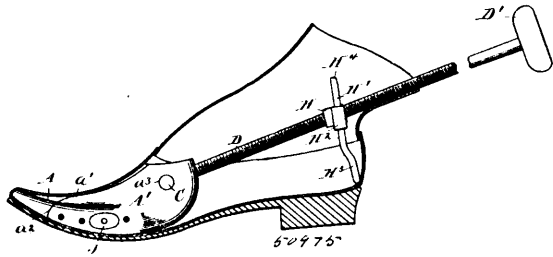
No. 50,974. Carriage Axle. (Essieu de voiture.)



Thomas J. Storey, Brockville, Ontario, Canada, 7th January, 1896; 6 years. (Filed December 16th, 1895.)

Claim.—1st. A spring cushion or pad for lubricating carriage axles, comprising a flat curved spring G, and a pad of absorbent material F, at the convex side, as set forth. 2nd. A carriage axle having the spindle A, provided with a longitudinal groove or recess E, and a spring G, in said recess having a cushion or pad of absorbent material F, and a lubricant, as set forth. 3rd. The combination with a carriage axle having the spindle arm provided with a longitudinal groove or recess E, of a cushion or pad of absorbent material F, and a spring G, in said recess supporting said cushion, as set forth. 4th. A carriage axle having the spindle provided with a longitudinal groove or recess, a spring in said recess or groove and having a cushion or pad of absorbent material F, said spindle having a shoulder J, peripherally grooved, a packing H, of absorbent material in said groove, and an absorbent felt washer K, intervening the axle box and the axle nut, as set forth.

No. 50,975. Device for Stretching Boots and Shoes. (Appareil à étendre les chaussures.)



Edward James Leighton, Boston, Massachusetts, U.S.A., 8th January, 1896; 6 years. (Filed December 19th, 1895.)

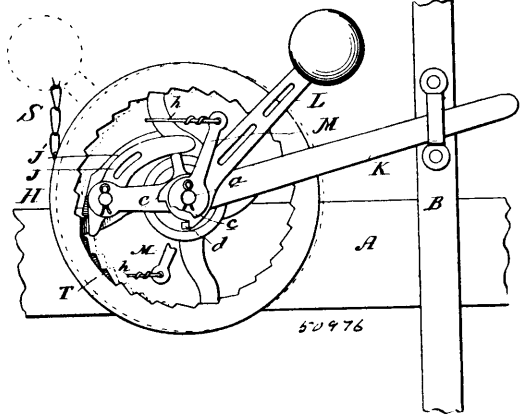
Claim.—1st. In a stretcher for boots and shoes, a last in sections, connected together by a loose hinge, as the bar C, having loose notches *c*, engaged by a pin *a'* in each section, so that the said sections may separate laterally on parallel lines and also swing toward and from each other while held against longitudinal movement, in combination with means as the heart E and screw D adapted to force the sections apart, all substantially as herein specified. 2nd. In a stretcher for boots and shoes, a last divided longitudinally into sections A, A', on a line extending centrally from the rear nearly to the point and thence to one side, so that the undivided point is carried on one of said sections, in combination with means as the heart E and screw D for separating the sections, all substantially as specified. 3rd. In a stretcher for boots and shoes, the heart E and lugs *c* thereon, the screw D and collar D² engaged between the lugs, in combination with each other and with the last sections A, A', and screw-threaded boss C¹ engaged therewith, all substantially as herein specified. 4th. In a stretcher for boots and shoes, the heart E and lugs *c* thereon, the screw D and collar D² thereon engaged between said lugs, in combination with each other and with the bearing surface E¹ in the heart, adapted to receive the end thrust of the screw and relieve the strain on said lugs and collar, all substantially as herein specified. 5th. In a stretcher for boots and shoes, the last sections A, A', the bar C having the boss C¹ and notches *c*, pins *a'* in the sections, engaged in said notches, in combination with the screw D received in said boss and carrying a heart E adapted to separate the sections when the screw is turned, and with means as the yoke H and loop H² carried by the said screw and adjustable thereon, substantially as herein specified. 6th. In a stretcher for boots and shoes, the last sections A, A', hinged together and adapted to be separated by turning the screw rod D, in combination with the latter and with the yoke H and loop H² adapted to engage the interior of a shoe at the rear, the said yoke having an opening *h* larger than the said rod, and screw-threaded to match to the pitch of the threads thereon, so that the yoke will slide freely on the rod and engage therewith when required by the interlocking of the screw-threads on each, all substantially as herein specified.

No. 50,976. Wind Mill Regulator.

(Régulateur de moulin à vent.)

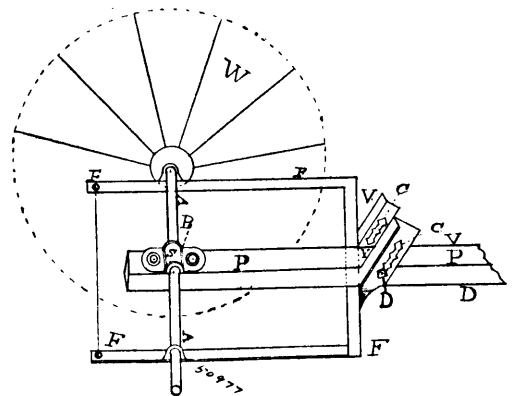
Arthur S. Clark, Saline, Michigan, U.S.A., 8th January, 1896; 6 years. (Filed December 18th, 1895.)

Claim.—1st. In a windmill regulator, the combination of a ratchet wheel, a stationary pawl, a pawl operated by the windmill, and de-



VICES for shifting the ratchet wheel in and out of engagement with the pawls, substantially as described. 2nd. In a windmill regulator, the combination of a ratchet wheel, a hub upon which it is journaled, an eccentrically arranged supporting shaft therefor, a stationary pawl, a pawl operated by the windmill, and means controlled by the float for rocking the hub, whereby the ratchet wheel is moved in and out of engagement with the pawls, substantially as described. 3rd. In a windmill regulator, the combination of the ratchet wheel having a holding pawl and an actuating pawl operated by the windmill, of an eccentric for shifting the wheel, a weighted lever for rocking the eccentric and a connection for operating the weighted lever, substantially as described. 4th. In a windmill regulator, the combination of a ratchet wheel having a holding pawl, an actuating pawl operated by the windmill, an eccentric for shifting the wheel, a weighted lever for rocking the eccentric, a lever connected to the float for operating the weighted lever, the parts being arranged with a lost motion between the float operated lever and the weighted lever, and between the weighted lever and the eccentric, substantially as described. 5th. In a windmill regulator, the combination of a bracket, a shaft pivoted therein, an open eccentric thereon, an interiorly notched wheel journaled thereon a stub shaft on the bracket projecting through the eccentric, a weighted lever fulcrumed about the stub shaft, connected at one end to the pump rod, and carrying a pawl at the inner end, a stationary pawl beside the wheel and adapted to engage the toothed rim thereof, a connection with lost motion between the weighted lever and the eccentric, and a lever pivoted on the stub shaft beside the weighted lever and having a connection with lost motion with said weighted lever and operating means for said lever.

No. 50,977. Cultivator. (Cultivateur.)



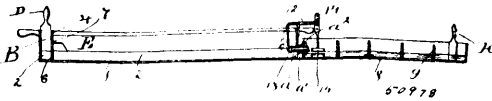
Walter Couthard, Oshawa, Ontario, Canada, 8th January, 1896; 6 years. (Filed August 2nd, 1895.)

Claim.—1st. In cultivators or seeders, a pole yoke with slots and notches, or holes, in the sides as described, in combination with an axle, a sleeve bracket, a pole, a frame and a bolt, substantially as and for the purposes described. 2nd. In cultivators or seeders, a tooth holder furnished with jaws to grip the transverse bars of the sectional drag bars and projections to grip the same, and a bolt and nut, substantially as and for the purposes described. 3rd. In cultivators or seeders, in which sectional drag bars are used, the combination of a tooth clip fastened to the transverse bar with a single bolt and arranged to move transversely on a single transverse bar, substantially as and for the purposes described. 4th. In cultivators or seeders, a tooth holder furnished with jaws to grip the transverse bar of the sectional drag bars in combination with such drag bars,

projections *g, g*, a bolt and tooth, substantially as and for the purposes described. 5th. In cultivators or seeders, an elongated washer having its opening at one end and large enough to admit a pressure spring rod, and contracted at the other so as to fit grooves in the rod, in combination with the pressure spring rod and spiral spring, substantially as and for the purposes described.

No. 50,978. Evaporator for Boiling Sap.

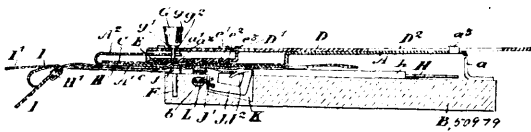
(Appareil évaporatoire pour la sève.)



Reid Page Small, Dumham, Quebec, Canada, 8th January, 1896; 6 years. (Filed July 27th, 1895.)

Claim.—1st. An evaporator for boiling sap in sugar and syrup making, having separate sugar and syrup boiling sections detachably connected together and communicating with each other by a horizontal tubular connection, for the purpose set forth. 2nd. An evaporator section for boiling sap in sugar and syrup making, having a corrugated bottom and an emptying channel extending transversely of the corrugations, communicating with and being common to all, with suitable outlet for the purpose set forth. 3rd. An evaporator for boiling sap in sugar and syrup making, having separate sugar and syrup boiling compartments, a horizontal tubular communicating passage between them, and an automatically operated valve, for controlling the flow through such passage, for the purpose set forth. 4th. In an evaporator for boiling sap in sugar and syrup making, the combination with corrugated section and an emptying channel extending transversely of the corrugations and communicating therewith and provided with suitable outlet and suitable gates located in said channel, for the purpose set forth. 5th. In an evaporator for boiling sap in sugar and syrup making, a boiling section having a corrugated bottom and an emptying channel extending transversely of the corrugations, communicating with and being common to all, with suitable outlet, a second section and an automatically controlled passage between the two sections, for the purpose set forth. 6th. In an evaporator for boiling sap in sugar and syrup making, the combination with the separate sections provided with suitable openings, of the tube *a* having flange *a*¹ whereby it is soldered to one of the sections, and retaining nut *a*², for the purpose set forth. 7th. In an evaporator for boiling sap in sugar and syrup making, the combination with the separate sections provided with suitable openings *b* of the tube *a*, having flange *a*¹, retaining nut *a*², a tubular connection between such section and a lever, float and valve for automatically opening and closing such tubular connection, for the purpose set forth.

No. 50,979. Type Writing Machine. (Clavigraphie.)



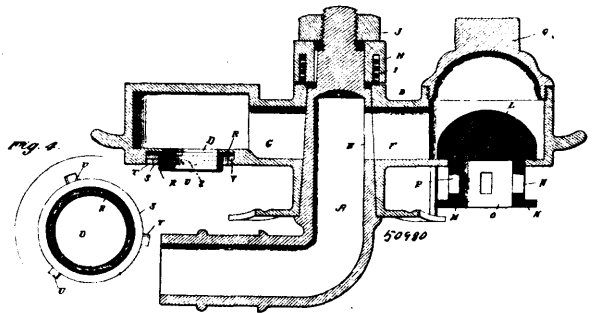
Aaron E. Bergey, Toronto, Ontario, Canada, 8th January, 1896; 6 years. (Filed June 5th, 1895.)

Claim.—1st. In a machine of the class described, an operating finger key consisting of a finger clasp upper portion, a shoulder beneath such portion and a tapered stem of less diameter than the shoulder and extending downwardly from same, as and for the purpose specified. 2nd. In a typewriting machine, in combination a swinging tilting plate suitably pivoted, adjustable lengthwise, and having a broad end provided with radial sets of holes, a type plate adjustably connected to the broad end of the said plate, and provided underneath with suitable type, a finger key provided with a tapered lower projection designed to fit into one of the holes of the plate, and a solid platen secured in the base board, as and for the purpose specified. 3rd. In a typewriting machine, in combination a swinging tilting plate suitably pivoted, adjustable lengthwise, and having a broad end provided with radial sets of holes, a type plate adjustably connected to the broad end of the said plate, and provided underneath with suitable type, a finger key provided with a tapered lower projection designed to fit into one of the holes of the plate, and an arm provided with a notched end to form a guide for the finger key, as and for the purpose specified. 4th. In a typewriting machine, the combination with a spring plate secured at one end, of the bed plate formed as shown, and provided with an outwardly extending guide arm provided with a notch and a hole in the spring plate directly beneath the centre of the notch, of a swinging tilting plate provided with sets of holes in its broad end and a type plate connected to the broad plate underneath, a finger key designed to fit into one or other of the holes of the sets, and a solid platen secured in the base board directly underneath the hole in the spring plate, as and for the purpose specified. 5th. The combination with the spring plate having an opening at its front end,

the swinging tilting plate adjustable lengthwise having a broad end and a type plate situated below the broad end and connected to it, and provided with type as specified, of an inking pad secured upon the end of the spring plate, and having an opening corresponding in size and position to the opening in the front end of the spring plate, as and for the purpose specified. 6th. In a machine of the class described, a swinging tilting plate having a broad end and a type plate situated beneath, adjustably connected to the broad end and having an upwardly extending finger, and a slot in the narrow portion of the swinging plate in which the said finger fits, and is adjustable as and for the purpose specified. 7th. In a machine of the class described, a swinging tilting plate having a broad end, sets of holes made therein and side notches, of a type plate situated beneath and having an upwardly extending flange with overturned lips extending into and over the edge of such notches and limiting means for the longitudinal movement of the type plate in relation to the broad end, as and for the purpose specified. 8th. In a machine of the class described, a swinging tilting plate having a broad end, sets of holes made therein and side notches, of a type plate situated beneath and having an upwardly extending flange with overturned lips extending into and over the edge of such notches, and a finger *e*³ extending upwardly from the type plate and notch *d*² to receive such finger, as and for the purpose specified. 9th. In a machine of the class described, in combination an alarm situated in the base board, a spring plate, means for depressing the spring plate and a spring hammer forming parts of the spring plate and designed to be brought in contact with the alarm upon the depression of the plate when the sheet of paper does not intervene, as and for the purpose specified. 10th. In a type writing machine, the combination with a ratchet bar for moving the paper and having a cross bar secured to its front end, of a broad loop-shaped spring clamping plate held on the cross bar and provided with opening fingers as and for the purpose specified. 11th. In a type writing machine, the combination with a ratchet bar for moving the paper having a cross bar secured to its front end, of a broad loop-shaped spring clamping plate provided with a central notch *H*², and the pins *h*², secured in one of the holes *h*¹, of the cross bar *H*¹, as and for the purpose specified. 12th. The combination with the ratchet bar adapted to have the sheet of paper connected at one end thereto and held in suitable guide-ways, of a rocking detent pivoted in the base board provided with a dog-shaped end, spring held to such ratchet bar, and having an inclined cap *J*², and the spring plate *A*, and means for depressing the same upon the cap *J*², as and for the purpose specified. 13rd. The combination with the ratchet bar and rocking detent having the dog-shaped end operated as specified, of a guiding plate *H*³, as and for the purpose specified. 14th. The combination with the ratchet bar and rocking detent having the dog-shaped end operated as specified, of a pin *M*, having its inner end located opposite to the spring-held, dog-shaped end of the rocking detent as and for the purpose specified.

No. 50,980. Brake Pipe Coupling.

(Joint pour tuyau de frein.)



Martin L. Weaver, Hornellsville, New York, U.S.A., 8th January, 1896; 6 years. (Filed May 14th, 1895.)

Claim.—1st. A brake pipe coupling having two ports adapted to be interchangeably used, one of which ports is unobstructed and the other being provided with a self closing valve. 2nd. A valve made of molded flexible material in one piece provided with an imperforate head, a gasket or flange, an intervening neck provided with lateral ports and a longitudinal port through the gasket and neck connecting with the lateral ports. 3rd. A pivoted or swiveled brake pipe coupling member having opposite arms one of which is provided with an open port, and the other with a self closing valve. 4th. A pivoted coupling having opposite arms provided with ports in each end thereof unobstructed and the other having a valve, a pivot spindle or plug, a collar fast on the plug, and a latch engaging the plug for locking the coupling when its arms are reversed. 5th. In a pipe coupling, the combination of a gasket seat having recesses, and a gasket retaining ring having projections thereon adapted to engage said-recesses, one of the parts being cam-faced. 6th. The combination of the hollow brake pipe spindle or plug having a lateral port, a two armed coupling swiveled thereon, and ports in each arm of the coupling, one of which is open and the other provided with a self closing valve. 7th. The combination of the hollow brake

pipe spindle or plug, a pivoted coupling swiveled thereon, having one arm unobstructed and the other provided with a valve, a collar fast upon the plug, a lock stop upon the collar, a latch or lock upon the coupling adapted to engage the lock stop, a spring interposed between the collar and coupling, and a nut for adjusting the tension. 8th. A detachable brake pipe coupling located upon one car and provided with a valve, combined with a similar coupling upon an adjoining car and unprovided with a valve, and adapted to be coupled to each other.

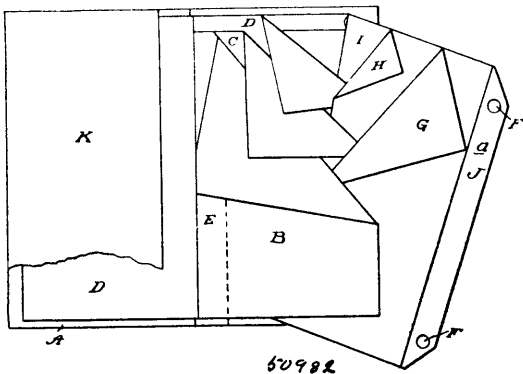
No. 50,981. Manufacture of Iodine Compound.

(Fabrication d'un composé d'iode.)

Dr. Alexander Classen, Aix la Chapelle, Germany, 8th January, 1896; 6 years. (Filed February 6th, 1895.)

Claim.—1st. The process for the manufacture of new iodine compounds wherein the oxy derivatives of triphenylmethane and its analogues or the oxy derivatives of the substitution products derived from triphenylmethane and its analogues, or the secondary aromatic amines such as diphenylamine and its analogues or their derivatives or the tertiary amines corresponding to these secondary amines are treated with iodine or substances yielding iodine, substantially as herein described. 2nd. As a new manufacture tri-iodo aurine and its salts. 3rd. As a new manufacture, tri-iodo rosolic acid, and its salts. 4th. As a new manufacture, tetra-iodo-phenol phthalein and its salts. 5th. As a new manufacture di-iodo carbazol. 6th. As a new manufacture di-iodo-diphenyl amine. 7th. As a new manufacture di-iodo nitroso diphenylamine. 8th. As a new manufacture acetyl di-iodo diphenylamine. 9th. As a new manufacture, benzoyl di-iodo diphenylamine. 10th. As a new manufacture acid derivatives of di-iodo diphenylamine.

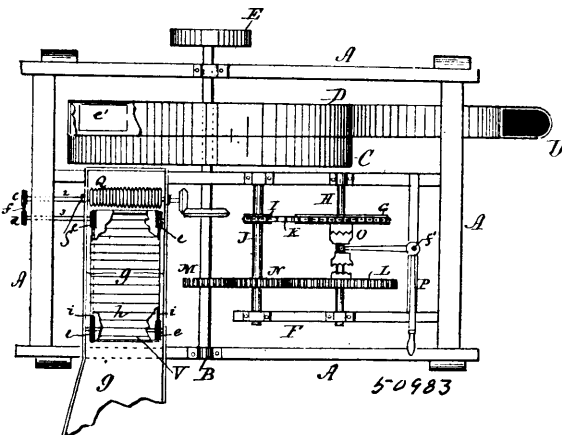
No. 50,982. Receipt Book. (Livre de quittance.)



John D. D. Mortimer, Stockton, California, U.S.A., 8th January, 1896; 6 years. (Filed September 29th, 1894.)

Claim.—1st. As an improved article of manufacture, the shipping receipt-book herein described, consisting, essentially, of the covers A, suitable connected together, the shipping order detachably connected to a stub, which in turn is permanently connected to the covers, the detachable shipping-receipt arranged after the shipping-order and next to the same, said shipping receipt being detachably connected to a stub, which in turn is permanently connected to the covers, the permanent or stationary shipping-receipt arranged after the detachable shipping-receipt, and next to the same, the said permanent shipping receipt, which is designed to remain in the book and form a permanent record, being permanently connected to the covers, the flap K, attached to the cover A, the waxed paper I, the pasteboard bar a, provided with the holes F, the carbon sheets H, G, attached to the cloth J, and the cloth J, all substantially as shown and described. 2nd. A shipping receipt-book substantially as described, provided with an original and two duplicate sheets, in combination with the holding flap K, attached to the inside of one of the covers, and the carbon attachment consisting of the waxed paper I, the pasteboard bar a, provided with the holes F, and the carbon sheets H, G, attached to the cloth J, which is attached to the bar a, all substantially as shown and described. 3rd. As an improved article of manufacture, the shipping receipt-book herein described, consisting, essentially, of the covers A, suitably connected together, the shipping order B, detachably connected to a stub, which in turn is permanently connected to the covers, the detachable shipping-receipt C, arranged after the shipping-order and next to and narrower than the same, said shipping-receipt C, being detachably connected to a stub, which in turn is permanently connected to the covers, the permanent or stationary shipping-receipt D, of same width as and arranged after the detachable shipping-receipt C, and next to the same, the said permanent shipping-receipt, which is designed to remain in the book and form a permanent record, being permanently connected to the covers, the flap K, attached to the cover A, the waxed paper I, the pasteboard bar a, provided with the holes F, the carbon sheets H, G, attached to the cloth J, and the cloth J, all substantially as shown and described.

No. 50,983. Straw Cutter. (Hache-paille.)

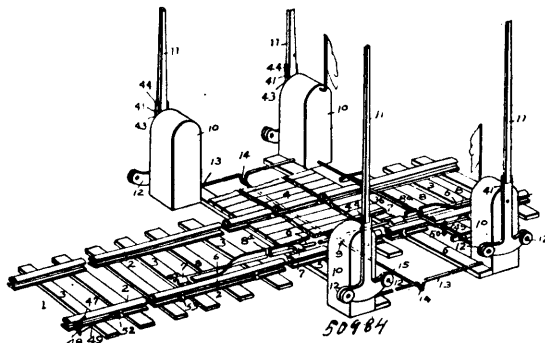


John Addison Smith, Palermo, Ontario, Canada, 8th January, 1896; 6 years. (Filed November 14th, 1895.)

Claim.—1st. In a straw cutter, a fan box containing a series of fans made to operate in the fan box attached to the cutter wheel, and a conveyor attached to the fan box, for blowing the cut feed away from the machine to any desired spot a distance from the straw cutter, substantially as described. 2nd. In a straw cutter, the combination of the top feed roller, a frame attached to the said roller and a spiral spring secured to the frame of the roller and to the under frame of the machine to pull down the top roller to the proper feeding distance from the lower roller, substantially as specified. 3rd. In a straw cutter, a shaft H journalled in an auxiliary frame inside of the main frame, having a sprocket wheel m upon its outer end, a shaft o on the outside of the main frame, having a sprocket wheel n keyed on one end of it, and connected with the sprocket wheel m by an endless chain q, a bevel wheel r, keyed on the opposite end of the shaft o, made to mesh into a corresponding bevel wheel s, on a shaft 2 attached to the lower feed roller R to rotate it, a pinion v, on the shaft 2 made to mesh into a corresponding pinion v on the shaft u attached to the top roller Q to rotate it, sprocket wheels G and I on their respective shafts J, H, a sprocket chain K passing around them, a clutch device O and lever P for reversing them, the gear wheel L on the shaft H, a gear wheel M on the main shaft B, an intermediate pinion N connecting the said two gear wheels all constructed and arranged to reverse the feed rollers when desired, substantially as specified. 4th. In combination with a straw cutter, a moveable carrier made to operate in the feed box to carry the feed to be cut to the rollers and cutter, substantially as described.

No. 50,984. Automatic Railroad Gate.

(Barrière de chemin de fer automatique.)



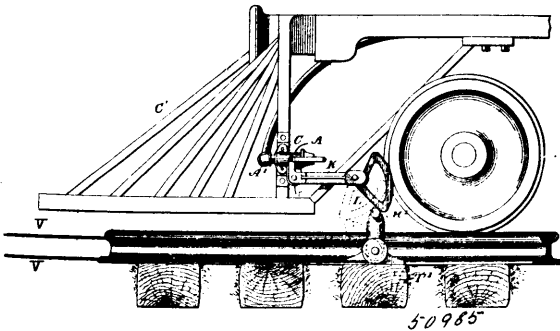
William Thomas Crawford, Tampa, Florida, U.S.A., 8th January, 1896; 6 years. (Filed November 20th, 1895.)

Claim.—1st. The combination of a counter-balanced arm adapted when free to occupy a normal position, actuating devices located on each side of the arm and operatively connected together and to the said arm, a locking mechanism for each arm actuating device normally occupying an operative position, and a trip for each locking mechanism so disposed that the approaching train will operate the trip on the approach prior to operating the said arm actuating device and throw the lock connected therewith out of operative relation, the arm actuating mechanism when operated being held by the lock at the departure side, and the trip at the latter side being operated by the departing train to release the said arm actuating devices, substantially as described. 2nd. The combination of a supporting post, counter-balanced vertically swinging gate-arms, having spring-

joints, a bell, a movable flag-staff, operating devices within the post for the gate-arm, the flag-staff and the bell, a spirally flanged rock-shaft journaled along one of the track-rails, connections between the rock-shaft and the gate operating devices within the post, a pedal located beside the track beyond the rock-shaft, and flexible connections from the pedal to the bell and flag operating devices, all substantially as shown. 3rd. The combination, with gate arms arranged to return automatically to their open position, of a spirally flanged crank-shaft at each side of the crossing, connecting mechanism between crank-shafts whereby they are compelled always to move together, an automatic locking device at the outer end of each shaft consisting of a grooved and notched cam wheel 55 thereon, together with a transverse rock-shaft 56, having pins 57 and 58 to engage said cam-wheel, and a returning spring 60, and a relieving arm on shaft 56, by which the pins are released from the cams as the train is departing, substantially as shown. 4th. The combination of the two, flanged crank-shafts, the notched and grooved cam-wheels on the outer ends of said shafts, the two transverse rock-shafts, provided with pins for engaging the cam-wheels, the relieving arms, and the lever and cable connections uniting the two sets of devices to each other and to the guard devices at the crossing, substantially as shown. 5th. The combination of movable arms pivoted on suitable standards, a flag-staff, flag operating mechanism located in said standards, apparatus located on the track for operating the arms from a distance, and track irons more remote from the crossing for actuating the flag operating mechanism, all substantially as shown. 6th. The combination of the gate arms, the flanged crank-shafts located at a distance from the crossing, one on each side thereof, working connections between said shafts whereby they move in unison, cams on the outer ends of said shafts, rock-shafts located transversely between the rails, having pins for engaging the cams, springs on the latter shafts, and bearings therefor, all substantially as shown. 7th. The combination of the pedal 47, the crank-shaft 36 oscillated thereby, the flag-staff 30, the double crank-shaft 32, the connections between the cranks of the said three shafts whereby the oscillations of shaft 36 are transmitted to the flag, the arm 30a projecting from the flag-staff, the wheel on the gate-shaft and the two pins 26a and 26b projecting therefrom, all substantially as shown. 8th. A gate arm, consisting of an inner pivoted and weighted section 40, having ears at its outer end, an outer section 42, pivoted between said ears, and a spring loop 43, bearing against the inner end of arm 42, and having its ends coiled around the ends of pivot 41, whereby the two arms are normally held in line with each other, all substantially as shown.

No. 50,985. Automatic Power Brake.

(Frein automatique.)



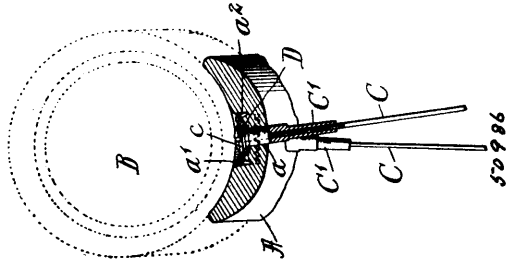
John H. Fox, New York, State of New York, U.S.A., 8th January, 1896; 6 years. (Filed December 5th, 1895.)

Claim.—1st. In an emergency air-brake valve, the combination with an arm for actuating the valve lever, of a valve casing, a valve lever pivoted adjacent thereto and provided with a trip to engage the arm, a valve with stem and suitable connection to the valve lever, a pawl for locking the valve when opened, and means for disengaging the pawl, substantially as herein set forth. 2nd. In an emergency air-brake valve, the combination with the casing A, having the foot B for attachment to its support, and the lug D formed upon one side of the casing, of the forked lever K having a trip L pivoted in its outer end, and having the cranks E projected to the centre line upon opposite sides of the casing, the removable cap containing the valve seat F, with valve G having a grooved stem (G') projected outside of the cap, the cross head H secured upon the stem, the links J connecting the cranks with the cross head, and provided with one or more ratchet teeth, and the pawl O secured upon the casing, and provided with a handle projected beyond the side of the casing, as herein set forth. 3rd. The means for automatically actuating an air-brake valve, consisting in a bearing having a rock shaft connected by suitable means with a tread lever, switch, or draw bridge, a dog attached to such shaft, and springs fulcrumed upon the bearing and operating normally to hold the dog in the path of the brake valve lever if such connections are broken. 4th. In a dog for actuating an air-brake valve, the combination with the arm M having the the-head M', of the ribs Q projecting upon

the arm beyond the sides of the head, as herein set forth. 5th. The combination with the brake valve and a brake valve lever having a transverse pin as described, of the pivoted trip L with stops to limit its motion upon the pin, and the trip being weighted to throw its forward edge L at an inclination opposite to its operative inclination, as and for the purpose set forth. 6th. In a device for automatically stopping railway trains, the combination with the brake valve lever carried by a moving train, of a dog mounted movably beside the track and adapted when set to engage the brake valve lever, a primary tread lever beside the track rail with connections for setting the dog in the path of the brake lever by the depression of such tread lever, and a secondary tread lever with connections for retracting the dog by the depression of such secondary lever, substantially as herein set forth. 7th. A device for automatically stopping railway trains upon a given block or section of railway track, comprising dogs mounted movably in suitable bearings beside the track at opposite ends of such block, and adapted when set to engage a brake valve lever upon a moving train, a primary tread lever beside the track rail with connections for setting both dogs, and two secondary levers near the opposite ends of the section, with connections to the dogs, adapted by the depression of either of such levers by the passing train to retract the dogs and elevate the primary tread lever, substantially as herein set forth. 8th. An overlapping safety block system, comprising a series of primary tread levers mounted at the side of the rail, one at the middle of each block, dogs mounted movably at the side of the track at the opposite ends of each block, and adapted when set to engage a brake valve lever upon a moving train, with suitable connections to the primary lever for setting such dogs by the depression of the lever, a secondary lever near each end of the block with suitable connections to both of the dogs for retracting the same by the depression of such lever, and the primary lever of each section being arranged for actuation by the moving train in advance of the last secondary lever of the preceding block, whereby the dogs at opposite ends of each section are set in an operative position before the dogs upon the next preceding block are retracted, substantially as herein set forth.

No. 50,986. Bicycle Spoke Washer.

(Rondelle de rais de bicyclette.)

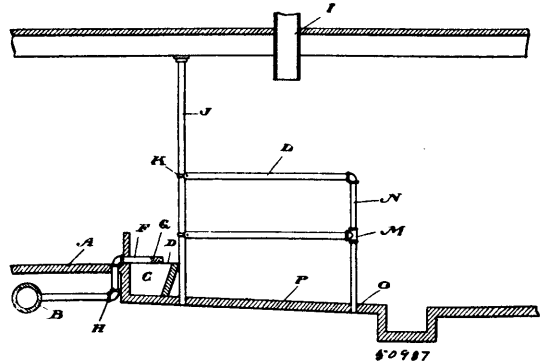


Axel Levedahl and George Sherman Webb, both of Aurora, Illinois, U.S.A., 8th January, 1896; 6 years. (Filed December 6th, 1895.)

Claim.—A vehicle wheel provided with a wooden rim, wire spokes having head-d parts or nipples engaging said rim, and circular spoke washers having central concavities, within which the heads of the spokes or nipples are situated and provided with down turned, toothed, marginal flanges, said rim being provided with recesses surrounding the spoke holes, and having marginal grooves, into which grooves said flanges are inserted and into the wood at the bottom of which the teeth of the flanges are forced whereby the portions of the rim on opposite sides of the spoke holes are firmly clamped together against splitting.

No. 50,987. Means for Ventilating Stables.

(Moyen de ventilation pour étables.)



Isaac Usher, Thorold, Ontario, Canada, 8th January, 1896; 6 years. (Filed December 20th, 1895.)

Claim.—1st. A means for ventilating a stable, consisting of a series of perforated nozzles, located on the floor level, a fresh air duct, and a connection between the fresh air duct and the perforated nozzles, substantially as specified. 2nd. A means for ventilating a stable, consisting of a series of perforated nozzles, located on the floor level, a fresh air duct, a connection between the fresh air duct and the perforated nozzles, and a ventilating shaft extending from the upper part of the stable through the roof to carry off the foul air and gases, substantially as specified. 3rd. A means for ventilating a stable, consisting of a fresh air duct located below the level of the floor of the feed-walk, a feed-trough below the level of the feed-walk and adjacent thereto, a series of partitions dividing the feed-trough into compartments, a perforated nozzle located on the top of each of the partitions, and a branch pipe connecting the perforated nozzles with the fresh air duct, substantially as specified. 4th. A means for ventilating a stable, consisting of a fresh air duct located below the level of the floor of the feed-walk, a feed-trough below the level of the feed-walk and adjacent thereto, a series of partitions dividing the feed-trough into compartments, a perforated nozzle located on the top of each of the partitions, a branch pipe connecting the perforated nozzles with the fresh air duct, and a ventilating shaft adapted to convey the foul air and gases from the upper part of the stable, substantially as specified.

No. 50,988. Metallic Carbides and the Production Thereof. (Carbure métallique.)

Thomas Leopold Willson, New York, State of New York, U.S.A., 8th January, 1896; 6 years. (Filed August 27th, 1894.)

Claim.—1st. The new commercial product hereinbefore described, being a crystalline carbide of calcium or analogous metal, said carbide capable of mutual decomposition with water to form a hydrocarbon gas. 2nd. The new commercial product hereinbefore described being crystalline calcium carbide. 3rd. The new commercial product hereinbefore described, being calcium carbide existing in an aggregated mass resulting from its solidification from the state of fusion. 4th. As a new manufacture, a crystalline metallic carbide capable of reaction with water, enclosed in a vessel or covering to protect it from moisture, whereby it is preserved against the action of the moisture of the atmosphere until ready for use. 5th. The described process of producing a crystalline metallic carbide having a reaction with water, which consists in subjecting the oxide of calcium (or analogous metal) with carbonaceous matter, to electric smelting. 6th. The described process of producing crystalline calcium carbide consisting in subjecting lime and a carbonaceous substance to intense heat in an electric furnace.

No. 50,989. Production and use of Hydrocarbon Gas.

(Production de gaz à hydrocarbures.)

Thomas L. Wilson, New York, State of New York, U.S.A., 8th January, 1896; 6 years. (Filed August 30th, 1894.)

Claim.—1st. The described process of producing hydrocarbon gases, which consists in first treating in an electric furnace a compound of a metal of the group existing in the native state as carbonates, to form a carbide of such metal, and second mutually decomposing such carbide with water to generate a hydrocarbon gas. 2nd. The described process of producing acetylene, which consists in first treating calcium oxide with carbonaceous matter in an electric furnace, to produce calcium carbide, and second mutually decomposing the calcium carbide with water to liberate acetylene. 3rd. The described process of producing illuminating gas, which consists in first treating calcium oxide with carbonaceous matter in an electric furnace to produce calcium carbide, mutually decomposing this carbide with water to generate acetylene and mixing oxygen therewith. 4th. The described process for producing illuminating gas, which consists in first treating calcium oxide with carbonaceous matter in an electric furnace to produce calcium carbide, then covering said carbide to exclude moisture until ready for use, and finally mutually decomposing the carbide with water to generate acetylene. 5th. The process of making and using commercial illuminating gas of high luminosity, which consists in combining water and calcium carbide, collecting the resulting acetylene, storing the same in a suitable receptacle, and finally burning the same with the addition of oxygen, in a suitable burner, thereby producing an illuminating flame. 6th. The process of making and using commercial illuminating gas of high luminosity, which consists in combining water and calcium carbide, collecting the resulting acetylene, storing the same in a suitable receptacle, mingling the same with a suitable quantity of oxygen or air, and finally burning the same with the addition of oxygen, in a suitable burner, thereby producing an illuminating flame. 7th. The process of making and using commercial illuminating gas of high luminosity, which consists in combining water and calcium carbide, collecting the resulting acetylene, storing the same in a suitable receptacle into which it is caused to pass by its own pressure of generation, and finally burning the same with the addition of oxygen, in a suitable burner, thereby producing an illuminating flame. 8th. As a new composition of matter, useful for purposes of combustion, acetylene gas, oxygen and nitrogen mingled together in substantially the proportions stated.

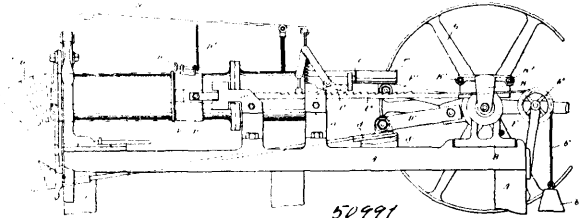
No. 50,990. Process of Electric Smelting.

(Fonderie électrique.)

Thomas Leopold Willson, New York, State of New York, U.S.A., 8th January, 1896; 6 years. (Filed January 21th, 1895.)

Claim.—1st. The process of electric smelting which consists in subjecting a pulverized material to be reduced and a pulverized reducing agent to the action of an electric arc formed by an alternating current. 2nd. The process of electric smelting which consists in feeding a pulverized material to be reduced and a pulverized reducing agent to an electric arc formed by an alternating current, whereby by the pulsations of the arc the materials are progressively drawn within its influence. 3rd. The process of producing calcium carbide, which consists in feeding pulverized lime and carbon into an electric arc formed by an alternating current.

No. 50,991. Machine for Making Crimped Stove Pipe Elbows. (Machine pour faire des coudes de tuyau de poêle gaufrés.)



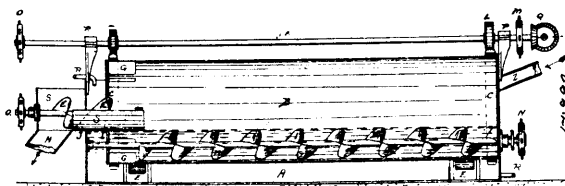
George Cumin, Montreal, Quebec, Canada, 8th January, 1896; 6 years. (Filed September 17th, 1895.)

Claim.—1st. In a pipe-elbow machine, the combination with the driving shaft C, the two eccentrics D and E, and means for connecting the said eccentrics to the said shaft alternately, of a crimping device operatively connected to the eccentric D, and discs for compressing and smoothing the crimp, operatively connected to the eccentric E, substantially as set forth. 2nd. In a pipe-elbow machine, the combination with the driving shaft C, provided with a slot C', of the eccentrics D and E mounted on the said shaft, and provided with notches, the rod sliding in a hole in the shaft C, and provided with the cotter I for alternately coupling the said eccentrics to the shaft, a cam plate secured on the shaft C, and tappet mechanism secured to the said rod and operated by the said cam, whereby the said rod is reciprocated in the shaft, substantially as set forth. 3rd. In a pipe elbow machine, the combination with the rod M, and driving mechanism for reciprocating it, of the wedge m secured to the said rod, the jointed frame r resting on the said wedge, and the crimping device supported by the said frame, and raised and lowered by the said wedge, substantially as set forth. 4th. In a pipe-elbow machine, the combination with the yoke Y, formed of two separable parts provided respectively with the curved guide grooves V and W, and the revoluble shaft provided with right and left hand screw threads engaging with the said parts of the yoke and affording a means for opening and closing it, of the crimping device provided with guide bolts sliding in the said grooves, and driving devices operating to raise and lower the said crimping device, substantially as set forth. 5th. In a pipe-elbow machine, the combination, with the stationary guides 8, of the slide 6 working in the said guides, the frame consisting of the cross-piece r secured to the said slide and the pivoted links r¹, r², the crimping device pivotally connected to the said links, the wedge m, arranged under the said cross-piece and slide, and means for reciprocating the wedge and thereby raising and lowering the crimping device, substantially as set forth. 6th. In a pipe-elbow machine, the combination, with the mandrel N¹, of the disc U pivoted to the disc U¹, the piston T sliding therein, the disc U¹ secured to the said piston, the reciprocatory cross-head e provided with the slot e', the rod e², provided with a pin e³ sliding in the said slot, the front end of the said rod being connected to the said discs, and piston, and the rod e³, pivoted to said cross-head and connected to the disc U, substantially as and for the purposes set forth. 7th. In a pipe-elbow machine, the combination, with the mandrel N¹, and the ring P¹, sliding thereon and provided with clamping devices for the tube to be crimped, of the reciprocatory cross-head e, the rack bars provided with ratchet teeth and secured to the said ring, the pawls pivoted to the cross-head and engaging with the rack bars, and stop pawls for preventing the reverse motion of the rack bars, substantially as set forth. 8th. In a pipe-elbow machine, the combination, with the mandrel N¹, and the ring P¹, sliding thereon and provided with clamping devices, of the toothed rack bars and the weights attached to them and operating to pull the said ring rearwardly along the mandrel, the reciprocatory cross-head e, and the pawls pivoted to it and engaging with the rack bars, the stop pawls b, and pivoted link mechanism operating to raise the said pawls simultaneously, thereby permitting the said ring to slide back, substantially as set forth. 9th. In a pipe-elbow machine, the combination, with the reciprocatory cross-head e, provided with pawls t², and tappet d², the rack bars engaging with the said pawls, the mandrel, and the ring sliding on the mandrel, secured to the rack bars, and provided with clamp-

ing devices, of disengaging mechanism for stopping the machine, provided with an operating rod having a shoulder *d*¹, the spring actuated lever 16 normally supporting the end of the said rod, and a projection on one side of one of the rack bars for operating the said lever and lowering the end of the said rod, thereby permitting the tappet to strike the said shoulder and operate the said disengaging mechanism, substantially as set forth. 10th. In a stove pipe-elbow crimping machine, the combination of the hinged sections *S*⁵, and *S*⁶, and the crimping jaws *S*¹, *S*², *S*³, *S*⁴, adjustably attached thereto. 11th. In a stove pipe-elbow crimping machine, the smoothing disc pivoted to the reciprocating disc by the central convex boss, as set forth. 12th. In a pipe-elbow machine, the combination, with a stationary mandrel, and a ring sliding thereon and provided with clamping devices for the tube to be crimped, of a yoke for supporting the tube at the free end of the mandrel, a vertically sliding crimping device arranged in front of the said yoke, the compressing and smoothing discs arranged inside the tube at the free end of the mandrel, reciprocatory driving mechanism and intermediate connections operating to advance the said ring and tube step by step and to reciprocate the said discs, reciprocatory driving mechanism for operating the crimping device when the said discs are pushed forward, and a driving shaft provided with automatic coupling devices connecting it with the two said driving mechanisms alternately, substantially as and for the purpose set forth.

No. 50,992. Machine for Cleaning Grain.

(Machine pour nettoyer le grain.)

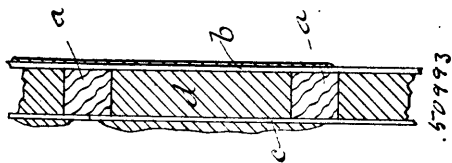


Frank W. Swanton, Superior, Wisconsin, and Colin Beaton, Duluth, Minnesota, both in the U.S.A., 9th January, 1896; 6 years. (Filed December 3rd, 1895.)

Claim.—The combination of the tank A partly filled with water, the reel B, the conveyors D and E, the carriers G, G, the conveyor box S, S, and the spouts Z and H in one machine, which is constructed and operated, substantially in the manner and for the purpose hereinbefore set forth.

No. 50,983. Construction of Buildings.

(Construction de bâtisses.)



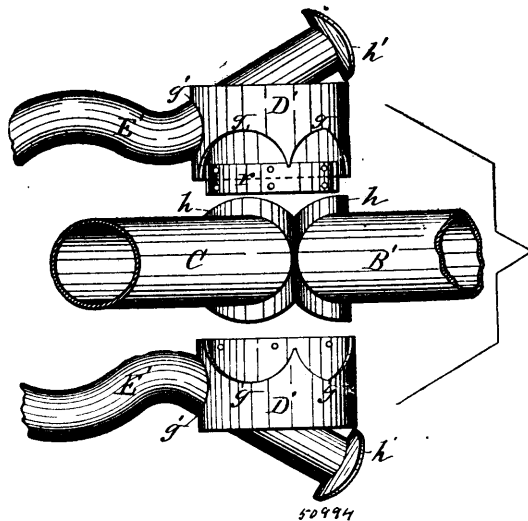
John Henry Wood, Montreal, Quebec, Canada, 9th January, 1896; 6 years. (Filed December 9th, 1895.)

Claim.—1st. A building wall composed of studding, lathing and a plastic body, the latter applied on the interior sides of the lathing, extending through the slits therein and spread over the exterior surfaces thereof, for the purposes set forth. 2nd. A building wall composed of studding, inside and outside lathing and a plastic body adapted to fill all intervening spaces and form a cover for the whole, for the purpose set forth. 3rd. A building wall composed of interior studding, inside and outside lathing and a plastic body introduced into the intervening space and extending through the slits of the lathing to the exterior surfaces thereof over which it is spread, for the purpose set forth. 4th. A building wall composed of studding, lathing and a plastic body, the latter consisting of mortar and a body such as gravel or the like applied on the interior sides of the lathing, extending through the slits therein and spread over the exterior surfaces thereof, for the purposes set forth. 5th. A building wall composed of studding, outside lathing over the two outside faces of same, projecting strips on the inside face of the studding and running lengthwise thereof, inside lathing secured to said strips and a plastic body introduced to fill the spaces between the inside and outside lathing and to extend through the slits in and be spread over the exterior surfaces of the outside lathing, for the purpose set forth.

No. 50,994. Bicycle Frame. (Cadre de bicyclette.)

Lucien Barnes, sr., and Charles Oscar Barnes, both of Syracuse, New York, U.S.A., 9th January, 1896; 6 years. (Filed December 9th, 1895.)

Claim.—1st. In a bicycle frame, the crank hanger composed of a tube divided transversely, a splice uniting the tube sections, and



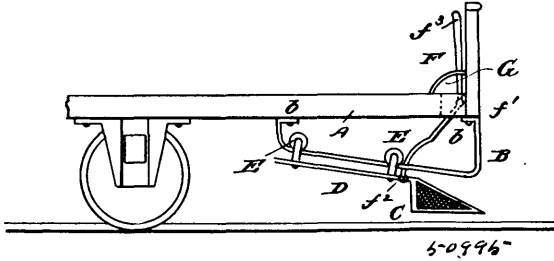
frame members secured to said hanger. 2nd. In a bicycle frame, the crank hanger composed of separate tube-sections united end to end, and frame members secured to said hanger at the junction of the tube-sections. 3rd. In a bicycle frame, the crank hanger composed of separate tube sections united end to end and formed with orifices, and tubular frame members, each of which is inserted at one of its ends into one of said orifices and secured to the interior of said hanger. 4th. In a bicycle frame, the crank hanger composed of separate tube sections united end to end and formed with orifices at the junction of said sections, and tubular frame members each of which is inserted at one end into one of the aforesaid orifices and terminated with a flange secured to the interior of the hanger, as set forth. 5th. In a bicycle frame, the crank hanger composed of separate tube sections abutting end to end, and formed with orifices at the junction of said sections, a ring section splicing the tube-sections together, and tubular frame members, each of which is inserted at one end into one of the aforesaid orifices, and terminated with a flange secured to the interior of the hanger, as set forth. 6th. The combination of a crank hanger composed of separate tube sections united end to end and formed at their junction with orifices intersecting each other, and tubular frame members each inserted at one end into one of the aforesaid orifices, and terminated with a flange secured to the interior of the hanger and with an inward deflection of said flange fastened to a corresponding deflection of the adjacent member, as set forth and shown. 7th. In a bicycle frame, the head A formed in one piece of metal tube, and with the thimble *a*, integral therewith, as set forth and shown. 8th. In a bicycle frame, the head A, formed of a single blank of sheet metal having lateral extensions on its two end portions, the main portion of said blank being bent into shape of a tube, and the aforesaid extensions bent into shape of tubular thimbles, and all permanently united at the meeting edges of the blank, as set forth. 9th. The head A formed in one piece of metal tube, and with the thimble *a*, integral therewith, and with shoulders *a*¹, *a*², on said thimbles, in combination with the frame members B and B¹ secured to said thimbles and abutting against the aforesaid shoulders, as set forth. 10th. The combination with the post C, of the bushing C¹ secured to the interior of said post and projecting from the end thereof, the sleeve *b* embracing the projecting portion of the bushing and resting on the end of the post, and formed with the thimble *b*¹, and the strut B secured to said thimble, as set forth. 11th. The fork crown F composed of two plates constituting the front and rear halves of said crown, said plates being formed with the tubular central portion *c*, and tubular end portions *d*, *d*, and permanently united at their meeting edges, in combination with the head A and steering fork, as set forth. 12th. The fork crown F composed of the front and rear plates F¹, F², formed in their adjacent sides with coinciding semi-tubular central portions *c*, *c*, semi-tubular end portions *d*, *d*, and intermediate depressions *e*, *e*, and rivets *f*, *f*, passing through the depressed portions of the plate and tying the same together in combination with the front post A, and fork legs *i*, *i*, permanently secured in the tubular portions of said plates, as set forth.

No. 50,995. Car Fender. (Defense de chars.)

Max Hecht, and Frederick Christian Kewneke, both of Jersey City, New Jersey, U.S.A., 9th January, 1896; 6 years. (Filed December 21st, 1895.)

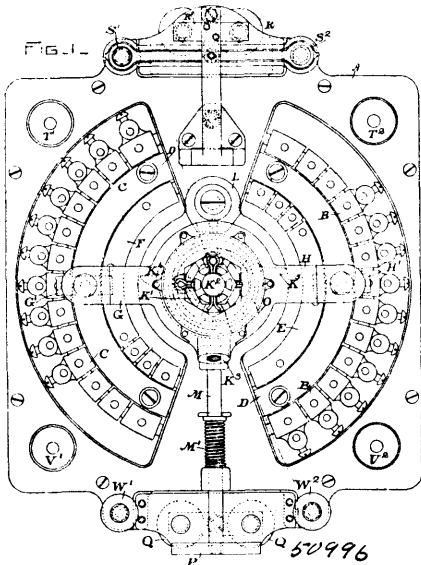
Claim.—1st. A fender or guard for railway cars, consisting of the frame mounted upon rollers, the lever for retaining said frame in position beneath the platform of the car and means for projecting said fender in front of the car, substantially as described. 2nd. A

fender or guard for railway cars, consisting of the main or front portion covered with wire, mesh or similar material, and provided



with rearwardly extending portions carrying rollers, and the inclined frames secured beneath the car and supporting said fender, substantially as described. 3rd. A fender or guard for railway cars, consisting of the main portion provided with rollers, the inclined frames secured upon the under side of the car, the lever pivoted to the car and connected with said main portion to operate the same and means for retaining said lever in position, substantially as described. 4th. A fender or guard for roller cars, consisting of the main portion provided with rollers, the inclined frames secured upon the under side of the car, the lever pivoted to the car and connected with said main portion to operate the same and the segmental rack-bar also secured to said car and adapted to engage said lever to retain the fender in position beneath the car, substantially as described.

No. 50,996. Automatic Rheostat. (Rheostat automatique.)

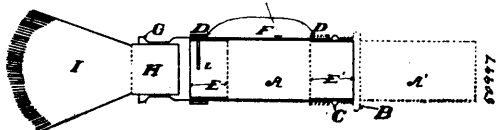


The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Jonathan P. B. Fiske, Lynn, Massachusetts, U.S.A., 9th January, 1896; 6 years. (Filed July 27th, 1894.)

Claim.—1st. The combination with a rheostat of two series of contact plates connected to succeeding points thereof, a second set of contact plates connected to the line terminals, switch arms provided with brushes for establishing connection between each of the latter set of plates and one of the two series contact plates respectively, and an electric motor connected to the rheostat terminals. 2nd. The combination with a rheostat of two series of contact plates connected to succeeding points thereof, a second set of contact plates connected to the line terminals, switch arms provided with brushes for establishing connection between each of the latter set of plates and one of the two series of contact plates respectively, an electric motor connected to the rheostat terminals, an actuating spring for the said switch arm and an automatic stop for the said spring controlled by a magnet in a circuit shunting the motor armature. 3rd. The combination with a rheostat of two series of contact plates connected to succeeding points thereof, a second set of contact plates connected to the line terminals, switch arms provided with brushes for establishing connection between each of the latter set of plates, and one of the two series of contact plates respectively, an electric motor connected to the rheostat terminals, and actuating spring for the said switch arm and an automatic stop for the said spring controlled by a magnet in a circuit shunting the motor armature, a magnet in the main line and contacts controlled

thereby for cutting out the first-named magnet. 4th. In a rheostat having a series of contact plates connected to successive points in the resistance coils, a switch arm for bringing the said coils into or out of the said circuit, a spring drum actuating the switch arm and an automatic detent for the said drum. 5th. In a rheostat having a series of contact plates connected to successive points in the resistance coils, a switch arm for bringing the said coils into or out of the said circuit, a spring drum actuating the switch arm, an automatic detent for the said drum, and a buffer for limiting the movement of the said drum. 6th. In an automatic rheostat, a switch arm and an actuating spring therefor, combined with a detent having a controlling electro-magnet, the said detent having a bevelled point engaging a similarly shaped notch on a part connected to the switch arm. 7th. In an automatic rheostat, the combination with a series of contact plates connected to successive points in the resistance coils, a second contact plate connected to the line terminal, a switch arm carrying an insulated brush adapted to connect the said second contact plate with the said series of contact plates, an actuating spring engaging the metallic part of the said switch arm, and an automatic stop for the said arm. 8th. In an automatic rheostat, the combination with a series of contact plates connected to succeeding points in the resistance coils, a switch arm adapted to connect the main line with the said plates successively, a connection between the terminal of the said coils and the armature circuit of an electric motor, and a connection from the opposite terminal of the coils to the field magnet circuit of the motor whereby the said resistance may be transferred from the armature circuit to the field magnet circuit alternately. 9th. In an automatic rheostat, the combination with a base plate of a series of contact plates mounted thereon with intervening insulation, a spring actuated switch arm mounted centrally upon the same plate and a detent for the said arm with a controlling magnet therefor also mounted upon the plate so as to form a part of the same structure. 10th. In an automatic rheostat for controlling electric motors, the combination with a series of contact plates connected to succeeding points in the resistance coils, a spring actuated switch arm adapted to pass over the said contact plates and mounted concentrically therewith on a common base plate, a detent for the said switch arm, a controlling shunt magnet for the said detent, a magnet in the main line controlling the said shunt magnet, both magnets being mounted to form a common structure with the rheostat, and terminal posts also mounted on the aforesaid base plate and connections therefrom connecting the main line to the motor armature and to the motor field magnet respectively. 11th. In an automatic rheostat, the combination with a series of contact plates connected to succeeding points in the resistance coils, a switch arm adapted to pass over the said contact plates successively, a drum carrying the said arm, a coiled spring concentric with the said drum, a detent for the drum controlled by a shunt magnet, and a magnet in the main line controlling two contacts connected to opposite terminals of the said shunt magnet respectively, the said magnet in the main line being adjusted to respond to an abnormal current. 12th. In an automatic rheostat, the combination with a series of contact plates connected to succeeding points in the resistance coils, a switch arm adapted to pass over the said contact plates and provided with an actuating spring, a detent for the said arm, a magnet controlling the said detent for the said arm, a magnet controlling the said detent and a circuit extending from the terminals of the said magnet to one or more distant push buttons whereby the said resistance may be controlled from any distant point. 13th. In an automatic rheostat, the combination, with a central drum, an actuating coiled spring therefor, switch arms extending oppositely from the said drum and carrying insulated brushes, two series of contact plates corresponding to the said switch arms respectively and connected to succeeding points in the rheostat coils, two additional sets of contact plates concentric with the former series of plates respectively, so as to be connected therewith by the brushes upon the switch arms, a connection from each of the said two plates to the main line, a connection from the rheostat coils to the armature circuit of the motor, and a second connection therefrom to the field magnet circuit of the motor, a detent for the drum, and two magnets mounted on the same structure with the switch arms and contact plates, one of the said magnets being in a shunt circuit and controlling the aforesaid detent and the second magnet adapted to control the shunt magnet and adjusted to respond to an abnormal current. 14th. In an automatic rheostat, the combination with a central drum, an actuating coiled spring therefor, switch arms extending oppositely from the said drum and carrying insulated brushes, two series of contact plates corresponding to the said switch arms respectively and connected to succeeding points in the rheostat coils, two additional sets of contact plates concentric with the former series of plates respectively so as to be connected therewith by the brushes upon the switch arms, a connection from each of the said two plates to the main line, a connection from the rheostat coils to the armature circuit of the motor, and a second connection therefrom to the field magnet circuit of the motor, a detent for the drum, two magnets mounted on the same structure with the switch arm and contact plates, one of the said magnets being in a shunt circuit and controlling the aforesaid detent and the second magnet adapted to control the shunt magnet and adjusted to respond to an abnormal current, and a circuit extending from opposite terminals of the shunt magnet to a distance where it is provided with one or more push buttons for controlling the rheostat.

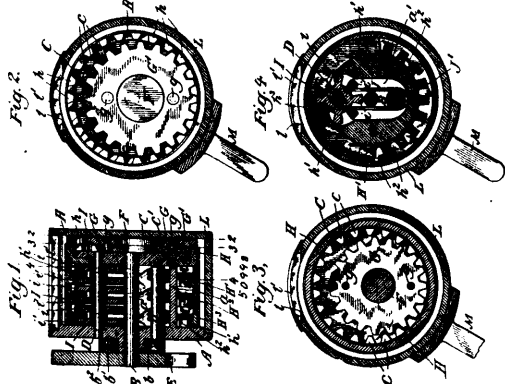
No. 50,997. Combination Shaving Brush and Soap Holder. (Savonnette et porte-savon combinés.)



Francis Napier Denison, Toronto, Ontario, Canada, 10th January, 1896; 6 years. (Filed September 5th, 1895.)

Claim.—1st. A combined brush and soap holder, comprising a tubular casing having a longitudinal slot formed in the side thereof, a sliding ring within said casing adapted to receive a cylindrical bar of soap, and means for connecting the bar of soap with said sliding ring and for operating the same, said casing being provided with a removable head at one end and with a brush at the other, substantially as described. 2nd. A combined brush and soap holder, comprising a cylindrical casing having a longitudinal slot in the side thereof, and a removable head, a sliding band or ring within said casing, and a sliding band or ring on the outside thereof, said bands being adapted to be connected by means of a pin passed therethrough and through the slot in the tubular casing, said casing being also provided at one end with a brush, substantially as shown and described. 3rd. A combined brush and soap holder comprising a cylindrical casing having a longitudinal slot in the side thereof, and a removal head, a sliding band or ring within said casing, and a sliding band or ring on the outside thereof, said bands being adapted to be connected by means of a pin passed therethrough and through the slot in the tubular casing, said casing being also provided at one end with a brush, which is connected therewith by means of a head secured to said casing and provided with a tubular extension adapted to receive the head of the brush, substantially as described. 4th. A combined brush and soap holder, comprising a tubular casing adapted to receive a cylindrical bar of soap, and having a removable head, said casing being also provided with a brush at one end thereof and a receiver therefor, one end of which is closed, and the other end of which is open and adapted to be closed by the removable head of the holder, substantially as shown and described.

No. 50,998. Cyclometer. (Cyclomètre.)

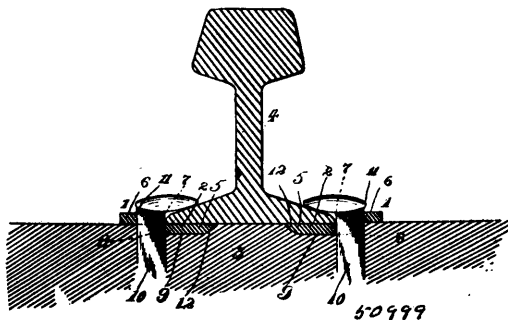


Curtis Hussey Veeder, Hartford, Connecticut, U.S.A., 10th January, 1896; 6 years. (Filed October 16th, 1895.)

Claim.—1st. In a cyclometer, the combination with a chambered support, and an actuating shaft, of index rings mounted to revolve on said support, a series of transmitting gears disposed within the chamber of said support and adapted to transmit movement from each of said index rings to the next in order, the hubs of said gears being flattened, spring arms supported within the chamber and bearing upon the opposite flattened faces of said gear-hubs, and means for actuating the first of said rings from said actuating shaft, substantially as set forth. 2nd. In a cyclometer, the combination with a chambered support and index rings mounted to revolve on said support, of an actuating shaft, a series of transmitting gears disposed within the chamber of said support and adapted to transmit movement from each of said index rings to the next in order, a stationary internal gear, an eccentric fixed on said shaft and two differential gear wheels mounted on said eccentric and meshing respectively with the aforesaid stationary internal gear and with an internal gear secured to the first of said index rings, substantially as set forth. 3rd. In a cyclometer, the combination with a chambered support and index rings mounted to revolve on said support, of an actuating shaft, a series of transmitting gears disposed within the chamber of said support and adapted to transmit movement from each of said index rings to the next in order, a disc fixed against the end of said support, an internal gear formed on said disc, an eccentric fixed on said shaft and two differential gear wheels fixed together and mounted on said eccentric and meshing respectively with the

aforesaid internal gear and with an internal gear formed on the first of said index rings, substantially as set forth. 4th. In a cyclometer, the combination with a support and index rings mounted to revolve on said support, of an actuating shaft, a series of transmitting gears adapted to transmit movement from each of said index rings to the next in order, a shouldered eccentric mounted on said shaft, two gears mounted on said eccentric and connected to move together being retained in place by the head or shoulder of said eccentric, a fixed internal gear within which one of said first named gears is adapted to engage as it is rolled by the eccentric, and an internal gear connected to the first of said index rings and adapted to be engaged by the other of said first named gears, substantially as set forth. 5th. In a cyclometer, the combination with a support, a series of index rings mounted to revolve on said support, an actuating shaft and a series of transmitting gears to transmit movement from each of said index rings to the next in order, of an actuating wheel secured to said shaft, a spring interposed between said wheel and said support, a shouldered eccentric carried by the other end of the shaft, and differential gears mounted on said eccentric to transmit movement therefrom to the first of said index rings and held by said shouldered eccentric and said spring acting through said shaft against said support whereby accidental movement of said actuating wheel, shaft and gearing is prevented, substantially as set forth.

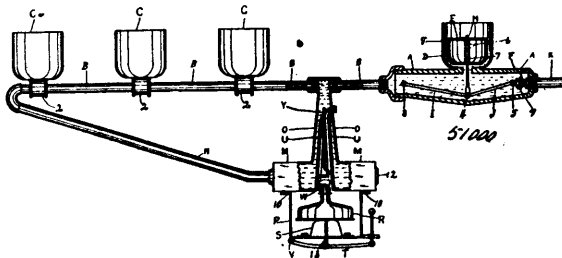
No. 50,999. Tie-Plate. (Plaque de traverse.)



William Riley Funk and Arthur G. Henry, both of McFarland, Kansas, U.S.A., 10th January, 1896; 6 years. (Filed November 30th, 1895.)

Claim.—1st. A tie-plate composed of two adjustable sections designed to be arranged at opposite sides of a rail, and each comprising a plate consisting of a downwardly offset inner portion designed to be located beneath a rail, and an upper outer portion forming an upper inner shoulder to engage the bottom flange of a rail and having a lower outer shoulder for engaging the cross-tie, said plate being provided at its outer portion with a spike opening, whereby the said outer portion is adapted to support the neck of the spike and to bind the latter against a rail, substantially as described. 2nd. The combination with a rail, and a cross-tie provided below the rail with recesses, of a tie-plate composed of two sections located at opposite sides of the rail, and each consisting of a plate having a downwardly offset inner portion located in a recess of the cross-tie and having a bevelled lower face, and an upper outer portion arranged on the upper face of the cross-tie, said section being provided with a central spike-opening and having an upper inner shoulder to engage the bottom flange of the rail and a lower outer shoulder for engaging the rails, substantially as described. 3rd. A tie-plate section or plate having a downwardly offset inner portion with a bevelled lower face, and provided with an upper outer portion, and having an intervening vertical shoulder, the inner portion being designed to be placed beneath a rail, whereby the shoulder and the outer portion will form a support for the rail, substantially as described.

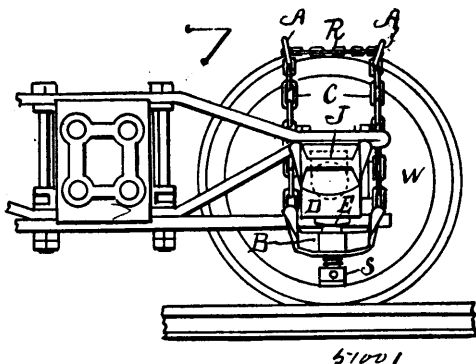
No. 51,000. Apparatus for Watering Stock. (Appareil pour abreuver le bétail.)



Samuel Montgomery, Toledo, Ohio, U.S.A., and John Montgomery, Jarvis, Ontario, Canada, 10th January, 1896; 6 years. (Filed December 26th, 1895.)

Claim.—1st. The combination in a stock watering apparatus, of the elongated casing A, having upper central bowl D, provided with adjustable float E, connected to water inlet valve F, by means of the adjustable vertical rod H, connected to lever I, pivoted at 3, and to lever J, pivoted to said valve, both said levers and rod connected centrally at 4, and a series of drinking bowls C, having lower shanks suitably threaded to receive and connect to a series of sections of horizontal pipes B, substantially as described and set forth. 2nd. In a stock watering apparatus, the elongated casing A, having water inlet pipe K, provided with valve F, which is governed by the float E, in bowl D, by means of the adjustable vertical rod H, connected to levers I and J, the sectional pipes B, with drinking bowls C, having opening into said pipes, in combination with the heating device consisting of the vessel M, having outer cone O, connected to one said section of pipe B, intermediate between the float bowl and first drinking bowl, and having an inner conical chimney U, with inner bent pipe Y, heated by a lamp, and the return pipe N, substantially as described and set forth. 3rd. The heating apparatus consisting of a water vessel A, in combination with, and connected to the horizontal pipes B, by means of its conical tube O, and return pipe N, the inner conical chimney U, having bent pipe Y, the lamp R, on a bottom supported by springs S, the receptacle P, having upper flanges to slide in the lips 10, and lower base provided with pivoted curved and bent lever handle T, pivoted at V, and connected to spring by rod 13, substantially as described and set forth. 4th. The combination in a stock watering apparatus, of the water inlet casing having regulating float bowl, and a series of horizontal pipes connected to said casing provided with a series of drinking bowls, and the heating apparatus, as described, located intermediate and below the casing A, and the first drinking bowl, and connected to the said horizontal pipes by means of its vertical cone O, and return pipe, substantially as described and set forth.

No. 51,001. Car Jack. (Cric de chars.)



Charles S. Locke, Joliet, Illinois, U.S.A., 10th January, 1896; 6 years. (Filed December 21st, 1895.)

Claim.—1st. A car jack comprising the combination of the stirrup B, having its ends terminate in upwardly extending arms provided with hooks A, on their upper ends, the jack screw S, fitting a screw threaded bore in said stirrup, the hooks A, the chain R, for connecting said hooks and the flexible means secured to said hooks for detachably connecting said stirrup and hooks all arranged to operate, substantially as and for the purpose set forth. 2nd. The combination of the stirrup B, having the upwardly extending arms provided with hooks A, Jack screw S, hooks A, chain R, for connecting said hooks and chains C, for detachably connecting said hooks and stirrup all arranged to operate, substantially as and for the purpose set forth. 3rd. A car jack comprising the combination of a hook or hooks adapted to catch over the top of a car wheel, a stirrup or bar adapted to be placed under the housing of the axle box and having a jack screw for engaging said housing, and a chain or chains or other flexible and detachable means for connecting said hooks and stirrup, and hooks, all arranged to operate, substantially as and for the purpose set forth.

No. 51,002. Propelling Device. (Appareil de propulsion.)

Edmund Sergeant Wheeler, Troy, New York, U.S.A., 10th January, 1896; 6 years. (Filed December 21th, 1895.)

Claim.—1st. The combination with the forward upright fork of a bicycle, of a shaft supported near the upper end thereof, gear wheels mounted on said shaft and separate handle bars mounted at the upper end of said forward upright fork and provided with segmental gears which are adapted to operate in connection with said gear wheels to revolve the shaft, on which they are mounted in the forward direction, substantially as shown and described. 2nd. The combination with the forward upright fork of a bicycle, of a shaft supported near the upper end thereof, gear wheels mounted on said shaft, separate handle bars mounted at the upper end of said forward upright fork and provided with segmental gears which are adapted to operate in connection with said gear wheels to revolve the shaft on which they are mounted in the forward direction, said shaft being also provided with a sprocket wheel on which is adapted to be

mounted a drive chain which connects with a sprocket wheel mounted on the axle of the forward wheel of the bicycle, substantially as

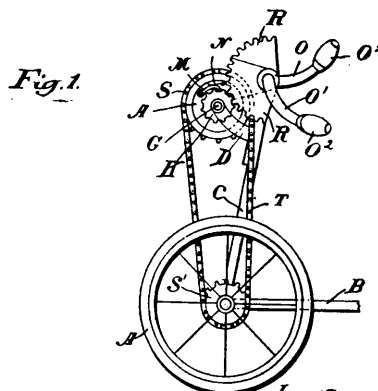
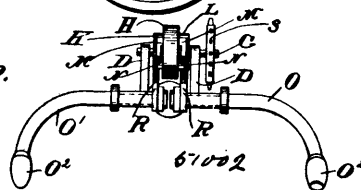
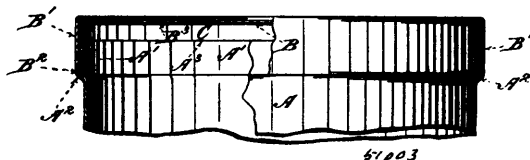


Fig. 2.



shown and described. 3rd. The combination with a bicycle of a shaft supported by side arms which are secured to the upper end of the forward upright fork and project forwardly and upwardly, a wheel or disc secured to said shaft, two gear wheels mounted on said shaft, one of which is located at each side of said wheel or disc, separate handle bars revolvably mounted in the upper end of said fork, two segmental gears mounted thereon and adapted to operate in connection with said gear wheels which are free to revolve on said shaft in the backward direction and provided with means whereby they revolve the shaft when turned in the forward direction, and said segmental gears being adapted to operate alternately in connection with said gear wheels, said segmental gears being also operated by said handle bars and being raised and lowered by the handles connected therewith, substantially as shown and described. 4th. The combination with a bicycle of a shaft supported by side arms which are secured to the upper end of the forward upright fork and project forwardly and upwardly, a wheel or disc secured to said shaft, two gear wheels mounted on said shaft, one of which is located at each side of said wheel or disc, separate handle bars revolvably mounted in the upper end of said fork, a segmental gear mounted on each and adapted to operate in connection with said gear wheels, which are free to revolve on said shaft in the backward direction, and provided with means whereby they revolve the shaft when turned in the forward direction, and said segmental gears being adapted to operate alternately in connection with said gear wheels, said segmental gears being also operated by said handle bars, and being raised and lowered by the handles connected therewith, and said shaft being also provided with a sprocket wheel and the axle of the said forward wheel of the bicycle being provided with a corresponding sprocket wheel and a drive chain mounted on said sprocket wheels, substantially as shown and described.

No. 51,003. Metal Can, etc. (Bidon en métal, etc.)

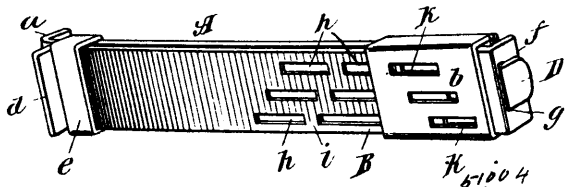


Summers Brown, Sydney, New South Wales, Australia, 10th January, 1896; 6 years. (Filed August 14th, 1895.)

Claim.—1st. The combination and arrangement with a can or canister, of a lid or cover soldered at the edge of its outside flange to said can or canister, and having its top more or less away from the top of said can or canister, and having its said edge of its outside flange adapted to cut away, plane or scrape the jointing solder or seal between said can or canister and said lid or cover to release the latter, substantially as herein described and explained. 2nd. The combination and arrangement with a can or canister, such as A, having a bulging or enlargement such as A¹, of a lid or cover such as B, having a flange such as B¹, and chisel edge such as B², and a ring or solder such as A², holding the underface such as B³, from the top edge such as A³, substantially as herein described and

explained and as illustrated in the drawing. 3rd. A hermetically sealed can or canister, adapted to be opened by the cutting away, planing or scraping of the soldered joint between it and the flange of an outside lid or cover by movement of the edge of said flange, substantially as herein described and explained.

No. 51,004. Door Securer. (Arrête-porte.)

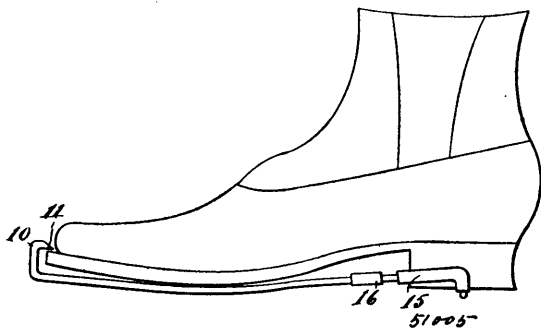


Frederick Augustus Potter, New York, State of New York, 10th January, 1896; 6 years. (Filed December 21st, 1895.)

Claim.—1st. A door securer consisting of two flat plates sliding one upon the other, and having their ends bent as shown, each of said plates being provided with several horizontal rows of elongated openings not in vertical alignment with each other, and adapted when said plates are moved to register with each other, in combination with a wedged-shaped key adapted to pass through the openings in said plates, and move one of the latter horizontally, substantially as shown and described. 2nd. A door securer consisting of the plates A, B, b, said form of plate being provided with several horizontal rows of elongated openings, those in one row being slightly in advance of those in the adjacent row, the said plates B, b, being also provided with oppositely arranged elongated openings, also arranged slightly in advance of each other, but ascending in a direction different from those in said plate A, and a wedge-shaped key adapted to pass through said openings, and slide the plate B upon the plate A, substantially as described. 3rd. A door securer substantially as described, the said plate B having its rear end bent with the lugs or projections c, and a wedge-shaped key adapted when the device is not in use, to pass through said opening g, and under the lugs c, substantially as described.

No. 51,005. Shoe Shaper.

(Appareil pour donner la forme aux chaussures.)



Joseph Werthemer Skinner, La Crosse, Wisconsin, U.S.A., 13th January, 1896; 6 years. (Filed December 26th, 1895.)

Claim.—1st. A shoe shaper consisting of a wire spring formed with a hook 10, adapted to attach one end of said shoe-shaper to the toe of a shoe, and with the points 12 and 13, adapted to attach the other end of said shoe-shaper to the heel of a shoe, and provided with the slide 16, adapted to clamp said points 12 and 13 into the heel. 2nd. A shoe-shaper consisting of a wire spring, formed with a hook 10 at one end and provided at the other end with the rubber bearings 14 and 15, and the slide 16, adapted to clamp said rubber bearings upon the heel of said shoe. 3rd. The combination, in a wire spring shoe-shaper, of the hook 10 located at one end of said shoe-shaper, the points 12 and 13 and the bearings 14 and 15 located at the other end of said shoe-shaper, and the slide 16.

No. 51,006. Metal Corner Plate etc., for the Construction and Protection of Plastered Walls. (Plaque d'encoignure etc. pour la construction et protection des murs plâtrés.)

Georg W. Meserve, Boston, Massachusetts, U.S.A., 13th January, 1896; 6 years. (Filed December 24th, 1895.)

Claim.—1st. The combination with the securing strip of the perforated sheet metal corner plate secured thereto as and for the

purpose set forth. 2nd. The herein described metallic corner plate perforated for the passage of the mortar therethrough outside of and

Fig. 1.

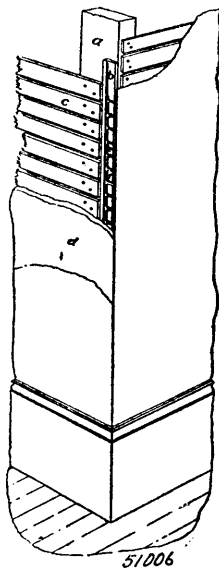
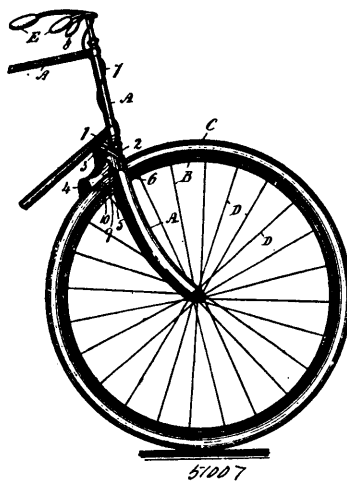


Fig. 3.



beyond the lathing or securing strip, and provided with the straight, smooth wire edge, substantially as shown and described.

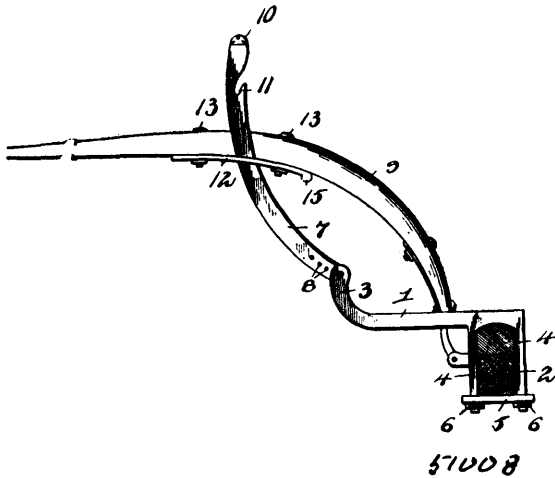
No. 51,007. Pneumatic Bicycle Brake. (Frein pneumatique de bicyclette.)



Robert Sampson, Quebec, City, Quebec, Canada, 13th January, 1896; 6 years. (Filed December 24th, 1895.)

Claim.—1st. A bicycle having an air brake secured to the frame above the steering wheel to operate against the tyre, and applied by a squeezing motion of the hand, as set forth. 2nd. In combination with a bicycle, a pneumatic hand brake having a pedal or foot brake 10, as set forth. 3th. An air brake for bicycles, said brake comprising a plate 2, clipped to the frame a, a brake shoe 4, and plate 3, hinged to said plate 2, an air cushion, bag or chamber 6, intervening said plates and a tube 7, connected to said cushion and terminating in a compressible air bulb 8, so that by squeezing the bulb the cushion will be dilated and force the brake shoe against the tyre to apply the brake, as set forth. 4th. A bicycle having an air brake secured to the frame to brake upon the tyre, said brake comprising a plate 2, clipped to the frame a, a shoe 4, hinged thereto, an air cushion 6, intervening said plate and shoe, a rubber bulb 8, and tube 7, inflating said cushion, and a spring 10, to lift the shoe when the air pressure is off, as set forth.

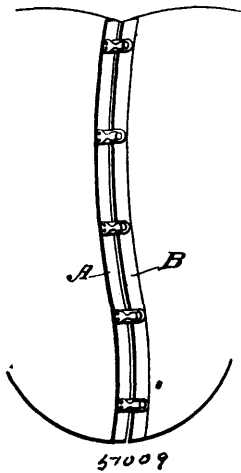
No. 51,008. Shaft Support. (*Support de limonière.*)



James Q. Lemmon, Latrobe, Pennsylvania, U.S.A., 13th January, 1896; 6 years. (Filed December 23rd, 1895.)

Claim.—The combination with an axle and a shaft, of a shaft support comprising a horizontal bracket arm secured to the axle and extending forward therefrom and curved upward at its front end, a curved plate secured to the lower face of the shaft and projecting laterally therefrom and provided with an opening, and having a transverse rib 15 located at the back of the said opening, and a curved brace arranged in the opening of the plate and pivoted at its lower end to the bracket arm and provided at its upper end with a handle, and having a recess or notch adapted to engage the rib 15 of the plate automatically when the shaft is raised, substantially as described.

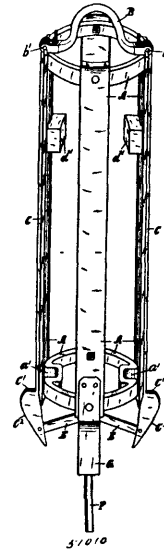
No. 51,009. Corset Fastener. (*Attache de corset.*)



Frank Speny Harrison, Englewood, New Jersey, U.S.A., 13th January, 1896; 6 years. (Filed December 21st, 1895.)

Claim.—1st. The combination with a pair of corset steels or stays, of plates secured to one of them, and adapted to extend across the other, said plates being provided at their free ends with circular openings or eyes having outwardly directed extensions and supplemental spring plates secured thereto, the free ends of which are adapted to cover said circular openings or eyes, said circular openings or eyes being also adapted to receive heads or hooks formed on the other steel or stay, substantially as shown and described. 2nd. A fastening device for corset steels or stays, comprising spring plates secured, to one of them and adapted to extend across the other, the free ends of said spring plates being provided with circular openings or eyes having outwardly directed extensions, supplemental spring plates secured thereto, at one end, and the free ends of which are adapted to cover said openings or eyes, said openings or eyes, said openings or eyes being also adapted to receive heads or hooks formed on or secured to the opposite steel or stay, substantially as shown and described.

No. 51,010. Well Caser. (*Appareil pour garnir les puits.*)

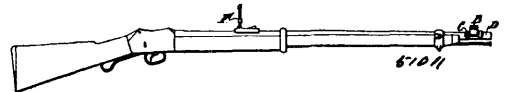


Richard Dobbyn, Shetland, Ontario, Canada, 13th January, 1896; 6 years. (Filed October 29th, 1894.)

Claim.—1st. A frame A, in combination with the levers C, C, pivotally secured thereto, and formed with the shoulders C', and with the bevelled or curved portion C^2, substantially as and for the purpose set forth. 2nd. A frame A, and levers C, C, formed with the shoulders C', in combination with the post F, and arms E, E, substantially as and for the purpose set forth. 3rd. A frame A, and levers C, C, formed with the shoulders C', and with the bevelled or curved portion C^2, in combination with the post F, guide G, and arms E, E, substantially as and for the purpose set forth. 4th. A frame A, formed with the recesses a', bail B, levers C, C, formed with the shoulders C', and curved portions C^2, and springs D, in combination with the post F, guide G, and arms E, E, substantially as and for the purpose set forth. 5th. A frame A, formed with the recesses a', bail B, levers C, C, formed with the shoulders C', and with the bevelled or curved portions C^2, socket blocks d', and springs D, in combination with the post F, guide G, and arms E, E, substantially as and for the purpose set forth.

No. 51,011. Optical Fore Sight for Fire Arms, Etc.

(*Mire optique pour armes à feu.*)



Lyloyd Heber Chase, Namoi, Hawthorn, Road, Caulfield, Victoria, Australia, 13th January, 1896; 6 years. (Filed January 16th, 1894.)

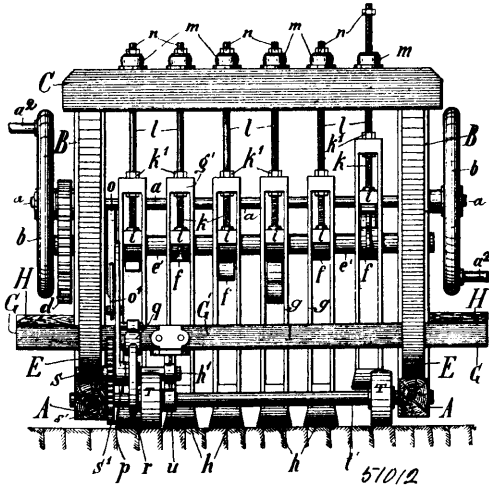
Claim.—1st. A foresight for rifles and other firearms and ordnance consisting of a single or compound lens or a portion of a lens, the focal length of which is the distance between it and the back-sight, substantially as herein described and explained. 2nd. A foresight in which the lens has its lower part cut away, substantially as and for the purposes herein described and explained. 3rd. A foresight in which the lens or portion of a lens, (as the case may be), is provided with a casing having clips, substantially as and for the purposes herein described and explained. 4th. A foresight in which the lens or portion of a lens (as the case may be), is provided with a casing adapted to be screwed or otherwise fitted into the ordinary tubular foresight of ordnance, substantially as herein described and explained. 5th. A foresight in which the lens is provided with a casing having a socket piece adapted to be fitted over the base of an ordinary foresight for ordnance, substantially as herein described and explained.

No. 51,012. Machine for Paving Streets.

(*Machine pour paver les rues.*)

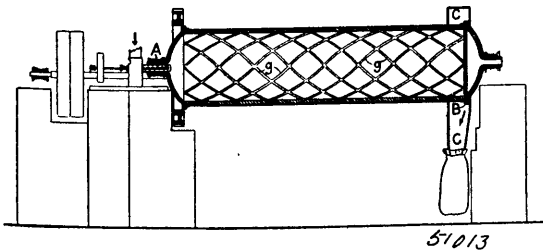
Christian Lenz and Johannes Stumpf, both of Berlin, Prussia, Germany, 13th January, 1896; 6 years. (Filed December 3rd, 1895.)

Claim.—1st. A street pavement ramming machine, consisting of a movable frame and a battery of rammers supported at their lower



ends by cross beams of the frame and at their upper end by adjusting stem rods, carrying block upon the rammers and cams supported upon a revolving shaft to lift the blocks and rammers and let them drop, substantially as described. 2nd. A street pavement ramming machine, consisting of pyramidal side frames, a rectangular cap frame connecting the same, a double battery of rammers having stems at their upper ends supported in the cap frame, cross bars for guiding and holding the lower ends of the rammers, cams supported upon parallel shaft, each to operate a set or battery of rammers and geared to an operating shaft, substantially as described. 3rd. A street pavement ramming machine, comprising pyramidal side frames a rectangular cap frame, the cross bars arranged in pairs beneath the transverse cap pieces and secured at their ends to the vertical posts of the side frame, rammers held at their lower ends between said cross bars, stem rods carrying adjustable blocks secured to the upper ends of said rammers and held within guide bearings in the frame, and cams supported upon shafts geared together and arranged to lift the adjustable rammer blocks, substantially as described. 4th. The combination with the frame of a rammer having side plates *g*, rammer block *h*, bearing block *i*, screw threaded rod *l*, and a cam adapted to revolve between said side plates to operate the rammers, substantially as described. 5th. A ramming machine for laying pavements, comprising a frame mounted upon rollers, rammers adapted to lift and fall within said frame, a bracket secured to the frame and carrying friction and gear wheels to drive said rollers, a vibrating arm and pawl to operate the friction wheel and an eccentric and rod for moving the machine intermittently, substantially as described.

No. 51,013. Ball-mill. (Moulin à broyer.)



Meyer Joseph Davidson, Paris, France, 13th January, 1896; 6 years. (Filed December, 18th, 1895.)

Claim.—In ball-mills working by means of a drum, filled with balls, the application of spiral grooves, which move the balls and the material passing through the drum from a central inlet at one end to a peripheral discharge at the other end, forwards and backwards during the rotation of the drum, essentially as described.

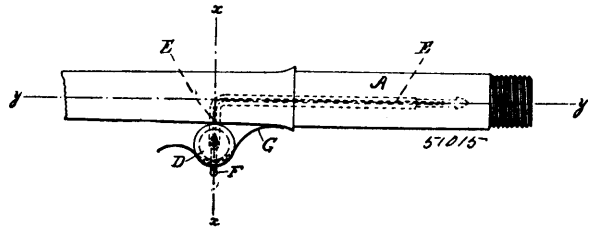
No. 51,014. Washing Compound.

(Composition pour laver.)

Denise Dyotte, Montréal, Québec, Canada, 13 janvier, 1896; 6 ans. (Filed December 3rd, 1895.)

Résumé.—Sel de citron, soda, caustic, sel de tarte, ammoniaque, dans les proportions et pour les fins sus-mentionnées.

No. 51,015. Lubricator. (Graisseur.)

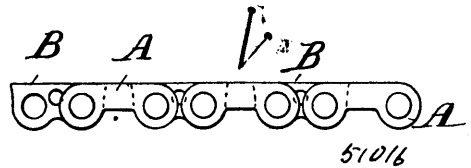


Peter Nadeau, Mont Carmel, Comté de Champlain, Québec, Canada, 13 janvier, 1896; 6 ans. (Filed October 4th, 1895.)

Résumé.—1° Un graisseur pour essieux de voiture composé d'une bolts D, à laquelle est fixé le tube E, terminé par le cône J, et pourvu du robinet F. 2° Ca combinaison du graisseur ci-dessus décrit avec un essieu de voiture percé d'un trou B, et d'une ouverture C, permettant à l'huile de se répandre à l'intérieur du moyeu de la roue, le tout tel que décrit et pour les fins indiquées.

No. 51,016. Driving Chain for Cycles, Etc.

(Chaîne sans fin pour cycles, etc.)

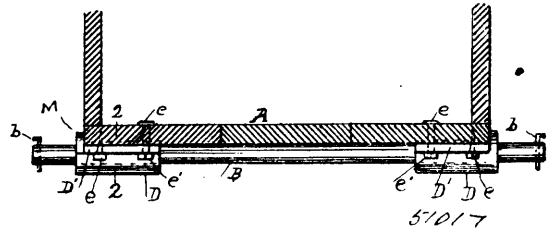


John Smith, Birmingham, England, 13th January, 1896; 6 years. (Filed December 26th, 1895.)

Claim.—1st. The improved blocks or connecting pieces as B for cycle and other driving or gearing chains, having cycloidal or curved bearing surfaces, substantially as set forth. 2nd. The combination, in a cycle or other driving or gearing chain of side plates or links as A, with blocks or connecting pieces as B having cycloidal or curved ends, substantially as set forth.

No. 51,017. Supporter for Car Axles.

(Support pour essieux de chars.)



Reinhold Bettermann, Johnstown, Pennsylvania, U.S.A., 13th January, 1896; 6 years. (Filed December 26th, 1895.)

Claim.—1st. The herein-described supporter for car-axles, consisting of a clamping-member having a semi-cylindrical portion and end-wings, adapted to be attached to the car-body, and a saddle-block provided with a projecting-pin adapted to seat in a socket of the axle, substantially as set forth. 2nd. The herein-described supporter for car-axles, consisting of a clamping-member having a collar-portion through which the axle can pass, and adapted to abut against the side of the car-body, and a saddle-block provided with a projecting-pin adapted to seat in a socket of the axle, substantially as set forth. 3rd. The combination, with an axle provided with side sockets, of supporters consisting of clamping-members, saddle-blocks seated in said clamping-members, and pins projecting from the saddle-blocks and entering the sockets in the axle, substantially as set forth.

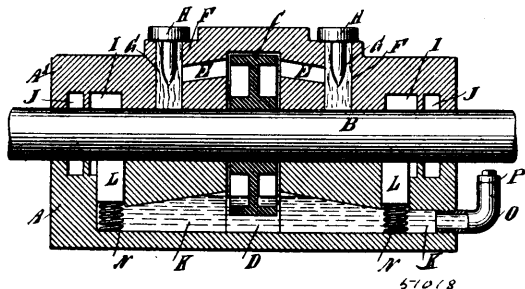
No. 51,018. Self-Oiling Journal Bearing.

(Graisseur automatique pour coussinet de tourillon.)

David Lee Altman, Eau Claire, Wisconsin, U.S.A., 14th January, 1896; 6 years. (Filed December 26th, 1895.)

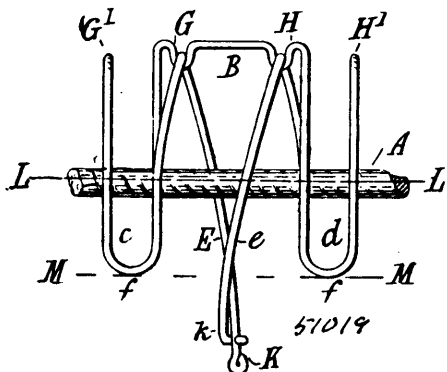
Claim.—1st. A self-oiling journal bearing, provided with a central oil well, communicating at or near its upper end with a filtering chamber adapted to contain a filtering material and leading to the journal or shaft, and a wheel adapted to be secured on the shaft and extending into said well to take up the lubricant and deliver the same to said filtering chamber, substantially as shown and described. 2nd. A self-oiling journal bearing, provided with a central oil well communicating at or near its upper end with a filtering chamber adapted to contain a filtering material and leading to the journal or

haft, a wheel adapted to be secured on the shaft and extending into said well, to take up the lubricant and deliver the same to said



filtering chamber, and a plug for holding the filtering material in place in the said chamber, and for closing the upper end thereof, substantially as shown and described. 3rd. A self-oiling journal bearing, comprising a box having a chamber through which is adapted to pass the shaft or journal, and a spring-pressed scraper adapted to engage said shaft in said chamber, to scrape off the lubricant and permit the latter to flow into said chamber, substantially as shown and described. 4th. A self-oiling journal bearing, comprising a box having a chamber through which is adapted to pass the shaft or journal, a spring-pressed scraper adapted to engage said shaft in said chamber, to scrape off the lubricant and permit the latter to flow into said chamber, and a spring for holding said scraper in contact with the shaft, substantially as shown and described. 5th. A self-oiling journal bearing, comprising a box having a chamber through which is adapted to pass the shaft or journal, a spring-pressed scraper adapted to engage said shaft in said chamber to scrape off the lubricant and permit the latter to flow into said chamber, a central oil well adapted to contain the lubricant, and a return channel leading to said well, and in communication at its outer end with said chamber, substantially as shown and described. 6th. A self-oiling journal bearing, provided with a box having a central oil well, return channels leading thereto, and a filtering and draining pipe connected with the outer end of one of said channels, substantially as shown and described.

No. 51,019. Clothes Peg. (Epinglé à linge.)



Thomas Henry Prosser, Boyer, and Mark Young, Frankston, both in Victoria, Australia, 14th January, 1896; 6 years. (Filed December 21st, 1895.)

Claim.—1st In a clothes peg, the combination of a centre bar B, indents G, H, and loops C and d on opposite sides of a central plane P, P, substantially as set forth and illustrated. 2nd. The combination of centre bar B, loops C, c, and D, d, and indents G, H, substantially as and for the purposes set forth. 3rd. The combination with a centre bar B, of arms E, e, extending downward from opposite sides thereof and ending in a catch K, k, said arms diverging sufficiently wide apart from m to m¹ in the plane M, M, to freely inclose between them any line with which it is intended that the peg may be used, substantially as and for the purposes set forth. 4th. The combination of bar B, indents G, H, loops C, c, D, d, offsets F, f, arms E, e, and catch K, k, substantially as and for the purposes set forth.

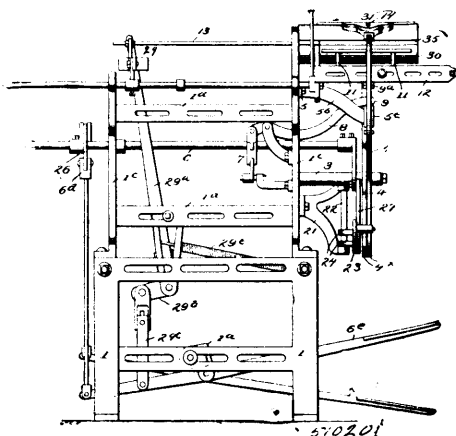
No. 51,020. Machine for making Can Bodies.

(Machine pour faire les boîtes métalliques.)

Simon S. Myers, Assignee of Joseph Haas, both of Philadelphia, Pennsylvania, U.S.A., 14th January 1896; 6 years. (Filed December 20th, 1895.)

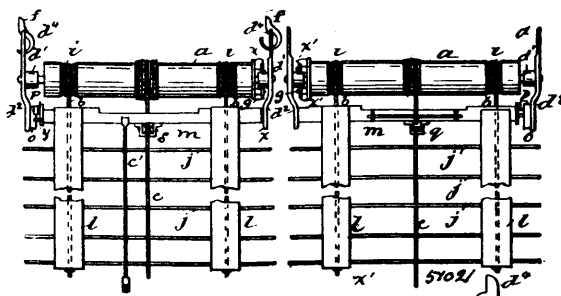
Claim.—1st. In a machine of the class described, the combination of a former, firmly adjusted to, and extending horizontally from, the forward end, a vertically moving bending frame under said former, consisting of a series of yokes connected in longitudinal align-

ment having invertedly curved seats conforming with the shape of the former, a pair of pivoted clamp arms having lower extensions di-



verging in opposite directions and means for operating said parts, substantially as described. 2nd. In a machine of the class described, the combination of a former, means for bending sheet metal there-over clamp arms having lower extensions, a vertically movable bar, and rollers carried by said bar and engaging said extensions of the clamp arms, substantially as described. 3rd. In a machine of the class described, the combination of a former, a bending frame comprising a series of yokes, guide rods depending from said bending frame, a bracket having arms through which said guide rods pass, and means for raising said bending frame, substantially as described. 4th. In a machine of the class described, the combination of a former, a bending frame, compressing a series of yokes, guide rods depending from said bending frame, a bracket having arms through which said guide rods pass, a lifting arm engaging the under side of said bending frame, a rock shaft, and another arm secured to the rock shaft and engaging the said lifting arm, substantially as described. 5th. In a machine of the class described, the combination of a former, bending mechanism coacting with said former, a pair of clamping arms having lower extensions, a vertically movable bar, rollers adjustably mounted in said bar guide rods engaging said bar, and means for operating the several parts, substantially as described. 6th. In a machine of the class described, a rigidly adjusted horizontally extending former having underneath a series of invertedly curved yokes connected at required distances apart in longitudinal alignment by a rod firmly adjusted through orifices at their lower turn, a pair of pivoted clamping arms having lower extensions diverging in opposite directions held in position by pairs of rollers adjustable within a slot of a vertically movable curved bar, the upper terminals of said pivoted clamping arms being provided with removable jaws extending the full length of the former, said jaws being held in position by set screws, a rock shaft, removing rods, a connecting bar attached to said rods a lever said bar is secured, a second connecting bar also attached to said lever, a second lever to which the second connecting rod is secured, and a rock arm attached to the second lever and the rock shaft, substantially as described. 7th. In a machine of the class described, the combination of a former, means for bending sheet metal there-over, mechanism for operating the same, ejector for discharging the can and mechanism operated independently of the forming mechanism for actuating the ejector, substantially as described. 8th. In a machine of the class described, the combination of a former, means for bending sheet metal there-over, an ejector for discharging the can, mechanism controlled by the operator for actuating the ejector in one direction and means for automatically returning the ejector to its position of rest substantially as described.

No. 51,021. Venetian Blind. (Persienne.)



The New York Venetian Blind Company, assignee of Pher Walfrid Brundin, both of New York, State of New York, U.S.A., 14th January, 1896; 6 years. (Filed December 23rd, 1895.)

Claim.—1st. In Venetian blind operating apparatus, a pivot stud and a ratchet in combination with a roll having one or more gravitating pawls, slats suspended from said roll and a cord for turning said roll, the said combination including but a single roll whereat all the other elements are connected, substantially as described. 2nd. In a Venetian blind, the combination of the eccentrically separately pivoted rocking bar with the slats and the straps connecting said rocking bar and slats, the hangers, the pivot studs attached to the rocking bar and turning in the hangers, and means to raise and lower the slats, substantially as described. 3rd. In a Venetian blind, the combination of the eccentrically pivoted rocking bar, with the slats and straps connecting said rocking bar and slats, a cord for operating the rocking bar, the automatic ratchet and pawl for controlling the rocking bar, and the spur for raising the said rocking bar controlling pawl, substantially as described. 4th. The roller having a pivot turning in the bored and notched hub rigidly attached to the hanger, and the pawls pivoted on the end of the roller, substantially as described. 5th. In Venetian blind operating apparatus a pivot stud and a ratchet in combination with a roll having one or more gravitating pawls, slats suspended from the roll and a cord for turning the roll the rocking bar, its rack mechanism and means for operating said bar, substantially as described. 6th. In Venetian blind operating apparatus, the combination of the roller, the slats suspended from the roller, an automatic stop device for the roller consisting of a notched hub and gravitating pawl a cord for both operating the roller and regulating the stop device and the rocking bar, its rack mechanism and means for operating said bar, substantially as described. 7th. The combination of the roll, a notched hub and gravitating pawl stop devices and a cord for turning it, with the slats, the rocking bar from which the slats are suspended, and the slat raising and lowering cords, said cords and the cord for turning the roll being respectively wound on the roll reversely, said cord for turning the roll also serving to operate the rocking bar substantially as described. 8th. The combination of the roll, a notched hub and gravitating pawl stop devices, and a cord for turning the roll, with the slats, the rocking bar from which the slats are suspended, said bar mounted eccentrically to its longitudinal axis, and the slat raising and lowering cords and the cord for turning the roll being respectively wound on the roll reversely, substantially as described. 9th. The combination of the roll, a notched hub and gravitating pawl stop devices, and a cord for turning the roll, with the slats, the rocking bar having a toothed rack, and the slat raising and lowering cords, said cords and the end for turning the roll being respectively wound on the roll reversely, substantially as described. 10th. The combination of the roll, a notched hub and gravitating pawl stop devices, and a cord for turning the roll, with the slats, the rocking bar from which the slats are suspended and the slat raising and lowering cords, said cords and the cord for turning the roll being respectively wound on the roll reversely and the cord for turning the roll extended around the rocking bar for turning it, substantially as described. 11th. The combination of the roll, a notched hub and gravitating pawl stop devices, and a cord for turning the roll with the slats, the rocking bar from which the slats are suspended and which is pivoted eccentrically to its longitudinal axis, the rack and pawl stop devices for said bar, and means for rocking the bar to open and close the slats, substantially as described. 12th. The combination of the roll, a notched hub and gravitating pawl stop devices and a cord for turning the roll, with the slats, the rocking bar from which the slats are suspended, and which is pivoted eccentrically to its longitudinal axis, and the rack and pawl stop device for said bar, said cord for turning the roll being extended around the rocking bar for actuating it, substantially as described. 13th. The combination of the roll, a notched hub and gravitating pawl stop devices and a cord for turning the roll, with the slats, the rocking bar from which the slats are suspended, and which is pivoted eccentrically to its longitudinal axis, the rack and pawl stop device for said bar, the stud for raising the pawl out of the rack and the spur for terminating the throw of the pawl by said stud, substantially as described. 14th. The combination of the hanger suspending hooks, the roll suspended by hangers, the roll pivoted in said hangers, slats suspended from the roll and the prongs of the hangers above the eyes of the hangers and bearing against the sides of the hooks to prevent swinging of the hangers by jerks of the roll turning cord, substantially as described.

No. 51,022. Mechanism for Holding Spring-Actuated Shades. (*Mécanisme pour stores actionnés par un ressort.*)

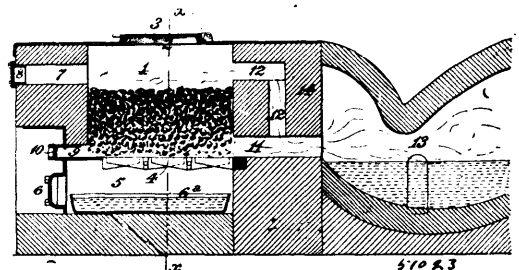


Henry Hazlitt Forsyth, sr., and Henry Hazlitt Forsyth, jr., both of Chicago, Illinois, U.S.A., 14th January, 1896; 6 years. (Filed December 21st, 1895.)

Claim.—1st. In a holding mechanism for spring actuated shades a spring actuated rod slidably mounted in the shade and having a bearing end projected beyond the side margin thereof, the rod having a portion offset or eccentric to a plane passing through the bearing end, substantially as and for the purpose described. 2nd. In a

friction holding mechanism for spring actuated shades, a rod carried by the shade and having a bearing end normally held in frictional contact with a fixed part of the window and its body offset or eccentric to its bearing end whereby the position of the lower margin of the shade with reference to the window may be varied and the body of the rod may rock axially to the bearing end, substantially as described. 3rd. In a holding mechanism for spring actuated shades, a spring actuated rod slidably mounted in the shade and having a bearing end projected beyond the side margin thereof, the projected end being offset from the body of the rod, substantially as and for the purpose described. 4th. In a holding mechanism for spring actuated shades, the combination with a spring actuated rod slidably mounted in the lower margin of the shade and having one end projected beyond the side margin thereof, the projected end being offset from or eccentric to its body, and means for withdrawing the rod against the action of the spring, substantially as described. 5th. In a holding mechanism for spring actuated shades, the combination with a tube to be carried by the shade, of a spring actuated rod slidably mounted within the tube and having a bearing end projected beyond the tube, the body of the tube being eccentric to the bearing end whereby it may rock about said bearing end as an axis, substantially as described. 6th. In a holding mechanism for spring actuated shades, the combination with a tube to be carried by the shade, of a spring actuated rod slidably mounted within the tube and having a projected portion eccentric to the body of the tube and a swivelling tip holder mounted in said projected portion, substantially as described. 7th. In a holding mechanism for spring actuated shades, spring actuated rods slidably mounted in the shade and having bearing ends projecting beyond the margins thereof, the rods each having a portion offset or eccentric to a plane passing through the bearing ends, groove stops in which the tips of the rods work, and locks in the path of the tips, substantially as described. 8th. In a holding mechanism for spring actuated shades, the combination with a metal tube, a frictional holding rod slidably mounted therein and having an actuating spring, said tube having its walls slotted between its ends, a hand piece projecting through the slot of the tube and detachably connected with the rod, a fixed block embraced by the walls of the tube at the slot and affording a stop for the movable holding rod and an escutcheon detachably secured to the block, substantially as described. 9th. In a holding mechanism for spring actuated shades, the combination with a tube having a slotted aperture to receive a hand piece and a cover plate detachably secured to the tube over the aperture thereof, said cover plate having its body laterally curved and its margin curved on a smaller radius than its body whereby to impinge the shade, substantially as described. 10th. In a holding mechanism for spring actuated shades, the combination with a tube having a slotted aperture to receive a hand piece, and a cover plate detachably secured to the tube over the aperture thereof, said cover plate having a depending lip, substantially as and for the purpose described. 11th. In a friction holding mechanism for spring actuated shades, a rod carried by the shade and having a bearing end offset or eccentric to its body, whereby the position of the lower margin of the shade with reference to the window may be varied and the body of the rod may rock axially to the bearing end, substantially as described.

No. 51,023. Furnace. (*Fournaise.*)



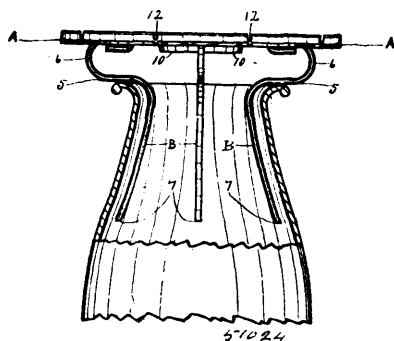
Edwin Powell, Pittsburg, Pennsylvania, U.S.A., 14th January, 1896; 6 years. (Filed December 21st, 1895.)

Claim.—1st. The combination, substantially as set forth, of a furnace or fuel chamber, a firebed therein which is closed to access of air from below it, an air supply passage above said firebed, a combustion chamber, an exit throat or passage connecting the fuel chamber at or near its firebed, with the combustion chamber, and a gas conduit leading from the fuel chamber, above the normal plane of incandescence therein, to a point of discharge adjacent to the discharge outlet of the exit throat or passage and exterior to the bed of incandescent fuel. 2nd. The combination, substantially as set forth, of a furnace or fuel chamber, a firebed therein which is closed to access of air from below it, an air supply passage above said firebed, a combustion chamber, and passages connecting the fuel chamber and combustion chamber, said passage leading out of the fuel chamber at or near the point or level of highest incandescence, and above the normal plane of incandescence respectively, and discharging exterior to the bed of incandescent fuel. 3rd. The combination, substantially as set forth, of a furnace or fuel chamber, a firebed therein which is closed to access of air from below it,

an air supply passage leading into the fuel chamber above the normal upper level of the charge of fuel, a door or register controlling said passage, a combustion chamber, an exit throat or passage leading from the fuel chamber at or near the level of the firebed, to the combustion chamber, and a gas conduit leading from the fuel chamber, above the normal upper level of the charge of fuel, and discharging exterior to the bed of fuel, to the combustion chamber. 4th. The combination, substantially as set forth, of a furnace or fuel chamber, a firebed therein which is closed to access of air from below it, an air supply passage above said firebed, a combustion chamber, an exit throat or passage leading from the fuel chamber at or near its firebed, to the combustion chamber, and a gas conduit leading from the fuel chamber, above the normal plane of incandescence therein, to the combustion chamber, and having its discharge outlet wholly exterior to the fuel chamber, and open to the products of combustion delivered through the exit throat or passage. 5th. The combination, substantially as set forth, of a furnace or fuel chamber, a firebed therein which is closed to access of air from below it, an air supply passage above said firebed, a combustion chamber, an exit throat or passage leading from the fuel chamber at or near its firebed, to the combustion chamber, and a gas conduit leading from the fuel chamber, above the normal plane of incandescence therein, to the combustion chamber, and having a discharge outlet therein, independent of, and adjacent to, that of the exit throat or passage.

No. 51,024. Heating Device Applicable to Lamps.

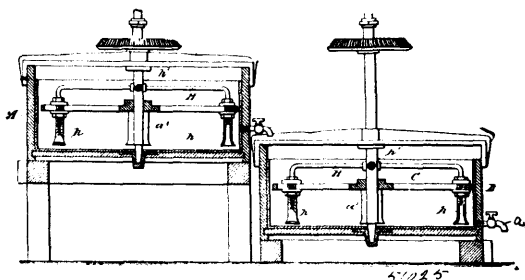
(Fourneau-lampe.)



Boulton D. Bowron, Hamilton, Ontario, Canada, 14th January, 1896; 6 years. (Filed 20th December, 1895.)

Claim.—In a lamp heating device, the circular metallic plate having raised border and central depression with central aperture, the circular channels 9, and a series of intersecting channels 12, the three spring prongs curved as at 5 and 6, and connected to said plate by means of the bars 3, formed by the adjacent apertures 2, and 4, of said plate, all arranged and combined, substantially as and for the purpose hereinbefore set forth.

No. 51,025. Oxide of Lead. (Oxide de plomb.)

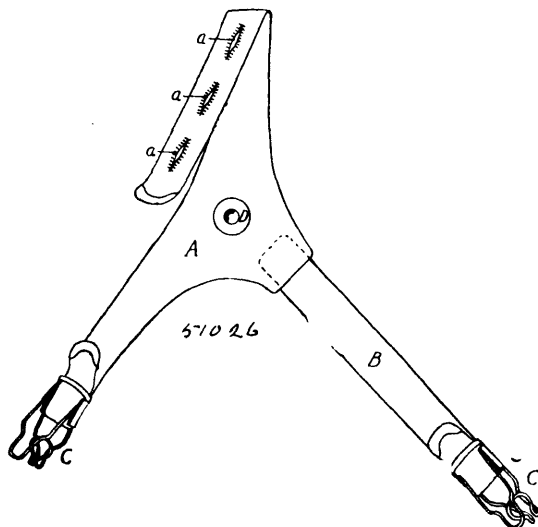


Thomas Benfield, Newark, New Jersey, assignee of John W. Coghlan, Chicago, Illinois, both in the U.S.A., 14th January, 1896; 6 years. (Filed December 31st, 1895.)

Claim.—1st. The process of making an oxide of lead consisting, in first agitating in a suitable vessel metallic lead in a comminuted form in the presence of water, and simultaneously introducing air into and throughout the mass, for the purpose of pulverizing or partially oxidizing the same, secondly, separating the pulverized and partially oxidized lead from the coarser particles of metallic lead and again subjecting it in a second vessel to further agitation in the presence of water simultaneously with the introduction of an oxidizing gas into and throughout the mass for completing the oxidation, substantially as described. 2nd. The process of making an oxide of lead consisting, in first agitating in a suitable vessel metallic lead in a comminuted form in the presence of air, and water for the purpose of pulverizing and partially oxidizing the same, secondly, filtering the pulverized and partially oxidized lead from the metallic lead, and thirdly, subjecting said pulverized and partially oxidized lead to agitation in the presence of water and an oxidizing gas.

No. 51,026. Suspenders for Drawers.

(Bretelles pour caleçons.)

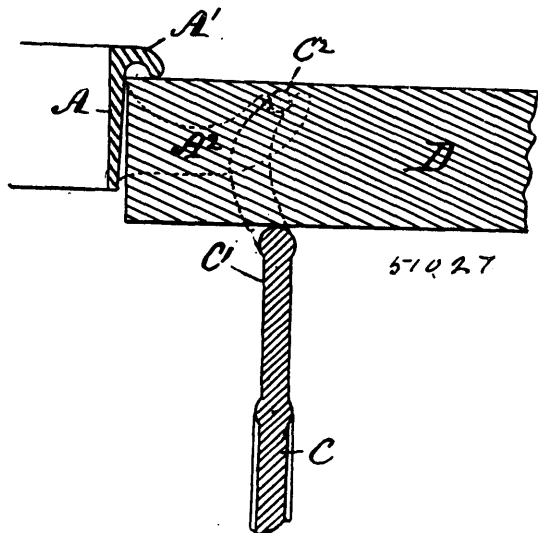


Hugo P. Geisler, Saginaw, Michigan, U.S.A., 14th January, 1896; 6 years. (Filed December 12th, 1892.)

Claim.—In combination with the clasps C, providing means of attaching to the tops of drawers, and with means of adjusting upon the web A, and the elastic web B, the woven, knitted or cloth web A, and the elastic web B, with button D, and button holes a, a, a, substantially as and for the purposes described.

No. 51,027. Combined Stove-pipe Shelf and clothes drier.

(Tablette pour tuyaux de poêle et séchoir à linge combinés.)



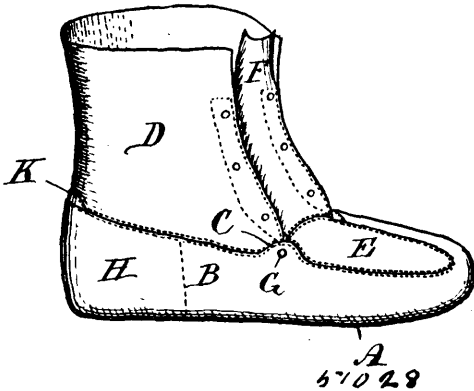
William Huxtable and J. Colin Merkley, both of Chesterville, Ontario, Canada, 14th January, 1896; 6 years. (Filed December 24th, 1895.)

Claim.—1st. A combined stove-pipe shelf and clothes drier, comprising the supporting ring H, having an outwardly projecting flange A¹, or sectional bearings, and horns A², below the flange, the shelves C, having a bifurcated tang C¹, provided with lugs C², to hang the shelf from the horns and drier arms D, supported by the bifurcated tang of the hanging shelf and engaging the flange A¹. 2nd. The combination with the ring A, having a flange A¹, and horns A², in pairs, of the shelves C, having a bifurcated tang C¹, and horns C², to support the shelves in a hanging position from said horns. 3rd. The combination with the ring A, and shelves C, of the radial drying arms D, as set forth.

No. 51,028. Moccasin or Pack. (Mocassin.)

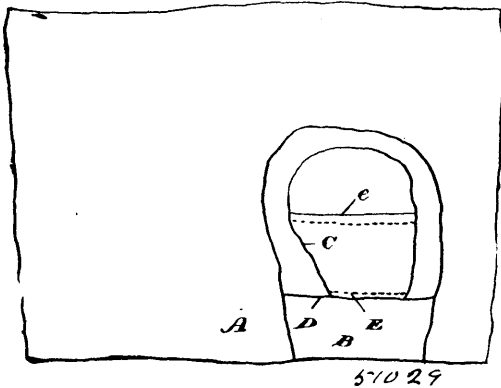
George Schmidt, Delhi, Ontario, Canada, 14th January, 1896; 6 years. (Filed October 25th, 1895.)

Claim.—1st. A moccasin or pack having an upper B, provided with ears C, and the vamp C, quarter D, and tongue F, sewn or



riveted to said ears. 2nd. A moccasin or pack having a heel stiffener J, provided with an ear K, said ear stitched to the quarter D, on the outside.

No. 51,029. Garment. (Vêtement.)

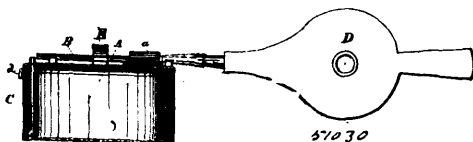


John R. Ball, Toronto, Ontario, Canada, 14th January, 1896; 6 years. (Filed December 4th, 1895.)

Claim.—1st. In a garment, the combination of a coat sleeve or pant leg, a hem for the same, a lining, one edge of which is sewn to the hem, the other edge sewn to the coat sleeve or pant leg, a fold in the lining, stitched to the hem in such a manner that the fold will hold the coat sleeve or pant leg in its original length, and when the stitching of the fold is cut the coat sleeve or pant leg can be lengthened to the extent of the fold without re-sewing, substantially as specified.

No. 51,030. Device for Exterminating Flies, etc.

(Appareil pour détruire les mouches, etc.)



Robert William Hillyard, Ottawa, Ontario, Canada, 14th January, 1896; 6 years. (Filed December 9th, 1895.)

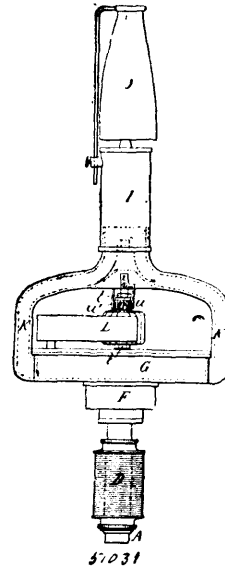
Claim.—1st. A spraying device for exterminating flies, bugs, or insects on animals or plants of any kind, comprising a hand bellows removably attached to a receptacle for holding liquid or fluid which is drawn up through tube C, by the suction of the air forced through the tube B, by the hand bellows and discharged in the form of spray for the purpose specified. 2nd. A spraying device comprising hand bellows D, air tube B, liquid receptacle or can A, stopper a, handle E, and with or without slot d, all arranged and combined substantially as and for the purpose hereinbefore set forth.

No. 51,031. Incandescent Gas Light.

(Lumière incandescente à gaz.)

Louis Denayrouze, 70 Boulevard, Victor-Hugo, Neuilly, France, 14th January, 1896; 6 years. (Filed October 14th, 1895.)

Claim.—1st. In incandescent gas lighting, the method of effecting an intimate mixture of the gas and air by subjecting these on their

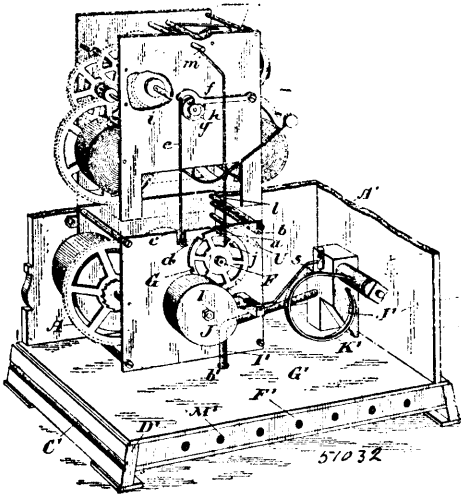


way to the burner to the action of revolving blades or vanes within a chamber communicating with the burner, substantially as described. 2nd. In combination with an incandescent gas burner, apparatus for effecting the intimate mixture of the gas and air consisting of a chamber connected on the one hand with the supply of gas and air and on the other hand with the gas burner and containing vanes or blades rotated by any source of power, so as in acting upon the entering gas and air, to effectually mix them together before passing off to the burner, substantially as described. 3rd. In combination with an incandescent gas burner, apparatus for effecting the intimate mixture of gas and air consisting of a chamber connected with the burner and containing vanes or blades rotated by any source of power, for mixing the air and gas entering the chamber, a chamber below the mixing chamber into which the gas passes and from which it issues into the mixing chamber through annular orifices surrounding tubular channels extending through the lower chamber, through which channels the outer air enters, substantially as described. 4th. In combination with an incandescent gas burner, apparatus for effecting the intimate mixture of the gas and air, consisting of a chamber connected in the one hand with the supply of gas and air, and on the other hand with the burner, and containing vanes or blades rotated by an electro-motor, so as to effect the intimate mixture of gas and air, before passing to the burner, substantially as described. 5th. In combination with an incandescent gas burner, apparatus for effecting the intimate mixture of the gas and air consisting of vanes rotated by an electro-motor, and a valve controlling the gas supply which valve is opened by an electro-magnet on the closing of an electric circuit in connection therewith, substantially as described. 6th. In combination, with an incandescent gas burner, apparatus for effecting the intimate mixture of the gas and air consisting of vanes rotated by an electro-motor, a valve controlling the gas supply which valve is opened by an electro-magnet on the closing of an electric circuit in connection therewith, and an electric igniting device actuated by the current that operates the said gas valve so as to produce a spark of extra current by the separation of two conducting parts of the electric circuit, substantially as described. 7th. In combination, with an incandescent gas burner, apparatus for effecting the intimate mixture of gas and air consisting of vanes rotated by clockwork mechanism worked by a spring, substantially as described. 8th. In combination, with an incandescent gas burner, apparatus for effecting the intimate mixture of gas and air consisting of vanes rotated by clockwork mechanism worked by a spring, and remontoire device worked either by an electric current or by any other motive power for winding up said spring again as it unwinds, substantially as described. 9th. In combination, with an incandescent gas burner, apparatus for affecting the intimate mixture of gas and air, consisting of vanes rotated within a casing by a jet or jets of gas or air under pressure acting tangentially upon the vanes air or gas being drawn through central openings into the casing by the suction there produced by the centrifugal action of the vanes, substantially as described.

No. 51,032. Chime Clock. (Pendule à carillon)

Reinhold E. Gunther, Assignee of Stephen Wilcock, both of Toronto, Ontario, Canada, 14th January, 1896; 6 years. (Filed July 31st, 1895.)

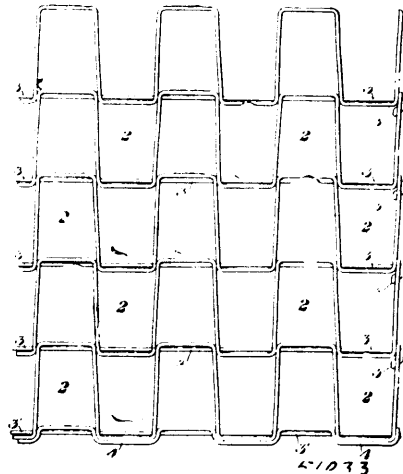
Claim.—1st. In a clock and in combination with the time and striking movements thereof, a chime movement mechanism between



said time and chime movements adapted to set said chime movement in operation, and a connection between, said chime and striking movements, so arranged that said striking movement is set in motion by the operation of said chime movement, substantially as described. 2nd. In a chime clock, a chime movement, located substantially in the same plane as a time movement and operated by a wire reciprocated by a disc connected to the centre arbour of the time movement, in combination with a striking movement having a wire rigidly connected to its starting spindle, the lower end of which lies in the path of a pin attached to one of the wheels of the chime movement, substantially as and for the purpose specified. 3rd. In a chime clock, and in combination with the chime drum, count wheel and lock arms thereof, a rock arm F, a disc H, connected with the centre arbour of the time movement and having pins G, projecting therefrom arranged to operate said arm F, at each quarter revolution, and a connection between said rock arm and the chime movement, substantially as described. 4th. In a chime clock, a chime drum making two revolutions in the hour, a count wheel making one revolution in the hour, in combination with suitable stopping and starting mechanism operated by an arm adapted to engage with notches in the count wheel, a reciprocating wire operated by a disc connected to the centre arbour of a time movement, and a wire rigidly attached to the starting spindle of a striking movement, its lower end lying in the path of a pin on the count wheel, substantially as and for the purpose specified. 5th. In a chime clock, a chime drum making two revolutions in the hour and carried by a spindle deriving motion from the main wheel of the movement, a count wheel making one revolution in the hour and carried by an independent spindle also deriving motion from the main wheel, a locking disc carried by a spindle geared to the chime drum spindle, a warning wheel carried by a spindle geared to the locking disc spindle, suitably carried and operated lock arms adapted to engage with the count wheel, locking disc and warning wheel, a wire adapted to raise the said locking arms and operated from a disc connected to the centre arbour of a time movement, and a striking movement having a wire rigidly connected to its starting spindle, the lower end of which lies in the path of a pin attached to the above mentioned count wheel, substantially as and for the purpose specified. 6th. In a chime clock, the combination of the following elements, the chime drum J, carried by the spindle I, revolving twice in the hour and deriving motion from the main wheel A, the count wheel G, revolving once in the hour and carried by the independent spindle F, deriving motion from the main wheel A, the locking disc N, provided with four notches and carried by the spindle M, geared to the chime drum spindle I, the warning wheel R, carried by the spindle Q, geared to the locking disc spindle M, the pin o, the spindle U, carrying the lock arm V, and arm a, the spindle b, carrying the arms c, n and d, the wire e, pivoted rock arm f, disc h, carrying one or more pins g, wire l, pin j, on the count wheel G, and starting spindle m, substantially as and for the purpose specified. 7th. In a chime clock, a chime drum making two revolutions in the hour and carried by a spindle deriving motion from the main wheel of the movement, in combination with a count wheel making one revolution in the hour and carried by an independent spindle also deriving motion from the main wheel, a locking disc carried by a spindle geared to the chime drum spindle, a warning wheel carried by a spindle geared to the locking disc spindle and suitably carried and operated lock arms adapted to engage with the count wheel locking

disc and warning wheel, substantially as and for the purpose specified. 8th. In a chime clock, a chime movement comprising the following elements, the chime drum J, carried by the spindle I, revolving twice in the hour and deriving motion from the main wheel A, the count wheel G revolving once in the hour, and carried by the independent spindle F, deriving motion from the main wheel A, the locking disc provided with four notches and carried by the spindle M, geared to the chime drum spindle I, the warning wheel R, carried by the spindle Q, geared to the locking disc spindle M, the pin o, the spindle U, carrying the lock arm V, and arm a, and the spindle b, carrying the arms c and n, substantially as and for the purpose specified. 9th. In a chime clock, a resonating chamber provided with a sound outlet and having a vibratile wall or sound board to which is connected the gong or bell, substantially as and for the purpose specified. 10th. In a chime clock, a resonating chamber provided with a sound outlet and having two vibratile walls or sound boards, to one of which is connected the gong or bell, substantially as and for the purpose specified. 11th. In a chime clock, a resonating chamber provided with a sound outlet and having a vibratile wall or sound board, in combination with a bent standard rigidly connected to the centre of the said vibratile wall, a weight carried by the said standard and a gong carried by the said weight, substantially as and for the purpose specified. 12th. In a chime clock, a resonating chamber having a vibratile wall or sound board, to which a gong or bell is connected in combination with deflectors suitably held between the said vibratile wall and the wall opposite thereto, and a suitable outlet in one of the side walls of the chamber towards which the said deflectors direct the sound, substantially as and for the purpose specified. 13th. In a chime clock, a resonating chamber comprising the side walls C¹, D¹, E¹, F¹, and the vibratile walls or sound boards G¹, H¹, to one of which is rigidly connected one or more gongs K¹, in combination with the curved deflectors L¹, connected to the side walls E¹, F¹, one of which is provided with suitable sound outlets, substantially as and for the purpose specified. 14th. In a chime clock, a resonating chamber comprising the side walls C¹, D¹, E¹, F¹, and the vibratile walls or sound boards G¹, H¹, in combination with the standard I¹, the weight J¹, the gong K¹, and the curved deflectors L¹, connected to the side walls E¹, F¹, the walls F¹, being provided with a series of holes M¹, substantially as and for the purpose specified. 15th. In a chime clock, the combination of the side walls C¹, D¹, E¹, F¹, the sound board G¹, having a hole therein, the sound board H¹, the bent standard I¹, passing through the hole b¹, and rigidly secured to the sound board H¹, the weight J¹, the gong K¹, and the curved deflectors L¹, connected to the side walls E¹, F¹, the latter wall being provided with a series of holes M¹, substantially as and for the purpose specified.

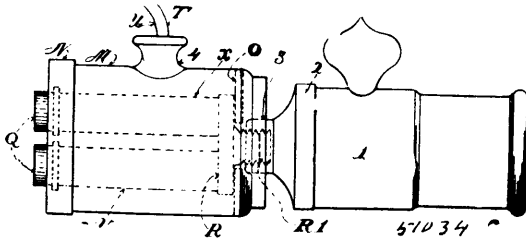
No. 51,033. Mat. (Paillasson)



Thomas Channing McPherson, Beaver Falls, and George Washington Millar, Rochester, both of Pennsylvania, U.S.A., 14th January, 1896; 6 years. (Filed December 17th, 1895.)

Claim.—A mat composed of flat strips of metal bent to form a succession of Us opening alternately on opposite sides, these strips being fitted together in parallel position, the bases of the Us of one strip entering somewhat within the mouths of the Us, in the adjacent sections and flexibly connected by cross rods, the mat being reversible and flexible in both directions, substantially as described.

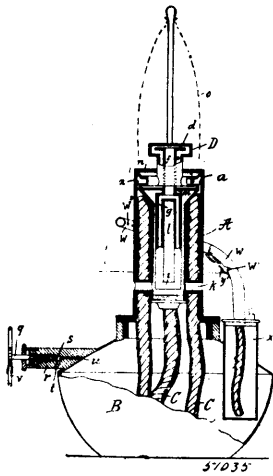
No. 51,034. Magnetic Electric Light Holder.
(*Porte lumière électrique.*)



Martin H. Collom, Denver, Colorado, U.S.A., 15th January, 1896; 6 years. (Filed July 30th, 1895.)

Claim.—1st. The combination with the lamp, of the socket and the magnet having exposed magnet pole surfaces. 2nd. The combination of the lamp and mechanism for connecting it in circuit, of the casing M, having the hub 3, the magnet P¹, having exposed pole pieces, the non-conductive ring O, and cap N. 3rd. The combination with an incandescent electric light and socket, of a magnet in circuit, either forming a part of, or connected to said socket, and having exposed pole surfaces adapted to contact with magnetic surfaces. 4th. The combination with an incandescent electric light socket, of a magnet in circuit therewith, having magnetic exposed surfaces, and mechanism for securing said magnet to said socket, and a suitable casing for the same. 5th. The combination with the lamp and socket, of a magnetic device in circuit therewith, and adapted to magnetically suspend incandescent electric lights from magnetic surfaces. 6th. The combination of the lamp, the socket, and an electro-magnet in circuit, having its pole or poles exposed, and adapted to contact with magnetic surfaces, whereby said lamp and socket may be placed in contact with and by means of magnetic attraction, may be adjustably and removably suspended from magnetic surfaces. 7th. In a magnetic device for temporarily suspending incandescent electric lights from magnetic surfaces, the lamp socket, a magnet secured thereto in circuit therewith having exposed polar surfaces, a casing inclosing said magnet and secured to said casing through which the exposed polar surfaces extend.

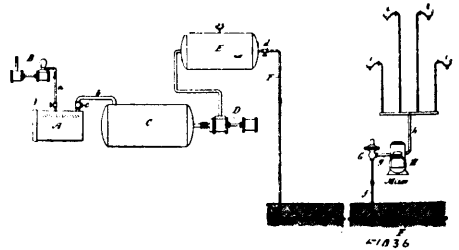
No. 51,035. Burner for Spirit-Gas Incandescent Light. (*Bec à gaz.*)



Albin Perlich of Eutritsch-Leipzig, Germany, 15th January, 1896; 6 years. (Filed June 28th, 1895.)

Claim.—1st. In a burner for spirit-gas incandescent light, the combination of the burner head D, which heats the spirit-gas passing through it before its consumption, and besides radiates warmth which serves for the gasification of the spirit with the hollow-ring A, containing the wicks, as described. 2nd. In a burner for spirit-gas incandescent light, the combination of the openings a, and of the pipe b, which conduct the gas into the burner head D, and of the pipe f, as also of the four cornered tubular frame g, provided with openings i, for the transmission of the heated gas with the hollow ring A, the pipes k, for the admission of the air, and the circular slit m, for letting out the combustible mixture towards the sieve surface n, of the burner, as described. 3rd. In a burner for spirit-gas incandescent light, the arrangement for the preliminary warming of the incandescent light burner, consisting of the burner w, with slanting hole w¹, and conducting plate y¹, as described. 4th. In a burner for spirit-gas incandescent light, the extinguishing arrangement consisting of the channels u, t, and the cone s, above the spirit level in the receptacle B, as described.

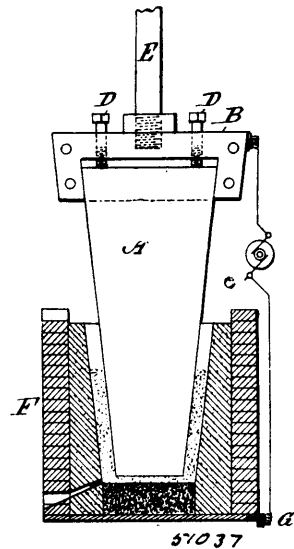
No. 51,036. Distribution and Use of Illuminating Gas. (*Distribution du gaz.*)



Thomas Leopold Willson, New York, State of New York, U.S.A., 15th January, 1896; 6 years. (Filed November 3rd, 1894.)

Claim.—1st. The improved system of gas distribution, which consists in forcing a fixed combustible gas from the works into the mains at high pressure, distributing it through the mains at such pressure to the points of consumption and then reducing it to the low or normal pressure at which it is supplied to the burners. 2nd. The improved system of gas distribution, which consists in forcing a fixed combustible gas from the works into the mains at high pressure, distributing it through the mains at such pressure to the points of consumption and there reducing the pressure to a low or normal pressure for supplying the burners, mixing the gas with a suitable proportion of air for properly diluting it, and then conducting it to the burners. 3rd. The improved system of gas distribution, which consists in generating acetylene gas, forcing it at high pressure through the mains to the points of consumption, there reducing it to a low or normal pressure, then mixing it with a suitable proportion of air and then conducting it to the burners. 4th. The improved gas apparatus, consisting of means for generating a fixed illuminating gas, means for forcing the same at high pressure into the mains, the said mains leading to the points of consumption, a pressure reducing valve at each such point, a mixer at each such point adapted to mix with the gas a certain proportion of air, and a pipe leading from said mixers to the burners.

No. 51,037. Electric Furnace. (*Fournaise électrique.*)

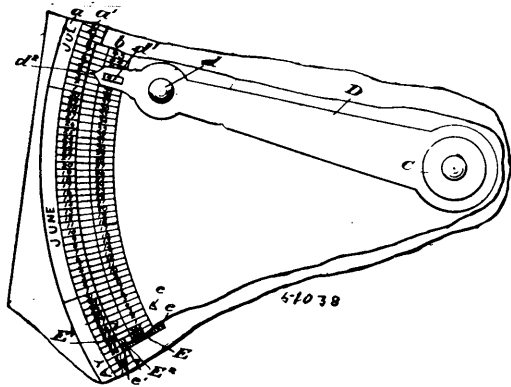


Thomas Leopold Willson, New York, State of New York, U.S.A., 15th January, 1896; 6 years. (Filed September 9th, 1895.)

Claim.—1st. The combination in an electric furnace, of a carbon having a greater diameter at the place where the current enters it than at the place where the current is delivered from it, substantially as described. 2nd. The combination in an electric furnace, of a carbon having a decreasing diameter toward the point of delivery of the current, substantially as described. 3rd. The combination of a carbon holder and a carbon, the said carbon having a greater diameter within the holder than at its point of entry into the holder, and a support within said holder upon which the weight of the carbon is carried, substantially as described. 4th. The combination of a carbon having a tapering head and a carbon holder having a reversed taper fitting the taper of the head of the carbon, thereby supporting the said carbon, and ensuring contact by the weight of the carbon, substantially as described. 5th. The combination of a carbon and a carbon holder, the said carbon having a greater diameter within the holder than at its point of entry into the holder, and the said holder having a socket with a side opening

through which to introduce the head of the carbon, substantially as described.

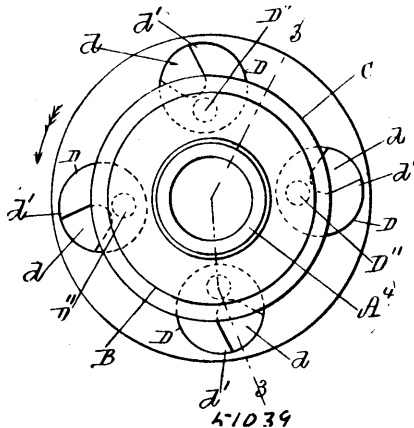
No. 51,038. Ready Calculator. (Calculateur.)



Melville James Overell, William Snowden Duffield, and John Joseph Green, all of Hamilton, Ontario, Canada, 15th January, 1896; 6 years. (Filed October 9th, 1895.)

Claim.—1st. A ready calculator comprising a stationary circle of months tabulated with radial date spaces, a rotatable disc with a corresponding number of radial spaces on the circumferential edge and numbered from 1 to 365, a pointer on the edge of the disc radially opposite the day number 365 and arranged to pass over the stationary date spaces and an arm pivotally swung upon the same centre as the disc and provided with an index pointer as and for the purpose specified. 2nd. A ready calculator comprising a stationary circle of months tabulated with radial date spaces, a rotatable disc with a corresponding number of radial spaces on the circumferential edge and numbered from 1 to 365, a pointer on the edge of the disc radially opposite the day number 365 and arranged to pass over the stationary date spaces, a stop adjacent to the pointer and extending upwardly from the edge of the disc and an arm pivotally swung upon the same centre as the disc and provided with an index pointer as and for the purpose specified. 3rd. A ready calculator comprising a stationary circle of months tabulated with radial date spaces, a rotatable disc with a corresponding number of radial spaces on the circumferential edge and numbered from 1 to 365, a pointer on the edge of the disc radially opposite the day number 365 and arranged to pass over the stationary date spaces, an arm pivotally swung upon the same centre as the disc and provided with an index pointer and a slot in the arm arranged to pass circumferentially over the day spaces on the disc as and for the purpose specified. 4th. A ready calculator comprising a stationary circle of months tabulated with radially date spaces, a rotatable disc with a corresponding number of radial spaces on the circumferential edge and numbered from 1 to 365, a pointer on the edge of the disc radially opposite the day number 365 and arranged to pass over the stationary date spaces, an arm pivotally swung upon the same centre as the disc and provided with an index pointer and knob arranged near the end of the arm as and for the purpose specified. 5th. The combination with the plate having a tabulated circle of months with spaces A and A', of the disc B having the day spaces B, the arm D provided with an index pointer D' and the plate E secured to the disc B by the cleat O and provided with a pointer E' and vertical stop E' forming portion of the plate as and for the purpose specified.

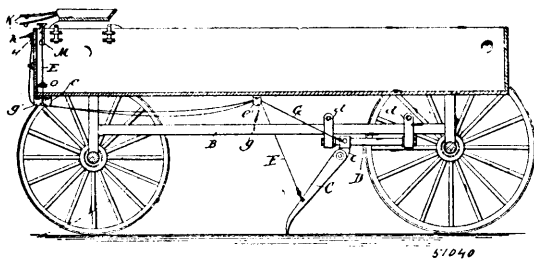
No. 51,039. Rotary Cutter. (Coupoir rotatoire.)



Christopher George Bartlett Johnson, Chelsea, and Charles Edgar Kemiston, Somerville, both of Massachusetts, U.S.A., 15th January, 1896; 6 years. (Filed December 23rd, 1895.)

Claim.—The herein described rotary cutter, consisting of an annular grooved holder having longitudinal recesses combined with longitudinal grooved cutter blocks journaled in said recesses, each such cutter block having an eccentric trunnion received in a notched adjustable ring, and means for securing said ring and cutter blocks in their adjusted positions to the holder, substantially as and for the purpose set forth.

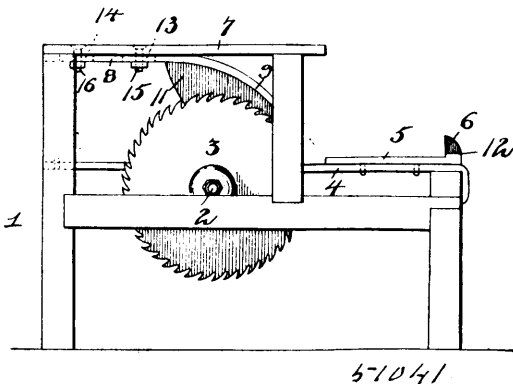
No. 51,040. Device for Hitching Horses. (Enrèneiro.)



Thomas Agnew, Evanston, Illinois, U.S.A., 15th January, 1896; 6 years. (Filed December 23rd, 1895.)

Claim.—1st. The combination with a wagon or like vehicle, of a rod carried below the vehicle and longitudinal therewith, a sleeve in sliding engagement with the rod, a lever pivoted to the sleeve and adapted to project forwardly and downwardly for engaging the road-bed, and a cord leading forwardly from the sleeve, substantially as described and for the purpose set forth. 2nd. The combination with a wagon or like vehicle and with its reach, of a rod parallel with and fixed to the reach, a sleeve upon and in sliding engagement with the rod, a lever having one of its ends pivoted to the sleeve, such lever projecting forwardly and being of greater length than the distance from its pivotal point to the level of the bottom of the vehicle wheels, a cord leading forwardly from the sleeve, and a cord leading upwardly from the lever into the body of the vehicle, substantially as described and for the purpose set forth.

No. 51,041. Saw Guard. (Garde-scie.)



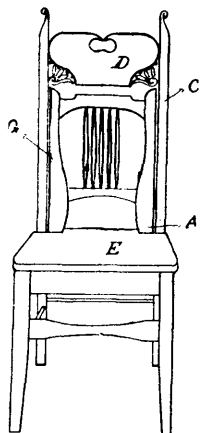
Louis Come Ringuette, Rhinelander, Wisconsin, U.S.A., 15th January, 1896; 6 years. (Filed December 26th, 1895.)

Claim.—1st. The combination with a knot sawing machine, provided with a circular saw and a receiving table located directly above said saw, of a saw-guard capable of being swung laterally away from the saw for giving access to the latter, and comprising a horizontal portion, a curved downwardly and forwardly extending portion, a pendant vertical flange arranged upon one side of the saw and extending downwardly to the forward end of the guard, the horizontal portion of said guard being provided with a pair of longitudinally elongated slots providing for the longitudinal adjustment of the saw guard as a whole, one of said slots being closed and constituting a pivot slot, and the other being T-shaped or provided with a lateral branch opening out at one side of the longitudinal portion, substantially as specified. 2nd. The herein described saw-guard formed to partially cover a circular saw for the purpose specified, and adapted to be swung laterally away from the saw, and extended to form a horizontal bar portion, said bar being provided with a closed longitudinally elongated pivot slot, and also with a longitudinally elongated slot having a lateral opening, and fastening devices passing through both slots, and securing the guard to the saw table, substantially as and for the purpose described.

No. 51,042. Chair. (Chaise.)

Joseph Onésime Lemay, Montreal, Quebec, Canada, 15th January, 1896; 6 years. (Filed December 27th, 1895.)

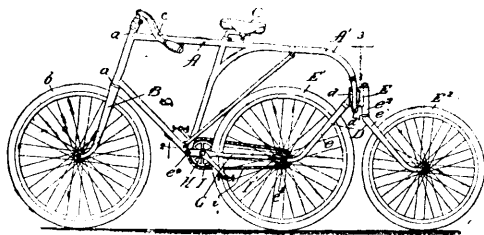
Claim.—1st. A chair having a compartment B, as shown, said compartment being covered by the folding seat of the chair, which



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is hinged to the frame of the chair, substantially as shown and for the purposes described. 2nd. A chair having its seat hinged to the front frame, and having a portion of the chair back rigidly attached to its rear edge, substantially as shown and for the purposes described. 3rd. A chair having in the underpart of its frame, a compartment for holding articles and which is covered by a folding seat, and to which folding portion there is secured a foot rest, and a folding part of the chair back, substantially as shown and for the purposes described.

No. 51,043. Velocipede. (Velocipede.)



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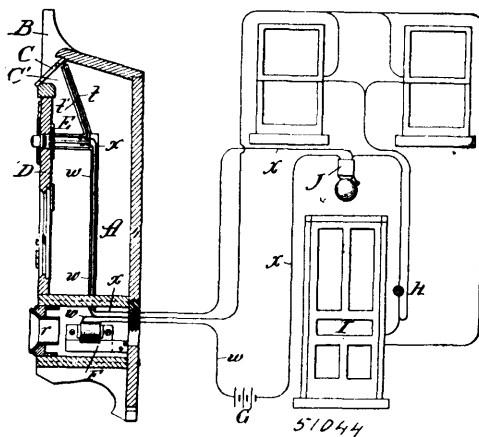
Bohn Chapin Hicks, Chicago, Illinois, U.S.A., 15th January, 1896; 6 years. (Filed December 27th, 1895.)

Claim.—1st. In a velocipede, the combination of a main frame provided with a front steering wheel, seat or saddle, with an auxiliary frame flexibly connected therewith to the rear of the seat and provided with at least two wheels arranged longitudinally with respect to each other, a sprocket wheel on a portion of the main frame, a sprocket wheel on the driving wheel, a chain connecting the two, and means for preserving the desired distance between the two sprocket wheels and permitting the free movement of the driving wheel, substantially as described. 2nd. In a vehicle, the combination of a main frame having at least one supporting wheel, and inverted V-shaped auxiliary frame connecting with the main frame at or near the rear end and provided with at least two wheels arranged longitudinally with respect to each other, and a flexible bar connection between the rear end of the main frame and the auxiliary frame, substantially as described. 3rd. In a vehicle, the combination of a main frame carrying a part of the supporting wheels, an inverted V-shaped auxiliary frame connected with the main frame at or near the rear end, and provided with at least two wheels arranged longitudinally with respect to each other, a pair of links connecting the rear end of the main frame with the auxiliary frame, and a second pair of links flexibly connecting the bearing bracket of the main frame with the lower portion of the front leg of the auxiliary frame, to preserve a desired distance between such points, and form through the auxiliary frame a compound flexible connection, substantially as described. 4th. In a vehicle, the combination of a main frame provided with a front steering wheel, an auxiliary frame flexibly connected with the main frame at or near its rear portion, consisting of at least two depending members, the front depending member being rigid and provided with a driving wheel, the rear depending member being pivotally connected to the auxiliary frame and provided with a supplemental wheel, a pair of link bars flexibly connecting the rear portion of the main frame with the auxiliary frame, and a second pair of links connecting the bearing bracket of the main frame with the bearing portion of the lower portion of the front depending leg of the auxiliary frame, substantially as described. 5th. In a velocipede, the combination of a main frame provided with a front steering wheel and other usual parts, an auxiliary frame flexibly connected thereto in the rear of the seat por-

tion and provided with at least two wheels arranged longitudinally with respect to each other, one a driving wheel and the other a supplemental wheel, and a curved spring flexibly connecting the auxiliary with the main frame so as to permit of an independent vertical movement of the driving wheel, and maintain a longitudinal rigidity of the frame, substantially as described. 6th. In a velocipede, the combination of a main frame provided with a front steering wheel and other usual parts, an auxiliary part flexibly connected thereto in the rear of the seat portion, and provided with at least two wheels arranged longitudinally with respect to each other, one a driving wheel and the other a supplemental wheel, a curved spring flexibly connecting the auxiliary with the main frame so as to permit of an independent vertical movement of the driving wheel, and maintain a longitudinal rigidity of the frame, and a bar or bars pivotally connecting the axle of the driving wheel with the main frame, substantially as the crank shaft to preserve a desired distance between the two and permit the free movement of the driving wheel, substantially as described. 7th. In a velocipede, the combination of a main frame provided with a seat or saddle and front wheel by which the structure is guided and steered, with an auxiliary frame pivoted to the main frame to the rear of the seat portion, and provided with at least two wheels arranged substantially in line with each other, one a driving wheel and the other a supplemental or auxiliary wheel, substantially as described.

No. 51,044. Electric Alarm Mail Box.

(Boîte à lettres à avertisseur électrique.)



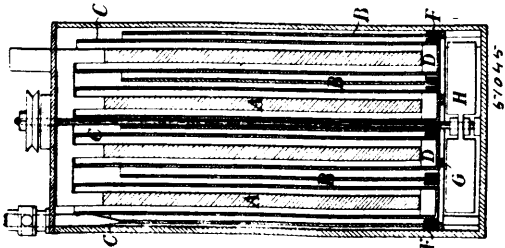
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Edward Charles Turner Belding, Chicago, Illinois, U.S.A., 15th January, 1896; 6 years. (Filed December 27th, 1895.)

Claim.—1st. In combination, a mail-box containing electrical contact-mechanism in circuit with the electric alarm apparatus in a house, a push-button device controlling said contact-mechanism, and a secondary electric sounder inside the box in the circuit of said contact-mechanism, whereby operating the push-button device to close the circuit actuates the house-alarm and the secondary sounder in the mail-box, substantially as and for the purpose set forth. 2nd. In combination, a mail-box provided with a movable insertion-slot cover, a secondary electric sounder, and push-button device, all in normally open circuit with each other and in circuit with the electric-alarm apparatus in the house, whereby closing the circuit by operating either the push-button or cover actuates the house-alarm and also the sounder in the mail-box, substantially as and for the purpose set forth. 3rd. In combination with a door, a push-button device having a bridging button-spring, an insulating projection on the door, a pair of terminals adjacent to the door, and a lateral connecting bridge therefor, said terminals being engaged by said projection in the closed condition of the door to maintain them normally out of contact with the said lateral bridge and released to contact with said lateral bridge by opening the door, said button spring extending into position to bridge across said terminals by operating the push-button and the terminals being included in an electric circuit arranged for connection with the electric-alarm apparatus in a house, substantially as and for the purposes set forth. 4th. An electric-alarm mail-box comprising, in combination with the casing having a door and an insertion slot provided with a movable cover, a push-button device having a spring *v*, terminals *v*¹ and *v*², and insulating projection *t*, normally engaging said terminals, a terminal *t*¹, in position to be engaged by said cover and a companion terminal *t*, said terminals being included in an electric circuit in the box arranged for connection with the electric-alarm circuit in a house, and an electric-sounder in the casing in said box-circuit, substantially as and for the purpose set forth. 5th. A portable electric-alarm mail-box comprising in combination with the casing having a door D and an insertion slot C¹, provided with a movable cover C, a push-button device E, terminals *v*¹ and *v*², and terminals *t*, and *t*¹, in an electric-circuit in the box arranged for connection with the electric alarm circuit in a house, an electric-sounder F, in the casing in said box-circuit and a speaking-tube section *r*, in the casing in alignment

with an opening r^1 , in the back thereof, the whole being constructed and arranged to operate, substantially as and for the purpose set forth.

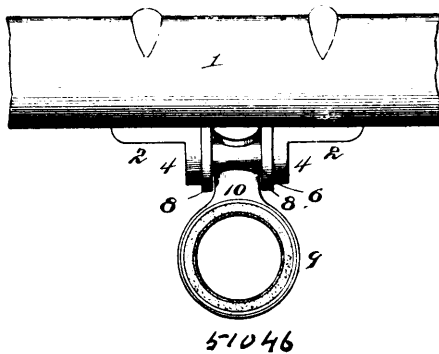
No. 51,045. Secondary Voltaic Battery. (Pile secondaire.)



Ludwig Epstein, Westminster, England, 15th January, 1896; 6 years. (Filed December 28th, 1895.)

Claim.—1st. In a secondary voltaic battery casings inclosing the positive plates, and extending below them, their walls being porous except in their lower parts substantially as and for the purpose set forth. 2nd. In a secondary voltaic battery having negative plates coated with zinc and mercury amalgam, troughs holding the lower edges of the negative plates, substantially as and for the purpose set forth.

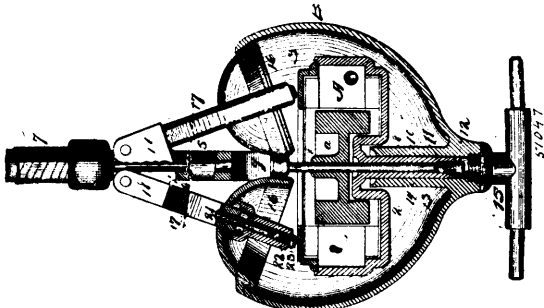
No. 51,046. Neck Yoke. (Volée d'avant.)



William A. Whitney, Byron, Illinois, U.S.A., 15th January, 1896; 6 years. (Filed December 28th, 1895.)

Claim.—1st. In a neck yoke, the combination of a base portion, a pole socket having a headed shank and means for forming a connection between the base and socket, consisting of a two part bushing held by the base and by which the socket is supported. 2nd. In a neck yoke, the combination of a base provided with a slotted extension, a pole socket provided with a shank, a two part bushing located within the extension, having their meeting faces recessed and receiving the shank. 3rd. In a neck yoke, the combination of a base provided with an extension slotted through its top, bottom, and rear sides, and having an enlarged recessed portion extending through the top a cylindrical bushing in two lengthwise sections having their meeting faces recessed, a pole socket having a shank with an end conforming to the recessed faces of the bushing and located therein.

No. 51,047. Revolving Fan. (Eventail tournant.)

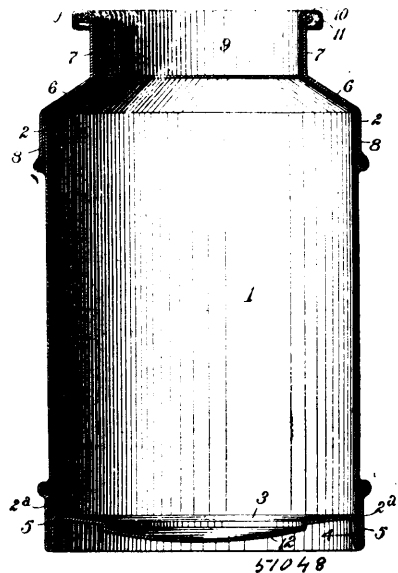


Samuel Obediah Tuerk, Fulton, New York, U.S.A., 15th January, 1896; 6 years. (Filed December 28th, 1895.)

Claim.—1st. A fan-motor comprising a motor, a shaft driven thereby, an inclosing case, fans mounted upon it and means to transmit the rotation of said motor shaft to said case at a reduced

rate of speed, in combination. 2nd. A fan-motor comprising a motor, a shaft driven thereby, a pulley upon and driven by said shaft, wheels driven by said pulley and mounted in swinging yokes, a case inclosing the motor and driven by said wheels, and fans mounted upon said case, in combination. 3rd. A stationary motor-box provided with a tubular stem, motor-shaft journaled therein and means to rotate it, in combination with a case inclosing the motor box and journaled upon the stem thereof, fans mounted upon said case and means to transmit the rotation of said shaft to said casing to operate said fans. 4th. A motor-box and motor suspended from a suitable support, a shaft and pulley thereon driven by the motor, a case inclosing said motor-box and wheels mounted in yokes swinging upon said box carrier and engaging with, supporting, and driving said case, and fans mounted upon and rotated with said case, in combination. 5th. The combination with suitable supports, and a motor fan, of an intermediate connection comprising threaded bars vulcanized into the ends of a piece of rubber whereby said fan is elastically supported. 6th. The combination with a suitable support, and a motor-fan, of an intermediate elastic connection to take up the vibrations etc., and comprising threaded bars vulcanized into a piece of rubber and flanged substantially as shown. 7th. The combination with a motor-fan and a suitable support thereof, of an intermediate elastic connection to take up the vibration etc., and comprising a rubber body, threaded bars connected thereto, and wire connected to said rubber to limit its longitudinal elasticity.

No. 51,048. Milk Can. (Bidon à lait.)



James M. Williams, Pittsburg, Pennsylvania, U.S.A., 15th January, 1896; 6 years. (Filed Dec. 30th, 1895.)

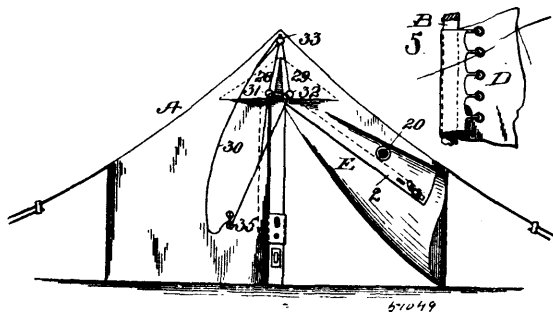
Claim.—1st. A milk can having its lower portion strengthened by folds of metal integral with the body and bottom portions, said folds extending above the bottom, substantially as set forth. 2nd. A milk can having its body strengthened at its upper and lower ends by folds of metal integral with the body, bottom and breast portions, respectively, the upper strengthening folds extending below the upper end of the body and the lower folds extending above the bottom, substantially as set forth. 3rd. In a milk can, the combination of a body portion having the metal at its ends folded back upon the body, and a bottom portion having a flange and an external band, the flange and band forming a groove for the reception of the lower end of the body, the edges of the band and the body fold being seamed together, substantially as set forth. 4th. The combination of a can having its body formed with an external projection and a cover having a depressed or recessed central portion and a broad circumferential rim, the recess or depression in the cover having an internal diameter not less than the external diameter of the projection on the bottom, and the circumferential rim being adapted to afford a comparatively broad bearing or support for the bottom of a superposed can, substantially as set forth.

No. 51,049. Tent. (Tente.)

James Joshua Rinn, San Francisco, California, U.S.A., 15th January, 1896; 6 years. (Filed Feb. 12th, 1895.)

Claim.—1st. In a tent, a flap having a stiffened edge combined with latching or locking devices. 2nd. In a tent, a flap having a pocket on its edge, and an inserted strip combined with latching or locking devices whereby it is connected to the pole or other part of the tent. 3rd. The rigid strip on the edge of the flap, combined with a universal joint on the pole or rigid part of the tent. 4th. The sliding universal joint combined with a rigid strip, and with

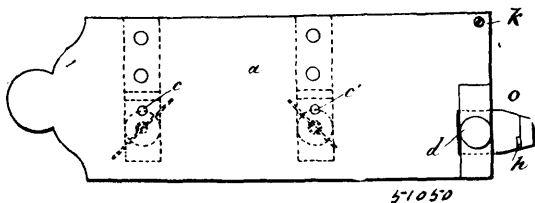
latching or locking devices arranged to engage by sliding movement. 5th. The stiffened flaps slitted around horizontally at the top either



with or without ventilating flaps. 6th. The locking or latching devices within the tent pole or other equivalent part with an entering stud on the flap and releasing devices. 7th. The tubes combined with the flaps, the latching or locking devices within the tubes. 8th. In combination with the stiffening strip, a detachable hook connection with a universal joint, on the pole or equivalent part.

No. 51,050. Attachment for Sewing Machines.

(Attache pour machines à coudre.)

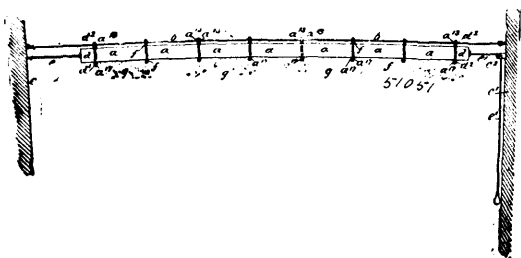


Johannes Heinrich Herman Wohl, Sande, Germany, 15th January, 1896; 6 years. (Filed April 10th, 1895.)

Claim.—In the improvements in attachments for sewing machines the plate a fixed to the sewing machine, and provided with an interchangeable fastener having a guide *f*, for the band and a guide *g*, for the cord being guided by rollers carried by the plate *a*, and by a guiding pin *k*, constructed and arranged, substantially as hereinbefore described.

No. 51,051. Apparatus for Producing Stage Illusions.

(Appareil illusoire pour théâtres.)



Phineas Barton Myers, Brooklyn, New York, U.S.A., 15th January, 1896; 6 years. (Filed December 28th, 1895.)

Claim.—1st. A stage apparatus consisting of a string, a series of perforated boxes movable thereon, and a hand rope for operating the boxes, substantially as specified. 2nd. A stage apparatus consisting of a string, a series of suspended perforated boxes having upwardly and downwardly projecting tongues, means for connecting the tongues, and a spring and hand rope connected to the end boxes, substantially as specified. 3rd. A paper box for stage illusions, having a perforated bottom, slotted end flaps *a*⁵, *a*⁶, and perforated tongues projecting from such flaps, substantially as specified. 4th. A paper box for stage illusions, having a perforated and slotted bottom *a*², an open top *a*¹, slotted end flaps *a*³, having perforated tongues *a*¹³, and slotted end flaps *a*⁶, having perforated tongues *a*¹⁷, substantially as specified.

No. 51,052. Medicinal Compound.

(Composition médicinale.)

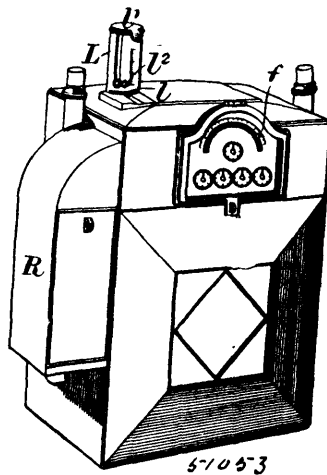
Robert James Walter Atwood, Victoria, British Columbia, Canada, 15th January, 1896; 6 years. (Filed April 2nd, 1895.)

Claim.—A compound composed of the four first-named drugs substantially in the proportions following, viz. :—Tinct. opii., one and a-half drachm. Acid sulph. aromat., one and a-half drachm.

Spts. aeth. nitrosi., one drachm. Syrup tolu., (U.S.), 1870, one and a-half ounce, with any saccharine or neutral substance for the purposes above set forth.

No. 51,053. Coin Feed Gas Meter.

(Gazomètre actionné par une pièce de monnaie.)

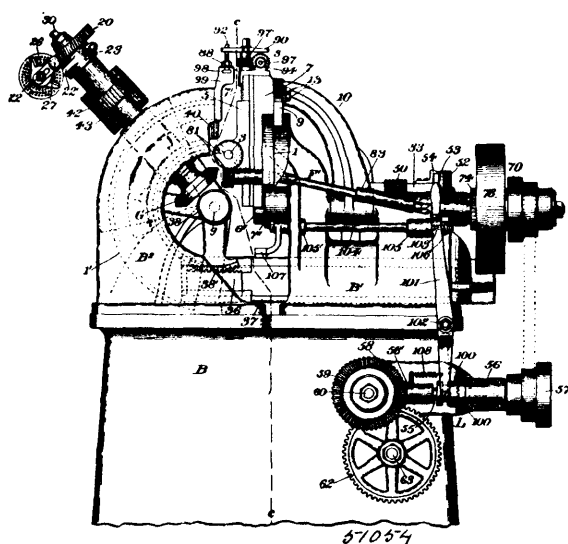


Frank Wright, Westminster, England, 18th January, 1896; 6 years. (Filed October 15th, 1895.)

Claim.—1st. In coin freed gas meter apparatus, the combination of a horizontal-wheel adjustably geared to the counter gear of the meter and having through it holes for passage of coins, a cylinder mounted above the wheel with a side slot for introduction of a coin and a heavy plunger, a gas valve arranged below the cylinder and kept closed by a loaded lever, also under another part of the wheel a hole for passage of coins to a shoot and receptacle, substantially as and for the purposes set forth. 2nd. In coin freed gas meter apparatus, in combination with the counter spindle of the meter, a sleeve thereon, geared to the coin freed mechanism and having on it a toothed wheel, a disc on the spindle carrying a spring slide with tooth adapted to engage with the wheel, two discs each inwardly flanged over half of its circumference and adjustable in position relatively to one another, substantially as and for the purposes set forth.

No. 51,054. Machine for Generating Gear Teeth.

(Machine pour tailler les engrenages.)



Herbert Curtis Warren, Hartford, Connecticut, U.S.A., 18th January, 1896; 6 years. (Filed October 14th, 1895.)

Claim.—1st. In a machine for generating gear-teeth, a rotary-reciprocating gear-blank carrier, and means for automatically actuating said gear-blank carrier, in combination with a rotary-reciprocating cutter-tool carrier, and means for imparting rotary-reciprocating movements to said cutter-carrier in a path transversely of the longitudinal axis of, and in synchronism with said gear-blank carrier, substantially as described. 2nd. In a machine for generat-

ing gear-teeth, in combination, a gear-blank-carrier, and a cutting-tool carrier operatively connected for synchronous, rotary-reciprocating movements, relatively, about a common centre, and means for imparting rotary-reciprocating movements to said carriers, synchronously, substantially as described. 3rd. In a machine for generating gear-teeth, in combination, a gear-blank carrier supported for rotary-reciprocating movements about its axis, a cutter-carrier supported for rotary-reciprocating movements in a direction coinciding with the direction of movement of the gear-blank carrier, a rotary cutter carried by said cutter-carrier in position and adapted for acting upon the gear-blank carried by the blank-carrier, and mechanism for actuating said parts synchronously, substantially as described. 4th. In a machine for generating gear-teeth, in combination, a gear-blank carrier, mechanism for imparting to said carrier rotary-reciprocating movements about its axis, a cutter-carrier, and synchronizing mechanism operatively connecting the gear-blank carrier and cutter-carrier, and adapted for imparting rotary-reciprocating movements to the cutter-carrier transversely of the axis of the gear-blank carrier, and also for effecting synchronous movements of said cutter-blank carrier and gear-blank carrier, substantially as described. 5th. In a machine for generating gear-teeth, a gear-blank carrier, and a cutter-carrier, in combination with an actuating connector between, and adapted for effecting a synchronous oscillating movement of, said gear-blank carrier and cutter-carrier, substantially as described, and for the purpose set forth. 6th. In a machine for generating gear-teeth, the combination of an oscillatory gear-blank carrier, an oscillatory cutter-carrier, and carrier-actuating means in operative connection with, and simultaneously imparting oscillatory movements to, said gear-blank carrier and cutter-carrier, respectively, in relatively-coinciding directions. 7th. In a machine for generating gear-teeth, in combination, an oscillatory gear-blank carrier, an oscillatory cutter-carrier and means in operative connection with, and adapted for imparting oscillatory movements of relatively-varying velocities to, said gear-blank carrier and cutter-carrier, synchronously. 8th. In a machine of the class specified, the combination with a rotary-reciprocating blank-carrier, and with means for automatically imparting rotary-reciprocating movements to said blank-carrier, of a rotary cutter supported for oscillatory movement, and means for imparting rotating and advancing movements to the cutter in the plane of its cutting edge, and means for imparting oscillatory movements to said cutter in synchronism with the rotary-reciprocating movements of the blank-carrier, substantially as described, and for the purpose set forth. 9th. In a machine of the class specified, in combination, a blank-carrier, and a cutter-carrier operatively connected for synchronous oscillatory movements about axes radiating from a common centre; a rotary cutter-carrier by the cutter-carrier, and actuating mechanism in connection with, and adapted for synchronously and automatically imparting oscillatory movements to, the blank-carrier and cutter-carrier, and means for rotating the cutter and advancing said cutter toward the centre from which the axes of said blank-carrier and cutter-carrier radiate, substantially as described, and for the purpose set forth. 10th. In a machine for generating gear-teeth, in combination, a blank-carrying spindle, actuating mechanism for automatically imparting rotary-reciprocating movements to said spindle, a cutter-carrier, means for oscillating said cutter-carrier in a plane transversely of the axes of, and in synchronism with, and in a direction corresponding to the direction of movement of, the blank-carrying spindle, a rotary cutter movably carried by said cutter-carrier, and a cutter-carrier rotating and feeding means for rotating said cutter-carrier, and for imparting advancing movement thereto, in a plane intersecting the axial plane of said spindle, substantially as described. 11th. In a machine of the class specified, the combination of an oscillatory gear-blank carrier, a rotary cutter supported for oscillatory movement, actuating means connecting the gear-blank carrier and cutter, and adapted for imparting oscillatory movements to the gear-blank carrier, and for simultaneously imparting to the cutter a progressive cutting movement in a sinuous path transversely of the axial line of the blank-carrier, substantially as described, and for the purpose set forth. 12th. In a machine for generating gear-teeth, in combination, a gear-blank carrier adapted for rotary-reciprocating movements about its axis, actuating mechanism for said gear-blank carrier, a rotary cutter supported and adapted for intermittent advancing movements in a plane intersecting the axial plane of the blank-carrier, cutter-actuating mechanism co-operating with the blank-carrier-actuating mechanism for effecting synchronous of said two actuating mechanisms, and means for intermittently advancing the cutter along the blank carried by the blank-carrier in a plane corresponding to the longitudinal plane of the face of the tooth being generated, and also for oscillating the cutter in a plane substantially concentric to the axis of the blank-carrier, and transversely of the tooth being generated, substantially as described. 13th. In a machine for generating bevel-gear teeth, in combination, a gear-blank carrier supported for rotary-reciprocating movements about its axis, a rotary cutter supported for intermittent advancing movement in a plane intersecting the axial plane of the blank-carrier, and also for transverse and rotary-reciprocating movements, cutter-feeding mechanism in connection with, and adapted for advancing, the cutter along the blank carried by the blank-carrier, and synchronizing actuating mechanisms co-operatively connecting the blank-carrier and cutter, and adapted for synchronously imparting rotary-reciprocating movements to the blank-carrier and cutter

in corresponding directions, substantially as described and for the purpose set forth. 14th. In a machine for generating gear-teeth, the combination with the oscillatory gear-blank carrier and its actuating mechanism, of a rotary tooth-generating cutter in position and adapted for acting upon the gear-blank carried by the blank-carrier, and cutter-controlling mechanism, substantially as described in operative connection with the cutter and with the gear-blank-actuating mechanism, and adapted for moving the cutter progressively forward along the tooth-forming face of the gear-blank in a plane corresponding to the longitudinal plane of the gear-tooth, and for oscillating said cutter transversely of the longitudinal plane of the gear-tooth in synchronism with the oscillatory movement of the gear-blank carrier, substantially as described, and for the purpose set forth. 15th. In a machine for generating gear-teeth, in combination, an oscillatory holder for the gear-blank, registering mechanism carried by the gear-blank holder, and adapted for intermittently rotating the blank-holder an aliquot part of a complete rotation, a tooth-generating cutter supported for rotary and transverse oscillatory movements, and gear-blank and cutter actuating and controlling mechanism, substantially as described, co-operatively connecting the blank-carrier and cutter, and adapted for synchronously oscillating said blank-carrier and cutter in coinciding directions and in substantially-concentric planes, and means for moving the cutter progressively along the tooth-forming face of the gear-blank, during the oscillatory movement of said cutter, substantially as described. 16th. In a machine for generating gear-teeth, an oscillatory gear-blank carrier, a rotary cutter, an oscillatory cutter-carrier, an actuating-connector between the gear-blank carrier and cutter-carrier, and adapted for synchronously oscillating the gear-blank and the cutter in coinciding directions, and in planes substantially concentric to a common centre, and means for rotating and advancing the cutter relatively to the gear-blank, substantially as described and for the purpose set forth. 17th. In a machine for generating bevel-gear teeth, in combination, a gear-blank carrier supported for rotary-reciprocating movements about its axis, a rotary cutter supported for intermittent advancing movements in a plane intersecting the axial plane of the blank-carrier, and also for transverse and rotary reciprocating movements, cutter-feeding-mechanism in connection with, and adapted for advancing the cutter along the blank carried by the blank carrier, and synchronizing actuating mechanism co-operatively connecting the blank-carrier and cutter, and adapted for synchronously imparting rotary reciprocating movements of relatively varying velocities to the blank-carrier and cutter in corresponding directions, substantially as described and for the purpose set forth. 18th. In a machine for generating gear-teeth, the combination of an oscillatory gear-blank carrier, and an oscillatory cutter-carrier slide, both supported for radial movements relatively to a common centre, and means, substantially as described, for simultaneously oscillating the gear-blank carrier and cutter-slide carrier about said common centre, and for moving said blank-carrier and cutter slide carrier radially of said common centre, for the purpose set forth. 19th. In a machine for generating gear-teeth the combination with an intermittently-rotative gear blank carrier, and with means for intermittently rotating said gear-blank carrier, of a cutter-slide carrier supported for oscillatory movements transversely of the gear-blank carrier, and having a cutter-slide supported for radial movements, relatively to the base of the cutter-slide carrier, oscillating mechanism operatively connecting the blank-carrier and cutter-slide carrier, and adapted for synchronously oscillating said carrier in corresponding directions, and actuating mechanism, substantially as described, in position, and adapted for intermittently imparting an advancing movement to the cutter slide, substantially as described and for the purpose set forth. 20th. In a machine for generating bevel-gear teeth, in combination, a cutter-slide carrier, and a gear-blank carrier supported for synchronous oscillatory movements about intersecting axes, and means in operative connection with, and adapted for synchronously oscillating said cutter-slide carrier and blank-carrier, substantially as described and for the purpose set forth. 21st. In a machine of the class specified, an oscillatory blank carrier, and an oscillatory cutter carrier supported with their axes radiating from a common centre, and adapted for radial and substantially-concentric adjustments relatively to the common centre, from which the axes of said carriers radiate, and for synchronous oscillatory movements, in combination with independent adjusting means for the blank-carrier and for the cutter-carrier, and adapted for independently adjusting said carriers concentrically of, and toward and from, said common centre, and actuating mechanism operatively connecting said carriers, and adapted for synchronously oscillating said carriers in corresponding directions, and at relatively different velocities, substantially as described and for the purpose set forth. 22nd. In a machine for generating gear-teeth, in combination, a cutter-carrier supported for oscillatory movements about a fixed axis, a rotating cutter supported for movement radially of the axis of said carrier, means for oscillating said cutter-carrier, and an oscillating gear-blank carrier supported for radial and concentric adjustments, relatively to an axis having an arbitrarily-fixed relation to the axis of the cutter-carrier, and means for automatically oscillating the gear-blank carrier in synchronism with, and in a direction corresponding to the direction of movement of the cutter-carrier, substantially as described, and for the purpose set forth. 23rd. In a machine for generating gear-teeth, the combination with the cutter-slide carrier supported for oscillatory movement about a

relatively-fixed axis, and with the cutter-slide and the rotating cutter supported for radial movement, relatively to the axis of said cutter-slide carrier, of a gear-blank carrier supported for angular adjustment, relatively to the axis of the cutter-slide carrier, and adapted for oscillatory movement about said axis, and two co-acting actuators operatively connected together for synchronous movement, and one of which is operatively connected with, and is adapted for oscillating, the cutting-slide carrier, and the other of which is operatively connected with, and is adapted for oscillating, the gear-blank carrier, substantially as described, and for the purpose set forth. 24th. In a machine for generating gear-teeth, in combination a gear-blank carrier, and a cutter-carrier supported for oscillatory movements about a common centre, a rotative cutter movably carried by the cutter-carrier with its periphery in a plane radial to the axis of the gear-blank carrier, and adapted for movement toward and from said common centre, means in connection with and adapted for moving, said cutter toward and from said common centre, and means for oscillating the cutter-carrier and gear-blank carrier in synchronism, substantially as described, and for the purpose set forth. 25th. In a machine of the class specified, in combination, a gear-blank carrier supported for oscillatory movement about a relatively-fixed axis, a cutter-carrier supported for oscillatory movement about a relatively fixed axis, means for oscillating said carriers in synchronism and in coinciding directions, and with relatively-varying velocities, a pair of rotative cutters supported by the cutter-carrier with their peripheries in planes radial to a common axis, and operatively connected for angular adjustment relatively to, and transversely of each other, and means for adjusting said cutters relatively to each other, substantially as described. 26th. In a machine for generating gear-teeth, the combination with the oscillatory gear-blank carrier and oscillatory cutter-carrier, and with actuating mechanism for imparting comparative movements of relatively-varying velocities to said blank-carrier and cutter-carrier, of adjusting mechanism for effecting a change in the relative velocities of said blank-carrier and cutter, substantially as described. 27th. In a machine of the class specified, in combination, a gear-blank carrier supported for rotary-reciprocating movements, an actuator in operative connection with said blank-carrier, a cutter-carrier supported for oscillatory movement about a relatively-fixed axis, a synchronizing connector between, and operatively connecting, the cutter-carrier, the cutter-carrier actuator, and a blank-carrier actuator, a rotative cutter adapted for movement transversely of the blank-carrier, and actuating mechanism in operative connection with the cutter-carrier actuator and blank-carrier actuator, and simultaneously actuating the cutter-carrier and blank-carrier, substantially as described and for the purpose set forth. 28th. In a machine for generating gear-teeth, in combination, a gear-blank carrier supported for oscillatory movement, a cutter-carrier embodying an oscillatory member, supported for oscillatory movement in a path transversely of the axial line of the blank-carrier, and a cutter-carrier supported by the oscillatory member for movement transversely of the path of movement of said member, actuating mechanism connected and adapted for automatically oscillating said cutter-carrier and blank-carrier in synchronism, a cutter-slide-actuating device controlled by the oscillatory movement of the cutter-carrier, and adapted for automatically advancing said cutter-slide, toward and from the axial line of the cutter-carrier, substantially as described. 29th. In a machine for generating gear-teeth, the combination with the gear-blank carrier, and with means for automatically oscillating said carrier, of an oscillatory cutter-carrier in operative connection with the gear-blank carrier, and comprising a cutter-slide-carrying member supported for oscillatory movements transversely of the axis of the blank-carrier, a radially-disposed cutter-slide supported on said cutter-slide-carrying member for adjustment in a plane corresponding with the path of movement of said cutter-slide-carrying member, and also supported for reciprocatory movement in a plane transversely of the path of movement of said carrying member, and means for simultaneously oscillating said carrying member, and advancing the cutter-slide in synchronism with the oscillatory movement of the blank-carrier, substantially as described and for the purpose set forth. 30th. In a machine for generating gear-teeth, in combination, a gear-blank carrier, a cutter-carrier, means for imparting comparative oscillatory movements to said blank-carrier and cutter-carrier, synchronously, and adjusting means for changing the relative velocities of said gear-blank carrier and cutter-carrier, substantially as described. 31st. In a machine for generating gear-teeth, a blank-carrier, and a cutter-carrier operatively connected for synchronous rotary-reciprocating movements about their axes radiating from a common centre, in combination with mechanism for simultaneously actuating said carriers, and with means for changing the range of movement of one carrier relatively to that of the other carrier, substantially as described. 32nd. In a machine for generating gear-teeth, a gear-blank carrier, and a cutter-carrier operatively connected together for synchronous rotary-reciprocating movements about a common centre, in combination with actuating mechanism operatively connecting and simultaneously imparting comparative rotary-reciprocating movements of relatively-varying velocities to said gear-blank carrier and cutter-carrier in synchronism, and adjusting means in connection with said actuating mechanism, and adapted for effecting a change in the relative velocities of said gear-blank carrier and cutter-carrier, substantially as described. 33rd. In a machine for generating gear-

teeth, in combination, an oscillatory gear-blank carrier, an oscillatory cutter-carrier, actuating mechanism in connection with, and adapted for synchronously imparting comparative oscillatory movements of relatively-varying velocities to said gear-blank carrier and cutter-carrier, and an adjusting device in connection with said actuating mechanism, and adapted for effecting a change in the velocity of one carrier relatively to that of the other carrier, substantially as described. 34th. In a machine for generating gear-teeth, in combination, an oscillatory gear-blank carrier, an oscillatory cutter-carrier, a gear-blank-carrier actuator, a cutter-carrier actuator, means in connection with, and adapted for imparting comparative movements of relatively-varying velocities to, said actuators, and an adjusting device in connection with said actuators, and adapted for effecting a change in the relative velocities of said actuators, substantially as described. 35th. In a machine for generating gear-teeth, the combination with the oscillatory blank-carrier and its actuator, and with the oscillatory cutter-carrier and its actuator, of a shiftable reciprocating connector intermediate to the blank-carrier actuator and cutter-carrier actuator, and adapted for synchronously actuating the blank-carrier and the cutter-carrier actuator, and driving mechanism in operative connection with one of said actuators, substantially as described and for the purpose set forth. 36th. In a machine of the class specified, the combination with the blank-carrier and its actuator, of an oscillatory cutter-carrier having a sector at one side thereof, a reciprocatory rack in mesh with said sector, actuating mechanism for said rack, and a connector between said rack and the gear-blank-carrier actuator, substantially as described. 37th. In a machine of the class specified, the combination with the oscillatory blank-carrier and its actuator, of an oscillatory cutter-carrier, and a cutter-carrier actuator operatively connected for synchronous movement with the blank-carrier actuator, and consisting of a sector carried by the cutter-carrier, a slide supported for vertical reciprocation, and having a rack in mesh with the sector, a driving-wheel, and a pitman adjustably connected at one end with the driving-wheel and pivotally connected at its opposite end with the rack-slide and adapted for reciprocating said rack, to impart oscillatory movements to the cutter-carrier and blank-carrier in synchronism, substantially as described. 38th. In a machine of the class specified, in combination, a cutter carrier supported for oscillatory movement, a blank-carrier supported for rotary-reciprocatory movements, a cutter-carrier actuator having a vertically-reciprocating member, a blank-carrier actuator having a horizontally-reciprocating member, a transverse-bar carried by the reciprocating member of one of said actuators, and having a sliding-connection with the reciprocating member of the other of said actuators, and means for reciprocating said transverse-bar, to synchronously actuate the cutter-carrier and the blank-carrier, substantially as described, and for the purpose set forth. 39th. In a machine of the class specified, the combination with the oscillatory cutter-carrier and its actuator, and with the rotary-reciprocatory blank-carrier and its actuator, of a transverse-bar adjustably carried by one of said actuators, and having a sliding connection with the other of said actuators, and actuating mechanism in connection with the transverse-bar carrier, and adapted for synchronously actuating the cutter-carrier and the blank-carrier, substantially as described. 40th. In a machine of the class specified, the combination with the cutter-carrier having a reciprocatory member, and with a blank-carrier actuator and its reciprocatory member, of a traverse bar pivotally connected, approximately midway of its length to one of said reciprocatory members, and having a sliding-connection with the other of said reciprocatory members, and adjusting means in connection with said traverse-bar and its carrier, and adapted for effecting a change in the angular relation of said traverse-bar to said reciprocating members, substantially as described. 41st. In a machine of the class specified, a cutter-carrier actuator having a vertically-reciprocatory member, and a blank-carrier actuator having a horizontally-reciprocatory member, in combination with a transverse-bar having sliding connection with the horizontally-reciprocatory member, and having a pivotal connection with the vertically-reciprocatory member, an adjusting device carried by the vertically-reciprocating member, and in operative connection with the transverse-bar, and an indicator co-operating with said adjusting device, to indicate the angular position of the transverse-bar relatively to the horizontally-reciprocating members, substantially as described. 42nd. In a machine of the class specified, two independent radius-bars supported for oscillatory movement, and having concentric axes at the inner ends thereof, and supported at their outer ends for transverse adjustment relatively to each other, in combination with two independent cutter-carrying slides supported by the two radius-bars, respectively, for movement longitudinally of said bar, oscillating mechanism in operative connection with the radius-bars, and feeding mechanism in operative connection with, and adapted for simultaneously imparting, a feeding movement to the two cutter-slides, substantially as described, and for the purpose set forth. 43rd. In a machine of the class specified, the combination with the two transversely-adjustable, cutter-slide-carrying radius-bars, and with the cutter-slides carried thereby, of a pair of feed-screws carried by the two radius-bars, respectively, having screw-threaded bearings in the two cutter-slides, respectively, a telescopic universal shaft, journaled at opposite ends in bearings upon the two radius-bars, respectively, and operatively connected with the feed-screws by means of gearing, and means substantially as described, for actuating said shaft and feed-screws, simulta-

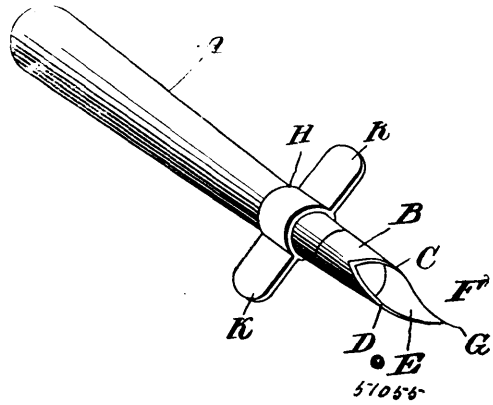
neously, substantially as described. 44th. In a machine of the class specified, the combination with the blank-mechanism frame having a segmental guideway, of a slide supported for adjustment concentric with said guideway, and having transverse blank-carrier-supporting bearings, and a blank-carrier supported for longitudinal adjustment and rotary reciprocations in said bearings, and comprising a cylindrical bearing or sleeve supported for longitudinal adjustment in the bearings of the slide, and carrying means for adjusting the same transversely of said slide, and a blank-carrying spindle carried for rotary reciprocations in said cylindrical bearing, and adapted for longitudinal movement with said bearings, substantially as described. 45th. In a machine of the class specified, the combination with the oscillatory cutter-carrier and its actuator, of a rotary-reciprocatory gear-blank carrier supported for radial and concentric adjustment, relatively to an arbitrarily-fixed axis, an actuator in operative connection with said blank-carrier, and also in operative connection with the cutter-carrier actuator, and an index device carried by said gear-blank-carrier, and adapted for indexing the gear-blank, substantially as described. 46th. In a machine of the class specified, the combination with the oscillatory cutter-carrier and its movable cutter-slide, and with the cutter-carrier-actuating mechanism, of a stopping device controlled by the movements of the cutter-slide, and adapted for automatically stopping the operation of the actuating mechanism and cutter-slide, substantially as described. 47th. In a machine of the class specified, the combination with the oscillatory and radially movable cutter-slide, and with the cutter-slide-actuating mechanism embodying two shiftable clutch-members, of a shifting device in operative connection with one of said clutch-members, and adapted to be automatically operated by the radial movement of the cutter-slide, to throw the clutch-members out of operative engagement, and stop the movement of the cutter-slide, substantially as described. 48th. In a machine for generating gear-teeth, the combination with the frame-work, of a segmental cutter-carrier guideway, and a segmental blank-carrier guideway in rectangular disposition relatively to each other, and their geometrical axes in substantially the same plane, a cutter-carrier movably supported on the cutter-carrier guideway, a blank carrier movably supported on the blank-carrier guideway, and means for actuating said carriers, substantially as described. 49th. In a machine for generating gear-teeth, the combination with the frame-work having a vertically-disposed segmental guideway, of a segmental gear-blank-carrier slide adjustably supported by said guideway, a rotary-reciprocatory blank-carrier adjustably carried by said slide, and means in operative connection with, and adapted for imparting a rotary-reciprocatory movement to the blank-carrier, substantially as described. 50th. In a machine for generating gear-teeth, the combination with the frame-work having the segmental blank-carrier-supporting guideway, and with the rotary-reciprocating blank-carrier, of a pinion carried by said carrier, an oscillatory segmental rack supported for oscillatory movements, and a pair of gears intermediate to and operatively connecting the oscillatory rack and the pinion upon, the blank-carrier, substantially as described, and for the purpose set forth. 51st. In a machine for generating gear-teeth, the combination with the frame-work, and with the rotary-reciprocatory blank-carrier, of a segmental rack pivotally supported for oscillatory movement, in a bearing upon the frame, a train of gears operatively connecting the blank carrier and oscillatory rack, and means in operative connection with, and adapted for oscillating, said rack, substantially as described. 52nd. In a machine for generating gear-teeth, the combination with the frame-work, and with the cutter-carrier and gear-blank carrier, of two oppositely-disposed sectors, one of which is in operative connection with the cutter-blank carrier, and the other of which is in operative connection with the gear-blank carrier, and both of which are operatively connected together for synchronous movement, and means for synchronously actuating said sector, substantially as described, and for the purpose set forth. 53rd. In a machine for generating gear-teeth, the combination with the frame work having a segmental guideway, of the blank-carrier slide adjustably carried by said guideway, a rotary-reciprocatory blank-carrier supported for transverse adjustment, relatively to said slideway, a driven-gear carried by said carrier, a driving-gear in mesh with said driven-gear, a bevel-gear carried by the driving-gear, an oscillatory segmental bevel-gear in mesh with the first-mentioned bevel-gear, and means, substantially as described, for oscillating said segmental gear, to impart rotary-reciprocatory movement to the gear-blank-carrier, substantially as described.

No. 51,055. Pineapple Knife. (Couteau pour ananas.)

Mary Frances Postley, New York, State of New York, U.S.A., 18th January, 1896; 6 years. (Filed October 14th, 1895.)

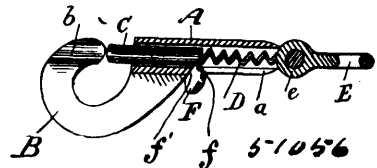
Claim.—1st. A device for cleaning, paring and otherwise treating fruits and vegetables, comprising a handle with one end of which is connected an attachment, comprising a tubular section, or base which is cut away on the opposite side and provided with a cutting edge and a curved point, substantially as shown and described. 2nd. A device for cleaning, paring and otherwise treating fruits and vegetables, comprising a handle with one end of which is connected an attachment, comprising a tubular section, or base which is cut away on the opposite side and provided with a cutting edge and a curved point, said handle being also provided with a fender or guard, substantially as shown and described. 3rd. A device for paring,

peeling, cutting and otherwise treating fruits and vegetables, comprising a handle as A, to one end of which is secured a tubular



attachment the sides of which are cut away, one side being cut away in the form of a double or ogee curve, whereby a curved cutting blade is formed provided with a curved projection or point, substantially as shown and described.

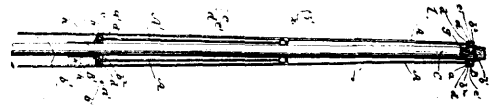
No. 51,056. Snap-Hook. (Crochet à ressort.)



Frank White and Ira F. White, both of Pomona, California, U.S.A., 18th January, 1896; 6 years. (Filed October 16th, 1895.)

Claim.—An improved snap hook consisting of a blank adapted to be bent into shape, having a front portion to form the hook-head and nose thereof, a rear portion to form the lugs for the end of the loop, and an intervening body portion the side portions of which are cut to form an elongated slot in the back of the body, and having also a recess in its back central portion as an outlet for sand, a slidable bolt adapted to be seated in said barrel having a knob with bevelled under portions to project through the slot formed by the cut out sides the body portion, and a loop or eye on the rear extremity of the barrel portion, substantially as herein described.

No. 51,057. Umbrella. (Parapluie.)



Gustave J. Jaccard, Bayonne, New Jersey, U.S.A., 18th January, 1896; 6 years. (Filed October 18th, 1895.)

Claim.—1st. An umbrella frame, comprising a plurality of ribs having braces hinged thereto, said ribs being provided with balls or spheres at their upper ends and said braces having balls or spheres at their lower ends, and two sectional collars mounted upon a stick or rod, the upper one of which is stationary and the lower slidable upon said stick, which collars are provided with spherical sockets adapted to engage respectively with the balls or spheres of the ribs and braces, substantially as shown and described. 2nd. In a umbrella frame, the combination of a plurality of ribs having braces hinged thereto, said ribs being provided with balls or spheres at their upper ends and said braces having balls or spheres at their lower ends, with two sectional collars mounted upon a stick or rod, the upper one of which is stationary and the lower slidable upon said stick or rod, which collars are provided with spherical sockets adapted to engage respectively with the balls or spheres of the ribs and braces, substantially as shown and described. 3rd. In an umbrella frame, the combination of a plurality of metallic ribs having braces hinged thereto, said ribs being provided with spherical knobs upon their upper ends and said braces having spherical knobs at their lower ends, and two collars mounted upon a stick or rod, which collars comprise two sections each and contain spherical sockets which engage with the spherical knobs of the ribs and braces, substantially as shown and described.

No. 51,058. Process of Manufacturing Carbonic Acid, Etc. (Procédé de fabrication d'acide carbonique, etc.)

Erick W. Encquist, Flushing, New York, U.S.A., 18th January, 1896; 6 years. (Filed July 22nd, 1895.)

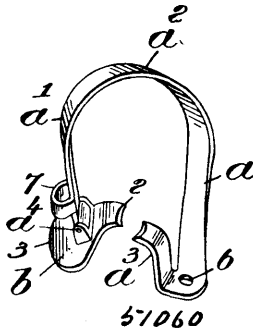
Claim.—1st. The process of treating a solution of nitre-cake or another alkaline acid sulphate with magnesite, substantially as described. 2nd. The process of producing carbonic acid and an alkaline sulphate and magnesium sulphate by treating a solution of an alkaline acid sulphate with magnesium carbonate or magnesite, thereby evolving carbonic acid gas and causing an alkaline reaction, thus precipitating iron, aluminous and silicious matters and other impurities, substantially as described. 3rd. The process of treating a hot solution of nitre cake with magnesite and separating the excess of Clauber's salts by means of crystallization, then purifying the same, substantially as described. 4th. The process of treating a solution of an alkaline acid sulphate with magnesite, and a corresponding alkaline chloride, forming carbonic acid, an alkaline sulphate and magnesium chloride, substantially as described. 5th. The process of treating a solution of an alkaline acid sulphate with magnesite, producing carbonic acid, an alkaline sulphate, and a mother liquor containing an alkaline sulphate and magnesium sulphate, and decomposing the same with a corresponding alkaline hydrate or carbonate, forming magnesium hydrate or carbonate and a corresponding alkaline sulphate.

No. 51,059. Manufacture of Aluminate, etc.
(*Fabrication d'aluminite etc.*)

Dimitry Alexandrowitch Penickoff, Petersburg, Russia, 18th January, 1896; 6 years. (Filed 11th June, 1895.)

Claim.—The treatment of substances containing alumina or silicic acid, by means of the sulphates of alkalis or alkaline earths in the presence of metal sulphurets for the obtainment of silicates, or aluminates and lye products such as hydrochloric acid, chlorine or chloride of aluminium according to the particular method of operation adopted as hereinbefore explained.

No. 51,060. Rubber Dam Clamp.
(*Serre-châssis pour serrement en caoutchouc.*)



Henry Forest Libby, Boston, Massachusetts, U.S.A., 18th January, 1896; 6 years. (Filed 17th October, 1895.)

Claim.—A rubber dam clamp, having two arms, one adapted at its end to engage and clasp a tooth at the outer side thereof and a clasping shoe pivoted to the end of the other arm and provided above its pivot with a clasping edge to engage and clasp said tooth at its neck and at the inner side thereof, to carry the end of said other arm below said neck and hold the same in position by engagement of its clasping edge with the neck of said tooth, whereby the tooth receives much of the pressure necessary to retain the clamp in position, substantially as described.

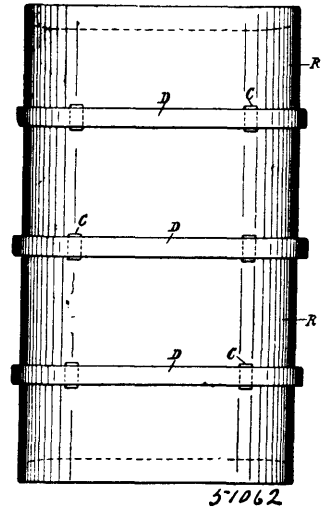
No. 51,061. Dress Stay. (*Balaines de robes.*)



Allen Bagly, Ipsilanti, Michigan U.S.A., 18th January, 1896; 6 years. (Filed 18th July, 1895.)

Claim.—1st. A dress stay formed with a woven fabric having metal blades woven into the fabric as an integral part of the structure thereof substantially as set forth. 2nd. A dress stay formed with a woven fabric having metal blades interwoven therewith as a component part of the structure of the fabric, said fabric having lateral selvages through which the stay may be stitched into place, substantially as set forth. 3rd. A dress stay formed with a woven fabric having metal blades interwoven therewith, said fabric woven with lateral flexible selvages through which the stay may be stitched into place, the ends of the stay being provided with shields substantially as set forth. 4th. A dress stay formed with a woven fabric having stiffening blades interwoven therewith as an integral part of the structure of the fabric, the threads of said fabric woven, to form lateral selvages, shields covering the ends of said fabric and staples inserted through said fabric outside said blades and having their prongs compressed upon the shield on the side thereof opposite the head of the staple, substantially as set forth.

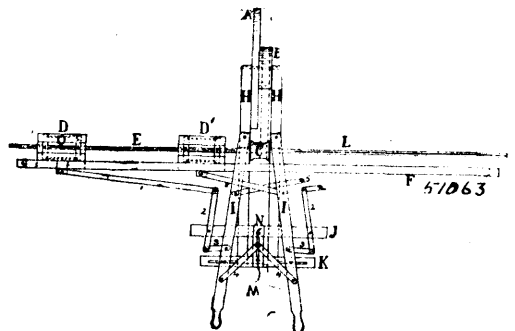
No. 51,062. Steel Barrel. (*Baril en acier.*)



John McDonald, Petrolea, Ontario, Canada, 18th January, 1896; 6 years. (Filed 2nd July, 1895.)

Claim.—1st. A body R, of a barrel formed of steel, iron or other equivalent material, and metal clips C, C, secured thereto, in combination with hoops D, D, of wood or other equivalent material, the accidental displacement of the latter being avoided and completely prevented by bending up the ends of said clips C, after the hoops D have been driven thereon, substantially as and for the purpose set forth. 2nd. A body R formed of steel, iron or other equivalent material, in combination with hoops D, D, the central one of the latter being thicker or set out further from the body of the barrel than the other on end hoops, or gradually decreasing the thickness of said hoops from the centre to each end, whereby the bilge is formed in said hoops in place of in said body, substantially as and for the purpose set forth. 3rd. A body R, of a barrel constructed of steel, iron or other equivalent material formed by bending in a cylindrical or other suitable form a flat sheet of metal, and overlapping the side edges of said sheet, and rivetting and soldering or otherwise securing the overlapping edges together to form a tight joint at this point, and metal clips C, C, secured to said body, in combination with the hoops D, D, of wood or other equivalent material, the accidental displacement of said hoops being avoided and completely prevented by bending up the ends of said clips C, after the hoops D have been driven thereon, substantially as and for the purpose set forth. 4th. A body R, of a barrel formed of steel, iron or other equivalent material, and the metal clips C, C, and heads or ends H, H, formed with the flanges A, in combination with the hoops D, D, formed of wood or other equivalent material, the central one of which sets out further from the body than the other or end hoops, or gradually decreasing the thickness of the hoops from the centre towards each end for the purpose of forming the bilge to the barrel in the hoops, and not in the body, the accidental displacement of said hoops being avoided and completely prevented by the bending up of the ends of the clips C, after the hoops D have been driven thereon, substantially as and for the purpose set forth.

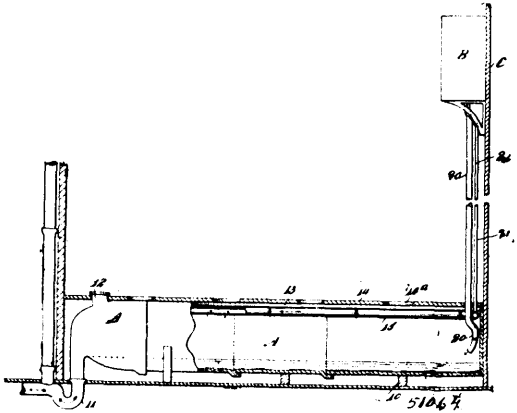
No. 51,063. Machine for Sprinkling Paris Green on Potatoes. (*Arrosoir pour patates.*)



Allison Redden and Levi Redden, both of Kentville, Nova Scotia, Canada, 18th January, 1896; 6 years. (Filed 5th August, 1895.)

Claim.—The combination of the wheels A, B, C, the handles I, J, the arms E, L, the adjusting levers 1, 2, 3, and the equalizing rods 4, 4, substantially as and for the purpose hereinbefore set forth.

No. 51,064. Flushing Tank. (*Cuvette pour latrines.*)

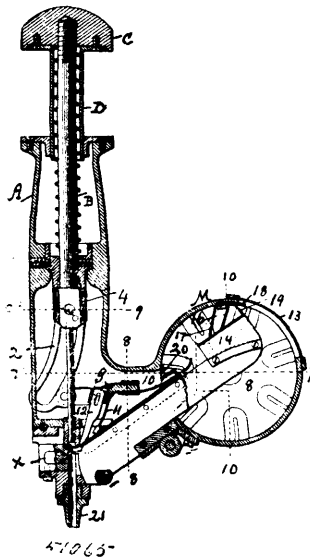


Charles Malcolm Cookson and Hunter Plows, Victoria, British Columbia, Canada, 20th January, 1896; 6 years. (Filed 29th August, 1895.)

Claim.—1st. A closet bowl constructed in a series of sections, being of elongated form and adapted to be covered by a seat containing a multiple of holes, as and for the purpose specified. 2nd. An extension closet bowl adapted to accommodate a seat containing a multiplicity of holes and provided with a marginal rim, a flushing pipe located beneath the rim or flange of the bowl, a second flushing pipe entering the body portion, and a flushing tank adapted to supply water to the said flushing pipes, as and for the purpose set forth. 3rd. In water closets, a flushing tank provided with a siphon, a service box in which a leg of the siphon is entered, a service pipe supplying water to the tank outside of the service box, a tilting receptacle located within the service box and receiving water from the siphon, and flushing pipes connected with the said service box, as and for the purpose specified.

No. 51,065. Implement for Driving Tacks.

(*Machine à chasser la broquette.*)



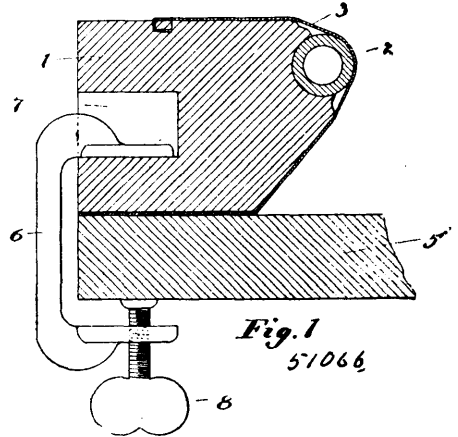
William T. Hooknagle, Baltimore, Maryland, U.S.A., 20th January, 1896; 6 years. (Filed 22nd Oct., 1895.)

Claim.—1st. The combination of a plunger tube, an inclined guide or race-way leading to said tube, a step or seat at the end of the race-way for a single tack, a driving plunger which serves when down to hold the single tack on its seat and a retaining device between the plunger and race-way for holding the column behind the seat when the plunger is up, substantially as described. 2nd. The combination of a plunger tube, a plunger reciprocating in and guided by said tube, a race-way opening laterally into the tube, means for delivering the tracks singly to the passage, and a magnet opposite the delivery end of the race-way to draw the tacks from

the raceway and hold them in position to be driven by the plunger, substantially as described. 3rd. In a tack-driving implement, the combination of a plunger tube or barrel, a stepped race-way, leading to said tube, a retainer for retaining the column behind the foremost tack, and a stationary magnet opposite the race-way for seating and holding the tack, in the plunger-tube, substantially as described. 4th. In a tack-driving implement having a magnetic tack lifter arranged at one side of the tack receptacle, the combination with such lifter, of a hopper or chute and an armature arranged as and for the purpose described.

No. 51,066. Billiard Table Apparatus.

(*Appareil pour Tables de billard.*)

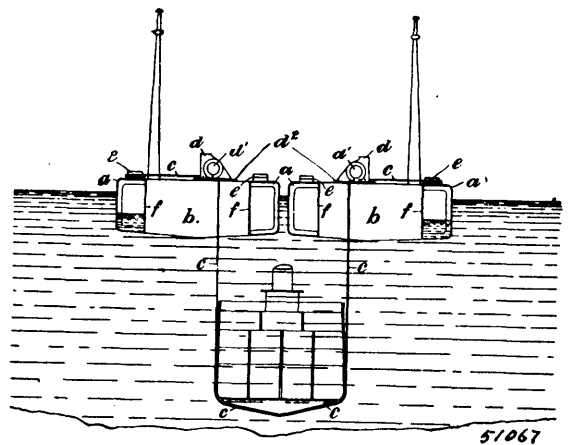


Arthur Albert Leaker, Montreal, Quebec, Canada, 20th January, 1896; 6 years. (Filed 4th September, 1895.)

Claim.—1st. In a billiard table apparatus, the combination of an adjustable rim in sections provided with inflated and cloth covered cushions and adjustable pockets and an ordinary table to which the sections are clamped. 2nd. A billiard cushion consisting of an inflated tube attached to a suitable rim and covered with cloth as described.

No. 51,067. Wreck Raising Appliance.

(*Appareil de sauvetage.*)



James Bell, West Derby, William Charles Melville, Liverpool, and James William Foster, Seacombe, all in England, 20th January, 1896; 6 years. (Filed 9th October, 1895.)

Claim.—1st. In appliances for raising sunken ships, a pontoon having transversely arranged wells or spaces through which the ropes used to lift the ship are passed, by which such ropes may be placed and held at any desired point laterally on the pontoon, and a vertical or substantially vertical pull or strain is put upon the pontoons when raising the ship. 2nd. In appliances for raising sunken ships, a pontoon having a plurality of comparatively long and narrow transverse wells *u* in and thought it, through which the lifting ropes are adapted to be passed to the wreck at any point, and longitudinal chambers running transversely to said wells at each side of the pontoon, between the ends of said wells and the ponton sides. 3rd. In appliances for raising sunken ships, pontoons adapted to be placed and used on either side of the vessel to be raised, having transversely arranged wells through them, through which the lifting

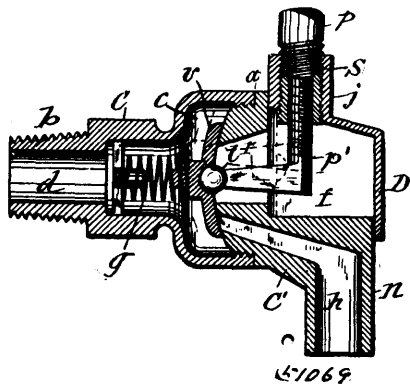
ropes are passed, and a winch above each of said wells, having a rope winding barrel for hauling up the lifting ropes, and a secondary revolving reel or barrel for holding the unused portion of the ropes, substantially as described. 4th. In appliances for raising sunken ships, pontoons adapted to be placed and used on either side of the vessel to be raised, having transversely arranged wells through them, through which the lifting ropes are passed, a winch above each of said wells, having a rope winding barrel for hauling up the lifting ropes, and a secondary revolving reel or barrel for holding the unused portion of the ropes, and a plurality of compartments in the pontoon adapted to be filled with and emptied of water, substantially as described. 5th. A pontoon for raising sunken ships, comprising a plurality of water tight compartments at either side, formed by longitudinal bulkheads, as *f*, and transverse bulkheads *j*², and intermediate chambers between said compartments, substantially as set forth. 6th. A pontoon for raising sunken ships, comprising transverse wells *b* through which the lifting ropes are passed, longitudinal compartments at each side of the pontoon between said wells and the sides of the pontoon, intermediate chambers between the side compartments and the wells, duplex hollow bollards *e* on the deck of the pontoon at either side, and in line with the transverse wells, a hollow box keelson *i* serving as a water conduit, running through the side compartments, and valves in each of said compartments in said keelson, having their operating means disposed within said hollow bollards, substantially as set forth. 7th. The combination in a sunken ship raising pontoon, of longitudinal compartments at each side of the pontoon, a hollow keelson *i* running through said compartments, a valve *j* in each of said compartments arranged in connection with a seat in the bottom of the keelson, and having an actuating spindle extending to the deck of the pontoon, substantially as set forth.

No. 51,068. Food Compound. (Composé alimentaire.)

Firman Delange, Lyon, France, 20th January, 1896; 6 years. (Filed 18th April, 1895.)

Claim.—A food compound consisting of sterilized raw meat dried and ground to an impalpable powder, and chocolate, cocoa, paste, and like products mixed together in about the proportions stated.

No. 51,069. Faucet. (Robinet.)



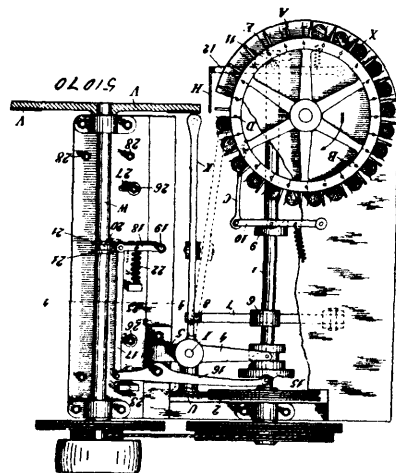
Elijah Upson Scoville, Manlius, New York, U.S.A., 20th January, 1896; 6 years. (Filed 21st May, 1895.)

Claim.—1st. A faucet having its valve-seat facing toward the liquid-receiving end of the faucet, and a valve riding on said seat and pressed thereon by force of the liquid entering the faucet, as set forth. 2nd. A faucet composed of separable parts, one of which is provided with a valve-seat adjacent to the other part and with a discharge duct leading from said valve seat, and a valve riding on said seat and presenting its back toward the liquid-inlet in the other of the aforesaid parts, as set forth. 3rd. A faucet composed of separable parts, one of which is provided with a valve-seat at the end adjacent to the other part, and with a discharge duct leading from said valve-seat, and the other of said parts provided with a chamber surrounding the valve-seat, and a valve sliding on said seat and presenting its back toward the liquid-inlet of the faucet, as set forth. 4th. A faucet composed of separable receiving and discharging sections, the discharging section provided with a valve-seat on the end adjacent to the receiving-section, a discharge-duct leading from said valve-seat, and a port extending from the valve-seat through the discharging-section, a handle extending through the said part for operating the valve, the receiving section formed with a chamber surrounding the valve seat, and the valve riding on said seat and presenting its back toward the liquid-inlet of the valve, as set forth. 5th. The combination of the receiving section *C* formed with the chamber *c*, the discharge section *C'* formed with the valve-seat *e*, within said chamber and with the discharge-duct *h*, and port *l* extending from said valve-seat, the valve *v* sliding on said seat, a valve-operating stem connected to the discharging-section, and having the finger *r* extending into the aforesaid port and engaging the valve, as set forth. 6th. The combination of the section *C* formed

with the chamber *c*, the section *C'* formed with the valve-seat *e* within said chamber and with the discharge-duct *h*, port *l*, and the recess *f*, the valve *v* riding on said seat, the cap *D* secured over said recess and provided with the internally screw-threaded hub *j*, the stem *p* working in said hub, and the finger *r* extending from said stem through the aforesaid port and engaging the valve, as set forth. 7th. The combination of the section *C* formed with the chamber *c*, the section *C'* formed with the valve-seat *e* inside of said chamber, and with the discharge-duct *h*, port *l* and recess *f*, the valve *v* riding on said seat, the cap *D*, provided with the internally screw-threaded hub *j*, the stem *p* having a screw-threaded portion working in said hub, and the finger *r* swivelled on said stem and extending through the port *l*, and engaging the valve, as set forth. 8th. In combination with section *C*, formed with the chamber *c*, the section *C'*, formed with the valve-seat *e*, inside of said chamber and with the discharge-duct *h*, port *l*, and recess *f*, the valve *v*, riding on said seat, the cap *D*, provided with the internally screw-threaded hub *j*, the stem *p*, working in said hub and provided with the collar *t*, and the finger *r*, formed with the slot *t'*, and crotch *t''*, over said slot and detachably connected thereby to the stem, as set forth and shown. 9th. In combination with the faucet section *C'*, valve *v*, and the cap *D*, provided with the internally screw-threaded hub *j*, the stem *p*, formed with the bushing *s*, screw-threaded externally and internally and working in said hub, the screw-threaded stem-extension *p'*, working in said bushing, and the finger *r*, extending from said stem-extension and engaging the valve as set forth.

No. 51,070. Machine for Cutting and Grinding Cork.

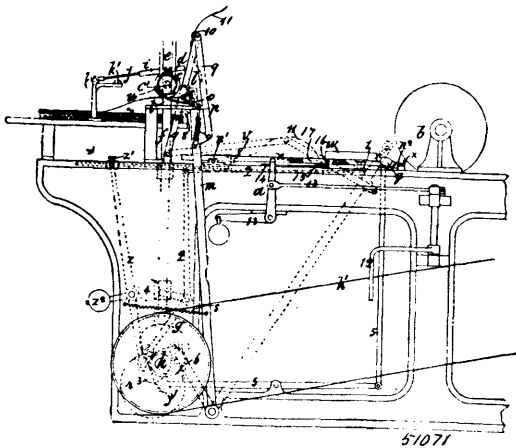
(Machine pour dégrossir et couper le liège.)



Hakon Segvart Larsen, Christiania, Norway, 20th January, 1896; 6 years. (Filed 8th May, 1895.)

Claim.—1st. In a machine for cutting or grinding corks, the combination with a reservoir for the corks adapted to be moved step by step, of a rotatable disc having a cutting or grinding surface and a device adapted to catch hold of and to rotate said corks while being treated by the said disc, substantially as described. 2nd. In a machine for cutting or grinding corks, the combination with a reservoir, a rotary disc having a circular cutting edge or a plane grinding surface, of a pair of spindles adapted to be rotated at certain intervals and carried by a swinging frame adapted to be moved to and fro in front of the said cutting or grinding tool, substantially as set forth. 3rd. In a cork grinding machine, the combination with a rotary shaft having a grinding surface on one of its sides, a shaft upon which the said disc is mounted, and a cam mechanism for imparting to the shaft at intervals an axially reciprocating movement, substantially as and for the purposes described. 4th. In a cork grinding or cork cutting machine, a device for catching hold of and rotating the cork piece while it is treated by the cutting or grinding disc and for transporting the cork pieces one by one from a magazine for the corks, consisting in combination with a swinging frame which is swung laterally at intervals by a turning spindle *N*, and a rotary catch-spindle *O*, said spindles being adapted to hold the cork pieces between pointed discs on their ends, the turning spindle being at intervals put in rotation by a shaft *T*, journaled in the swinging frame and having a friction wheel *U*, only gears with a friction wheel on the driving shaft of the machine, when the swinging frame is in its working position, substantially as described. 5th. In a cork cutting or grinding machine, a wheel *B*, having on its periphery teeth *A*, between which and springs *E*, the cork pieces are placed, said wheel being moved step by step so that the corks are transported one by one in front of the cutting or grinding tool to be caught between the ends of the spindles in the swinging frame, substantially as described.

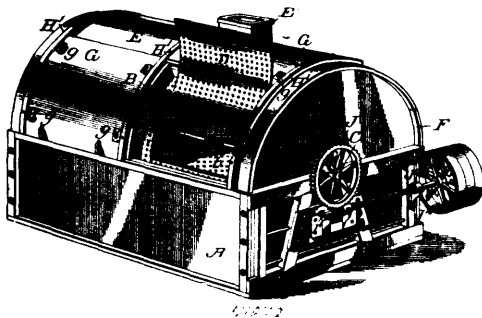
No. 51,071. Apparatus for Feeding Sheets of Paper to Printing Machines. (Mecanisme d'alimentation du papier aux presses à imprimer.)



George Duncan, Liverpool, England, 20th January, 1896; 6 years. (Filed September 11th, 1894.)

Claim.—1st. In apparatus for feeding sheets of paper to printing machines, the combination of adhesive discs or rollers mounted to rotate and to rise and act vertically above the sheets to be fed with actuating devices for securing such rotation and rising thereof, take-off grippers, and sheet separators to brush in form, substantially as described and shown. 2nd. In apparatus for feeding sheets of paper to printing machines, the combination with the feeding devices in the form of adhesive discs or rollers, of disengaging gear or appliances in lever and detent form for stopping the machine when a sheet fails to be fed, substantially as described and shown. 3rd. In apparatus for feeding sheets of paper to printing machines, comprising adhesive discs or rollers, appliances in pusher and stop form for straightening or bringing the sheets into position, substantially as described and shown. 4th. In apparatus for feeding sheets of paper to printing machines, the combination of adhesive discs or rollers, actuating apparatus, sheet separators, and take-off grippers, substantially as shown and for the purposes set forth. 5th. In apparatus for feeding sheets of paper to printing machines, the combination of adhesive discs or rollers, actuating apparatus, sheet separators, take-off grippers, and sheet straightening devices, substantially as shown and for the purposes set forth. 6th. In apparatus for feeding sheets of paper to printing machines, the combination of adhesive discs or rollers, actuating apparatus, sheet separators, take-off grippers sheet straightening devices, and disengaging gear, substantially as shown and for the purpose set forth.

No. 51,072. Dyeing Machine. (Machine à teindre.)



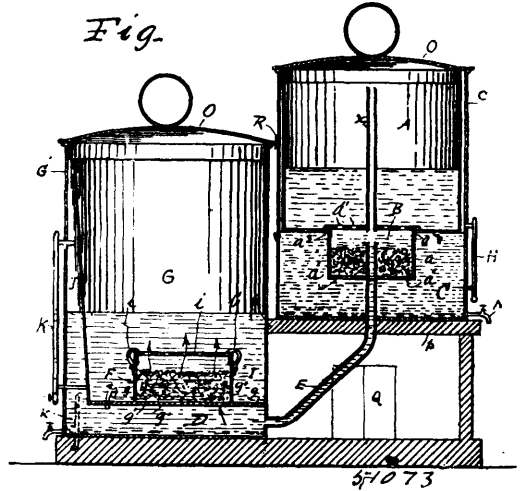
Tom B. Bowers, Chester, Pennsylvania, U.S.A., 20th January, 1896; 6 years. (Filed June 6th, 1895.)

Claim.—1st. In a dyeing machine, the combination of the kettle, the perforated cylinder having doors in its sides, means for rotating said cylinder, and a cover having side doors through which access can be had to the cylinder doors, substantially as described. 2nd. In a dyeing machine, the combination of the kettle, the perforated cylinder divided into compartments by longitudinal plates and supported in the kettle by a central shaft to which the plates are attached, doors in the sides of the cylinder for access to the compartments and means for rotating the cylinder, with the cover having a flue, and doors in the side of the cover through which access can be had to the doors of the cylinder, and the rear door in the cover for access to the kettle, substantially as described. 3rd. The combination, in a dyeing machine of the kettle, the perforated cylinder having a central shaft journaled on the kettle, the worm gearing for rotating said cylinder, the longitudinal division plates in the cylinder, the perforated doors in the sides of the cylinder,

and means for closing them substantially as described, with the arched cover having a rear door for access to the kettle, and the sliding doors in front, through which access can be had to the cylinder doors, said cover having guides for the sliding doors, all substantially as and for the purpose set forth.

No. 51,073. Oil Filter. (Filtre.)

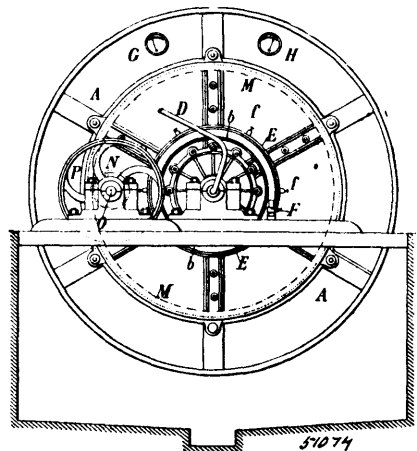
Fig.



William J. Bailey, Evansville, Indiana, U.S.A., 21st January, 1896; 6 years. (Filed 28th December, 1895.)

Claim.—1st. The combination of a filter having a sub-chamber, a second chamber with which the upper part of said first chamber is directly connected, a third chamber located above said second chamber, an air vent leading from the second chamber upward into the third chamber, and a filtrant interposed between said second and third chambers, substantially as set forth. 2nd. The combination of the tank c, the chamber A fitting in the upper end of said tank and having a perforated filtrant cup or box a depending from the bottom thereof, the removable perforated cap fitting in said cup or box, the tank G arranged below the tank c, and having a false bottom provided with openings, a perforated filtrant box arranged on said bottom over said openings therein, the air vent J and a stand pipe extending upward in said tank c, and communicating with the tank G below said false bottom, substantially as set forth. 3rd. The combination with the chamber for the reception of the crude oil, and a second chamber for the filtered oil, of a filtrant interposed between said chambers and being composed of charred bone, pulverized with silk, cheese cloth and wool, substantially as set forth.

No. 51,074. Device and Apparatus for Tanning Hides. (Appareil pour tanner les peaux.)

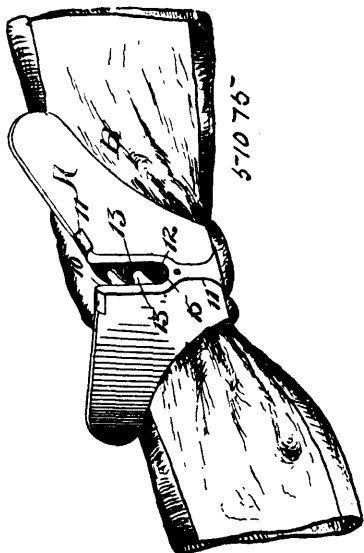


Eugène Worms, Paris, France, 21st January, 1896; 6 years. (Filed January 9th, 1896.)

Claim.—1st. The process of tanning hides, which consists in gradually heating them and the tanning liquor within a closed vessel under exclusion of the air, so as to prevent oxidation of the liquor, the degree of heating being regulated by a safety valve in combination with the use of a thermometer and pressure gauge, while at the same time the water is expelled from the cells of the tissue of the hides by effecting its decomposition by an electric current, substantially as described. 2nd. In the process of tanning

under the combined action of heat and electricity, a tanning liquor consisting of the combination of tanning with vegetable solvents, substantially as described. 3rd. Apparatus for carrying out the process of tanning under the combined action of heat and electricity, consisting of the combination of a closed revolving drum with hollow trunnions, a safety valve upon one of the said trunnions for regulating the pressure and temperature, and appliances for subjecting the hides within the drum to the action of electric currents, substantially as described.

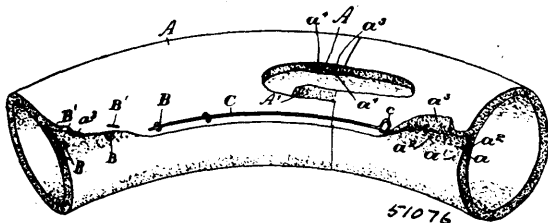
No. 51,075. Fastener for Neckties. (Agrafe de cravate.)



William C. McDougall, Chebogan, Michigan, U.S.A., 21st January, 1896; 6 years. (Filed 8th January, 1896.)

Claim.—The improved necktie fastener, composed of the slotted shield, the metal guard which is bent over the edges of the slot and secured by clips, the latch plate pivoted to both shield and guard, and the U-shape spring attached to the guard and latch plate and lying flat upon the latter, as shown and described.

No. 51,076. Pneumatic Tire. (Bandage pneumatique.)



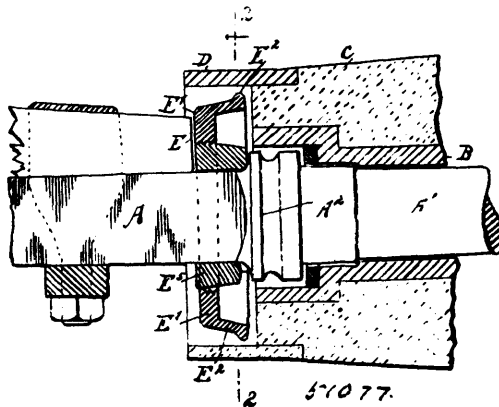
David Watson Alexander, Toronto, Ontario, Canada, 21st January, 1896; 6 years. (Filed January 2nd, 1896.)

Claim.—1st. A pneumatic tire comprising an envelope having on one edge a double flap integral and having inserted between it the flap of the opposing edge, the parts being cemented together and of equal total thickness as the remaining portion of the leather, as and for the purpose specified. 2nd. A pneumatic tire comprising an envelope having on one edge a double flap integral, and having inserted between it, the single flap of the opposing edge, the parts being cemented together and of equal total thickness as the remaining portion of the leather, and a row of stitching for securing the inner two edges together, such stitching being covered by the outer edge flap, as and for the purpose specified. 3rd. The combination with the tire having the edges suitably secured internally, of the flap a^4 , and intermediate opposing flap a^5 , with a row of stitching A^1 , through the inner flap a^4 , and the flap a^5 , as and for the purpose specified. 4th. The combination with the tyre having the ends of the leather suitably secured together, of the opposing flaps having the opening in them, staples extending through one flap and openings in the outer flap, and a wire extending through the outer ends of the staples, as and for the purpose specified.

No. 51,077. Sand-Band. (Garde-poussière.)

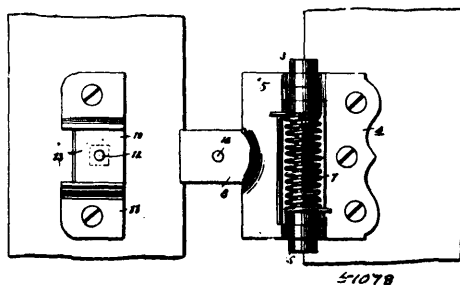
Harry W. Russell, Dowagiac, Michigan, U.S.A., 21st January, 1896; 6 years. (Filed January 2nd, 1896.)

Claim.—A sand-band, comprising a ring-shaped section a straddling section on which screws the ring-shaped section, and a wedge



engaging the said straddling section, the axle and the ring-shaped section, to fasten the several parts in position on the axle, substantially as shown and described.

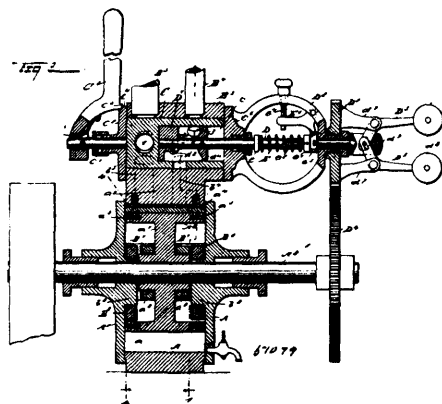
No. 51,078. Hinge. (Charnière.)



Oliver H. P. G. Spencer, Mount Carmel, Illinois, U.S.A., 21st January, 1896; 6 years. (Filed January 2nd, 1896.)

Claim.—1st. The combination of a hinge having a projection at the outside, said projection having a transverse groove formed in it, a bracket piece formed to fit the transverse groove in the said projection and adapted to be secured to the frame of the door, and means for securing said projection to the bracket plate, substantially as set forth. 2nd. The combination of a hinge, having a projection at one side, said projection having a transverse groove formed in it, a bracket piece provided with a reduced central portion to fit the transverse groove of the projection on the hinge and shoulders at opposite sides of said reduced central portion to engage the opposite sides of said projection on the hinge, and means for securing said projection to the bracket piece, substantially as set forth. 3rd. The combination of a hinge provided with a perforated projection at one side, a bracket piece adapted to be secured to a door frame, and having a projecting threaded bolt to pass through the perforation in the projection on the hinge, and a nut screwing on said bolt outside said perforated projection and adapted to clamp the same to the bracket plate, substantially as set forth.

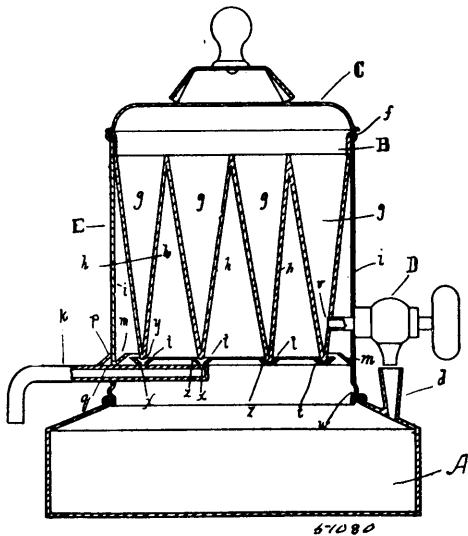
No. 50,079. Rotary Engine. (Machine rotatoire.)



Oscar Ernest Morse, Dillon, Montana, U.S.A., 21st January 1896; 6 years. (Filed 2nd January, 1896.)

Claim.—1st. In a rotary engine, the combination with a steam cylinder, of the piston carrier eccentrically mounted therein, the transversely reciprocating pistons in said carrier, and mechanism, comprising fixed eccentrics and eccentric plates movable transversely of the pistons for causing said reciprocations during the rotary motion of the carrier, substantially as specified. 2nd. In a rotary engine, the combination with a steam cylinder, of the piston carrier therein and rigidly mounted on a driving shaft, the transversely movable pistons mounted in said carrier, a yoke plate having an elongated opening surrounding a hub on the carrier, an eccentric plate engaging with the yoke plate, and a fixed eccentric on which the eccentric plate rotates, substantially as specified. 3rd. In an engine, the rotary, chambered cut-off valve, the rotary regulating valve therein, and mechanism for moving the regulating valve longitudinally of the chambered valve for regulating the opening of a steam port, substantially as specified. 4th. In a rotary engine, the combination with the valve for regulating the opening of a steam port, substantially as specified. 5th. In a rotary engine, the combination with the rotary pistons and the driving shaft, of the chambered cut-off valve, a shaft extended therein and receiving rotary motion from the driving shaft, a regulating valve on the shaft within the chamber of the cut-off valve, and a governor operating by centrifugal action to draw the valve bearing shaft longitudinally outwards, and the spring for moving said shaft in the opposite direction, substantially as specified. 6th. The combination with the rotary cut-off valve having the steam chamber and the ports of the regulating valve in said chamber having a segmental cut-away portion and a projecting portion and mechanism for causing a rotary motion of the valve and also a movement longitudinally of the cut-off valve, substantially as specified. 7th. The combination with the rotary cut-off valve having the steam chamber and the port, of the regulating valve, the shaft carrying the same and adapted to have a slight rotary movement relatively to the regulating valve, a centrifugal governor for moving the shaft in one direction, a spring for moving it in the other direction, and a tension device for the spring substantially as specified.

No. 51,080. Apparatus for Distilling Water.
(Appareil à distiller l'eau.)



Henry Pattison, Windsor, Nova Scotia, Canada, 21st January, 1896; 6 years. (Filed 31st December, 1895.)

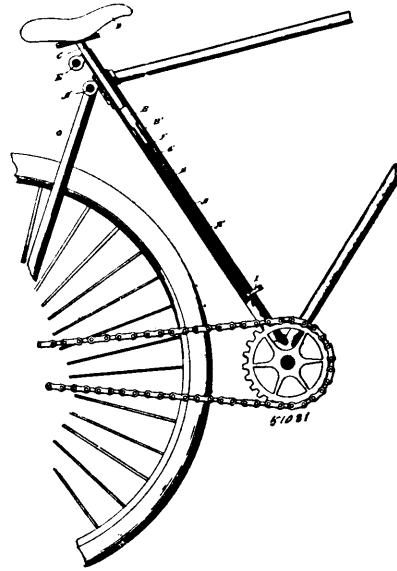
Claim.—1st. A condenser of the class described comprising a boiler, a cylinder opening therein and provided with one or more spaces *g*, the walls of which form condensing surfaces, and troughs for conducting the condensation from said walls to an outlet through the cylinder. 2nd. A condenser comprising a boiler, a cylindrical body opening therein and provided with a series of annular spaces conical in cross-section, the walls of which form condensing surface over the boiler, a drop opening through the cylinder and provided with ports, and troughs for conducting the condensation from said walls to the ports. 3rd. The boiler A, and cylinder E, in combination with the spaces *g*, in said cylinder, the cover, the cock D opening into said spaces, the nipple *d*, the drip *k*, having ports and the troughs *t, m*, leading to said ports all being arranged to operate, substantially as specified.

No. 51,081. Attachment for Bicycle Seats.
(Attache pour siege de bicyclee.)

Christopher H. Watson, Riverside, California, U.S.A., 21st January, 1896; 6 years. (Filed 31st December, 1895.)

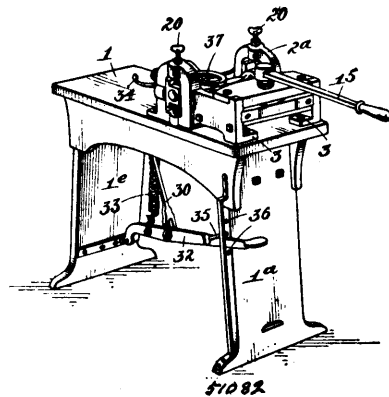
Claim.—1st. A bicycle seat support, comprising a tube containing a spiral spring and a fluid under pressure, and a saddle tube fitted

to slide in said spring tube and supporting the saddle, substantially as shown and described. 2nd. A bicycle seat support, comprising a



spring tube having an air valve for charging the spring tube with compressed air, a saddle tube fitted to slide in the said spring tube, and a saddle held on the upper end of said saddle tube, substantially as shown and described. 3rd. A bicycle seat support, comprising a spring tube having an air valve for charging the tube with compressed air, a saddle tube fitted to slide in the said spring tube, a saddle held on the upper end of said saddle tube, and a spring held in the said spring tube and engaging the saddle tube, substantially as shown and described. 4th. A bicycle seat support, comprising a centre brace having a spring tube provided with an air inlet valve, a saddle tube fitted to slide in said centre brace and provided at its lower end with a piston, a bicycle seat having its post secured in the upper end of said saddle tube, and means, substantially as described, for limiting the sliding motion of said saddle tube in said centre brace, as set forth. 5th. A bicycle seat support, comprising a centre brace having a spring tube, provided with an air inlet valve, a saddle tube fitted to slide in said centre brace and provided at its lower end with a piston, a bicycle seat having its post secured in the upper end of said saddle tube, means, substantially as described, for limiting the sliding motion of said saddle tube in said centre brace, a keeper held on said saddle tube next to said piston, and a spring held in the tube in the centre brace and engaging said keeper, substantially as shown and described.

No. 51,082. Machine for Sharpening Calks for Horse Shoes.
(Appareil pour aiguiser les crampons de fer à cheval.)

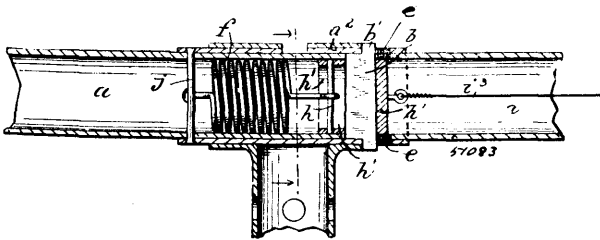


Leonard Franklin Tarbell, Wesley, New York, U.S.A., 21st January, 1896; 6 years. (Filed 30th December, 1895.)

Claim.—1st. In a machine for sharpening toe and heel calks for horse shoes, a horizontally movable sliding die-holder, mounted on slideways in the frame of the machine, carrying at its front end a hardened steel die, and means for giving in its required movements forward and back, in combination with an eccentric cam having a hardened steel die in its working face, and provided with trunnions

mounted and adapted to rock in boxes located in the forward portion of the machine and resting upon downward yielding supports, arms connected with said eccentric cam, and means, substantially as above described for operating it. 2nd. In a machine for sharpening toe and heel calks for horse shoes, the combination with a horizontally movable die holder mounted in the frame of the machine and provided with a die at its front end, and means for moving it, of an eccentric cam provided with a die and mounted in vertically movable boxes, springs for keeping said boxes upward, and means connected with a treadle for operating the eccentric die, substantially as described. 3rd. In a machine for sharpening toe and heel calks for horse shoes, the combination of the eccentric cam and die, with the boxes in which it is mounted, and a series of friction rollers secured in a recess in the working side of each box, substantially as described. 4th. In a machine for sharpening toe and heel calks for horse shoes, the combination with the eccentric 12, and means for operating it, of a ring 13 surrounding the eccentric and inclosed between the rear ends of the horizontally movable die portion and a cross bar 14, for the purposes described. 5th. In a machine for sharpening toe and heel calks for horse shoes, the combination with the platform upon which the front end of the shoe rests, of a vertically adjustable cross-bar 38, for supporting the rear ends of the shoe, for the purposes described.

No. 51,083. Handle Bar for Bicycles. (Poignée de manche de bicyclette.)



Charles Henry Gatchell, Boston, Massachusetts, U.S.A., 21st January, 1896; 6 years. (Filed 28th December, 1895.)

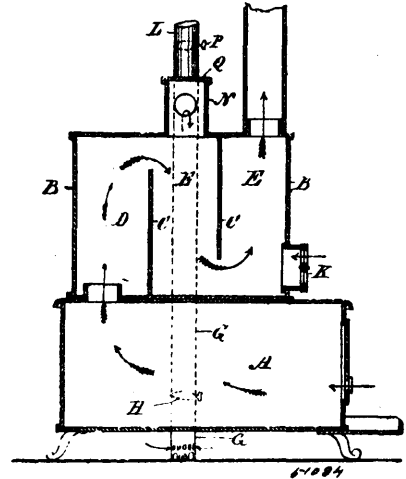
Claim.—1st. In a handle-bar for bicycles, a bicycle handle-bar having a movable latch adapted to engage in a complementary locking member on the steering head and an internal spring whereby said latch is yieldingly held in its bar-locking position in relation to said steering head, all substantially as and for the purpose hereinbefore set forth. 2nd. In a handle-bar for bicycles, a bicycle handle-bar having a movable latch adapted to engage a complementary locking member on the steering head of said bicycle, an internal spring whereby said latch is yieldingly held in its bar-locking position relative to said steering-head, a movable trigger projecting from the handle-bar near its outer end, a connection between said trigger and latch, all substantially as and for the purpose hereinbefore set forth. 3rd. In a handle-bar for bicycles, a bicycle handle-bar having in its central portion a carrier, a latch secured to said carrier and projecting through slots in the bar, a spring whereby the spring is yieldingly held at one extreme of its movement, a trigger pivoted to the handle-bar near one end thereof and projecting laterally therefrom, and a flexible connection within said handle-bar between said trigger and carrier, all substantially as and for the purpose hereinbefore set forth. 4th. In a handle-bar for bicycles, a socket provided with a series of locking members and a circumferential slot, combined with a handle-bar rotatable in said socket and provided with a stop or projection located in said slot and movable longitudinally but not laterally therein and with a movable latch adapted to engage the locking member of the socket, all substantially as and for the purpose hereinbefore set forth. 5th. In a handle-bar for bicycles, the combination of a socket provided with a series of locking members and a handle rotatable in said socket and provided with a movable latch and adapted to engage said locking member on this socket, a spring attached to said latch and trigger and flexible connection for retracting said latch, all substantially as and for the purpose hereinbefore set forth. 6th. The combination of the handle-bar socket having a shank, a handle-bar rotatable in the socket and having curved outer portions, complementary locking members carried by the handle-bar and socket in various positions, and a shank receiving socket or bushing adapted to be secured to a bicycle steering-head and provided with means for detachably holding the shank, the latter being rotatable in the socket to permit the handle-bar to be adjusted lengthwise of the bicycle, all substantially as and for the purpose hereinbefore set forth.

No. 51,084. Heating and Ventilating Stove-Drum. (Poêle sourd pour chauffage et ventilation.)

George Bellamy, Shoal Lake, Manitoba, Canada, 21st January, 1896; 6 years. (Filed 31st December, 1895.)

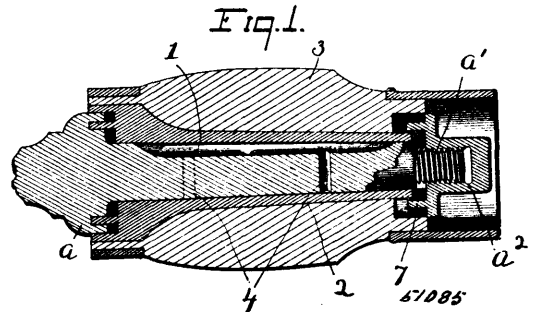
Claim.—1st. A ventilating drum for stoves and furnaces, said drum having a return flue or flues, and an inlet ventilating air pipe

or pipes at top for connection with air pipes from the floor or other parts of a room, as set forth. 2nd. A stove heating-drum having a



return flue or flues, an inlet at top for connection to pipes leading to different parts of a room, a check damper K, suitably located, and a damper or dampers in said pipes, as and for the purposes set forth.

No. 51,085. Lubricating Axle. (Boîte à graisse.)



John Tudor Richards, Gardiner, Maine, U.S.A., 21st January, 1896; 6 years. (Filed 20th December, 1895.)

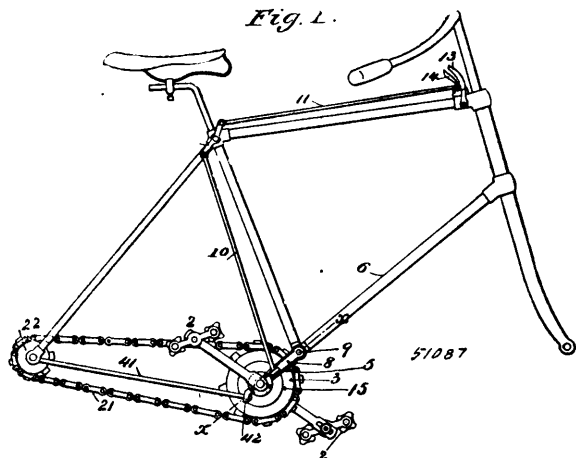
Claim.—1st. An axle journal having a collar on one end and screw threaded on the other end, said journal having a longitudinal groove formed therein, said groove terminating at both ends a sufficient distance from the collar and screw threaded portion of the journal to leave an unbroken surface or bearing between the groove and the collar and screw thread, and the journal provided with a hole leading from the groove through the journal to the surface of the journal, substantially as set forth. 2nd. An axle journal having a longitudinal groove formed therein extending nearly the length of the journal, a hole leading from the groove to the surface of the journal and a short groove extending from the longitudinal groove in a spiral direction toward one end of the journal, said short groove adapted to collect any oil which works toward that end of the journal and conduct it back into the longitudinal groove, substantially as set forth. 3rd. An axle journal having a longitudinal groove formed in its upper surface, short spiral grooves extending from the longitudinal groove toward the ends of the axle journal, and a hole leading from one end of the longitudinal groove in the axle journal to the opposite surface, substantially as set forth. 4th. An axle journal having a longitudinal groove formed in its upper surface, holes leading from the ends of this groove through the journal to the opposite surface of the journal, and short spiral grooves leading from the longitudinal groove to the ends of the axle journal, substantially as set forth.

No. 51,086. Food for Birds. (Nourriture pour les oiseaux.)

Bartholomew Cottam, London, Ontario, Canada, 21st January, 1896; 6 years. (Filed 26th December, 1895.)

Claim.—A composition made up of the materials and substantially in the proportions by the process and for the purposes set forth. The essential and medicinal elements of the above composition are, lina-farina, honey, carbo-legnic, maw seed, capsicum, saffron and cuttle fish bone; these ingredients in the composition are brought together in the proportions in which the best effect can be produced. The other ingredients are only intended as a vehicle to carry the active principles of the essential ingredients into the system.

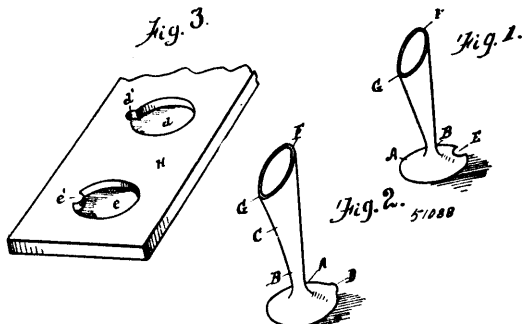
No. 51,087. Transmitting Mechanism for Cycles.
(*Mécanisme de transmission pour cycles.*)



Gerard Beckman, New York, State of New York, U.S.A., 21st January, 1896; 6 years. (Filed 23rd December, 1895.)

Claim.—1st. In a cycle, the combination of a pedal and its shaft, a wheel or part to be driven by said shaft, and unattached thereto, and a two-part friction device, the members of which are secured respectively to said shaft and driven part, and are movable diametrically with relation to each other, whereby a varied pressure upon the pedal by the foot of the rider, will produce a correspondingly varied degree of rotation of said driven part, substantially as set forth. 2nd. In a cycle, the combination of a pedal and its shaft, the latter furnished with an attached friction-member having a cylindrical surface, and a non-attached wheel or driven part provided with a hollow cylindrical friction-member which approximately fits the friction-member on the shaft, the said shaft and driven part being diametrically movable with relation to each other whereby a varied pressure upon the pedal by the foot of the rider, will vary the degree of rotation of said driven part, substantially as set forth. 3rd. In a rear-driven bicycle, the combination of a sprocket wheel journaled on the stationary part or frame of the machine, and having a friction drum, a pedal and its shaft, the latter journaled in a part or frame which is movable with relation to said wheel support, the said shaft being furnished with a cylindrical friction-member approximately fitting within said drum, whereby a varied pressure upon the pedal by the foot of the rider, will vary the degree of rotation of the sprocket wheel, substantially as set forth. 4th. In a rear-driven bicycle, the combination of a sprocket wheel, having an attached friction drum, a fixed yoke, supporting said wheel, and its shaft, a friction cylinder secured to the shaft and approximately fitting with the drum, and a supporting yoke for said shaft, which yoke is mounted to swing with relation to said fixed yoke, to allow a variably close engagement between the friction drum and cylinder to be affected by a varied pressure upon the pedal, substantially as set forth. 5th. In a cycle, the combination of a pedal and its shaft, a wheel or part to be driven by said shaft, and unattached thereto, and a two-part friction device, the members of which are secured respectively to said shaft and driven part, and are movable diametrically with relation to each other, whereby a varied pressure upon the pedal by the foot of the rider, will produce a correspondingly varied degree of rotation of said driven part, and co-operating therewith, a hand operated mechanism attached to the frame of the machine suitably connected to control the relative diametric movement of said members, and partially or wholly counteract or augment, the frictional transmitting effect of the foot pressure by the independent action of the hands of the rider.

No. 51,088. Communion Cup. (*Coupe de communion.*)

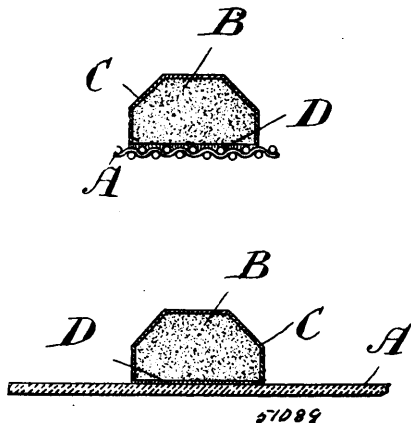


Edward W. Ryan, Ypsilanti, Michigan, U.S.A., 21st January, 1896; 6 years. (Filed 26th October, 1895.)

Claim.—1st. A communion service cup comprising a base having an irregularity at its edge, and a tapering bowl having its upper edge inclined upwardly from its rear to its front, substantially as described. 2nd. The combination with a base having a seat formed with an irregularity in its wall, of a cup comprising a base having an irregularity conforming substantially to the irregularity of the seat, and a bowl having its upper edge inclined throughout from rear to front, substantially as described.

No. 51,089. Ornamental Sign Letter.

(*Lettre pour enseignes.*)



Albro Silver and James H. Lennon, both of Lindsay, Ontario, Canada, 22nd January, 1896; 6 years. (Filed 24th September, 1895.)

Claim.—1st. A sign letter for attachment to a wire, glass or other base moulded of a porous composition so that the cement used in attaching it to the base will dry through the body of the letter, substantially as and for the purpose specified. 2nd. A sign letter for attachment to a wire, glass or other base, moulded of plaster of Paris, and soaked when dry in oil, substantially as and for the purpose specified. 3rd. A sign letter for attachment to a wire, glass or other base, moulded from plaster of Paris, soaked when dry in oil and covered on its outer surface with a facing of paint, gold, aluminum or other leaf, substantially as and for the purpose specified. 4th. A sign letter moulded of plaster of Paris, and soaked when dry in oil, in combination with a glass or wire base and a cement of shellac or varnish, substantially as and for the purpose specified. 5th. A sign letter moulded of plaster of Paris, and soaked when dry in oil and covered with a facing of paint, gold, aluminum or other leaf, in combination with a glass or wire base and a cement of shellac or varnish, substantially as and for the purpose specified. 6th. A sign letter moulded of a porous composition with a raised or angular outer surface, and a flat surface which may be cemented to a wire glass or other base, substantially as described and for the purpose specified. 7th. A sign letter moulded of a porous composition, soaked when dry in oil and formed with a raised or angular outer surface covered with paint, gold, aluminum or other leaf, and with a flat surface which may be cemented to a wire, glass or other base, substantially as and for the purpose specified. 8th. The process of forming a sign letter for attachment to a wire, glass, or other base, which consists in moulding the letter of plaster of Paris, drying it and then soaking it in oil, substantially as and for the purpose specified. 9th. The process of forming a sign letter for attachment to a wire, glass or other base, which consists in moulding the letter of plaster of Paris, drying it, soaking it in oil and then covering its outer surface with a facing of paint, gold, aluminum or other leaf, substantially as and for the purpose specified.

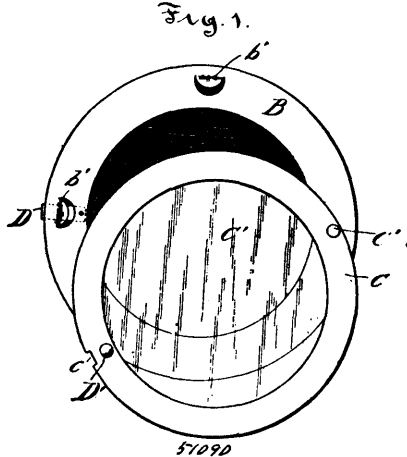
No. 51,090. Confectionery Pail Cover.

(*Couvercle deseau.*)

William Frederick King and Arthur Stanley King, assignees of Florence Patrick McGovern, all of Ottawa, Ontario, Canada, 22nd January, 1896; 6 years. (Filed 7th January, 1896.)

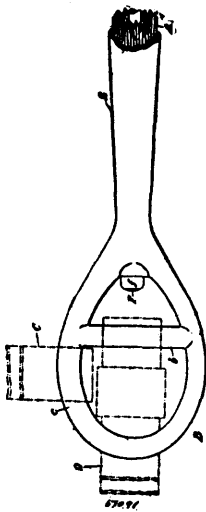
Claim.—1st. The combination of a rim B adapted to fit the upper rim of a pail, hooked lugs b on said rim adapted to engage projections on said pail, lugs b' formed on the upper part of said rim by incisions, a lid rim C pivotally connected to said rim and provided opposite said pivot with a notch c, a transparent panel C' in said lid rim, a spring D secured to the underside of said rim B, opposite said pivot and projecting outside and provided with an upwardly projecting shoulder d, adapted to engage the notch c, substantially as set forth. 2nd. The combination of a circular rim consisting of a horizontal and vertical flange adapted to fit freely upon the upper rim of a pail or the like, downwardly projecting upwardly hooked lugs on the vertical flanges of said rim adapted to engage suitable ears on the pail and hold said rim to said pail, a lid pivotally secured to the flat flange of said rim and having a transparent panel, lugs

formed in the upper or horizontal flange of the rim and acting as guide and stop respectively, a flat spring secured to the underside of



the rim under the guide lug and provided with an upwardly projecting shoulder and having its free end projecting slightly out of the vertical flange and a notch in the rim of the lid adapted to be engaged by said shoulder, substantially as set forth. 3rd. The combination of a circular rim consisting of a horizontal and vertical flange adapted to fit freely upon the upper rim of a package, downwardly projecting upwardly hooked lugs on the vertical flange of said rim adapted to engage suitable ears on said package, a lid pivotally secured to the flat flange of the rim and consisting of a rim with a transparent panel, lugs formed in the horizontal or upper flange of the rim and acting as guide and stop respectively, and a lock of suitable construction holding said rim and lid connected when closed, substantially as set forth. 4th. The combination of a rim consisting of an upper or horizontal flat and an outer vertical flange and another rim forming a lid somewhat smaller pivotally connected to the former, a lug formed by an incision in the upper or flat rim and having the incised portion raised, a flat spring secured transversely to the underside of said flat rim under said lug near the inner edge and its free end projecting through the outer vertical flange and provided with an upwardly projecting shoulder, and a notch in the lid rim adapted to be engaged by said shoulder, substantially as set forth.

No. 51,091. Vehicle Shaft, etc. (*Limonière de voiture, etc.*)



William Alfred Bromwich, London West, Assignee of Charles Ashburnham Floyd, London, both in London, England, 22nd January, 1896; 6 years. (Filed 30th December, 1895.)

Claim.—1st. The herein described improvement in the shafts of vehicles, which consists in providing the front end of each shaft with a terminal loop or eye in position for the attachment thereto of the back band, substantially as and for the purpose specified. 2nd. The herein described improvement in the shafts of vehicles, which consists in providing the front end of each shaft with a terminal loop or eye in position for the attachment thereto of the back band, the loop being provided with a cross-stay for the attachment thereto of the trace, substantially as specified. 3rd. The herein

described combined improvement in shafts and harness, substantially as specified.

No. 51,092. Process of Manufacturing Vanilline.

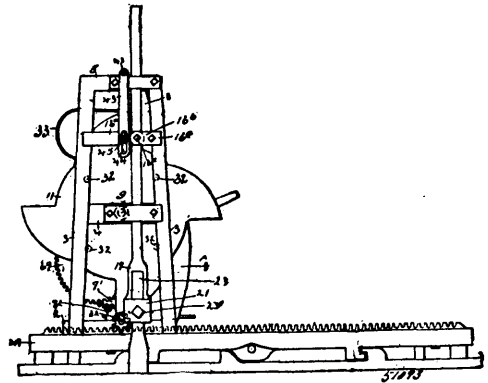
(*Procédé de Fabrication de Vanilline*)

The Firm of Haarmann and Reimer, Holzminden, Assignee of Wilhelm Haarmann, Hoxter, both in Germany, 22nd January, 1896; 6 years. (Filed 4th July, 1894.)

Claim.—1st. The herein described process for manufacturing Vanilline from isoeugenol, consisting in oxidizing isoeugenol in a strong alkaline solution by means of peroxides and especially by means of peroxide of sodium.

No. 51,093. Machine for Cutting Stone.

(*Machine à tailler la pierre.*)



François Xavier Landry, Sherbrooke, and Jean Baptiste Biron, Stoke, both of Quebec, Canada, 22nd January, 1896; 6 years. (Filed 17th June, 1895.)

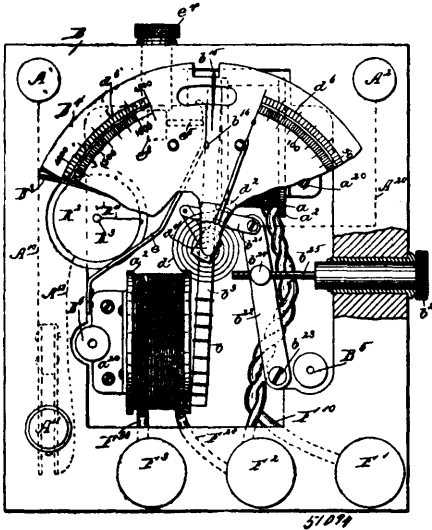
Claim.—1st. In a machine for cutting stones, the combination of a frame, a rod carried freely in bearings in such frame, a wiper-wheel with projections upon one face thereof, such wiper-wheel being suitably mounted in the frame and having an operative connection with such rod, a yielding resistance device carried by the frame and having one end adapted to bear upon such projection from the wiper-wheel as such wiper-wheel rotates, for the purpose set forth. 2nd. In a machine for cutting stones, the combination of a frame, a rod carried freely in bearings in such frame, a wiper-wheel with projections upon one face thereof, such wiper-wheel being suitably mounted in the frame and having an operative connection with such rod, a yielding resistance device consisting of a bar of inverted T-form, such bar being guided in such frame and having its cross-arm adapted to bear upon one of such projections from the wiper-wheel as such wiper-wheel rotates, and a bow spring having one end connected to the frame and its other end bearing upon said bar, for the purpose set forth. 3rd. In a machine for cutting stones, the combination of a frame, a rod carried freely in bearings in such frame, a wiper-wheel with projections upon one face thereof, such wiper-wheel being suitably mounted in the frame and having an operative connection with such rod, a yielding resistance device consisting of a bar of inverted T-form with one half of its cross-arm horizontal and the other half off-set, such bar being guided in such frame and having its cross-arm adapted to bear upon one of such projections from the wiper-wheel as such wiper-wheel rotates, and a bow spring having one end connected to the frame and its other end bearing upon said bar, for the purpose set forth. 4th. In a machine for cutting stones, the combination of a frame, a rod carried freely in bearings in such frame, a wiper-wheel with projections upon one face thereof, such wiper-wheel being suitably mounted in the frame and having an operative connection with such rod, a yielding resistance device consisting of a bar of inverted T-form guided in such frame, and having its cross-arm adapted to bear upon one of such projections from the wiper-wheel as such wiper-wheel rotates, and a bow spring having one end adapted to take over a screw-threaded bolt, carried rigidly by said frame, and bear against a nut movable upon said bolt, for the purpose set forth. 5th. In a machine for cutting stones, the combination of a frame, a tool carrying rod carried by such frame a wiper-wheel suitably mounted in the frame, an operative connection between such wiper-wheel and rod, a device for assisting the fall of the rod consisting of a flat spring curved at one end, pivotally connected at its curved end to the top of the frame, and arch adjustably connected to such frame and adapted to straddle such spring near such curved end, and the straight end of such spring bearing upon such rod, when it is raised, and means for operating such wiper-wheel for the purpose set forth. 6th. In a machine for cutting stones, the combination of a stationary table portion carrying adjustable rails and a rack, a frame having a sliding connection with

and connected rigidly together by two or more cross bars, two of which are adapted to have a sliding connection with such guides, a frame having a sliding connection with such rails, and a pair of downward projections, from the under side of the base thereof, provided with flanges adapted to take under the flanges of said rails, a rotatably adjustable vertical rod carried freely in bearings in such frame, a cross-head secured upon such rod, a wiper-wheel, mounted rigidly upon a horizontal shaft carried loosely in bearings in such frame about midway of its length, an equalizing device consisting of a yielding resistance carried by the frame, adapted to bear upon a projection from such wiper-wheel, a feed device consisting of two pinions of different sizes mounted upon and connected to such shaft by a feather and groove connection, a horizontal shaft mounted near the base of such frame, a gear wheel mounted rigidly upon such latter shaft, a train of gears connecting one of the gears on the former shaft with the gear on the latter shaft, a pinion mounted upon and connected to such latter shaft by a feather and groove connection and adapted to be adjusted into and out of engagement with the rack, a device for assisting the fall of such rod, consisting of a flat spring connected at one end to such frame, an arch adjustably connected to such frame so as to straddle such spring, the free end of such springs being located in a position to bear upon such rod when it is raised, and means for adjusting such rails with relation to the table and for adjusting the pinion into and out of engagement with the rack, for the purpose set forth. 15th. In a machine for cutting stones, the combination of a stationary table portion carrying rails and a rack, a frame having a sliding connection with such rails, a rotatably adjustable vertical rod carried freely in bearings in such frame, a cross-head secured upon such rod, a wiper-wheel mounted rigidly upon a horizontal upper shaft carried loosely in bearings in such frame about midway of its length, an equalizing device adapted to act upon such wiper-wheel, a feed device consisting of two pinions of different sizes mounted upon and connected to such upper shaft by a feather and groove connection, a horizontal lower shaft mounted near the base of such frame, a gear wheel mounted rigidly upon such lower shaft, a train of gears connecting one of the gears on the upper shaft with the gear on the lower shaft, and adapted to be adjusted to cause such train of gears to engage one of the pinions carried upon such upper shaft, a pinion mounted upon and connected to such lower shaft by a feather and groove connection, and adapted to be adjusted into and out of engagement with the rack, a device for assisting the fall of the rod, means for adjusting such rails with relation to the table, for adjusting the pinion into and out of engagement with the rack, and for adjusting said bracket, for the purpose set forth. 16th. In a machine for cutting stones, the combination of a stationary table portion carrying rails and a rack, a frame having a sliding connection with such rails, a rotatably adjustable vertical rod carried freely in bearings in such frame, a cross-head secured upon such rod, a wiper-wheel mounted rigidly upon a horizontal upper shaft carried loosely in bearings in such frame about midway of its length, an equalizing device adapted to act upon such wiper-wheel, a feed device consisting of two pinions of different sizes mounted upon and connected to such upper shaft by a feather and groove connection, a horizontal lower shaft mounted near the base of such frame, a gear wheel mounted rigidly upon such lower shaft, a train of gears connecting one of the gears on the upper shaft with the gear on the lower shaft, such train of gears embodying two gear wheels of different diameters, and being mounted in a bracket mounted loosely upon such lower shaft, and adapted to be adjusted to cause either of such gear wheels of different diameters of such train of gears to engage one of the pinions carried upon such upper shaft, a pinion mounted upon and connected to such lower shaft by a feather and groove connection, and adapted to be adjusted into and out of engagement with the rack, a device for assisting the fall of the rod, means for adjusting such rails with relation to the table, for adjusting the pinion into and out of engagement with the rack, and for adjusting said bracket, for the purpose set forth. 17th. In a machine for cutting stones, the combination of a stationary table portion carrying adjustable rails and a rack, a frame having a sliding connection with such rails, a rotatably adjustable vertical rod carried freely in bearings in such frame, a cross-head secured upon such rod, a wiper-wheel mounted rigidly upon a horizontal upper shaft carried loosely in bearings in such frame about midway of its length, an equalizing device consisting of a yielding resistance, carried by the frame and adapted to act upon a projection from such wiper-wheel, a feed device consisting of two pinions of different sizes mounted upon and connected to such upper shaft by a feather and groove connection, a horizontal lower shaft mounted near the base of such frame, a gear wheel mounted rigidly upon such lower shaft, a train of gears connecting one of the gears on the upper shaft with the gear on the lower shaft, such train of gears embodying two gear wheels of different diameters, and being mounted in a bracket mounted loosely upon such lower shaft, and adapted to be adjusted to cause either of such gear wheels of different diameters, of such train of gears to engage one of the pinions carried upon such upper shaft, a pinion mounted upon and connected to such lower shaft by a feather and groove connection, and adapted to be adjusted into and out of engagement with the rack, a device for assisting the fall of the rod consisting of a flat spring curved at one end, pivotally connected at its curved end to the top of the frame, an arch adjustably connected to such frame and adapted to straddle

such spring near such curved end, and the straight end of such spring bearing upon such rod when it is raised, means for adjusting such rails with relation to the table, for adjusting the pinion into and out of engagement with the rack, and for adjusting said bracket, for the purpose set forth. 18th. In a machine for cutting stones, the combination of a stationary table portion carrying rails and a rack, a frame having a sliding connection with such rails, a rotatably adjustable vertical rod carried freely in bearings in such frame, a cross-head secured upon such rod, a wiper-wheel mounted rigidly upon a horizontal upper shaft carried loosely in bearings in such frame about midway of its length, an equalizing device consisting of a yielding resistance, carried by the frame and adapted to act upon a projection from such wiper-wheel, a feed device consisting of two pinions of different sizes mounted upon and connected to such upper shaft by a feather and groove connection, a horizontal lower shaft mounted near the base of such frame, a gear wheel mounted rigidly upon such lower shaft, a train of gears connecting one of the gears on the upper shaft with the gear on the lower shaft, such train of gears embodying two gear wheels of different diameters and being mounted in a bracket mounted at its lower end loosely upon such lower shaft, and being adapted to be adjusted to cause either of such gear wheels of different diameters, of such train of gears, to engage one of the pinions carried upon such upper shaft, a pinion mounted upon and connected to such lower shaft by a feather and groove connection, and adapted to be adjusted into and out of engagement with the rack, a device for assisting the fall of the rod consisting of a flat spring curved at one end, pivotally connected at its curved end to the top of the frame, an arch adjustably connected to such frame and adapted to straddle such spring near such curved end, and the straight end of such spring bearing upon such rod when it is raised, means for automatically adjusting such bracket, consisting of a rocker pivoted to the base of said frame, a rod having a sliding connection at one end to said bracket and being pivotally connected at its other end to said base, a link connecting said rod and rocker, a pair of engaging stops carried by one of such rails and with which said rocker is adapted to engage and means for adjusting the pinion into and out of engagement with the rack, for the purpose set forth. 19th. A machine for cutting stones, consisting of a stationary table portion having two guides, two or more supporting ledges, and a vertical bearing formed integral with the upper surface of said table portion, a screw bolt carried rotatably in said bearing, adjustable flanged rails and a rack resting upon said supporting ledges and connected rigidly together by two or more cross bars, two of which are adapted to have a sliding connection with such guides, a frame having a sliding connection with such rails, and a pair of downward projections from the underside of the base thereof, provided with flanges adapted to take under the flanges of said rails, a rotatably adjustable vertical rod carried freely in bearings in such frame, a cross-head secured upon such rod, a wiper-wheel mounted rigidly upon a horizontal upper shaft carried loosely in bearings in such frame about midway of its length, an equalizing device consisting of a yielding resistance carried by the frame and adapted to act upon a projection from such wiper-wheel, a feed device consisting of two pinions of different sizes mounted upon and connected to such upper shaft by a feather and groove connection, a horizontal lower shaft mounted near the base of such frame, a gear-wheel mounted rigidly upon such lower shaft, a train of gears connecting one of the gears on the upper shaft with the gear on the lower shaft, such train of gears embodying two gear wheels of different diameters and being mounted in a bracket mounted at its lower end loosely upon such lower shaft, and being adapted to be adjusted to cause either of such gear wheels of different diameter, of such train of gears to engage one of the pinions carried upon such upper shaft, a pinion mounted upon and connected to such lower shaft by a feather and groove connection, and adapted to be adjusted into and out of engagement with the rack, a device for assisting the fall of the rod consisting of a flat spring curved at one end, pivotally connected at its curved end to the top of the frame, an arch adjustably connected to such frame and adapted to straddle such spring near such curved end, and the straight end of such spring bearing upon such rod when it is raised, means for automatically adjusting such bracket, consisting of a rocker pivoted to the base of said frame, a rod having a sliding connection at one end to said bracket and being pivotally connected at its other end to said base, a link connecting said rod and rocker and a pair of engaging stops carried by one of such rails and with which said rocker is adapted to engage, and means for adjusting the pinion into and out of engagement, with the rack, for the purpose set forth. 20th. In a machine for cutting stones, the combination of a stationary table portion carrying rails and a rack, a frame having a sliding connection with such rails, a rotatably adjustable vertical rod carried freely in bearings in such frame, a cross-head secured upon such rod, a wiper-wheel mounted rigidly upon a horizontal upper shaft carried loosely in bearings in such frame about midway of its length, an equalizing device consisting of a yielding resistance carried by the frame and adapted to act upon a projection from such wiper-wheel, a feed device consisting of two pinions of different sizes mounted upon and connected to such upper shaft by a feather and groove connection, a horizontal lower shaft mounted near the base of such frame, a gear wheel mounted rigidly upon such lower shaft, a train of gears connecting one of the gears on the upper shaft with the gear on the lower shaft, such

train of gears embodying two gear wheels of different diameters and being mounted in a bracket mounted at its lower end loosely upon such lower shaft, and being adapted to be adjusted to cause either of such gear wheels of different diameters, of such train of gears to engage one of the pinions carried upon such upper shaft, a pinion mounted upon and connected to such lower shaft by a feather and groove connection, and adapted to be adjusted into and out of engagement with the rack, a device for assisting the fall of the rod, consisting of a flat spring curved at one end, pivotally connected at its curved end to the top of the frame, an arch adjustably connected to such frame, and adapted to straddle such spring near such curved end, and the straight end of such spring bearing upon such rod when it is raised, means for automatically adjusting such bracket, consisting of a rocker pivoted to the base of said frame, a rod having a sliding connection at one end to said bracket and being pivotally connected at its other end to said base, a link connecting said rod and rocker and a pair of engaging stops constructed of U-form, one leg of each stop being extended in width and the other leg bored and screw-threaded to receive a thumb-screw, and said stops being located with one leg of each on either side of said rails, the leg of extended width being upon the inside thereof in order to be engaged by said rocker, and means for adjusting the pinion into and out of engagement with the rack, for the purpose set forth.

No. 51,094. Watt Meter. (Mètre Watt.)

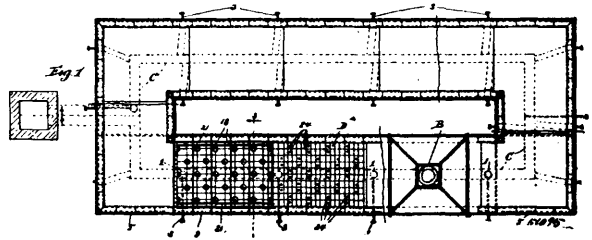


The Whitney Electrical Instrument Company, Saco, Maine, assignee of Adrian H. Hoyt, Penacook, New Hampshire, both in the U.S.A., 22nd January, 1896; 6 years. (Filed 18th July, 1895.)

Claim.—1st. In a wattmeter, the combination with field coils of comparatively low resistance in series with the load, of armature coils of comparatively high resistance in shunt to the load, an indicator attached to one of said sets of coils, and adapted by its movement from a predetermined position to indicate the presence of a current in said coils, a spring or weight adapted to oppose the movement of said indicator, an adjusting device for said spring or weight, and a pointer cooperating with said adjusting device in conjunction with a calibrated scale, substantially as described. 2nd. The combination with the movable member of an electric measuring instrument, of a device adapted to retain said movable member in a predetermined position from which it is adapted to be moved by the influence of an electric current, and means for adjusting said device to bring said movable member to said predetermined position before the instrument is connected in circuit preparatory to taking a reading, as and for the purpose described. 3rd. The combination with the movable member of an electric measuring instrument having an indicator adapted by its movement from a predetermined position to indicate the presence of an electric current in the circuits of the instrument, of an adjustable spring adapted to oppose the movement of said movable member, and having a pointer cooperating with a suitably calibrated scale to indicate in units of electrical measurement the amount of force required to balance the effect of the electrical current in moving said member, an additional spring adapted to hold said movable member in said normal predetermined position, and means for adjusting said additional spring to compensate for defects tending to move said movable member from its normal position when no current is present in the instrument, substantially

as described. 4th. The combination with the movable member of an electric measuring instrument, of means for locking said armature stationary when the instrument is not in use, substantially as described. 5th. In an electrical measuring instrument, the combination with a movable member or armature, consisting of coils pivoted at right angles to their axes in inductive proximity to fixed coils and normally held out of contact therewith by means of a light spring, of a locking device consisting of a plate or spring adapted to be pressed against one of said movable coils and thereby to hold it in contact with the fixed coil adjacent thereto, and an operating device adapted to thus press said spring or plate into contact with the said movable coil, as and for the purpose described.

No. 51,095. Kiln. (Four.)



Fredrich D. T. Lehmann and Peter N. Kohlsaat, both of Chicago, Illinois, U.S.A., 22nd January, 1896; 6 years. (Filed 25th July, 1895.)

Claim.—1st. A kiln provided with walls having an insulating air space therein, said kiln being adapted to be set up with the bricks and removed when said bricks are burned, substantially as described. 2nd. A kiln provided with floor, walls and covering having insulating air spaces therein, said kiln being adapted to be set up with the brick and removed when said brick are burned, substantially as described. 3rd. A kiln provided with floor, walls and covering having insulating air spaces therein, and a movable chimney, said kiln being adapted to be set up with the brick or tile to be burned and removed when said brick or tile are burned, substantially as described. 4th. A kiln provided with walls of hollow tile adapted to be set up with the brick or tile to be burned and removed when said brick or tile have been burned, substantially as described. 5th. A kiln provided with floor, walls and covering of hollow tile adapted to be set up with the brick or tile to be burned and removed when said brick or tile have been burned, substantially as described. 6th. A kiln provided with floor, walls and covering of hollow tile, an underground chimney flue having openings at intervals within said kiln and connecting with a movable chimney adapted to be advanced with said kiln to provide a continuous draft in one direction, substantially as described. 7th. A kiln having hot air flues in the walls thereof, whereby the forward sections of the kiln not in action are heated to a low degree to partially dry the brick or tile to be burned therein, substantially as described. 8th. A kiln having a floor of hollow tile provided with openings at intervals to create a more perfect draft within said kiln, walls of hollow tile set up upon each side of said floor, and a covering of hollow tile adapted to be laid upon the brick or tile to be burned and between said walls and provided with openings at intervals through which fuel is fed to the kiln, substantially as described. 9th. A kiln having a floor of hollow tile provided with openings at intervals to create a more perfect draft within said kiln, and transverse flues adjacent the ground to form an exit for dampness arising therefrom, wall of hollow tile set up upon each side of said floor, and a covering of hollow tile adapted to be laid upon the brick or tile to be burned and between said walls and provided with openings at intervals through which fuel is fed to the kiln, substantially as described. 10th. A kiln provided with floor, walls and covering of hollow tile, and an underground chimney flue having openings at intervals within said kiln and connected with a chimney, substantially as described.

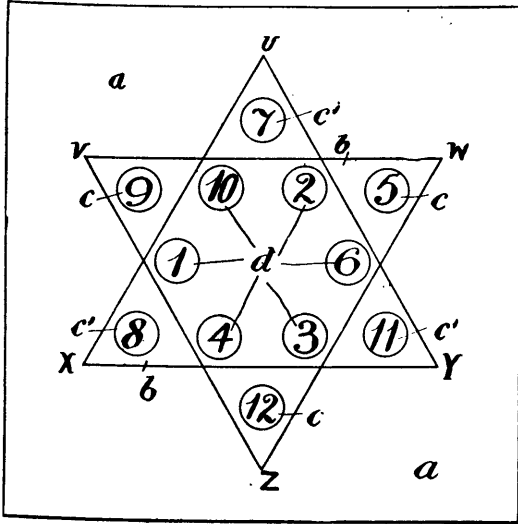
No. 51,096. Advertising Puzzle.

(Jeu de patience de publicité.)

Joseph Wood Horsfield, Oxford Road, Joe Kaye, Crackenedge, and Herr Von Charles Deornly, 5 Alfred Place, all in Deunbury, England, 22nd January, 1896; 6 years. (Filed 21st September, 1895.)

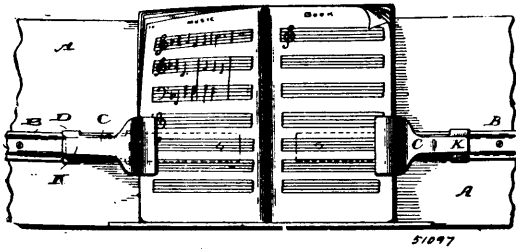
Claim.—The new puzzle or game comprising a board with two bisecting equilateral triangles and series of circles or spaces of other shape marked thereon, also the numerals 1 to 12 marked or printed on 12 counters of whatever configuration or design, to be so arranged that the sum total of any four counter horizontally or diagonally placed along the six sides of the two triangles shall add to 26, also the three alternate external counters shall add to 26, also the six internal counters surrounding the name 26 puzzle shall add to 26, the counters being in all cases placed thus, first row one counter,

second row four counters, third row two counters, fourth row four counters, fifth row one counter, as shown on diagrams of different



designs therewith, and substantially as hereinbefore set forth and described.

No. 51,097. Music Leaf Holder. (Porte-feuille de musique.)

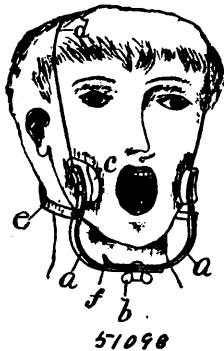


Alpheus A. Lundry and Charles H. Moyer, both of Fenwick, Ontario, Canada, 22nd January, 1896; 6 years. (Filed 25th October, 1895.)

Claim.—As an improved article of manufacture a music leaf holder having in combination with a music rack of an instrument a longitudinal strip B, the member C having integral arms designed to overlap the edges of said strip B, the jaw F pivoted to integral lugs on said member C, a slight projecting portion on the underside of said jaw and a spring H having one end securely held to member C its free end bearing against the said projecting portion substantially as shown and described.

No. 51,098. Device for Teaching Vocal Music.

(Appareil pour enseigner la musique vocale.)

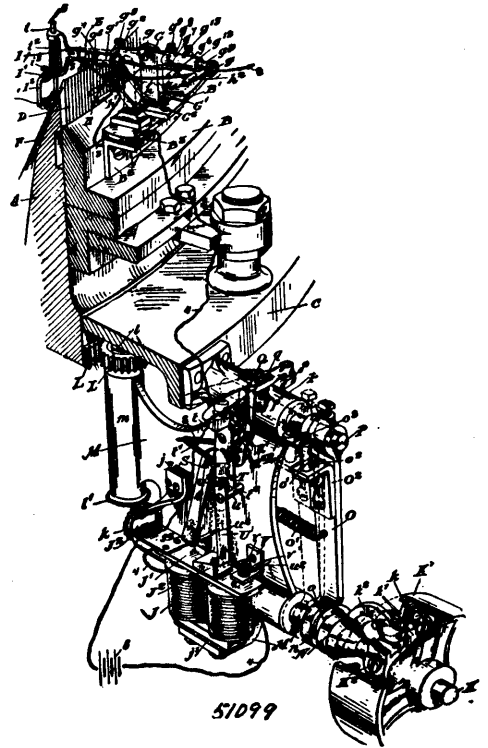


Mary M. Vogt, Rochester, New York, U.S.A., 22nd January, 1895; 6 years. (Filed 25th October, 1895.)

Claim.—1st. A device adapted to be placed upon the face to aid in singing, consisting of two slotted, curved, overlapping bars and a fastener therefor, each bar being provided at its free end with a pad or cushion in position to press the side of the face, substantially as

shown and described. 2nd. A device to be worn upon the face by a person learning to sing, consisting of two curved, overlapping bars, formed with slots in the contiguous parts, and a fastener for said bars occupying the slots, the bars being adjustable upon each other and of a yielding nature, and each provided with a pad to press the cheek of the wearer, in combination with elastic holders, secured to the bars in position to pass over the head and back of the neck respectively, substantially as shown and described.

No. 51,099. Electrical Quarter Saver and Stopping Device for Knitting Machines. (Appareil d'arrêt électrique pour machines à tricoter.)



Herbert Theodore Ballard, Toronto, Ontario, Canada, 22nd January, 1896; 6 years. (Filed 24th Oct., 1895.)

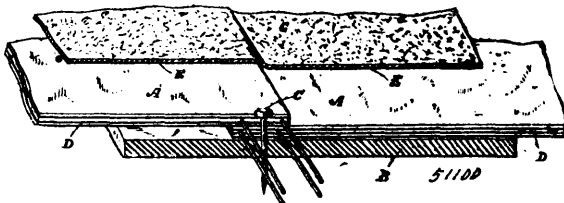
Claim.—1st. In a knitting machine, a quarter saver and stopping device comprising an arm for supporting the yarn, a lever for producing a tension on the thread and having one end designed to come in contact with the machine and electrical means connected to the tension lever and frame for instantaneously stopping the rotation of the shaft upon the breaking of a thread as and for the purpose specified. 2nd. The combination with the arm secured on a suitable standard and provided with a tubular thread guide and supporting roller, of a tension lever provided at one end with a roller under which the thread passes and having a brush at the other bent end, and suitably supported on standards and electrical means for throwing in a suitable device for instantaneously stopping the rotation of the shaft when the thread is broken and the lever tilted so as to throw the brush against the sinkers as the cylinder rotates as specified. 3rd. The combination with a rocking spring-held detent and arm on which it is supported and insulated from the cylinder, of the cylinder and frame and electrical means for communicating motion to a stopping device for the main shaft as and for the purpose specified. 4th. The combination with a rocking detent secured on the lower end of the vertical spindle, a forked arm for supporting the spindle and a spring for holding the detent normally against the web, of the cylinder and frame, and electrical means for communicating motion to a stopping device for the main shaft as and for the purpose specified. 5th. The combination with a rocking spring-held detent and arm on which it is supported and insulated from the cylinder and a vertical rod insulated from the arm, of a wire lead to the frame from the vertical rod and a wire lead from the arm to an electrically actuated device for operating the stopping device on the main shaft as and for the purpose specified. 6th. The combination with the cylinder, gear ring, pinion L, spindle and pinions I¹, of the main shaft with pinion k, supported in a suitable bracket M secured to the frame of the machine, an insulated magnet J, and armature J¹, electrical means from the magnet to a circuit closing device actuated by the breaking of a thread and mechanism interposed and controlled by the armature between such armature and a clutch on the main shaft, as and for the purpose specified. 7th. The combination with a circuit closing device operatively connected to the cylinder and various

means for closing such device, of the magnet J¹, electrically connected through the frame and by wire to the point at which the circuit is to be closed, an armature co-acting with the magnet and a suitable clutch connected to the main driving pulley, which is loosely journaled on the shaft, an arm with the lower forked end designed to extend into a groove in the cone-shaped collar, a spring connecting this arm to the supporting bracket, a spindle for supporting the arm adjustably in the sleeve secured to the frame, a lever for adjusting this spindle, a rod R supported on the arm O, and provided at its inner end with a dog-shaped end R², the spring-held lever S, the lever T, provided with circular notch t², and the lever U, provided with a pin u, and arranged to have its lower end rest against the side of the block J² on the armature, as and for the purpose specified. 9th. The combination with the lever Q, connected by the pin to the rod P, of the spring-held lever S, armature J², and magnet J, electrical connections as specified and locking means interposed between the armature and spring-held arm O, as and for the purpose specified.

No. 51,100. Composition for Covering Roofs.

(Composition à toiture.)

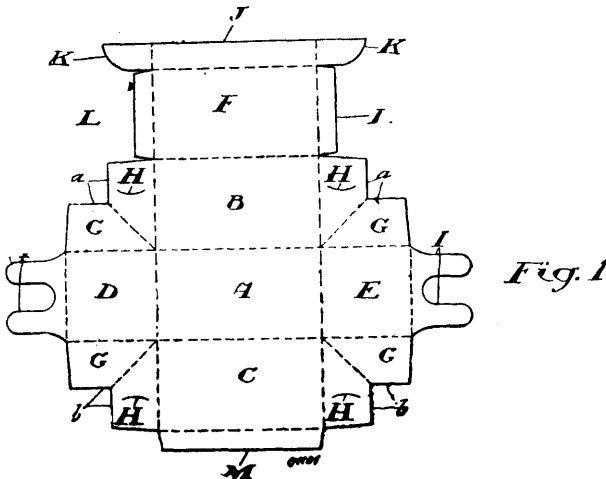
Fig. 3.



Daniel Allen, Galt, Ontario, Canada, 22nd January, 1896; 6 years. (Filed 29th November, 1895.)

Claim.—1st. The combination of composition or paste E, composed of one part mica, one part soapstone, and a sufficient quantity of Japan to form a paste, coat of sand G, layer of felt A for foundation, said felt secured to roof by nails varied in space according to pitch of roof, substantially for the purpose hereinbefore described. 2nd. The combination with one part mica, one part soapstone, and sufficient Japan to form composition or paste E, coat of said G, and layer of felt A for foundation, substantially as hereinbefore set forth.

No. 51,101. Paper Box. (Boite en papier.)

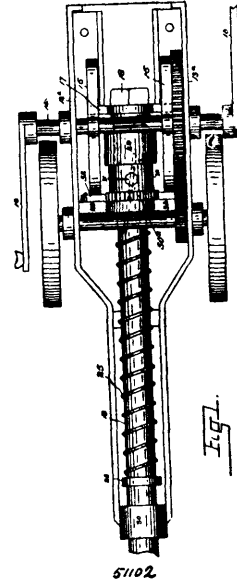


The Elliott Paper Box Company, assignee of David Elliott, both of Toronto, Ontario, Canada, 22nd January, 1896; 6 years. (Filed 27th July, 1895.)

Claim.—1st. A blank for a folding box cut to form in one piece the bottom A, the sides B and C, the ends D and E, the cover F,

flap J, and tongues K, the L-shaped connecting sections G, provided with slits H, and two tongues I, connected to each of the ends D and E, substantially as described and for the purpose specified. 2nd. A blank for a folding box cut to form in one piece the bottom A, the sides B and C, the ends D and E, the cover F, flap J, and tongues K, the L-shaped connecting sections G, provided with slits H, and two tongues I, connected to each of the ends D and E, and flaps L and M, substantially as described and for the purpose specified. 3rd. A blank for a folding box cut to form in one piece the bottom A, the sides B and C, the ends D and E, the connecting sections G provided with slits H, and two tongues I, connected to each of the ends D and E, substantially as described and for the purpose specified.

No. 51,102. Rock Drill. (Machine à percer.)

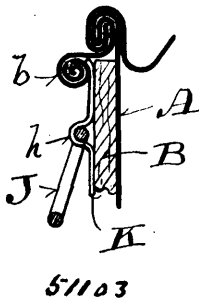


William H. Dixon, John E. Gartmann, and Frank A. Foslin, all of Denver, Colorado, U.S.A., 22nd January, 1896; 6 years. (Filed 10th August, 1895.)

Claim.—1st. In a rock drill, the combination with the track and the frame movable thereon, on the reciprocating ram mounted on the movable frame and provided with a spiral groove, a loose collar surrounding the ram, said collar being provided with a ratchet zone, a fastening device passing through an aperture in the collar and projecting into the spiral groove of the ram, means attached to the movable frame for locking the collar against longitudinal movement on the ram, a dog supported on the moveable frame, engaging the ratchet zone and locking the collar against rotary movement in one direction, but allowing it to move in the opposite direction, whereby as the ram is reciprocated, it is given the necessary partial rotation between strokes, substantially as described. 2nd. In a rock drill, the combination with the track and the frame movable thereon, of the reciprocating ram mounted on the movable frame and provided with a spiral groove, the rotating cam for moving the ram in one direction, the spring for moving it in the opposite direction, a loose collar having a ratchet zone, said collar surrounding the ram, a fastening device passing through an aperture in the collar and projecting into the spiral groove of the ram, means attached to the movable frame and engaging the collar whereby the latter is locked against longitudinal movement on the ram, and a dog supported on the movable frame and engaging the ratchet zone of the collar, whereby the latter is locked against rotary movement in one direction, but permitted to rotate in the opposite direction, substantially as described. 3rd. In a rock drill, the combination with the track and the movable frame mounted thereon, of the reciprocating ram mounted on the movable frame and provided with a spiral groove, a cross-head attached to the ram, a shaft journaled in the movable frame and carrying cams adapted to engage the cross-head of the ram as the shaft is rotated, a spring surrounding the ram and engaging a stop on the movable frame at one extremity and another stop on the ram at the opposite extremity, a loose collar surrounding the ram and provided with a ratchet zone, a fastening device passing through an aperture in the collar and projecting into the spiral groove of the ram, means attached to the movable frame and engaging the collar whereby the latter is locked from longitudinal movement on the ram, and a dog supported on the movable frame and engaging the ratchet zone of the collar, whereby the latter is locked from rotary movement in one direction but permitted to rotate in the opposite direction, substantially as described. 4th. In a rock drill, the combination with the reciprocating ram, the feed screw and the rack bar, of means for actuating the feed screw con-

sisting of a ratchet fast on the screw shaft, a rocker plate pivoted on said shaft and carrying a dog engaging the ratchet, a lever engaging one end of the rocker plate, a spring engaging the other end of said plate, and a cross-head carried by the ram and adapted to engage the lever which lies in its path, substantially as described. 5th. In a rock drill, the combination with the track and frame movably attached thereto, of the reciprocating ram, the feed screw swivelled in the movable frame, a cogged rack attached to the track and engaged by the feed screw, a ratchet made fast on the feed screw, a rocker plate mounted on the screw and carrying a dog engaging the ratchet, and means whereby the feed screw is actuated, said means consisting of a lever fulcrumed on the movable frame and adapted to engage one end of the rocker plate, a spring engaging the other end of said plate, and a cross-head fast on the ram and adapted to engage the lever, substantially as described. 6th. In a rock drill, the combination with the stationary track, the movable frame mounted thereon, the reciprocating ram mounted on the movable frame and provided with a spiral groove, the rotating cam for moving the ram in one direction, a spring for moving it in the opposite direction, a ratchet collar surrounding the ram, a device passing through the collar and projecting into the spiral groove of the ram, said ratchet being locked from longitudinal movement and from rotation in one direction, a rack bar attached to the track, a feed screw engaging the rack bar, a ratchet fast on the feed screw, a rocker plate movable on the feed screw, a dog carried by the rocker plate and engaging the ratchet, a lever engaging one end of the rocker plate, a spring engaging the other end of said plate, and a cross-head fast on the ram and adapted to engage the lever, substantially as described. 7th. In a rock drill, the combination with the feed screw and suitable operating mechanism of the track, a rack bar having a vertical movement on the track but locked against longitudinal movement thereon, a key located in a groove formed in the rack bar and having a longitudinal movement, pins attached to one part (the key or the rack bar), and passing through slots formed in the other part, said slots being parallel with the plane of the machine, and means for attaching the key to the track consisting of pins attached to one part and passing through slots formed in the other part at an angle to the plane of the machine, substantially as described.

No. 51,103. Jacketed Can. (*Bidon-enveloppe*.)

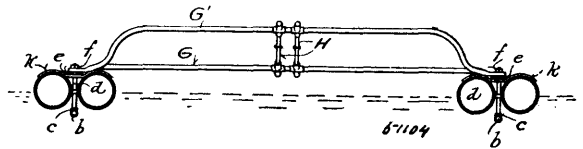


The Utility Manufacturing Company, Assignee of Henry Lewis, Gates and Myron Whiting Clark, all of Milwaukee, Wisconsin, U.S.A., 22nd January, 1896; 6 years. (Filed 23rd August, 1895.)

Claim.—1st. A jacketed-can having a folded end of its body projected beyond the adjacent end of the jacket the length of the fold, a flange-extension of this fold laid against said jacket as a means for holding the same in place, and an end-piece joined to said fold. 2nd. A jacketed-can having a folded end of its body projected beyond the adjacent end of the jacket the length of the fold, a flange-extension of this fold laid against said jacket as a means for holding the same in place, and an end-piece double seamed to said fold. 3rd. A jacketed-can having the body portion thereof and a flanged end-piece united by an inturned bead, and an outwardly extended flange of the can body, resulting from the beading operation, laid against the jacket as a means for holding the same in place. 4th. A jacketed-can having the body portion thereof and a flange end-piece united by an inturned bead, an outwardly extended flange of the can-body, resulting from the beading operation, laid against the jacket as a means for holding the same in place, a shield opposing the bead, and the flange of the end-piece turned over on the shield. 5th. A jacketed-can having the upper portion of its body provided with an outwardly extended flange and suitably connected to an end-piece, the lower portion of said body and a flanged end-piece united by an inturned bead, another outwardly extended flange of the can-body, resulting from the beading operation, a shield opposing the bead, the flange of the latter end-piece turned over on the shield, and both of said outwardly extended can-body flanges laid against the jacket as a means for holding the same in place. 6th. A jacketed-can having the body portion thereof provided with upper and lower flanges laid against the jacket, as a means for holding the same in place, longitudinal metal strips provided with transverse depressions and having the ends thereof caught between said jacket and can-body flanges, and handles engaging said depressions. 7th. A jacketed-

can having the upper portion of its body provided with an outwardly extended flange and an inturned bead, an end-piece that rests on the bead, pivotal latches on the end-piece engagable with indentations or slot in the can-body, the lower portion of said can-body and a flanged end-piece united by an inturned bead, another outwardly extended flange, resulting from the union of the aforesaid can-body and latter end-piece, a shield opposing the lower bead, the flange of the lower end-piece turned over on the shield, and both of said outwardly extended can-body flanges laid against the jacket, as a means for holding the same in place.

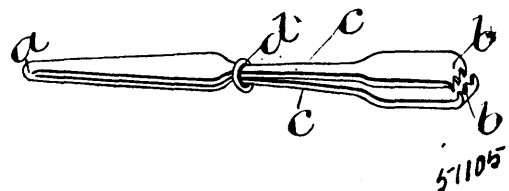
No. 51,104. Marine Conveyance. (*Bicycle-ra-deau*.)



John Dean and Charles Russell Carpenter, both of Racine, Wisconsin, U.S.A., 23rd January, 1896; 6 years. (Filed 20th September, 1895.)

Claim.—1st. A portable raft comprising parallel knock-down trusses each of which has a hinged forward section, transverse braces joining the trusses, bicycle-supports and propulsion-mechanism in connection with the frame embodying said trusses, braces and supports, inflatable flexible floats secured to the trusses, suitable means for transmitting power from a bicycle on the raft to said propulsion-mechanism, and other suitable means for insuring deflection of said forward portion of the raft incidental to movement of the handle-bar of said bicycle. 2nd. A raft provided with pivotally adjustable propulsion-mechanism, a bicycle arranged on the raft, suitable means for communicating motion from the bicycle to the propulsion-mechanism, and a hanger for this propulsion-mechanism in adjustable connection with said bicycle adjacent to the saddle of the same. 3rd. A raft comprising a main-frame, an auxiliary-frame in pivotal connection with the main one, a propeller wheel having its shaft in bearings on the auxiliary-frame, suitable means for communicating motion from a bicycle on the raft to the propeller-wheel shaft, and other suitable means for regulating the adjustment of said auxiliary frame. 4th. A portable raft comprising a knock-down frame consisting of hinged-joined sections and inflatable flexible floats in detachable connection with the frame, bicycle supports and stays on the frame, a propulsion-mechanism attachable to said frame, and suitable means for communicating motion from a bicycle on the raft to said propulsion-mechanism. 5th. A raft provided with propulsion-mechanism, a friction drum in gear with the propulsion-mechanism, stanchions on the raft, and supporting devices having vertical adjustable connection with the stanchions, whereby a portion of a bicycle engaged with the supports may be raised or lowered to regulate the contact of its driven wheel with said friction-drum. 6th. A portable raft comprising a knock-down frame and inflatable flexible floats, a pair of parallel longitudinal stays connected to transverse forward brace-members of the frame, a clamping-yoke joined to the stays, stanchions rising from said frame, a propulsion-mechanism for the raft, and suitable means for communicating motion to this mechanism from a bicycle mounted on the stanchions and front brace members of said frame, the stays and clamping-yoke serving to secure the front wheel of said bicycle.

No. 51,105. Bodkin. (*Poinçon*.)



Abraham Whitton Lozier, New York, Assignee of Frank Darling Arthur, Scarborough, both in the State of New York, U.S.A., 23rd January, 1896; 6 years. (Filed 15th October, 1895.)

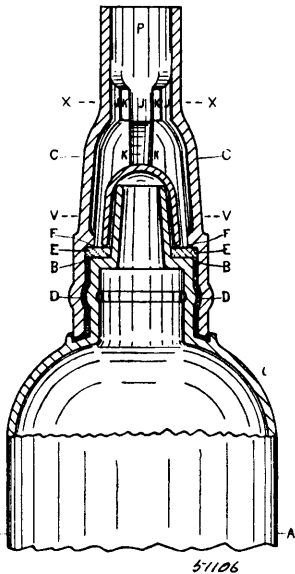
Claim.—The bodkin, comprising a strip of spring metal folded upon itself, the folded parts being provided with correspondingly narrowed portions for the reception of a sliding clasp and the free ends of the folded parts being provided with holding jaws turned inwardly and arranged to lap past each other when the jaws are closed, and a clasp surrounding the narrowed portions and adapted to slide towards and away from the holding jaws to lock and release them, substantially as set forth.

No. 51,106. Device to prevent Refilling of Bottles.

(*Appareil pour empêcher le remplissage des bouteilles.*)

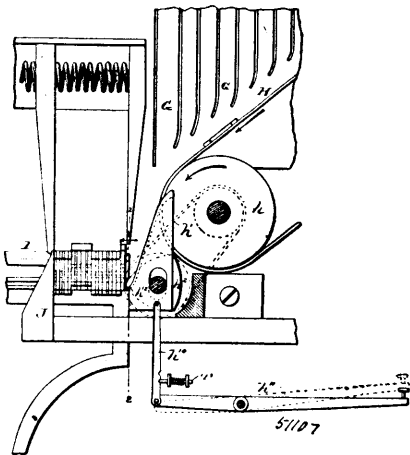
James O'Donnell, Hamilton, Ontario, Canada, 23rd January, 1896; 6 years. (Filed 31st December, 1895.)

Claim.—1st. The combination of the separate neck C, having an interior contraction K, forming central vertical aperture H, with



channels J, the lower larger part having an interior shoulder F, to rest upon the cork washer E, and cemented to and around the neck of a bottle A, substantially as described and set forth. 2nd. The combination of the separate neck C, having an interior contraction K, forming central vertical aperture, with channels J, the lower larger part cemented to a bottle neck, and the loose air cap acting in the said separate neck, substantially as described and set forth. 3rd. The loose air cap, with or without its central and interior conical plug 2, in combination with the interior of the separate neck, having a contraction forming central vertical aperture, and channels and the lower enlarged part rigidly secured to the neck of a bottle, substantially as described and set forth.

No. 51,107. Linotype Machine. (Machine linotype.)

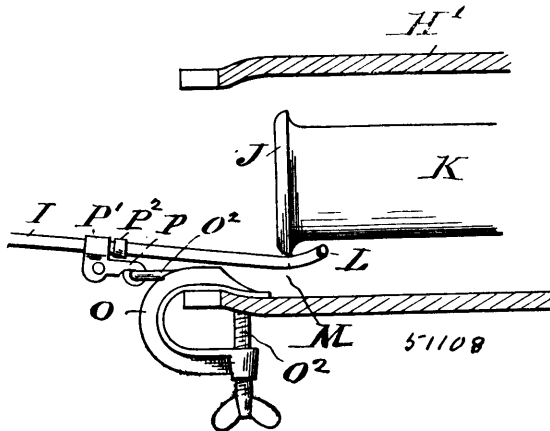


The National Typographic Company, New York, State of New York, Assignee of Philip Tell Dodge, Washington, Columbia, both in the U.S.A., 23rd January, 1896; 6 years. (Filed 21st October 1895.)

Claim.—1st. In combination with a series of matrices or dies each having the same character repeated in different forms, a composing mechanism for selecting and assembling said matrices in line and means under the control of the operator for controlling the longitudinal adjustment of each matrix in relation to others in a composed line, whereby the line may be composed in whole of either form of character, or in part of each. 2nd. In combination with a series of matrices each having duplicate characters in variant forms as described, the composing mechanism, and the movable switch whereby the longitudinal adjustment of the matrices in relation to each other may be controlled at will. 3rd. In combination with a series of matrices each having characters repeated as described,

a composing mechanism, means for determining the longitudinal adjustment of the matrices in relation to each other, and a mold adapted to interlock with the matrices in the composed line and retain them in their adjusted positions. 4th. In combination with the matrices having their characters repeated as described, and an assembling block provided with a plurality of sustaining shoulders whereby the matrices in the closed line may be maintained in different positions. 5th. In a linotype machine, and in combination with matrices each having a plurality of characters at different heights, a support for the composed matrices, provided with a plurality of horizontal shoulders adapted to sustain the matrices in the line at the different elevations to which they may be respectively adjusted.

No. 51,108. Axle Cooler. (Refroidissoir d'essieux.)



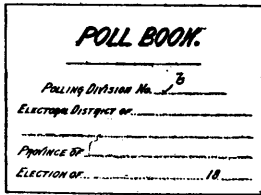
The Cook Cooler Company, assignee of Miles P. Cook, both of Flint, Michigan, U.S.A., 23rd January, 1896; 6 years. (Filed 30th December, 1895.)

Claim.—1st. The combination with a journal and its bearing, of a conduit for water having a nozzle arranged to deliver the water against the upper rear portion of the journal below the bearing, as and for the purpose described. 2nd. The combination with a car axle box, brass and journal having a collar at its outer end, of a laterally swinging tank loosely and detachably supported on the car adjacent to the journal and below the frame, a nozzle connected with the tank, means for supporting its end in the box, and a jet on its end directed upward and adapted to direct the stream of water between the upper rear face of the journal and the brass, substantially as described. 3rd. The combination with a car axle box and a journal, of a brass having recesses along its edges, a detachable swinging tank supported adjacent to the journal on the car, a nozzle connected with the tank, means for supporting the nozzle with the end in the box, and a jet on the nozzle directed upwardly so that its discharge will be directed into the said recess at the rear of the journal, substantially as described. 4th. The combination with a car axle box and a journal, of a detachable tank flexibly swung from the under side of the car adjacent to the box, a support on the box, a nozzle or pipe slidingly engaging in said support and having a lateral discharge against the journal, and a connection between the nozzle and tank whereby the swinging of the tank caused by the motion of the car will direct the cooling fluid along the face of the journal, substantially as described. 5th. A car axle cooler comprising a tank detachably swung from the car adjacent to the axle, free to oscillate transversely of the car, a nozzle connecting with the tank slidingly supported on the box and discharging against the journal, the parts being so arranged that the oscillation of the tank will reciprocate the nozzle, substantially as described. 6th. In a car axle cooler, the combination with a journal box, of a detachable tank, a nozzle, a connection between the nozzle and the tank, the nozzle arranged on the box for the nozzle comprising a flexible joint, substantially as and for the purpose described. 7th. In a car axle cooler, the combination with the journal box, the detachable tank, its nozzle and a clamp on the box, of a ring on the nozzle, and an eye on the clamp with which said ring loosely engages, substantially as and for the purpose described. 8th. In a car axle cooler, the combination with the tank, of a flexible discharge pipe therefrom, a rigid nozzle carried by said flexible pipe, a clamp on the box with which said nozzle has a sliding engagement, a guide rod connecting the nozzle and a support for the rod on the tank, substantially as described. 9th. In a journal box cooler, the combination with the journal and brass, of a nozzle having its discharge arranged in close proximity to the edge of the brass and free to move back and forth, and means for reciprocating the nozzle comprising a transversely swinging tank, and a connection between the same and nozzle, substantially as described. 10th. In a railway car, the combination with an axle box, the journal and brass, of a longitudinally reciprocating liquid distributing nozzle in the box at one side of the journal, and means for supplying a liquid to the nozzle during its movement, substantially as described. 11th. In a railway car, the combination with

an axle box, its journal and brass, of a freely swinging tank on the car, a nozzle freely supported to move longitudinally at the side of the journal, a flexible connection between the tank and nozzle whereby the movement of the tank is imparted to the nozzle, substantially as described.

No. 51,109. Poll Book. (Livre de scrutin.)

D.D.



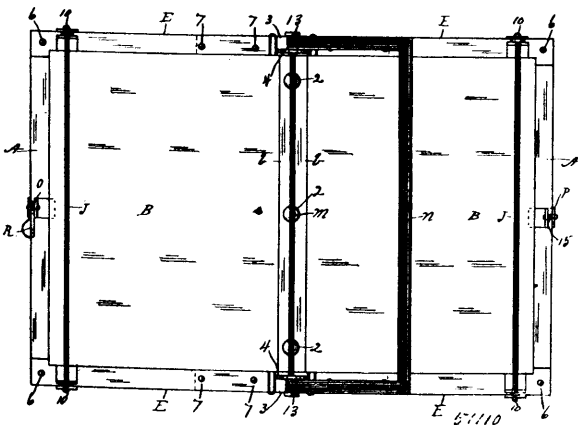
CONTENTS.

Table listing contents of the Poll Book with page numbers, including Commission of a Deputy Returning Officer, Certificate that the Deputy Returning Officer is qualified, etc.

Samuel E. St. Onge Chapeau, Ottawa, Ontario, Canada, 23rd January, 1896; 6 years. (Filed 27th November, 1895.)

Claim.—1st. As a new article of manufacture, a poll book, containing all the known blank forms arranged in the successive order in which they are required to be used at an election, bound as shown and for the purpose set forth. 2nd. A poll book containing all the blank forms shown in the schedule to the Dominion Election Act, also, other blank forms, not therein shown, made up in suitable numbers, the original being bound with the book proper, and the remainder being made detachable by means of a temporary binding. 3rd. The combination in a poll book of perforations such as i i i through one side of the cover of the book and through the margin of all the detachable blank forms, and means, such as a cord, for binding the same substantially as shown and for the purposes set forth. 4th. In a poll book, a blank form showing the statement of the poll, having the columns d and d', and heavy lines e and e, so disposed that the sum total of all the entries correspond with the number of ballot papers delivered for use at such poll, the whole suitably labelled and indexed, substantially as described and for the purposes set forth.

No. 51,110. Music Holder, Etc. (Porte-musique, etc.)



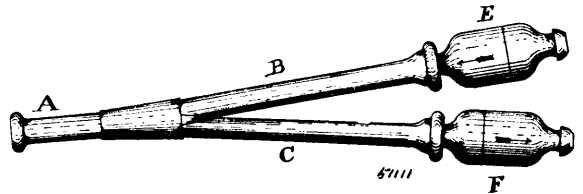
William Molton, Hamilton, Ontario, Canada, 23rd January, 1896; 6 years. (Filed 29th October, 1895.)

Claim.—1st. In a music holder and folder, the combination of the outer covers provided with horizontal plates secured thereto, said plates formed with their outer folded ends secured to said cover, by rivets 6, the inner plates F, secured to said plates forming stops 8, and 9, the plate D, arranged to hinge to the plate E, and partially

covered and secured to the central vertical plate C, having slotted projections 4, for adjustable central rod M, provided with a series of bent rods N, and the rods J, capable of adjustment in arms I, pivoted in sliding supports H, substantially as described. 2nd. In a music holder and folder, the combination of the covers A, having plates E, secured thereto forming a space between said covers and plates, with stops 8, and 9, and hinged to plate D, which is secured to central plate C, bent to form slotted projections with slots for rod M, the series of folding rods N, the adjustable rods J, in arms I, pivoted in sliding supports H, the inner covers B, provided with the springs K, and secured to said plate C, and the music holder fastening O, and P, provided with catch R, and pin 15, substantially as described. 3rd. The combination, in a music holder, folder and stand of the attachment consisting of the elongated plate S, having lower hook, and upper sliding hook arranged to clip the music holder at plate C, as set forth, the said upper hook having projection 19, having opening, and capable of adjustment by means of its slot, and outer rigid plate, having guide and stop pins 18, the spring plate V, formed with lip Y, for insertion of upper part of flanged plate 20 of stand, and the lower slotted and locking slide 22, provided with lower projection and rigid plate 24, having guide pins 25, substantially as described. 4th. In a portable music holder and folder, the combination of the covers A, having central plate C, and hinged plates E, provided with the adjustable handle rods J, having arms pivoted in sliding supports H, and the fastening supports O, and P, of equal projection with said slides H, substantially as described.

No. 51,111. Valve for Surgical Syringes.

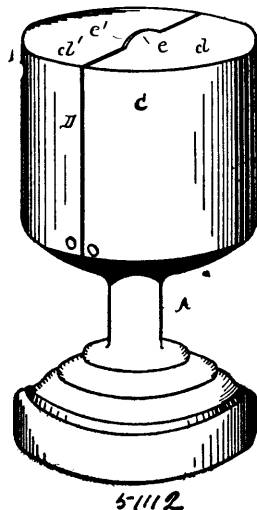
(Soupape pour seringues de chirurgie.)



Horace D. Taggart, Akron, Ohio, U.S.A., 23rd January, 1896; 6 years. (Filed 28th October, 1895.)

Claim.—1st. An improved valve for surgical syringes, consisting of a hollow cone-shaped rubber valve, cut centrally downward from its apex a short distance, substantially as shown and described. 2nd. An improved valve for surgical syringes, consisting of a rigid separable hollow case, with tapering ends to enter the tubes, and a valve consisting of a cone of flexible material, cut centrally lengthwise toward its base, and retained in said case, substantially as shown and described. 3rd. A valve for surgical syringes, consisting of a hollow rigid separable case, a hollow cone-shaped valve cut centrally lengthwise from its apex, and a hollow bushing arranged to be inclosed by said cone-shaped valve within said case, substantially as shown and described.

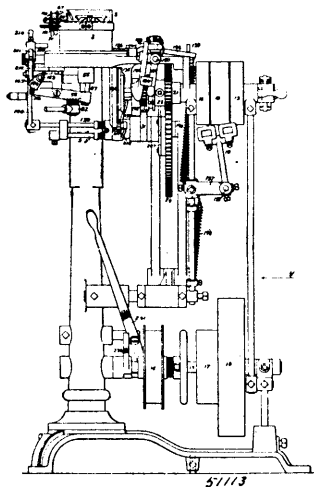
No. 51,112. Dice Box. (Cornet à dés.)



Eugene Gregory, Ann Arbor, Michigan, U.S.A., 23rd January, 1896; 6 years. (Filed 28th October, 1895.)

Claim.—1st. In a dice box, the combination of a foot piece terminating in a table at its upper end, and a covering hood made in parts adapted to be closed by the hand of the operator, and to drop apart to disclose the interior of the box when not so closed. 2nd. In a dice box, the combination of a foot-piece terminating at its upper end with a table, a flange surrounding said table, and a hood made in parts adapted to close over and conceal said table, and to open and disclose said table. 3rd. In a dice box, the combination of a flanged table, a hood made in parts hinged to said table and adapted to move from a position of closure to a position of disclosure of said table, and stops limiting the closing movement of said hood pieces, substantially as described. 4th. In a dice box, the combination of a flanged table, and a hood made in two parts closing together in the form of a hemisphere, substantially as described.

No. 51,113. Knitting Machine. (Machine à tricoter.)



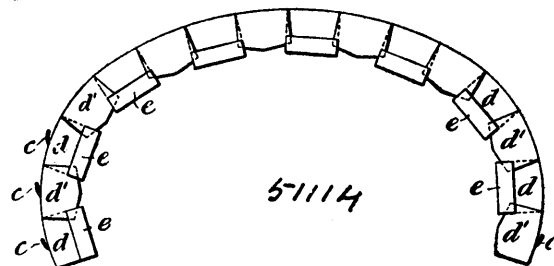
Louis Napoleon Devon, William and Harry Swinglehurst, both of Philadelphia, Pennsylvania, U.S.A., 23rd January, 1895; 6 years. (Filed 26th October, 1895.)

Claim.—1st. In automatic knitting machines, means for moving the needles out of and into operative positions in relation to the cams in narrowing and widening the fabric, the said means comprising pickers mounted upon a frictionally operated ring or bar, and adapted to be stopped by the bits of the needles, one of the said pickers acting upon the bits of the needles to move them in one direction, and the other acting upon the bits of the needles to move them in the opposite direction, substantially as hereinbefore described. 2nd. Providing the pickers with operating stems or shanks located in different planes and combining therewith a bar or bars movable into line with the operating stem of either picker, substantially as hereinbefore described. 3rd. The means employed for operating the picker operating bars, the said means comprising a vibrating frame, a pair of arms pivoted thereon and carrying the picker operating bars, a wedge for separating the said arm and a spring for drawing them together, substantially as hereinbefore described. 4th. Mounting the pickers on the frictionally operated ring or bar so that they can be moved in and out thereon, and thus carried into and out of range of the operating bar or bars, substantially as hereinbefore described. 5th. The means employed for moving a number of needles out of action simultaneously, the said means comprising a series of jacks in line with the needles, a segment for moving the said jacks, a cam for actuating the said segment, and means for moving the segment into range of the cam, substantially as hereinbefore described. 6th. The means employed for moving different sets of needles into and out of action simultaneously, the said means comprising the needle jacks, two segments for acting thereon, a cam for operating the said segments, two notched levers for moving the said segments into and out of range of the cam, two cams set so as to follow each other in their action on the notched levers, pattern chain having links of different heights, and connections whereby the said pattern chain is caused to operate the cams which act upon the notched levers, substantially as hereinbefore described. 7th. The reversing clutch mechanism comprising a rotating wheel, a reciprocating wheel, a clutch drum having a sliding bolt adapted to engage with either wheel, and a pivoted toe on the said bolt adapted to project beyond the bolt on one side, and thus prevent engagement of the bolt with the reciprocating wheel except when the latter is travelling in one and the same direction, substantially as hereinbefore described. 8th. The means for shifting the position of the reversing clutch, the said means comprising a rock shaft moved in one direction by a spring, an arm engaging with a retaining catch for holding the said rock shaft in one position, a lever hung to the rock shaft and adapted to be acted upon by a cam for moving the said shaft against the action of the spring, a second lever for mov-

ing the said first mentioned lever into the path of the cam, and a trip lug for engaging successively with the said second lever and with the retaining catch, substantially as hereinbefore described. 9th. The speed changing mechanism comprising the fast and slow pulleys, the loose pulley between them, the duplex belt shifter, a shifting rod constructed to engage with an arm on the reversing clutch mechanism, and devices for releasing the shifting rod from such engagement, substantially as hereinbefore described. 10th. The means for varying the draft of the needles, the said means comprising a cam lever for raising and lowering the needle cylinder, a cam and connections for moving the said lever to and fro, and ratchet and pawl mechanism for automatically operating the said cam at intervals, substantially as hereinbefore described. 11th. The means for holding and releasing the needle cylinder, comprising the split clamp, a threaded wedge bolt for expanding the same, and a lever nut applied to the said wedge bolt, substantially as hereinbefore described. 12th. The extra thread controlling mechanism comprising a pair of clamping jaws for the said extra thread, a lever having a cam lug for opening the movable jaw, and constructed so as to form slack thread after the jaws are closed, and devices acted upon by a pattern chain for moving the said lever, substantially as hereinbefore described. 13th. The extra thread controlling mechanism provided with means for operating it, so as to release the extra thread on starting the heel, and to confine the said thread in finishing the heel, and also with supplementary operating devices, whereby the extra thread is released for but part of a course, in forming circular courses of stitches at the centre of the heel, substantially as hereinbefore described. 14th. The cam cylinder having a preliminary draw-down cam and a set of needle pickers, both provided with levers, whereby they may be thrown into and out of action, in combination with a double disc, one part of which acts upon the lever mechanism of the cam, and the other upon the lever mechanism of the pickers, substantially as hereinbefore described. 15th. The lever 211 having three pins, the first for acting upon the mechanism for raising half of the needles out of action simultaneously, the second for acting upon the lever mechanism of the preliminary draw-down cam, and the third for acting as a stop to prevent further rotation of the cam cylinder, substantially as hereinbefore described. 16th. The mechanism for vibrating the frame carrying the bars for operating the pickers, the said vibrating mechanism including cams which act upon a roller controlled by an arm on the clutch shifting shaft, so that it is put out of range of the cams when the machine is rotating, and into range of the said cams when the machine is reciprocating, substantially as hereinbefore described. 17th. The mode hereinbefore described of forming a heel upon a sock or stocking, the said mode consisting in first forming a gradually narrowed web with main and extra threads upon certain of the needles, then forming a series of continuous courses of stitches upon all of the needles, and stopping the feed of the extra thread in that portion of each course which extends over the instep, and then forming a gradually widened web with both threads upon the same needles upon which the narrowed web was produced, substantially as hereinbefore described. 18th. A sock or stocking having a heel composed of main and extra threads, and having a series of continuous circular course of stitches interposed between the gradually widened webs which form and shape the heel, the extra thread being removed from that portion of each of the interposed circular courses which extends over the instep.

No. 51,114. Protective Guard for Paper Rolls.

(Protecteur pour rouleaux de papier.)

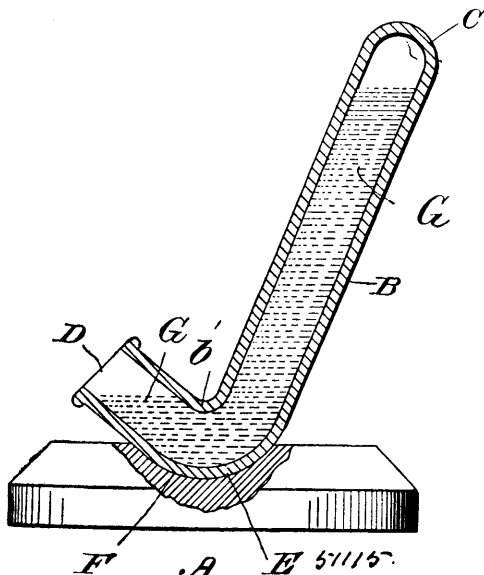


Charles Louis Duval, Bayonne, New Jersey, U.S.A., 23rd January, 1896; 6 years. (Filed 25th October, 1895.)

Claim.—1st. The adjustable guard consisting of the flexible cylindrical portion C and the sectional turned-over portions DD¹ arranged to play upon each other and permit the adjustment of the guard, the ends of the portion D being turned over the alternate portions D¹ as at E, and hooks or fastening devices c being formed integrally with the said guard, substantially as set forth. 2nd. The adjustable guard consisting of the flexible cylindrical portion C and the sectional turned-over portions DD¹ arranged to play upon each other and permit the adjustment of the guard, and means for securing the ends of the said guard together, substantially as set forth. 3rd. The flexible adjustable guard consisting of a metallic plate or blank having turned up sectional portions DD¹ interlocking and playing upon each other to permit the adjustment of the said guard, and means for securing the ends of the said guard together, substantially as set forth. 4th. A guard for the purposes

described consisting of a cylindrical portion C and the sectional end portion D, the sections of such end portion interlocking and playing upon each other to permit the adjustment of the said guard, substantially as set forth. 5th. A guard for the purposes described consisting of a flexible cylindrical portion C and a turned-up and sectional end portion D and a fastening device struck up or formed integrally with the said guard, substantially as set forth.

No. 51,115. Ink Stand etc. (Encrier etc.)



John B. Thomas, Lakewood, New Jersey, U.S.A., 23rd January, 1896; 6 years. (Filed 18th October, 1895.)

Claim.—1st. In a fountain ink stand, the combination of a base, and a curved tube as B, secured thereto, or connected therewith, one end of said tube being longer than the other, and the longer end being closed and the shorter end open, substantially as shown and described. 2nd. In a fountain ink stand, the combination of a base, and a curved tube as B, secured thereto or formed thereon, one end of said tube being longer than the other and closed, and the shorter end being directed upwardly and open, and the end thereof, being cut away at an angle to the perpendicular, substantially as shown and described. 3rd. In a fountain ink stand, the combination of a base as A, of a bent or curved tube as B, secured thereto, or formed thereon, one end of said tube being longer than the other, and directed upwardly and outwardly, and the end thereof, being cut away at an angle to the perpendicular, substantially as shown and described. 4th. The combination with a base as A, of a bent or curved tube secured thereto, one end of which is inclined upwardly and closed, and the other end of which is inclined upwardly and open, and provided with a removable cap, the closed end of the tube being longer than the open end, substantially as shown and described. 5th. The combination with a base as A, of a bent or curved tube secured thereto, one end of which is inclined upwardly and closed, and the other end of which is inclined upwardly and open, and provided with a removable cap, the closed end of the tube being longer than the open end, and said removable cap being provided with a brush, substantially as shown and described.

No. 51,116. Medicinal Compound.

(Composition medicinale.)

Samuel Irwin, and Oliver Lingwood, both of Waterloo, Ontario, Canada, 23rd January, 1896; 6 years. (Filed 16th October, 1895.)

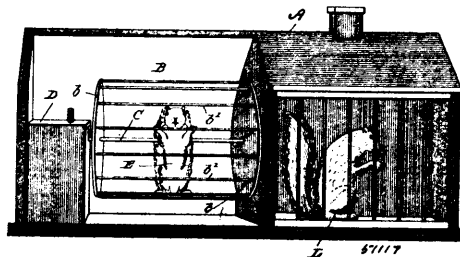
Claim.—A compound composed of a combination of three ingredients, viz.: -A, Essence of cloves, 5 per cent, B, sulphate of magnesia, 90 per cent, C, infusion of pepperment, 5 per cent, substantially in the proportions and for the purposes set forth.

No. 51,117. Mechanical Toy. (Jouet mécanique.)

Whiting Jerome Wilcox, Cornwall, Connecticut, U.S.A., 23rd January, 1896; 6 years. (Filed 14th October, 1895.)

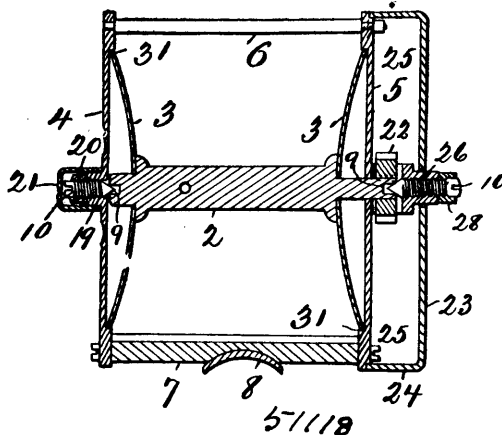
Claim.—1st. The combination with a squirrel house or cage, having a drum mounted in connection therewith at one end thereof, of a spring operated mechanism, a shaft passing through said drum and rigidly connected therewith, and adapted to be operated by said mechanism, a figure within said drum designed to represent a squirrel or other animal, said figure being also pivotally connected with said

shaft and a figure within the house or cage designed to represent a squirrel or other animal, and the separate parts of said figure being



in operative connection with said shaft and pivotally connected with the body portion thereof, whereby the shaft is revolved, the figure within the house or cage appears in the act of eating, substantially as shown and described. 2nd. In a mechanical toy, the combination of a house or cage, and a roller mounted at one end thereof, and rigidly connected with a shaft by which it is adapted to be revolved, a spring drum mechanism for revolving said shaft, and figures within the drum and within the cage or house, said figures being designed to represent squirrels or other animals, and being in operative connection with said shaft, whereby, when the shaft is revolved, the figure within the drum appears to revolve the drum and the figure within the cage or house appears in the act of eating, substantially as shown and described. 3rd. In a mechanical toy, the combination of a house or cage, a spring drum rigidly mounted on a shaft at one end thereof, a spring operated mechanism for revolving said shaft, one end of which is projected into said house or cage, a figure designed to represent a squirrel or other animal within the drum, and pivotally connected with said shaft by means of a rod or arm which passes through a slot in the back of the figure, and a figure within the house or cage designed to represent a squirrel or other animal, and the fore legs and the head and tail of which are pivotally connected with the body thereof, a lever pivotally supported beneath the figure, which is in operative connection with the said shaft, said lever being also in operative connection with the pivoted tail, the pivoted head and the pivoted fore legs of the figure, substantially as shown and described.

No. 51,118. Fishing Reel. (Rouet de pêche.)



Thomas James Sutton, New York, State of New York, U.S.A., 23rd January, 1896; 6 years. (Filed 14th October, 1895.)

Claim.—1st. In a reel or similar device, the combination, with a reel supported in a frame, through one end of which one end of the reel shaft extends and has mounted thereon a pinion of a casing connected with said end and forming a chamber inclosing said pinion, a crank the shaft of which passes through said casing and is provided in said chamber with a pinion mounted thereon, a lever pivotally supported in said casing, one end of which extends through the side thereof and the other of which is provided with a pinion which gears with said pinion on the crank shaft and is adapted to be placed in gear with said pinion on the reel shaft, and a spring connected with said lever, the normal operation of which is to hold the pinion on the lever out of gear with the pinion on the reel shaft, and means for connecting said pinions and holding them in gear, substantially as shown and described. 2nd. The combination, with a reel, support provided with end pieces, of a reel supported thereon, one end of the shaft of which extends through one of said end pieces and is provided with a pinion mounted thereon, a casing secured to said end piece and forming a chamber, in which is located said pinion, a crank the shaft of which extends inwardly through said casing and is provided with a pinion mounted thereon, a lever also pivotally mounted in said casing, one end of which extends through the side

thereof by which the same is supported, and the other end of which is provided with a pinion in gear with the pinion on the crank shaft and adapted to be placed in gear with the pinion on the reel, a spring connected with said lever operating to hold the pinion thereon out of gear with the pinion on the reel, an arm or plate mounted in said casing and extending over said lever, and means for operating the latter to place the gear thereon in connection with the gear upon the reel shaft and locking the parts in said position, substantially as shown and described. 3rd. The combination, with a reel support provided with end pieces, of a reel supported therein one end of the shaft of which extends through one of said end pieces and is provided with a pinion mounted thereon, a casing secured to said end piece and forming a chamber, in which is located said pinion, a crank the shaft of which extends inwardly through said casing and is provided with a pinion mounted thereon, a lever also pivotally mounted in said casing, one end of which extends through the side thereof by which the same is operated and the other end of which is provided with a pinion in gear with the pinion on the crank shaft and adapted to be placed in gear with the pinion on the reel, a spring connected with said lever operating to hold the pinion thereon out of gear with the pinion on the reel, an arm secured in said casing and extending over said lever, each of said parts being provided with a perforation adapted to mesh when the lever is operated to place the pinion thereon in gear with the pinion on the reel shaft, and a spring bolt or pin extending through the casing and adapted to enter said perforations and lock the parts in gear with the reel shaft, substantially as shown and described. 4th. The combination, with a frame provided with said pieces, of reel, one end of the shaft of which extends through one of said end pieces and is provided with a pinion mounted thereon, of a bracket or support secured to said end piece and inclosing said pinion and end of the shaft, and provided with a screw — threaded projection, through which extends a screw — threaded pivot, which operates in connection with the end of the reel shaft, of a casing secured to said end piece and forming a chamber, a crank shaft extending through said casing and having mounted thereon within said chamber a pinion, a lever also pivotally supported in said chamber, one end of which extends through the side thereof, and the other end of which is provided with a pinion in gear with the pinion on the crank shaft, and means for operating said parts so as to alternately place the pinion on the lever in and out of gear with the pinion on the crank shaft, substantially as shown and described. 5th. The combination with a frame provided with end pieces and a reel supported therein, the shaft of said reel being provided at each end with a recess adapted to receive the pointed end of a pivotal support, of screw threaded pointed pivotal supports, one of which passes at one end through a screw-threaded projection on the end piece and provided with a set-nut, the other end of the reel shaft passing through the end piece or plate and provided with a pinion mounted thereon, and a bracket secured to said end piece and provided with a tubular screw-threaded projection adapted to receive the screw-threaded pivot for said end of the reel shaft, a set-nut mounted on said pivot and operating in connection with said projection, and a casing inclosing said bracket and pinion, through the centre of which the screw-threaded projection on the bracket passes, and a crank the shaft of which extends through said casing and is provided with a pinion mounted thereon in said chamber, and means for alternately placing said pinion in an out of gear with the pinion on the reel shaft, substantially as shown and described.

No. 51,119. Process of Obtaining a Flavouring and Colouring Extract. (*Procédé pour obtenir une composition à colorer et donner de la saveur.*)

Joshua Tennant and George Adelbert Thayer, both of Carson City, Michigan, U.S.A., 23rd January, 1896; 6 years. (Filed 30th December, 1895.)

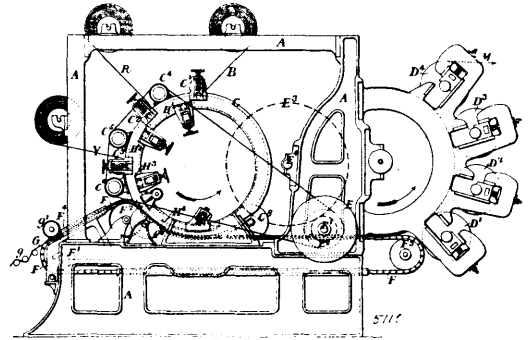
Claim.—1st. The method of extracting the flavouring matter from sugar, maple or other woods, consisting of first boiling the finely divided wood in pure drinking water in a close vessel, evaporating the solution to a semi-solid mass, removing the precipitated insoluble tannates, secondly redissolving this semi-solid mass with a fresh quantity of pure drinking water, boiling, and thirdly, filtering this solution, evaporating to dryness the filtrate, and reducing the dry residue to a powder, substantially as set forth. 2nd. As a new article of manufacture, an anhydrous powder, obtained from the wood of the maple or other sacchariferous tress, substantially as set forth.

No. 51,120. Apparatus for and Manufacture of Mosaic Floor Cloth. (*Fabrication de toile de plancher.*)

William Mather, Salford Iron Works, Manchester, England, 23rd January 1896; 6 years. (Filed 17th August, 1895.)

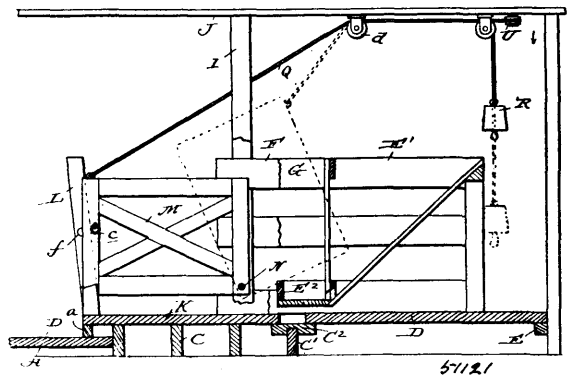
Claim.—1st. The herein described method of manufacturing mosaic floor cloth by passing differently coloured sheets of plastic material between successive pressing rollers, and a pattern drum into the spaces of which tesserae of the material are thus pressed, exuding such of the tesserae as are not to form part of the pattern, then exuding all the rest and pressing them on a travelling fabric backing, and finally passing the backing and tesserae between pressing cylinder and pressing rollers, or between pairs of pressing rollers, so as to cause the whole to cohere and form a continuous sheet of mosaic cloth. 2nd. For operating in the manner set forth

in the preceding claim, a machine comprising a pattern drum with its pressing rollers, cam bars and scraping blades and conveyors, a



pair of chains geared to the drum with means of holding and stretching the backing fabric, and a pressing cylinder and rollers constructed and arranged substantially as described and illustrated by the accompanying drawings. 3rd. The pattern drum having spaces separated by thin cutting blades and provided with plates and spring urged stems, in combination with several pressing rollers, corresponding stationary bars having cam ribs, troughs having scraping blades and conveyors and with an extension cam bar, substantially as described. 4th. In combination with this pattern drum, the pair of chains gearing with teeth on the drum, and having pins to hold the backing fabric, the wheels over which and the inclined guides through which the chains pass, substantially as described.

No. 51,121. Cattle Stall. (*Stalle pour bestiaux.*)



Merrill J. Drown, Lester E. Hoyt and Joel W. Davis, all of Barboo, Wisconsin, U.S.A., 24th January, 1896; 6 years. (Filed 26th December, 1895.)

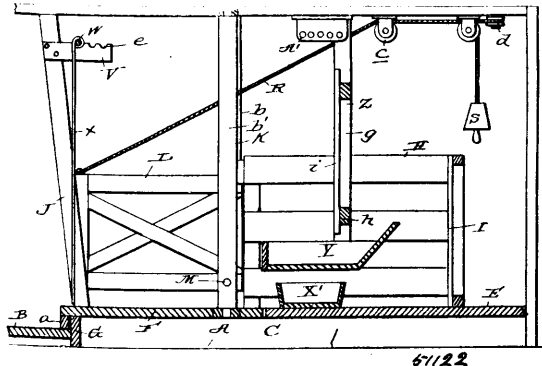
Claim.—A stall for cattle comprising the stationary floor portion D, a support C', having the horizontal portion arranged beneath the rear end of the stationary floor portion D, the stationary floor B, supports C, arranged between the floor B, and the support C', the movable or adjustable floor bearing on the horizontal portion of the support C', supports C, and floor B, a feed trough carried by the stationary floor portion D, and adapted to rest over and cover the space between the said floor portion and the adjustable floor portion, the stationary side walls arranged on the floor portion D, the posts L, connected to and rising from the movable or adjustable floor, the movable side walls or gates interposed between the stationary side walls and the posts L, and pivotally connected at their lower forward corners with the stationary side walls, ropes connected with the gates adjacent to their free ends and adapted to close the rear ends of the stall ropes Q, connected to said vertically movable side walls or gates and taking over sheaves arranged above the walls, weights connected to said ropes, and a rope S connected with the ropes Q, all substantially as and for the purpose specified.

No. 51,122. Cattle Stall. (*Stalle pour bestiaux.*)

Merrill J. Drown, Lester E. Hoyt, and Joel W. Davis, all of Barboo, Wisconsin, U.S.A., 24th January, 1896; 6 years. (Filed 26th December, 1895.)

Claim.—1st. A stall for cattle comprising the beams C, extending in the direction of the length of the stall, stringers of a less height than the beams arranged at intervals between the same, the stationary floor portions E, arranged upon the stringers between the beams, the movable floor portion F, also arranged upon the stringers between the beams, the stationary side walls connected to and rising from the beams C, the posts K, arranged at the rear ends of the stationary walls and journaled in the beams C, so as to enable them to turn, uprights J, connected to and rising from the beams C,

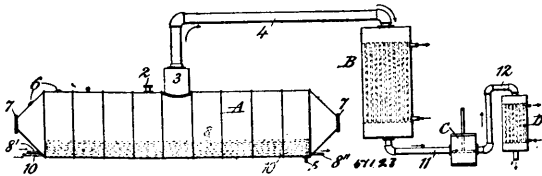
adjacent to the rear ends thereof, and comprising parallel bars, and vertically movable side walls or gates pivotally connected to the



posts K, and adapted to rest between the bars of the uprights J, substantially as specified. 2nd. A stall for cattle comprising the beams C, extending in the direction of the length of the stall, stringers of a less height than the beams arranged at intervals from the same, the stationary floor portion E, arranged upon the stringers between the beams, the movable floor portion F, also arranged upon the stringers between the beams, the stationary side walls connected to and rising from the beams C, and having stop plates F', at their rear ends, uprights J, connected to and rising from the beams C, adjacent to the rear ends thereof and comprising parallel bars, the posts K, arranged at the rear ends of the stationary walls and journaled in the beams C, and adapted to be engaged by the stop plates F', spring E', connecting the posts K, and the stationary walls, vertically movable side walls or gates pivotally connected to the posts K, and adapted to rest between the bars of the uprights J, and adapted to be swung across the stalls, and a suitable means for holding the walls or gate ins such position, substantially as specified.

No. 51,123. Process of Purifying Oil.

(Procédé pour épurer l'huile.)



The Cleveland Linseed Oil Company, assignee of Herman Frasch, all of Cleveland, Ohio, U.S.A., 24th January, 1896; 6 years. (Filed 29th Nov., 1895.)

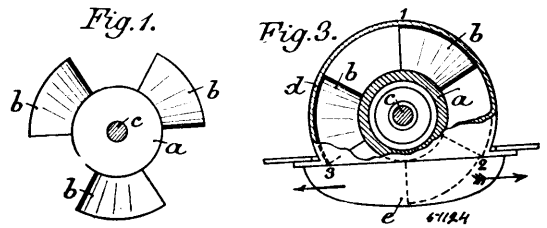
Claim.—1st. The process of purifying linseed or similar oil, containing solvent such as naphtha together with the coagulable mucilaginous or albuminous matter extracted with the fatty matter, by evaporating the naphtha at a temperature suitably below 212° F. to be non-coagulative of said mucilaginous or albuminous matter, (preferably about or below 140° F.) with the aid of low tension steam passed through said oil and having a temperature suitably below 212° F. to be non-coagulative of its said mucilaginous or albuminous matter, substantially as described. 2nd. The process of purifying linseed or similar oil, containing solvent such as naphtha together with the coagulable mucilaginous or albuminous matter extracted with the fatty matter, by evaporating the naphtha at a temperature suitably below 212° F. to be non-coagulative of said mucilaginous or albuminous matter (preferably about or below 140° F.) with the aid of dry heat and of low tension steam passed through said oil and having a temperature suitably below 212° F. to be non-coagulative of its said mucilaginous or albuminous matter, substantially as described. 3rd. The process of purifying linseed or similar oil, containing solvent such as naphtha together with the coagulable mucilaginous or albuminous matter extracted with the fatty matter, by evaporating the naphtha with the aid of dry heat and low tension steam in two stages, in both of which the oil is kept at a temperature suitably below 212° F. to be non-coagulative of said mucilaginous or albuminous matter, (preferably about or below 140° F.) and in both of which low tension non-coagulative steam is passed through said oil, the temperature of the oil being lower and a less volume of steam being passed through the oil in the first than in the second or later stage, wherein the temperatures of the oil and of the injected steam are preferably about 140° F., substantially as described.

No. 51,124. Apparatus for Propelling Vessels.

(Appareil de propulsion pour vaisseaux.)

Carl August Gindo Storz, Frankfort-on-Main, Germany, 24th January, 1896; 6 years. (Filed 9th Feb., 1894.)

Claim.—1st. A rotary propeller, comprising a drum-shaped body d, having peripheral blades or vanes b, and partly surrounded by a



casing d, at the side of a ship, substantially as set forth. 2nd. A rotary propeller having a body or drum d, provided with peripheral blades or vanes b, diagonally or spirally to the axis, and a casing d, partly open and including the propeller more or less, and guide plates e, as set forth. 3rd. An axial propeller having a hollow cylindrical body a, provided with tangentially arranged blades or vanes b, and provided with ends b, to exclude air and water, a casing d, partly inclosing the propeller, and guide plates e, said propeller arranged to operate, as and for the purpose set forth.

No. 51,125. Process of photographing in Colours.

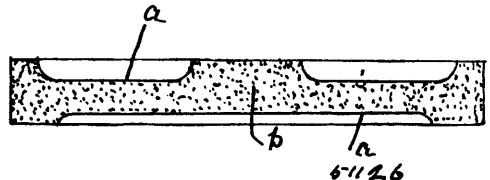
(Procédé de photographie colorée.)

John Joly, Dublin, Ireland, 24th January, 1896; 6 years. (Filed 18th May, 1895.)

Claim.—1st. Taking a photograph through a parti-coloured screen substantially as described. 2nd. A transparent screen for use in taking a photograph bearing a pattern in dyes or pigments having different selective light-absorption properties, substantially as described. 3rd. A transparent screen bearing a pattern in the primary colours substantially as described for use in viewing a photographic image taken through a screen such as described in the preceding claim. 4th. A transparent screen for use in taking and viewing a photograph bearing a pattern in the primary or approximately primary colours and in such dyes or pigments as have suitable selective light-absorption properties, substantially as described. 5th. In photography the sub-division of the image by means of a screen on which are lines ruled in several tints and in close juxtaposition thereby producing compound colour sensations, substantially as described. 6th. An opaque screen for use in taking a photograph bearing a transparent pattern substantially as described. 7th. The combination in a sensitive plate for use in photography of a pattern in the primary colours a sensitive film and a corresponding pattern on the surface of the sensitive film in suitable selective light-absorptive dyes or pigments substantially as described. 8th. In a camera the combination of a uniform colour screen of suitable selecting tint, an opaque screen bearing a transparent pattern and a sensitive plate, substantially as and for the purpose described. 9th. The combination in a sensitive plate for use in photography of a sensitive film and a layer or stratum of distributed colour dyes or pigments in allotted order or places suitable for taking and also for viewing in the desired colours a photographic image. 10th. The combination in a photographic camera of a lens to project an image upon a parti-coloured screen such as described but larger than the sensitive film and a reducing lens to focus the image formed upon the said screen on to the sensitive plate.

No. 51,126. Art of Treating Mineral Fibre.

(Art de traiter des fibres minérales.)

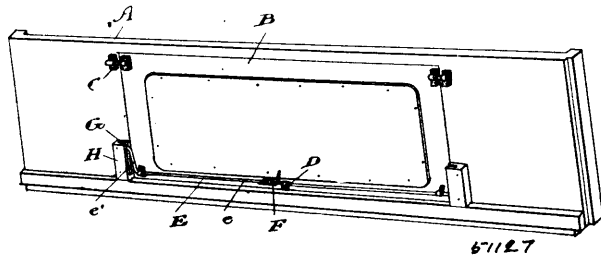


David H. Ferguson, Montreal, Quebec, Canada, 24th January, 1896; 6 years. (Filed 30th March, 1895.)

Claim.—1st. The method or process of treating mineral fibre in the production of rigid non-conducting coverings and the like which consists in forming the material loosely in moulds and treating the article with inorganic binding material in solution whereby when dry the article will be hard rigid and stone-like at its surfaces and soft in its interior, substantially as set forth. 2nd. The method or process of treating mineral fibre in the production of non-conducting coverings and the like which consists in first forming the material loosely in moulds, then treating the surfaces with a binding material as silicate of soda in solution to set the article in its moulded form, then further treating the surfaces with a binding material as calcium chloride in solution then drying and finally dressing or finishing whereby a hard stone-like crust is imparted to the surfaces of the

article while the interior remains soft, substantially as set forth. 3rd. As a new article of manufacture a rigid non-conducting covering or like article composed of mineral fibre chemically hardened on its surfaces and soft in its interior, substantially as set forth.

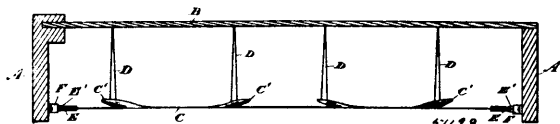
No. 51,127. Piano Desk. (Piano-pupitre.)



Albert Nordheimer and Samuel Nordheimer, assignee of Owain Martin, all of Toronto, Ontario, Canada, 24th January, 1896; 6 years. (Filed 25th October, 1895.)

Claim.—1st. In a piano, the combination of the piano front, a desk pivotally connected to the piano front, a lever having an outwardly extending arm pivotally connected to the desk, a vertical guide, and means for movably connecting the outwardly extending arm of the said lever to the said guide, substantially as specified. 2nd. In a piano, the combination of the piano front, a desk pivotally connected at one end to the piano front, a substantially U-shaped lever, the middle part of which is pivotally connected to the opposite end of the desk, vertical guides, and means for movably connecting the opposite sides of the said lever to the said guides, substantially as specified. 3rd. In a piano, the combination of the piano front, a desk hinged at its upper end to the piano front, the back of the desk provided with a series of brackets, a U-shaped lever the middle part of which is pivotally held by the said brackets, the opposite sides of the U-shaped lever provided with outwardly flaring flanges, and vertical guides for each of the said flanges, substantially as specified. 4th. In a piano, the combination of the piano front, a desk hinged at its upper end to the piano front, the back of the desk provided with a series of brackets, a U-shaped lever the middle part of which is pivotally held by the said brackets, the opposite sides of the U-shaped lever provided with outwardly flaring flanges, vertical guides for each of the said flanges, and a spring connected to the middle part of the U-shaped lever adapted to hold it in any set position, substantially as specified.

No. 51,128. Musical Instrument. (Instrument de musique.)



Daniel Mayer, Assignee of William Robinson, both of London, England, 24th January, 1896; 6 years. (Filed 23rd October, 1895.)

Claim.—1st. In a musical instrument the combination of two resonators strings extended between the two and connected to both and connectors connecting the resonators to the frame of the instrument. 2nd. In a musical instrument the combination of two resonators and strings extended between the two and connected to both substantially as set forth. 3rd. The combination with a musical instrument of a resonator of perforated plate substantially as set forth. 4th. In a musical instrument the combination with the usual resonator of a second resonator of perforated plate tongues in this resonator strings extended between the two and connected to both and screw connectors connecting the resonators to the frame of the instrument substantially as set forth. 5th. In a musical instrument the combination with the usual resonator of a resonator of perforated plate tongues in this resonator and connectors connecting it to the frame of the instrument substantially as set forth. 6th. In a musical instrument the combination with the usual resonator of a resonator of perforated plate tongues in this resonator and strings extending between the two and connected to both resonators substantially as set forth. 7th. In a musical instrument the combination with the usual resonator of a resonator of perforated plate and tongues therein substantially as set forth. 8th. In a musical instrument the combination with a resonator of tongues substantially as set forth.

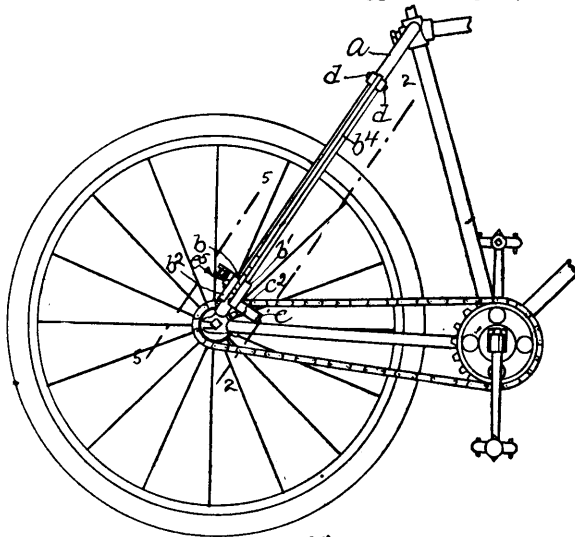
No. 51,129. Smokeless Gun Powder.

(*Poudre à canon sans fumée.*)

The American Smokeless Powder Company, New York, Assignee of Garland Nelson Whistler, Fort Wadsworth, and Henry Chappell Aspinwall, West New Brighton, all in the State of New York, U.S.A., 24th January, 1896; 6 years. (Filed 13th June, 1895.)

Claim.—1st. A smokeless powder, composed of nitroglycerine, trinitrocellulose, a nitrate and a neutralizer of free acid, the proportion of nitrate to the trinitrocellulose being about forty-five parts of nitrate to one hundred parts of trinitrocellulose, or so that the combustion of the trinitrocellulose shall be substantially similar to that of the nitroglycerine. 2nd. A smokeless powder mixture, containing nitroglycerine, trinitrocellulose, a nitrate, a neutralizer of free acid and a detergent, either petrolatum or a resin. 3rd. A smokeless powder mixture containing nitroglycerine, trinitrocellulose, a nitrate and the fossilized gum kauri.

No 51,130. Bicycle Support. (Support de bicyclette.)



John Winick Currier, Los Angeles, California, U.S.A., 24th January, 1896; 6 years. (Filed 7th January, 1896.)

Claim.—1st. The combination with a bicycle, of a support therefor consisting of a stationary member adapted to be attached to the bicycle frame, and a movable member pivotally secured to said stationary member, and automatically locked in its operative position, substantially as described. 2nd. The combination with a bicycle, of a support therefor consisting of a stationary member adapted to be attached to the bicycle frame, and a movable member pivotally secured to said stationary member and provided with a socket for the reception of a locking bolt, and the said locking bolt adapted to enter said socket, substantially as described. 3rd. The combination with a bicycle, of a support therefor consisting of a stationary member adapted to be attached to the bicycle frame, and a movable member pivotally secured to said stationary member, and a locking device operated by the said movable member to project into the path of movement of the spokes of the bicycle wheel, substantially as described.

No. 51,131. Process of Treating Furniture Polish.

(*Procédé pour le traitement de poli à meubles.*)

Carl Ferdinand Franz Bratsch, Berlin, Germany, 24th January, 1896; 6 years. (Filed 26st Dec., 1895.)

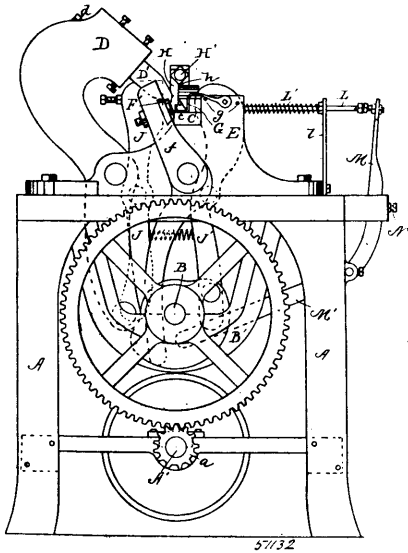
Claim.—1st. The process of treating furniture polish which consists in subjecting it to repeated filtration and agitation, thereby removing the vegetable wax, and preventing deterioration and formation of oil deposit on the polished surfaces. 2nd. In the treatment of furniture polish, the addition of stick-lac and subsequent filtration, thereby expediting the extraction of the vegetable wax and producing greater hardness and resistance to temperature changes. 3rd. The process of treating furniture polish by abstraction of the vegetable wax therefrom and the addition of an ethereal oil such as lavender oil or rosemary oil, to compensate for the reduced pliancy and polishing power, substantially as set forth. 4th. The manufacture of furniture polish by dissolving stick-lac, shellac, and a relatively small amount of benzoin gum, in alcohol and then filtering until a clear filtrate is obtained, substantially as set forth. 5th. The composition for furniture or other polish comprising shellac which has been freed from vegetable wax and alcohol, substantially as set forth. 6th. The composition for a furniture or other polish, comprising a solution of stick-lac, shellac, alcohol and lavender, rosemary or like oil, the said composition being freed from vegetable wax, substantially as set forth.

No. 51,132. Toe-Calk Machine.

(*Machine à faire des crampons.*)

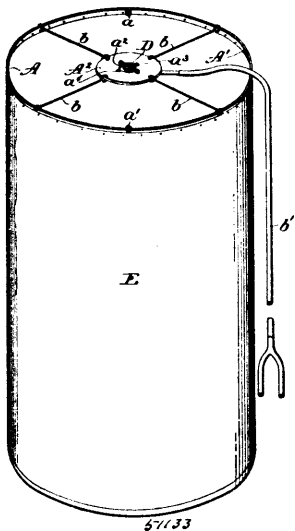
Franklin W. Pitcher, assignee of Eugene Childs and William Sangster, all of Boston, Massachusetts, U.S.A., 24th January, 1896; 6 years. (Filed 31st December, 1895.)

Claim.—1st. In a toe-calk machine, the recessed anvil-block, having a calk-forming lodge and the cutter and reversible anvil for



cutting and forging, secured to said block, in combination with a clamp for holding fast the heated end of the bar, movable dies for forming a spur upon its forward end, and a cutting die for serving the calk, substantially as set forth. 2nd. In a toe-calk machine, the anvil-block, the clamp serving to hold the heated bar thereon, the spur-forging dies and the cutters, in combination with a movable support for the hot end of the bar before and after the calk is severed, such support being withdrawn out of the way of the pinchers when required, substantially as set forth. 3rd. In a toe-calk machine, the anvil-block, the clamp and bar support, and the forging dies and cutters, in combination with an adjustable pivoted stop for regulating the length of the calk and adapted to be removed from and restored to its position near the anvil without disturbing its adjustment, substantially as set forth. 4th. In a toe-calk machine, the anvil, stop, clamp, forging dies and cutters, in combination with a push-off device comprising a reciprocating rod working through the anvil-block and reversely actuated by cam and spring, substantially as set forth. 5th. In a toe-calk machine, the anvil, stop, bar-support, forging dies and cutters, in combination with a pivoted clamping arm having a laterally recessed head, an adjustable clamping-bar located in said recess, and adjusting screws bearing upon the sides and end of said bar to properly locate and securely hold it, substantially as set forth.

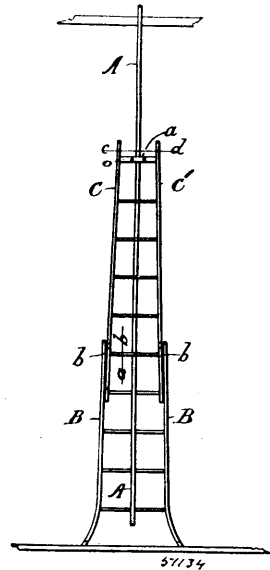
No. 51,133. Portable Shower Bath Apparatus
(Appareil de douche portatif.)



William Emmert Dobbins, Ashburne, Pennsylvania, U.S.A., 24th January, 1896; 6 years. (Filed 23rd December, 1895.)

Claim.—1st. A portable shower apparatus consisting of a detachable douche, folding distending bands, detachable distending mechanism for distending said bands and for centrally supporting said douche, and a water-proof screen open at top and bottom and secured to said distending band, substantially as described. 2nd. A portable folding shower apparatus consisting in a flexible tubular water-proof screen open at top and bottom, a hinged distending band provided in the upper end of said screen, detachable distending mechanism adapted to said band for distending the same, detachable douche adapted to be centrally supported within said band when distended upon said distending mechanism, and a flexible hose connected with said douche, substantially as described. 3rd. In a portable shower apparatus, an elongated tubular water screen of flexible water-proof material, collapsible distending band provided upon the upper edge of said screen and removable rods or chains adapted to said bands for distending the same, substantially as described. 4th. In combination with a tubular elongated water screen composed of thin flexible water-proof material, a folding distending flexible band provided in the upper end of the screen, adjustable distending mechanism for distending said band and holding the screen open at top, and means for suspending said band to the ceiling, substantially as described. 5th. A folding portable shower apparatus consisting of the bands A, A', hinged as at a, a', distending rods or chains b, adjustably secured to said bands A, A', and tubular water-proof screen secured to the lower edge of said bands, substantially as described. 6th. In a portable shower apparatus, collapsible distending bands A, A', hinged as at a, a', detachable distending rods or chains b, and tubular flexible screen secured to the bands A, A', and shot weighted at its lower end in a seam provided for the purpose substantially as described. 7th. A portable folding shower apparatus consisting of hinged collapsible flexible bands A, A', hinged as at a, a', detachable distending mechanism consisting of a central plate A², and rods or chains b, secured thereto adapted to engage in said bands, douche D and means for keying said douche to said plate, a flexible rubber hose secured to said douche and flexible water-proof screen provided upon the distending bands A, A' weighted at its lower end, and means for suspending said band and screen, substantially as described.

No. 51,134. Fruit Ladder. (Echelle pour fruits.)



William H. Wilson, Belmont, Nova Scotia, Canada, 24th January, 1896; 6 years. (Filed 20th June, 1895.)

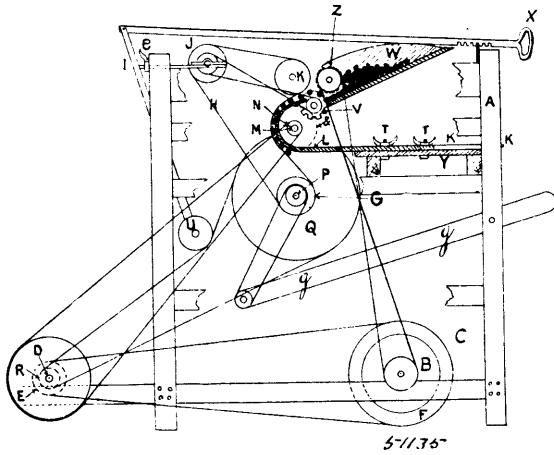
Claim.—1st. The centre-piece A, substantially as and for the purpose hereinbefore described. 2nd. The combination of the stationary part B, B, with the centre-piece A, substantially as and for the purpose hereinbefore described. 3rd. The combination of the movable part, or extension piece C, C, with the centre-piece A, and the stationary part B, B, substantially as and for the purposes hereinbefore described.

No. 51,135. Machine for Pointing Butchers' Skewers. (Machine pour aiguiser les brochettes des bouchers.)

Frederick Harrison, Owen Sound, Ontario, Canada, 24th January, 1896; 6 years. (Filed 14th December, 1895.)

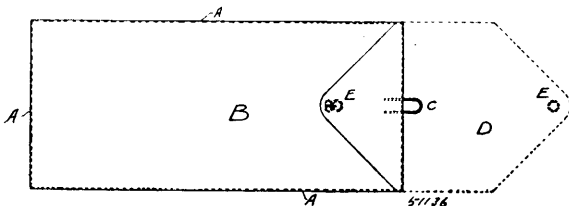
Claim.—1st. In a skewer pointing machine, a table having the form of an ellipse and made adjustable endways and sideways, substantially as shown and for the purpose described. 2nd. In a skewer pointing machine, a combination of the hopper W, the roller Z, the short corrugated feeding roller V, the table L, L, the cutter

head S, S, journaled inside the ellipse of said table, the belts H, H, and the carriers *g, g*, substantially as shown and for the purpose



set forth. 3rd. In a skewer pointing machine, a combination of an elliptical table such as L, L, the cutter head S, S carried by a shaft, journaled within the elliptical table, and the belts H, H, substantially as shown and for the purposes set forth. 4th. A cutter for a skewer pointing machine having a head with bevelled sides, a set of curved and bevelled knives *b, b*, and a set of straight bevelled knives *c, c*, substantially as shown and for the purposes set forth.

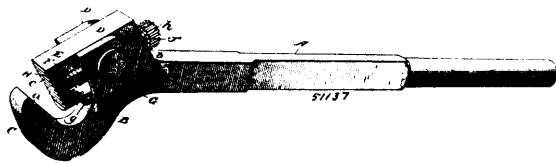
No. 51,136. Laundry Case. (*Armoire de buanderie.*)



Thomas Paterson, Peterborough, Ontario, Canada, 24th January, 1896; 6 years. (Filed 30th November, 1895.)

Claim.—The combination of the frame A, covering B, hanging attachment C, and fastener E, in such a manner as to produce a laundry case, substantially as and for the purposes hereinbefore set forth.

No. 51,137. Wrench. (*Clé à écrou.*)



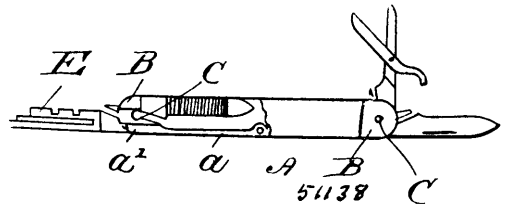
James Fatkin, Aspin, Colorado, U.S.A., 24th January, 1896; 6 years. (Filed 8th November, 1895.)

Claim.—1st. In a wrench, the combination with a handle having a fixed jaw and pivot-lugs, of a pivot journaled in said lugs, a sliding jaw adjustably mounted on the pivot, and a screw for securing the pivot and adjusting the sliding jaw, substantially as described. 2nd. In a wrench, the combination with a handle having a fixed jaw and pivot-lugs, of a pivot journaled in said lugs, a sliding jaw adjustably mounted on the pivot, and a screw having a threaded connection with the pivot for securing it in place and adjusting the movable jaw thereon, substantially as described. 3rd. In a wrench, the combination with a handle having a fixed jaw and pivot-lugs, of a pivot journaled in said lugs, a sliding jaw adjustably mounted on the pivot having an axial movement with relation to the handle, and a screw for securing the pivot and adjusting the movable jaw to and from the fixed jaw, substantially as described. 4th. A wrench, the same comprising a handle, a fixed jaw securely attached to the handle and located at an angle thereto, a slide-way formed upon the inner face of the shank of the fixed jaw, a sliding and slotted block fitting in said slide-way, its upper end comprising the inner or movable jaw of the wrench, a pivot-nut passed through the slot in the said block and pivoting the same in the slide-way, and an adjusting screw loosely carried by the block and having threaded connection with the pivot-nut, as and for the purpose specified. 5th. In a wrench, the combination, with a handle, a shank at an angle to the handle, a fixed jaw projecting from the end of the said shank, and apertured lugs formed upon the inner face of the said shank, of a block provided with a longitudinal slot, and having sliding movement between the said lugs, a pivot-

nut journaled in the lugs and passing through the slot in the block, pivoting the same, the upper end of the block constituting the lower or inner jaw of the wrench, and an adjusting screw held to turn loosely in the block, being capable of manipulation at one end of the block, the said adjusting screw being passed through an aperture in the pivot-nut, the wall of which is threaded to receive the thread of the adjusting screw, as and for the purpose specified.

No. 51,138. Fastening for Knives etc.

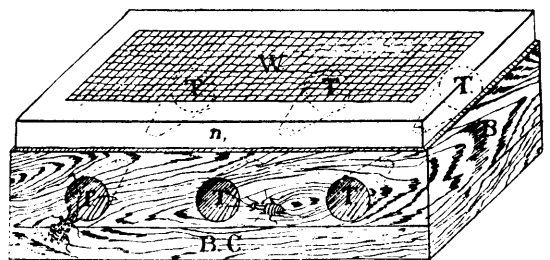
(*Attache pour couteaux etc.*)



Edward Quincy Norton, Daphne, Alabama, U.S.A., 24th January, 1896; 6 years. (Filed 4th November, 1895.)

Claim.—1st. The combination with a handle, provided with a back spring as A, of a blade or other implement provided with a shank and head in which is formed a slot, which opens adjacent to the spring at the inner side of the head, said slot being extended into the shank, and provided with a circular enlargement or cavity at one side thereof, through which passes a pivotal pin by which it is connected with the handle, substantially as shown and described. 2nd. The combination with a handle, provided with a back spring as A, of a blade or other implement or tool, adapted to be pivotally connected with the end thereof, and said blade or other implement being provided with a head and a shank in which are formed an inclined slot, which opens inwardly and the inner end of which is provided with a circular cavity or recess through which the pivotal pin passes, said blade or other implement being also provided with a shoulder which is adapted to abut against the end of the spring, when the blade or other implement is opened, substantially as shown and described. 3rd. The combination with a handle, provided with a back spring as A, of a blade or other implement or tool, adapted to be pivotally connected with the end thereof, said blade or other implement being provided with a head and a shank in which is formed an inclined slot, which opens inwardly and the inner end of which is provided with a circular cavity or recess through which the pivotal pin passes, said blade or other implement being also provided with a shoulder which is adapted to abut against the end of the spring, when the blade or other implement is open, and said circular cavity or recess in the shank, at the end of the slot, being formed on the side thereof, adjacent to the spring when the blade or other implement is closed, substantially as shown and described. 4th. A knife blade or other implement provided with a head and shank said head and shank being provided with a slot which opens at the inner portion of the head adjacent to the edge of the blade and extends to near the central portion of the shank, where it is provided on the inner side thereof, with an enlarged circular cavity or recess, which is adapted to receive the pivotal pin, by which the blade or other implement is connected with the handle, substantially as shown and described. 5th. The combination with a handle as A, composed of separate sides between which is pivoted a spring as B, of a blade or other implement having a head and shank, and provided with a slot, formed therein, which extends through the head and shank, and opens at the inner outer portion of the head, and the inner end thereof which occupies the central portion of the shank, being provided one side with a circular cavity or recess through which the pivotal pin passes, said blade or other implement being also provided with a shoulder which abut against the spring when the blade or other implement is open, and the end of the shank being rounded or circular, substantially as shown and described.

No. 51,139. Trap. (*Attrape-insecte.*)

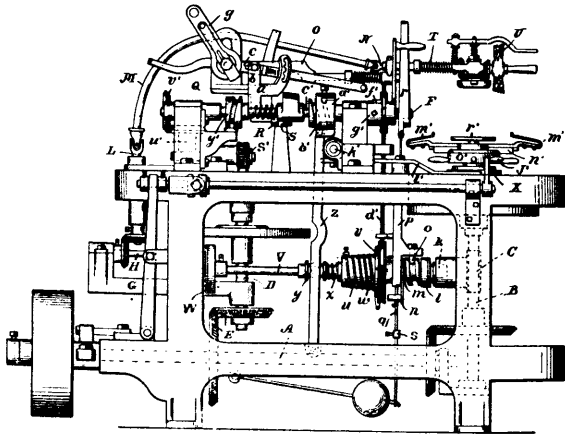


Silas P. Burgess, Springfield, Massachusetts, U.S.A., 25th January, 1896; 6 years. (Filed 2nd November, 1895.)

Claim.—1st. An insect trap made of paper, having an exterior surface of paper, and provided with conical tubes penetrating to within said box, a transparent top, and a cover for said top, substantially as described. 2nd. As a new article of manufacture, an insect trap comprising a paper box provided with a series of truncated conical tubes of the same material projecting within the said box.

No. 51,140. Hat Pouncing Machine.

(*Machine à finir les chapeaux.*)



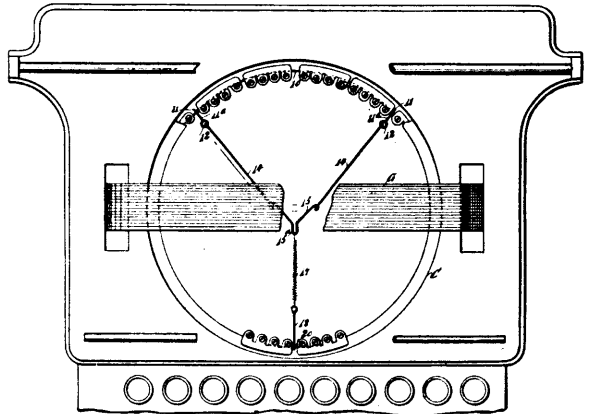
John Brice Howe, Danbury, Connecticut, U.S.A., 25th January, 1896; 6 years. (Filed 2nd November, 1895.)

Claim.—1st. In a hat pouncing machine, the combination with a rotary lathe, of a rotary pouncer head and automatic means for moving the head from the tip to the brim in a single oblique straight line over the surface of the hat, substantially as described. 2nd. A hat pouncing machine comprising a rotary lathe, a rotary pouncer head, a lever supporting the same, and a reciprocating and oscillating rigid arm to which said pouncing lever is hinged, the combined movements of said arm imparting to said lever a movement in one direction, substantially as described. 3rd. A hat pouncing machine comprising a rotary lathe, a movable pouncer head, a lever to which said pouncer head is attached, a rock shaft on the machine, and an angle arm slidable on said rock shaft, but oscillating therewith, said pouncing lever being hinged to said angle arm, substantially as described. 4th. The combination with a rotary lathe, of a hat pouncing machine, of a rotary and obliquely movable pouncing head, and means for operating the same comprising an adjusting device whereby the speed of said head on its axis may be varied, substantially as described. 5th. The combination with a rotary lathe, of an angle arm, a cam attached thereto, a bracket and stationary pin to engage said cam, a feed shaft upon which said cam is slidably mounted and axially fixed, with means for operating said feed shaft, and a pouncer lever carried by and adjustable upon the angle arm, substantially as described. 6th. A pouncing machine comprising a head, and a feed shaft and mechanism for operating the head including an angle arm slidably mounted and axially fixed on the feed shaft, a slide block fitted in a slot of the arm, a pouncer lever hinged thereto, and adjustable mechanism interposed between the lever and arm whereby the weight of the arm is counterbalanced, all substantially as described. 7th. A hat pouncing machine, comprising a feed shaft, an angle arm slidably mounted and axially fixed thereon, a slide block fitted into a slot of the arm, a pouncer lever hinged thereto, a bracket secured to the arm, and an operating lever connected with said bracket and with the hub of the pouncing lever to vertically adjust the latter, substantially as described. 8th. In a hat pouncing machine, the combination with a pouncer head, of a driving shaft D carrying a disc, operative connection between said disc and said head comprising a friction wheel engaging with said disc, a slide carrying the friction wheel provided with an attached rod, and an operating lever whereby the position of the slide and wheel are changed with relation to the disc, substantially as described. 9th. The combination with the main shaft, of a lathe shaft B having a worm secured thereto, a longitudinal shaft V carrying a loose gear having a clutch face, an operative clutch member k splined upon the longitudinal shaft, a sleeve connected with said member k, a cam carried by the sleeve of the movable clutch member and engaging a stationary pin, and operative mechanism for shifting said sleeve and clutch member, substantially as described. 10th. The combination with a rotary lathe, of a pouncer head and a pouncer lever provided with a base to receive the shank of the pouncer head, with a yielding connection between the pouncer and the lever, and means for operating the pouncer head, substantially as described. 11th. The combination with a rotary lathe, of a pouncing lever having a collar and provided with a base to receive the shank of a pouncer head, the pouncer head mounted therein and provided with a stud, a spring coiled upon the lever and having one end secured to said

stud, and the other end connected to the collar on the lever, and means for operating the pouncer head, substantially as described. 12th. The combination with a pouncing lever carrying a pouncing head, of a shaft to which said lever is hinged and provided with a ratchet, a lever g journaled upon the shaft, a spring-actuated slide mounted upon the lever and provided with a lug to engage the ratchet, a torsional spring connecting the lever to a collar upon the pouncing lever, means for operating the pouncer head carried by the lever, substantially as described. 13th. A hat pouncing machine, comprising a pouncing lever carrying a pouncing head, a shaft V, and means for driving the same, a disc and drum loosely mounted thereon, a chain connecting said disc with the pouncer lever, a spring coiled upon the drum and connecting the same with the disc, and mechanism for connecting the drum with the shaft, substantially as described. 14th. A hat pouncing machine comprising a pouncing lever, a shaft V, carrying a clutch member x, a sleeve upon the hub of said clutch, a rock shaft F, carrying a cam, a sleeve surrounding said cam, a lever connecting the sleeve of the cam with the sleeve of the hub, of said clutch member, a winding drum carrying the other member of the clutch, a disc carried by the shaft V, means for connecting the drum and the disc and a chain connecting the disc with the pouncer lever, substantially as described. 15th. The combination with a rotary lathe and a driving shaft, of a pouncer lever, a pouncer head carried thereby and provided with tension mechanism connecting said pouncer head and lever with the driving shaft, whereby the pressure of the pouncer upon the hat may be increased as the pouncer descends, substantially as described. 16th. A hat pouncing machine, comprising a lathe, a pouncing lever, a pouncer head carried by said lever, a shaft V, with means for operating the same, a sleeve t, mounted on said shaft, a drum carried by said sleeve a spring fitting a peripheral groove in the drum and secured at one end to the latter and at the opposite end to a disc, said disc mounted upon the shaft and flexibly connected to the pouncer lever, and a weight carried by said disc, substantially as described. 17th. A hat pouncing machine comprising a driving shaft, a pouncer lever with operating connections between the two, a main driving wheel mounted upon said shaft and having a clutch face, a slidable clutch member carried by the shaft, a lever with operative connections between it and the sliding clutch member, a rock shaft provided with an operating crank J¹, and operative connections between the rock shaft and the lever, a cam on the rock shaft and a fixed pin co-operating therewith, whereby the movement of the machine is controlled, substantially as described. 18th. The combination with a lathe having a slide and a lever connected therewith, of a shaft k¹, mounted in the framework, a cam on said shaft, a pinion carried by said shaft, a rack engaging said pinion, a feed shaft, an adjustable cam carried by the feed shaft and connected to the rack, and a pouncing lever with suitable driving connections, substantially as described. 19th. A hat pouncing machine comprising a lathe, a pouncing lever, a pouncer head carried by said lever, a shaft 42 with means for operating the same, a sleeve 52, mounted on said shaft, a drum carried by said sleeve, a spring fitting a peripheral groove in the drum and secured at one end to the latter and the opposite end to a disc, said disc mounted upon the shaft and flexibly connected to the pouncer lever, and a weight carried by said disc, substantially as described. 20th. A hat pouncing machine comprising a driving shaft, a pouncing lever with operating connections between the two, a driving wheel 76, mounted upon said shaft and having a clutch face, a slidable clutch member 76, carried by the shaft, a lever 79, with operative connections between it and the slidable clutch member, a rock shaft provided with an operating handle, and operative connections between the rock shaft and the lever 79, a cam on the rock shaft and a fixed pin co-operating therewith whereby the movement of the machine is controlled, substantially as described.

No. 51,141. Prism Pointer for Type Writers.

(*Empointeur de prisme pour clavigraphes.*)

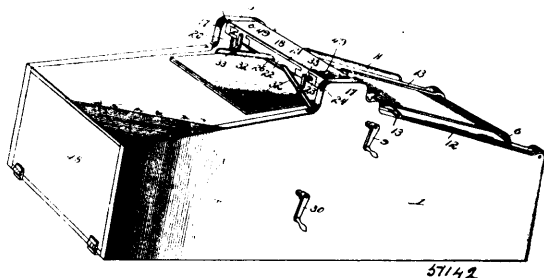


Walter Bockins Dyer, Pottsville, Pennsylvania, U.S.A., 25th January, 1896; 6 years. (Filed 31st October, 1895.)

Claim.—1st. A prism pointer for type writers, the same constituting a support for the type-writing ribbon at the point of impact at the type writer bar of the type writer, as and for the purpose specified. 2nd. A prism pointer for type writers, the same consisting of a rear section adapted for connection with the rear portion of the basket or frame surrounding the same, being connected with a yoke thus forming a bow, adapted to be located over the centre of the basket, and a forwardly extending member located over the forward central portion of the said basket and leading to the central portion of the said yoke or bow, as and for the purpose set forth. 3rd. A prism pointer for type writers, the same consisting of a body section adapted for connection with the rear portion of the type writer basket or frame surrounding the same and terminating at its forward end in a yoke centering the said body section, and an indicating member leading from the centre of the said yoke to the forward portion of the type writer basket or its frame, as and for the purpose specified. 4th. A prism pointer for type writers, the same consisting of a rear bar adapted to clamp around the upper portion of the rear type bar hanger frame, having side members converging at their inner ends and a yoke connected with the said side members, and an indicating or pointing member connected with the central portion of the yoke and adapted for attachment to the forward central portion of the upper supports for the type bars, the type writing ribbon being adapted to pass over the central portion of the said attachment, whereby the attachment also forms a support for the said ribbon, as and for the purpose set forth. 5th. The combination, with the basket or type frame of a type writer and the ribbon thereof, of a prism pointer, the same consisting of a rear bar adapted for attachment to the said basket or type frame, provided with converging side members connected at their inner ends to a yoke, and a yielding indicating member leading from the said yoke in a forwardly direction, being fitted for attachment to the forward central portion of the said type frame of the type writer, as and for the purposes specified.

No. 51,142. Autograph Register.

(Registre autographique.)

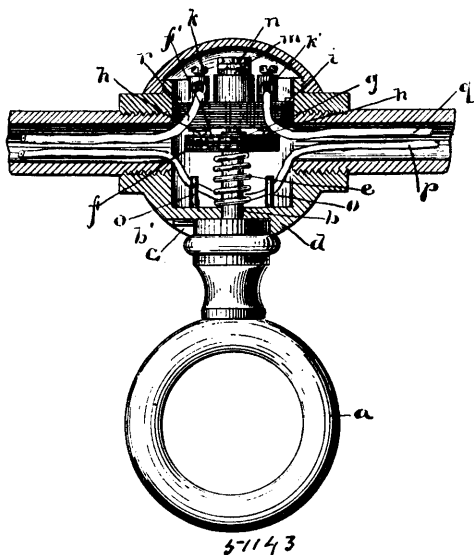


George A. Norcross, George R. Sullivan and James O. Sullivan, all of San Antonio, Texas, U.S.A., 25th January, 1896; 6 years. (Filed 20th September, 1895.)

Claim.—1st. In an autograph register, the combination with a casing having a writing plate, a plurality of paper feed-rolls mounted therein, a common direction or guide roller arranged at one end of the writing plate, and means for feeding and cutting the strips supplied by said feed-rolls, of a carbon or duplicating paper supply roll arranged parallel with and contiguous to one side edge of the writing plate, and adapted to contain a single continuous strip of carbon or duplicating paper, and holding devices arranged contiguous to the opposite side edges of the writing plate, and disconnected throughout their length from the writing-plate, whereby the carbon or duplicating paper may be extended around the same to provide for carrying said paper across the plate and doubling it upon itself to form a plurality of layers, substantially as specified. 2nd. In an autograph register, the combination with a casing having a writing plate, and a plurality of paper feed rolls mounted therein, a direction or guide roller being arranged at one end of the writing-plate, of a carbon paper supply roll arranged parallel with and adjacent to one side of the writing-plate and adapted to contain a single continuous sheet of carbon or duplicating paper, holding-bars pivotally connected at one end to the casing approximately in the plane of the writing-plate, and adapted to normally rest upon said plate parallel with and contiguous to its side edges, the carbon or duplicating paper from said supply roll being adapted to be extended transversely across the writing-plate, carried around the opposite holding-bar and returned to the side adjacent to the supply roll with its extremity secured by means of the holding-bar adjacent to the supply-roll, and feeding devices for operating the strips of paper supplied by the feed-rolls, substantially as specified. 3rd. The combination with a casing having a writing-plate, paper supply rolls, means for guiding the strips from said rolls, and carbon or duplicating paper holding devices for maintaining carbon or duplicating paper in operative relation with the strips as they traverse the writing-plate, of feeding devices, a platform or platen arranged adjacent to the feeding devices, printing mechanism having a type-carrying follower arranged to approach and recede from the plane of the platform or platen, means for operating said follower, and a

cutting device operatively connected with the follower, substantially as specified. 4th. The combination with the casing having a writing-plate, paper supply rolls, guiding and feeding devices for the strips, and means for holding carbon or duplicating paper in operative relation with the portions of the strips which are upon the writing plate, of a platform or platen, a type-carrying follower arranged to approach and recede from the plane of the platform or platen, means for operating said follower, and a cutting device comprising a stationary blade arranged adjacent to one edge of the platform and platen, and a movable blade arranged in operative relation with the stationary blade and connected with the follower, substantially as specified. 5th. The combination with a casing having a writing-plate, paper supply rolls arranged in the casing, means for guiding and feeding the strips from the paper rolls, and holding devices to maintain carbon or duplicating paper in operative relation with said strips upon the writing plate, of a platform or platen, a reciprocal type-carrying follower, mounted for movement perpendicular to the plane of the platform or platen, means for operating said follower, a stationary cutting blade fixed to one edge of the platform or platen, movable cutting blades pivotally connected at their outer extremities to the platform or platen contiguous to the stationary blade, and links connecting the free ends of said movable blades with the follower, substantially as specified. 6th. The combination, with a casing having a writing plate, paper supply rolls arranged in the casing, paper guiding and feeding devices, and means for holding carbon or duplicating paper in operative relation with the strips on the writing-plate, of a platform or platen, a type-carrying follower arranged to approach and recede from the plane of the platform or platen, means for operating said follower, inking mechanism having a ribbon arranged in contact with the type on the follower, and opposite ribbon rolls or spools mounted in and carried by the follower and holding said ribbon in its operative position, and cutting devices operatively connected with the follower, substantially as specified. 7th. The combination, with a casing having a writing plate, paper supply rolls, guiding and feeding devices for the paper strips, and means for holding carbon or duplicating paper in operative relation with the strips upon the writing-plate, of a platform or platen, a follower arranged to approach and recede from the platform or platen, means for operating the follower, a type-block fitted in a seat or recess in the face of the follower, journal-blocks removably fitted in cavities at opposite ends of the type-blocks, ribbon rolls or spools mounted in said journal blocks, a ribbon attached at its ends to said ribbon rolls or spools and extending across the face of the type-block, and cutting devices operatively connected with the follower, substantially as specified. 8th. The combination with a casing, paper supply-rolls, and feeding and guiding devices for the paper strips, of printing mechanism, means for operating the printing mechanism, cutting devices operatively connected with the printing mechanism, and permanent filing means arranged within the casing and having a filing-pin, and movable filing springs connected with the printing mechanism and arranged to engage checks or severed portions of the paper strips with the filing-pin, substantially as specified. 9th. The combination with a casing, paper supply rolls, paper guiding and feeding devices, cutting devices, and means for operating the same, of filing mechanism having a filing-pin, filing springs arranged in operative relation with filing-pin and adapted to engage checks or severed portions of the paper strips as they leave the cutting devices, and connections between the filing mechanism and the cutting devices, substantially as specified. 10th. The combination with a casing, paper supply rolls, guiding and feeding devices for the paper, cutting devices, and means for operating the same, of filing mechanism having a pivotal filing-pin, an actuating spring connected to said filing-pin for maintaining the latter in its operative position, filing springs arranged to engage the checks or severed portions of the paper strips as they leave the cutting devices, and operating connection between the filing springs and the cutting devices, substantially as specified. 11th. The combination with a casing, paper supply rolls, guiding and feeding devices for the paper strips, rack-bars, and means for reciprocating the same, and cutting devices operatively connected with the rack-bars, of filing mechanism having a filing-pin, and filing springs connected together for simultaneous movement, the arms of one of said springs extending through slotted or elongated openings in the rack-bars, substantially as specified. 12th. The combination with a casing, paper supply rolls, guiding and feeding devices for the paper strips, rack-bars, and means for reciprocating the same, said rack-bars being provided with slotted or elongated openings, and cutting devices operatively connected with the rack-bars, of filing mechanism having a filing-pin and oppositely-disposed looped filing springs 36 and 37, the former of which is provided with eyes engaging the sides of the latter and the latter of which is provided with a reduced tongue or loop to engage the checks or portion of the paper strips and depress them upon the filing-pin, said spring 36 having its arms extended through the said openings in the rack-bars, substantially as specified. 13th. In an autograph register, the combination with a writing-plate, supply rolls and duplicating devices, of paper feeding devices, printing mechanism having a follower, cutting mechanism for severing the paper strips, filing mechanism having a movable part, and connections between the movable part of the filing mechanism and the follower of the printing mechanism, the feeding devices being independent of the printing and filing mechanisms to provide for forming checks of varying lengths, substantially as specified.

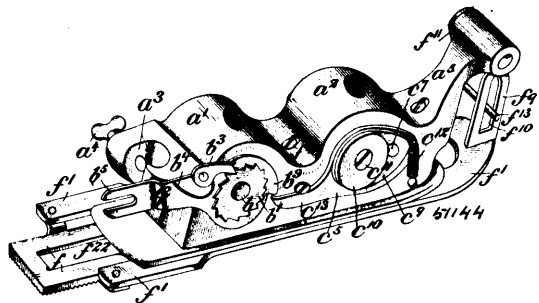
No. 51,143. Electric Switch. (Aiguille électrique.)



Ernest Blasser and Charles Edwin Perkins, both of Boston, Massachusetts, U.S.A., 25th January, 1896; 6 years. (Filed 12th January, 1894.)

Claim.—1st. In an electric switch the combination with an electric lamp and suitable conductors, of a key and spindle, the spindle provided with an insulated plate having thereon two conducting posts, and adapted by means of the key to be brought into, or removed from, contact with two conducting posts, electrically connected respectively with said conductors, so that the electric circuit can be made and broken, the spindle, plate and posts being contained within a solid shell connected with a tube in which the conductors are placed, substantially as and for the purpose above described. 2nd. In an electric switch the combination of the key A, the spindle B, the plates F, F', provided with the posts H, H', and the ring G, the plate I', provided with posts K, K', and the electric conductors P, Q, and R, substantially as and for the purpose above described.

No. 51,144. Button Hole Attachment for Sewing Machines. (Attache pour machines à faire les boutonnières.)



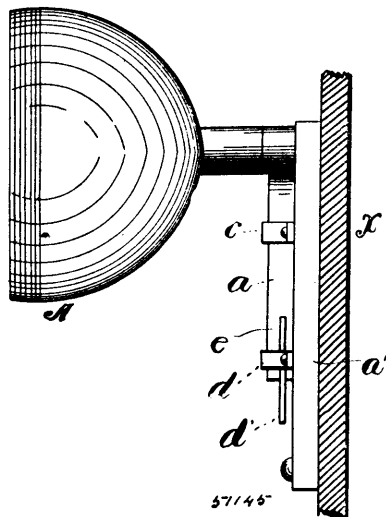
John Davis, Brooklyn, New York, U.S.A., 25th January, 1896; 6 years. (Filed 30th October, 1895.)

Claim.—1st. In a sewing machine attachment, the combination with a cloth clamp slide, of a double rack pitman connected with said slide, a rotary shaft receiving motion from the needle bar, and a segmental pinion driven by the said shaft, and alternately engageable with the racks of said pitman, the diameter of the pitch line of the pinion being equal to the distance between the pitch lines of the double rack, substantially as described. 2nd. In a sewing machine attachment, the combination with a cloth clamp slide, of a rotary shaft, receiving motion from the needle bar, a segmental pinion on the shaft, a slotted, double rack pitman, the slot of which embraces said pinion to permit the racks to be alternately engaged thereby, and an adjustable stroke lever connecting said pitman with said cloth clamp slide, substantially as described. 3rd. In a sewing machine attachment, the combination with a cloth clamp slide, and a rotary shaft receiving motion from the needle bar, of a segmental pinion on said shaft, a slotted double rack, the slot of which embraces the pinion and the teeth of which are alternately engageable by said pinion, a slotted arm rising from the cloth clamp slide and a slotted

lever pivoted to the frame and also pivotally connected to said pitman, and an adjustable stud connecting the lever and said arm through the slot therein, and securable in any desired position on said lever for varying the longitudinal feed of the cloth clamp slide, substantially as described. 4th. In a sewing machine attachment, the combination with a slotted cloth clamp slide mounted for sliding and vibratory motion, an oscillator cam wheel receiving motion from the needle bar and having a peripheral zig-zag cam channel, a pivoted lever engaging said cam channel and provided with an adjustable cross head engaging the slot of said cloth clamp slide, a switching cam wheel having a peripheral cam channel constituted with two straight sections and two camming or inclined sections, a pivoted lever engaging the channel of the switching cam wheel, and an adjustable cross head on the switching lever, engaging the slot of said cloth clamp slide, substantially as described. 5th. In a sewing machine attachment, the combination with a slotted cloth clamp slide mounted for longitudinal and vibratory motion, of a switching cam wheel receiving motion from the needle bar, a pivoted lever subjected to the action of said cam wheel, and an adjustable cross head on the pivoted lever engaging the slot of said cloth clamp slide and securable on said lever at any point, either in line with the levers' fulcrum, or remote therefrom, for converting the device from a button-hole worker into a pocket tacker, or vice versa, substantially as described. 6th. In a sewing machine attachment, the combination with oscillating and switching cam wheels, of a pivoted lever receiving motion from the needle bar and provided with a pawl engaging a ratchet wheel on the oscillator cam wheel shaft, and a friction clutch device on the switching cam wheel shaft operated by said pawl bearing lever on the oscillator cam wheel shaft, whereby the switching cam wheel may be driven from the same device which drives the oscillator cam wheel, substantially as described. 7th. In a sewing machine attachment, the combination with a suitable case or support, of a cloth clamp slide mounted for sliding and vibratory motion, and a pair of vibrating levers operated from the needle bar, and provided with cross heads engaging slots in said cloth slide, at least one of which cross heads is adjustable and adapted to be moved on to the pivotal centre of its said lever, whereby the device may be converted from a button-hole worker into a pocket or seam tacker, or vice versa, substantially as described.

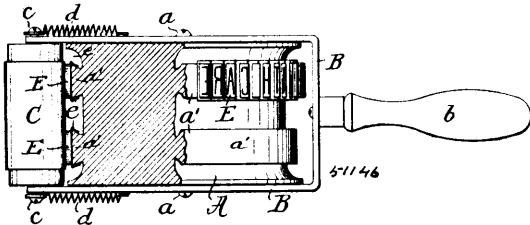
No. 51,145. Electric Head Light.

(Lanterne de locomotive électrique.)



William Dibb, Frank Clayton Roraback and Albert Christopher Fisher, all of Syracuse, New York, U.S.A., 25th January, 1896; 6 years. (Filed 24th September, 1895.)

Claim.—1st. The combination with a central board adapted to be secured upon a support, as the dash of a car, positive and negative angular brackets secured upon said board and insulated therefrom, and wires connected to said brackets, of a reflector, a stem thereon adapted to be inserted into said brackets, contact points thereon adapted to make a circuit with said brackets when said stem is inserted thereto, a lamp connected to said stem and wiring connecting said lamp to said contact points. 2nd. A head-light comprising a contact board, spring-fingers normally in circuit with wires connected to them, a second negative pole upon said board and a reflector stem adapted to break the circuit through said fingers, and make it through the positive pole of said circuit and the second negative pole aforesaid, and a lamp connected to said poles.

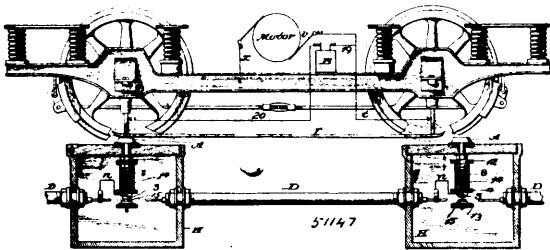
No. 51,146. Marking Stamp. (Etampe.)

Wilber Brooks Smith, assignee of Frank M. Bulkley, both of Bridgeport, Connecticut, U.S.A., 25th January, 1896; 6 years. (Filed 22nd October, 1894.)

Claim.—1st. The combination of a holder or carrier having a character-sustaining rib or surface and removable characters or types constructed to be applied to said rib or surface, as described. 2nd. The combination of a holder or carrier having a character-sustaining rib with undercut sides and removable characters or types constructed to grasp and be held by said rib, as described. 3rd. The combination of a holder or carrier having a character-sustaining rib, with removable characters or types having spring flanges or lips to grasp said rib, as described. 4th. The combination of a rotary holder or carrier having a circumferential rib and a plurality of removable characters or types adapted to be applied to said rib, as described.

No. 51,147. Electric Railway System.

(*Système de chemin de fer électrique.*)



The Electro-Magnetic Traction Company, assignee of Malone Wheel, both of Washington, Columbia, U.S.A., 25th January, 1896; 6 years. (Filed 2nd November, 1895.)

Claim.—1st. An electric railway system comprising a car provided with a pair of shoes insulated from each other and from the body of the car, a source of electrical supply having its opposite poles connected to said shoes respectively, and a motor connected by one of its poles to one of said shoes only, and having its opposite pole connected to one of the track rails, in combination with track terminal pins in pairs held in boxes set at such intervals apart that the contact shoes on the car will reach one pair before they leave the other, a cable and feeder therefrom connected to those track terminals through which the motor circuit is completed, normally open contacts in each feeder connection, an armature for closing said contacts, a pick-up magnet for each armature, having its energizing coil connected to its appropriate pair of track terminal pins whereby when the car shoes meet a pair of track terminals a circuit including the pick-up magnet of those terminals, and the source of electrical supply on the car will be closed, with the result of energizing the pick-up magnet and thus closing the normally open contacts in the feeder connection appropriate to the track terminals on which the car shoes rest, substantially as set forth. 2nd. The combination of the box, the insulated track terminals A, A¹ held in and projecting through the cover of the box, the cable D, the feeder connection between the cable and track terminal A, the normally open contacts in said feeder connection the armature for closing said contacts, and the pick-up magnet secured to and carried by the box cover and having its energizing coil connected to the terminals A, A¹ respectively, substantially as and for the purposes hereinbefore set forth. 3rd. The combination of the box, the insulated track terminals A, A¹, the cable, the feeder connection between the cable and terminal A, normally open contacts in said feeder connection, the armature for closing said contacts, and the pick-up magnet provided with two coils or windings, the one 9 connected to the terminals A, A¹, the other 8 included in the feeder connection, substantially as and for the purposes hereinbefore set forth.

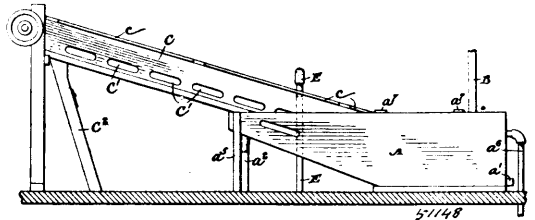
No. 51,148. Machine for Washing Cereals.

(*Machine pour laver les céréales.*)

Walter A Scott and Charles F. Shirk, both of Duluth, Minnesota, U.S.A., 25th January, 1896; 6 years. (Filed 26th December, 1895.)

Claim.—1st. In a cereal washing machine, the combination of a water-tank, an inclined washing-box with its lower end within said

tank and in communication therewith, a perforated diaphragm within said inclined washing-box and forming a false bottom for the same, a



fresh water supply pipe discharging into the said washing-box above and beyond said tank, a discharge pipe for said tank, a surface discharge pipe at or slightly below the water line in said tank at one end, a water-jet or steam-jet pipe at or slightly below the water line of said tank, and at the opposite end, a screw discharging into the lower end of said washing-box, substantially as described. 2nd. In a cereal washing machine, the combination of a water-tank having a surface discharge opening extending across it at one end, an inclined washing-box with its lower end within said tank and provided with openings in its sides and an opening in its bottom directly above the tank, a perforated diaphragm within said inclined washing-box and forming a false bottom for the same, a fresh water supply pipe discharging into said washing-box above and beyond said tank, a discharge pipe at the bottom of said tank, a water or steam jet entering the tank at or below the water line at the end opposite from the broad surface discharge opening, and a cereal supply pipe discharging into the lower end of said washing-box, substantially as described. 3rd. In a cereal cleaning apparatus, the combination with an inclined washing-box having a perforated false bottom, and a true bottom which is open or unclosed along a portion of its length, and is provided with side openings for the insertion of a scrubbing implement below its false bottom, of a water tank located under the unclosed portion of the true bottom of the washing-box, and also provided with side openings for the insertion of the scrubbing implement underneath the perforated false bottom of the washing-box, substantially as described. 4th. In a cereal cleaning apparatus, the combination with the inclined washing-box provided with a perforated false bottom, a partly open true bottom, and a screw conveyor, of a fresh water supply pipe entering an opening in the top of the washing-box between its ends, and an entrance pipe for the cereals, and a discharge pipe for the cleaned cereal, and with a water tank having a water and refuse draw-off passage, and an overflow scum passage, of a steam jet or water pipe entering the water tank above the submerged portion of the washing-box and discharging steam or water along the surface of the water in the tank, and thereby forcing the scum and impurities toward and into the scum passage, substantially as described.

No. 51,149. Manufacture of Moulded Articles.

(*Fabrication d'objets moulés.*)

The Publishing Advertising and Trading Syndicate, Assignee of Frederick Weaver Oliver, all of London, England, 25th January, 1896; 6 years. (Filed 5th November, 1895.)

Claim.—1st. Moulding articles from a mixture of absorbent material and liquid celluloid. 2nd. Molding articles from a mixture of absorbent material and liquid celluloid by forcing it through heated dies into a heated mould open at one end.

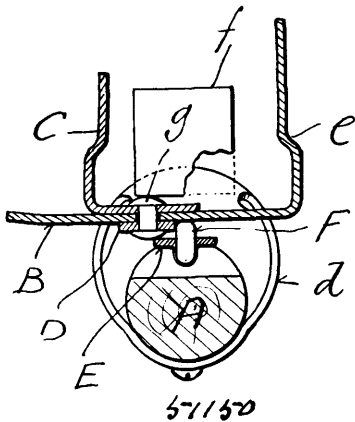
No. 51,150. Device for Handling Books.

(*Appareil pour le maniement des livres.*)

Herman Pfund, Madison, Assignee of August Charlie Jacobi, Middleton, both in Wisconsin, U.S.A., 25th January, 1896; 6 years. (Filed 28th October 1895.)

Claim.—1st. A device for handling books, the same comprising a handle of any suitable length, a flanged plate rigidly secured to the handle and provided with diagonal slots, a jaw having lugs loose in the plate-slots, a sliding rod on said handle, and a link connecting the rod with one of the jaw-lugs. 2nd. A device for handling books, the same comprising a handle of any suitable length, a diagonally slotted and flanged plate rigidly secured to the handle, a foot-piece on the plate, a jaw having lugs loose in the plate-slots, a sliding rod on said handle, and a link connecting the rod with one of the jaw-lugs. 3rd. A device for handling books, the same comprising a handle of any suitable length, a flanged plate rigidly secured to the handle, a jaw having loose play on the plate, a jaw operating rod having loose play on said handle, a rack on the aforesaid handle, a slotted rack-engaging lever-dog, and a fulcrum-pin carried by the rod in loose engagement with the dog-slot. 4th. A device for handling books, the same comprising a handle of any suitable length, a flanged plate rigidly secured to the handle, a jaw having loose play on the plate, a jaw-operating rod loose on said handle and provided with a grip having longitudinally extended ears united by a fulcrum-pin, a rack on the aforesaid handle, and a slotted

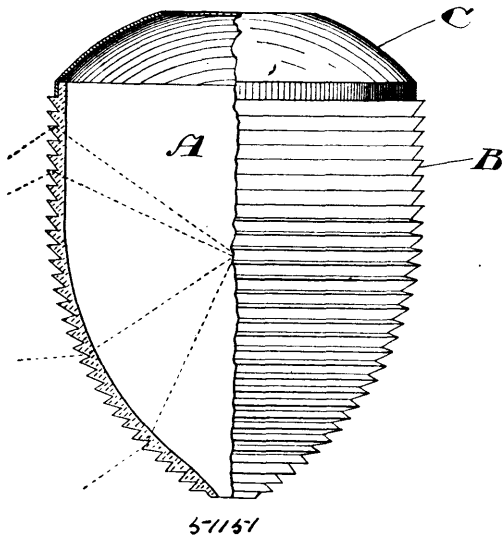
rack-engaging lever-dog in loose engagement with said fulcrum-pin.
5th. A device for handling books, the same comprising a handle of



any suitable length, a diagonally slotted and flanged plate fast on the handle, a foot-piece on the plate, a jaw having lugs loose in the plate-slots, a stay-bar fast on the lugs, a link loose on one of said lugs under a bent down end of the bar also engaged with this lug, a sliding rod on said handle in engagement with the link, a fulcrum-pin carried by the rod, a rack on the aforesaid handle, and a rack-engaging lever-dog having a slot engaged by said fulcrum-pin.

No. 51,151. Globe for Lamps.

(Globe de verre pour lampes.)

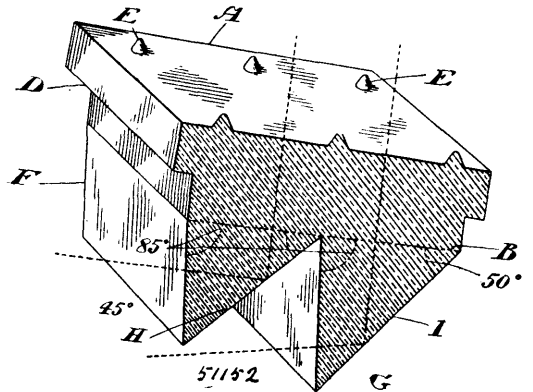


John Lawrence Spink and Thomas Walter Horn, as trustees, assignees of James Gray Pennycuik, all of Toronto, Ontario, Canada, 25th January, 1896; 6 years. (Filed 28th October, 1895.)

Claim.—1st. As a new article of manufacture, a glass bowl or globe for electric and other lamps molded in one piece, substantially of the shape of the half of a lemon, and having a series of circular horizontal prismatic ribs moulded thereon, substantially as and for the purpose specified. 2nd. A glass bowl or globe for electric and other lamps of curved outline in vertical section molded in one piece, and having a series of circular horizontal prismatic ribs molded thereon and shaped either to refract or reflect, substantially as and for the purpose specified. 3rd. A glass bowl or globe for electric and other lamps molded in one piece, substantially of the shape of the half of a lemon, having a series of circular horizontal prismatic ribs molded thereon, in combination with a curved reflector fitted to the top of the bowl, substantially as and for the purpose specified. 4th. A glass bowl or globe for electric and other lamps, of curved outline molded in one piece with a large opening at the top and a small one at the bottom, and having a series of circular horizontal prismatic ribs molded thereon, substantially as and for

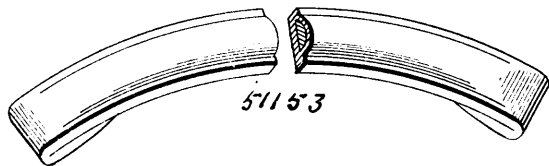
purpose specified. 5th. A glass bowl or globe for electric and other lamps, molded in one piece substantially of the shape of the half of a lemon, having a series of circular horizontal prismatic ribs molded thereon, the upper face of each prismatic rib being set at an angle of one hundred and five degrees to a tangent of the side of the bowl and the lower face similarly set at an angle of forty-five degrees, substantially as and for the purpose specified. 6th. A glass bowl or globe for electric and other lamps molded in one or more pieces, having a series of circular horizontal prismatic ribs molded thereon, the whole being bowl-shaped in vertical section, substantially as and for the purpose specified.

No. 51,152. Vault Light. (Lumière voûte.)



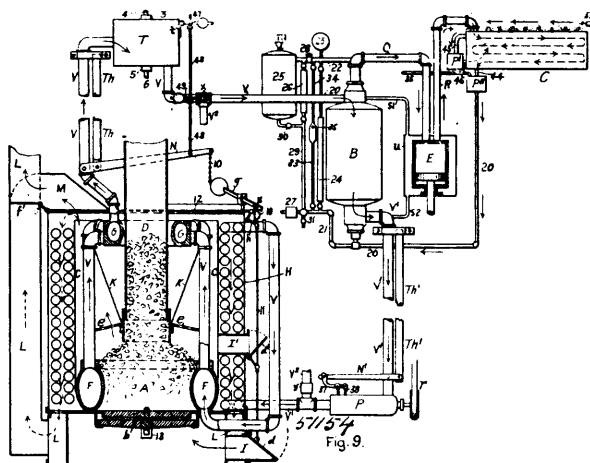
John Lawrence Spink and Thomas Walter Horn, as trustees, assignees of James Gray Pennycuik, all of Toronto, Ontario, Canada, 25th January, 1896; 6 years. (Filed 4th November, 1895.)

Claim.—1st. As a new article of manufacture, a vault light having one or more prisms cast on its under surface and a series of tits on its upper surface, substantially as and for the purpose specified. 2nd. As a new article of manufacture, a vault light having a series of tits cast on its upper surface and two prisms on its under surface, one prism having a reflecting surface set at substantially an angle of forty-five degrees to the horizontal, and the other having a reflecting surface similarly set at an angle of fifty degrees to the horizontal, substantially as and for the purpose specified. 3rd. As a new article of manufacture, a vault light having two prisms cast on its lower surface, one prism having the internal angles at its base in cross section respectively eighty-five degrees and forty-five degrees, and the other having the internal angles at its base respectively eighty-five and fifty degrees, substantially as and for the purpose specified. 4th. As a new article of manufacture, a vault light having two prisms cast on its lower surface, one prism having the internal angles at its base in cross section respectively eighty-five degrees and forty-five degrees, and the other having the internal angles at its base respectively eighty-five and fifty degrees, the latter prism being so proportioned that its lower edge extends below the level of the lower edge of the former, substantially as and for the purpose specified. 5th. As a new article of manufacture, a vault light having its upper surface set at a slight angle to its under surface and two prisms cast on its under surface, one prism having a reflecting surface set at substantially an angle of forty-five degrees to the horizontal, and the other having a reflecting surface similarly set at an angle of fifty degrees to the horizontal, substantially as and for the purpose specified. 6th. As a new article of manufacture, a vault light having its upper surface set at a slight angle to its under surface, and a rabbet formed round its sides and having two prisms cast on its under surface, one prism having a reflecting surface set at substantially an angle of forty-five degrees to the horizontal, and the other having a reflecting surface similarly set at an angle of fifty degrees to the horizontal, substantially as and for the purpose specified. 7th. As a new article of manufacture, a vault light having its upper surface set at a slight angle to its under surface, the lower surface having one or more prisms cast thereon, and the upper surface a series of tits, substantially as and for the purpose specified. 8th. As a new article of manufacture, a vault light having its upper surface set at a slight angle to its under surface, and a rabbet formed round its edges, a series of tits cast on its upper surface and two prisms on its lower surface, one prism having the internal angles at its base in cross section respectively eighty-five degrees and forty-five degrees, and the other having the internal angles at its base respectively eighty-five degrees and fifty degrees, substantially as and for the purpose specified. 9th. A plurality of prismatic vault lights having rabbeted edges, in combination with an iron frame having deep supporting ribs running in the direction in which the light is thrown by the prisms and shallow supporting cross ribs, the frame and ribs being suitably flanged to engage with the rabbeted edges of the prismatic vault light, substantially as and for the purpose specified.

No. 50,153. Leather Strap for Handles, Etc.*(Courroie de cuire pour manches, etc.)*

Friend Johnson Bringham, Chicago, Illinois, U.S.A., 25th January, 1896; 6 years. (Filed 20th January, 1896.)

Claim.—1st. A strap having a seamless channel formed in the thickness of the leather and a filling in said channel forming a raise or bead on the surface of the leather, substantially as described. 2nd. A strap having a longitudinal seamless channel open at each end combined with an expanding filling therein. 3rd. A strap having a seamless longitudinal channel, an expanding filling therein forming a beaded surface and extensions beyond the channel, substantially as described. 4th. A strap having a seamless longitudinal channel, an expanding filling therein, forming a beaded surface, and lateral margins *b*, substantially as described. 5th. A strap having a seamless longitudinal channel, a flat lower face and a filling expanding by the upper face, substantially as described. 6th. A strap having a longitudinal channel, a filling therein and seamless end portions having lateral openings therethrough, substantially as described.

No. 51,154. Art of and Apparatus for Converting Heat Into Work. *(Appareil pour convertir la chaleur en travail.)*

Agness Bates Wellington, New York, Executrix of Arthur Mellen, late of New York, U.S.A., 28th January, 1896; 6 years. (Filed 11th Nov., 1895.)

Claim.—1st. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid at a regulated temperature from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 2nd. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the maximum temperature of the circulating fluid, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 3rd. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the minimum temperature of the circulating fluid, heating the work substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 4th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the maximum and minimum temperature of the circulating

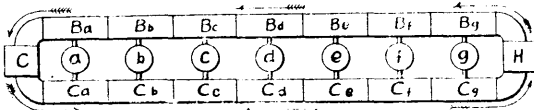
fluid, heating the working substance by the surrender of heat thereto by the circulating fluid and discharging the circulating fluid from the pressure generator, substantially as described. 5th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid at a regulated speed from a supply or source of heat to a pressure generator thermally dissociated from the supply or source of heat and containing the working substance, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 6th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid at a regulated speed from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the maximum temperature of the circulating fluid, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 7th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the volume of the circulating fluid so as to maintain substantially constant volume, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 8th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid at a regulated temperature from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the volume of the circulating fluid so as to maintain a substantially constant volume, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 9th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the minimum temperature of the circulating fluid, regulating the volume of the circulating fluid, so as to maintain a substantially constant volume, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 10th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid at a regulated speed from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the maximum temperature of the circulating fluid, regulating the volume of the circulating fluid, so as to maintain a substantially constant volume, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 11th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat, regulating the quantity of working substance in the pressure generator to maintain a substantially constant volume, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 12th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the quantity of working substance in the pressure generator to maintain a substantially constant volume, regulating the maximum pressure in the pressure generator, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 13th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the volume of the circulating fluid so as to maintain a substantially constant volume, regulating the quantity of working substance in the pressure generator to maintain a substantially constant volume, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described. 14th. The improvement in the art of converting heat into work by the agency of vapour pressure, which consists in passing a circulating fluid at a regulated temperature from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, regulating the volume of the circulating fluid so as to maintain a substantially constant volume, regulating the quantity of working substance in the pressure generator to maintain a substantially constant volume,

rator for the circulating fluid, substantially as described. 84th. The combination with a heater, of a pressure generator thermally dissociated from the heater and having continuous uniformly distributed and closely spaced passages extending horizontally and downward through successive layers of the working substance, and connections between the heater and said passages at the top of the pressure generator for the circulating fluid, substantially as described. 85th. The combination with a heater, of a pressure generator thermally dissociated from the heater and having continuous uniformly distributed and closely spaced passages extending horizontally and downward through successive layers of the steam space and working substance, and connections between the heater and said passages at the top of the pressure generator for the circulating fluid, substantially as described. 86th. The combination with a heater, of a pressure generator thermally dissociated from the heater and having small uniformly distributed and closely spaced continuous passages extending horizontally and downward through successive layers of the steam space and working substance, and connections between the heater and said passages at the top of the pressure generator for the circulating fluid, substantially as described. 87th. The combination with a heater, of a pressure generator thermally dissociated from the heater and having passages extending downward through the working substance, connections between the heater and said passages at the top of the pressure generator for the circulating fluid, and means for regulating the temperature of the circulating fluid, substantially as described. 88th. The combination with a heater, of a pressure generator thermally dissociated from the heater and having passages extending downward through the working substance, connections between the heater and said passages at the top of the pressure generator for the circulating fluid, and means for regulating the minimum temperature of the circulating fluid, substantially as described. 89th. The combination with a heater, of a pressure generator thermally dissociated from the heater and having passages extending downward through the working substance, connections between the heater and said passages at the top of the pressure generator for the circulating fluid, and means for regulating the maximum and minimum temperature of the circulating fluid, substantially as described. 90th. The combination with a heater, of a pressure generator thermally dissociated from the heater and having passages extending downward through the working substance, connections between the heater and said passages at the top of the pressure generator for the circulating fluid, and means for regulating the speed of the circulating fluid, substantially as described. 91st. The combination with a heater, of a pressure generator thermally dissociated from the heater and having passages extending downward through the working substance, connections between the heater and said passages at the top of the pressure generator for the circulating fluid, and means for regulating the maximum temperature and speed of the circulating fluid, substantially as described. 92nd. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator for the circulating fluid, means for applying the vapour pressure and a working substance condenser for the pressure generator, connections between the pressure generator and condenser for the circulating fluid, wherein further heat is abstracted from the circulating fluid and the fluid then applied to condensing the working substance, and connections for the return of the circulating fluid from the condenser to the heater, substantially as described. 93rd. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator for the circulating fluid, a thermostat on said connections and means controlled by said thermostat for regulating the temperature of the circulating fluid, substantially as described. 94th. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator for the circulating fluid, a thermostat on said connections, secondary connections for the circulating fluid cutting out the pressure generator, and means controlled by said thermostat for controlling said secondary connections, substantially as described. 95th. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator for the circulating fluid, a thermostat controlled by the temperature of the circulating fluid, and means controlled by said thermostat for regulating the minimum temperature of the circulating fluid, substantially as described. 96th. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator and return to heater for the circulating fluid, a thermostat on said connections between the heater and pressure generator, and means controlled by said thermostat for regulating the temperature of the circulating fluid, substantially as described. 97th. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator and return to heater for the circulating fluid, thermostats on said connections on each side of the pressure generator and means controlled by said thermostats for regulating the maximum and minimum temperature

of the circulating fluid, substantially as described. 98th. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator and return to heater for the circulating fluid, thermostats on said connections on each side of the pressure generator and means controlled by said thermostats for regulating the maximum temperature and speed of the circulating fluid, substantially as described. 99th. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator for the circulating fluid, a circulating pump, a by-pass for the circulating fluid about said circulating pump, a valve controlling said by-pass and means for controlling said valve in accordance with the temperature of the circulating fluid, substantially as described. 100th. A boiler having uniformly distributed and closely spaced passages for a heating agent extending from the top downward through the space for the working substance, substantially as described. 101st. A boiler having uniformly distributed and closely spaced passages through it from top to bottom for a heating agent, and from bottom to top for the working substance, substantially as described. 102nd. A boiler having an inlet at or near the top and outlet at or near the bottom for a heating agent, and an inlet at or near the bottom and outlet at or near the top for the working substance, and uniformly distributed and closely spaced passages connecting the respective inlets and outlets, substantially as described. 103rd. A boiler having a small uniformly distributed and closely spaced passages for a heating agent extending downward from the top through the space for the working substance, substantially as described. 104th. A boiler having uniformly distributed and closely spaced passages for a heating agent extending horizontally and downward through successive parts and from the top toward the bottom of the space for the working substance, substantially as described. 105th. A boiler having uniformly distributed and closely spaced passages for a heating agent extending horizontally and downward through successive parts of the steam space and from the top toward the bottom of the space for the working substance, substantially as described. 106th. A boiler having small uniformly distributed and closely spaced passages for heating agent extending horizontally and downward through successive parts and from the top toward the bottom of the space for the working substance, substantially as described. 107th. A boiler having small closely spaced passages for a heating agent extending horizontally and downward through successive parts and from the top toward the bottom of the space for the working substance, and sheets of wire gauze between and in contact with the horizontal layers of passages, substantially as described. 108th. A boiler having an inlet and outlet for a heat conveying circulating fluid and an inlet and outlet for working substance, and uniformly distributed and closely spaced passages for the circulating fluid within the space for the working substance, substantially as described. 109th. A boiler having an inlet and outlet for a heat conveying circulating fluid and an inlet and outlet for working substance, and uniformly distributed and closely spaced passages for the circulating fluid through both the steam space and water space, substantially as described. 110th. A boiler having an inlet and outlet for a heat conveying circulating fluid and an inlet and outlet for working substance uniformly distributed and closely spaced passages for the circulating fluid extending horizontally through successive vertical parts of the space for the working substance, substantially as described. 111th. A boiler having an inlet and outlet for a heat conveying circulating fluid, and an inlet and outlet for working substance, and small uniformly distributed and closely spaced passages for the circulating fluid extending horizontally through successive vertical parts of the space for the working substance, substantially as described. 112th. A boiler having an inlet and outlet for a heat conveying circulating fluid, and an inlet and outlet for working substance, and small uniformly distributed and closely spaced passages for the circulating fluid extending horizontally through successive vertical parts of both the steam space and water space, substantially as described. 113th. A boiler having an inlet and outlet for a heat conveying circulating fluid, and an inlet and outlet for working substance, passages for the circulating fluid within the space for the working substance, and a blow-off valve for the liquid working substance controlled by the boiler pressure, substantially as described. 114th. An apparatus for the transfer of heat from one fluid to another having uniformly distributed and closely spaced passages for the fluid from which heat is to be transferred extending from the top downward through the space for the fluid to which heat is to be transferred substantially as described. 115th. The combination with a casing having an inlet at or near the top and outlet at or near the bottom for fluid from which heat is to be transferred, an inlet at or near the bottom and outlet at or near the top for fluid to which heat is to be transferred from the first mentioned fluid, and uniformly distributed and closely spaced passages for one of the fluids connecting its respective inlet and outlet and extending through the space for the other fluid, substantially as described. 116th. The combination with casing *p*, having a connection at top and bottom, of casing *B* inside said casing, having a connection at top and bottom, uniformly distributed and closely spaced tubes extending transversely through said casing *B*, and partitions *t* dividing said casing *p* outside casing *B* into horizontal chambers, substantially as described. 117th. The combination with casing *p*, having a connection at top and bottom, of casing

B inside said casing, having a connection at top and bottom, small closely spaced tubes *n* extending transversely through said casing B, and partitions 17 dividing said casing *p* outside casing B into horizontal chambers, substantially as described. 118th. The combination with a casing having a fluid connection at opposite ends, of small closely spaced tubes extending transversely through said casing, chambers arranged longitudinally of said casing and communicating with the opposite ends of series of tubes, and a fluid connection with the end chambers, substantially as described. 119th. The combination with an open tank having a perforated bottom, of passages through said tank for fluid to be cooled, and a circulating pump for withdrawing the cooling liquid from the top and injecting it through the perforated bottom of the tank, substantially as described. 120th. The combination with an open tank having a perforated top and bottom, of passages through said tank for fluid to be cooled, and a circulating pump for withdrawing the cooling liquid from the top and injecting it through the perforated bottom of the tank, substantially as described. 121st. The combination with an open tank having a perforated top and bottom, of passages through said tank for fluid to be cooled, a circulating pump for withdrawing the cooling liquid from the top and injecting it through the perforated bottom of the tank, and means for maintaining an air blast over the top of the tank, substantially as described. 122nd. The combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating the working substance, connections from the heater to the pressure generator and return to heater for the circulating fluid, an expansion engine having cylinder jackets, and connectors for circulating a part of the circulating fluid through said jackets, substantially as described.

No. 51,155. Thermodynamic Process and Apparatus.
(*Procédé et appareil thermodynamique.*)



Agnes Bates Wellington, New York, State of New York, U.S.A., executrix of Arthur Mellen, State of New York, aforesaid 28th January, 1896; 6 years. (Filed 11th November, 1895.)

Claim.—1st. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, and applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, substantially as described. 2nd. The thermodynamic process, which consists in heating a circulating fluid, passing the heated circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, and applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, substantially as described. 3rd. The thermodynamic process, which consists in passing a circulating fluid through a series of condensers and applying it to cooling working substances therein whereby the circulating fluid is somewhat heated, then further heating the circulating fluid, then passing the heated circulating fluid through a series of pressure generators and applying it to heating working substances therein, applying said heated working substances in expansion engines, and exhausting said engines into said condensers, substantially as described. 4th. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, and repeating the operation with the circulating fluid, heating the circulating fluid before entering the hot circuit and cooling it after leaving the hot circuit, substantially as described. 5th. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, and returning the condensed working substances to their respective pressure generators, substantially as described. 6th. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, returning the condensed working substances to their respective pressure generators, and repeating the operation with the circulating fluid and working substances, heating the circulating fluid before entering the hot circuit and cooling it after leaving the hot circuit, substantially as described. 7th. The thermodynamic

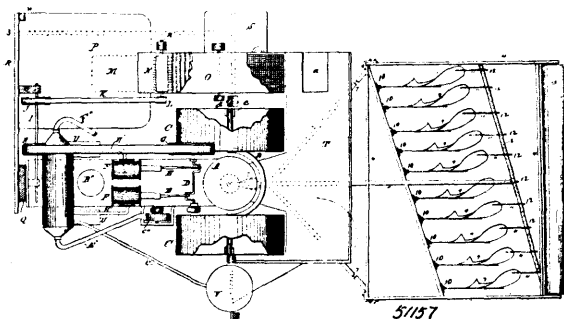
process, which consists in passing a circulating fluid partly liquid and partly gaseous through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, and applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, substantially as described. 8th. The thermodynamic process, which consists in passing a circulating fluid partly liquid and partly gaseous through a series of pressure generators and applying it to heating working substances in said pressure generators, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, and heating the circulating fluid before entering the hot circuit, substantially as described. 9th. The thermodynamic process, which consists in passing a circulating fluid partly liquid and partly gaseous through a series of pressure generators and applying it to heating working substances in said pressure generators, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, and repeating the circuit with liquid portion of the circulating fluid, heating the circulating fluid before entering the hot circuit, and cooling the liquid portion of the circulating fluid after leaving the hot circuit, substantially as described. 10th. The thermodynamic process, which consists in passing fuel through a series of condensers and applying it to cooling working substances therein, then burning the fuel in a heater, passing the gases of combustion through a series of pressure generators and applying them to heating working substances therein, applying said heated working substances in expansion engines, and exhausting said engines into said condensers, substantially as described. 11th. The thermodynamic process, which consists in passing fuel through a series of condensers and applying it to cooling working substances therein in conjunction with a circulating fluid, then burning the fuel in a heater and thus heating the circulating fluid, passing the gases of combustion and circulating fluid through a series of pressure generators and applying them to heating working substances therein, applying said heated working substance in expansion engines, and exhausting said engines into said condensers, substantially as described. 12th. The thermodynamic process, which consists in passing fuel through a series of condensers and applying it to cooling working substances therein, in conjunction with a circulating fluid, then burning the fuel in a heater and thus heating the circulating fluid, passing the gases of combustion and circulating fluid through a series of pressure generators and applying them to heating working substances therein, applying said heated working substances in expansion engines, and exhausting said engines into said condensers, cooling the circulating fluid after leaving the hot circuit and repeating the operation with the circulating fluid in conjunction with another supply of fuel, substantially as described. 13th. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, and using the circulating fluid thus heated in the cold circuit as hot circulating fluid for other series working at lower maximum temperatures, cooling the circulating fluid after leaving the hot circuit of the different series, substantially as described. 14th. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying the circulating fluid to condensing the working substance exhausted from some or all of the successive engines, and using the circulating fluid thus heated in the cold circuit as hot circulating fluid for other series working at lower maximum temperatures, cooling the circulating fluid after leaving the hot circuit of the different series, and repeating the operation, heating the circulating fluid before re-entering the hot circuit of the first series, substantially as described. 15th. The thermodynamic process which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, passing the circulating fluid from the condensers through another series of pressure generators working at lower maximum temperatures than the first mentioned series and applying it to heating working substances therein, applying said working substances in expansion engines, applying said circulating fluid to condensing the working substances exhausted from some or all of said engines, and so on, if desired, for other series working at successively lower maximum temperatures, cooling the circulating fluid after leaving the hot circuit of each series, substantially as described. 16th. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, passing the circulating fluid from the condensers through another series of pressure generators working at lower maximum temperatures than the first mentioned series and

substantially as described. 57th. The method of increasing the efficiency of systems employing a circulating fluid for heating and condensing the working substances for a series of engines, which consists in heating the circulating fluid in part by condensing the working substance of one or more engines working at or above the maximum temperature of the series, substantially as described. 58th. The method of utilizing the thermal interval between the temperature of combustion and maximum temperature of the circulating fluid, in thermodynamic systems, employing a circulating fluid for heating the working substance, which consists in heating the circulating fluid by the waste heat from gas or other engines working in said interval, substantially as described. 59th. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, then applying said circulating fluid to another circulating fluid and applying the second circulating fluid in a series of pressure generators working at a lower maximum temperature than the first-mentioned series, applying the working substance in expansion engines, and applying the circulating fluids to condensing the working substances exhausted from some or all of their respective series of engines, substantially as described. 60th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of connections between said passages through the series of pressure generators and some or all of the condensers for the circulating fluid, substantially as described. 61st. The combination with a series of expansion engines, and pressure generators and condensers therefor provided with passages for applying a circulating fluid to heating and condensing the working substances, of a heater, and connections between said passages through the series of pressure generators and some or all of the condensers and through the heater for the circulating fluid, substantially as described. 62nd. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of a cooler, and connections between said passages through the series of pressure generators, and cooler and some or all of the condensers for the circulating fluid, substantially as described. 63rd. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of a heater, a cooler, and connections between said passages through the series of pressure generators, the cooler, some or all of the condensers and the heater for the circulating fluid, substantially as described. 64th. The combination with a series of expansion engines, and pressure generators and condensers therefor, working in closed cycle and provided with passages for applying a circulating fluid to heating and condensing the working substances, of connections between said passages through the series of pressure generators and some or all of the condensers for the circulating fluid, substantially as described. 65th. The combination with a series of expansion engines, and pressure generators and condensers therefor, working in closed cycle and provided with passages for applying a circulating fluid to heating and condensing the working substances, of a heater, a cooler, and connections between said passages through the series of pressure generators, the cooler, some or all of the condensers and the heater for the circulating fluid, substantially as described. 66th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with separate passages for applying liquid and gaseous elements of a circulating fluid to heating and condensing the working substances of connections for the circulating fluid between said passages through the series of pressure generators and some or all of the condensers, substantially as described. 67th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with separate passages for applying liquid and gaseous elements of a circulating fluid to heating and condensing the working substances, of a heater, and connections for the circulating fluid between said passages through the series of pressure generators and some or all of the condensers and through the heater, substantially as described. 68th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with separate passages for applying liquid and gaseous elements of a circulating fluid to heating and condensing the working substances, of a heater, a cooler, connections for the liquid element of the circulating fluid between said passages through the series of pressure generators, the cooler, some or all of the condensers and the heater, and connections for the gaseous element through some or all of the condensers, the heater, and the series of pressure generators, substantially as described. 69th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying the gases of combustion to heating the working substances and the fuel to condensing the working substances, of a heater in which the fuel is burned, and connections between the passages through the condensers to the heater for the fuel and from the heater through the series of pressure generators for the gases of combustion, substantially as described. 70th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying fuel and a circulating fluid to condensing the working substances, and for applying the gases of combustion and circulating fluid to heating the working substances, of a

heater for burning the fuel and thus heating the circulating fluid, and connections between the passages for the fuel and gases of combustion, and between the passages for the circulating fluid through the condensers, the heater, and the series of pressure generators, substantially as described. 71st. The combination of a plurality of series of expansion engines, the successive series working at lower maximum temperatures, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, coolers for the different series, connections for the circulating fluid in each series through the series of pressure generators, the cooler, and some or all of the condensers, and connections for the circulating fluid between the passages of each series and the next, substantially as described. 72nd. The combination of a plurality of series of expansion engines, the successive series working at lower maximum temperatures, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, a heater, coolers for the different series, connections for the circulating fluid in each series through the series of pressure generators, the cooler and some or all of the condensers, and connections for the circulating fluid between the passages of each series and the next and from the cold circuit of the cold series through the heater to the hot circuit of the hot series, substantially as described. 73rd. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of connections for the circulating fluid between said passages through the series of pressure generators and the condensers and by-passes provided with valves for cutting the circulating fluid out of one or more of the pressure generators, substantially as described. 74th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of connections for the circulating fluid through the series of pressure generators and the condensers, and by-passes for cutting the circulating fluid out of one or more of the condensers, substantially as described. 75th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of connections for the circulating fluid through the series of pressure generators and the condensers, by-passes for cutting the circulating fluid out of one or more of the condensers, and means for introducing another condensing agent in place of the circulating fluid when cut out, substantially as described. 76th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of one or more cold internal engines having pressure generators provided with passages for applying a circulating fluid to heating working substance and connections for the circulating fluid between said passages through the series of pressure generators and pressure generators of the cold internal engines, and some or all of the condensers, substantially as described. 77th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of one or more cold interval engines having pressure generators provided with passages for applying a circulating fluid to heating working substance, a heater, and connections for the circulating fluid between said passages through the series of pressure generators and pressure generators of the cold interval engines, some or all of the condensers and the heater, substantially as described. 78th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of a heater, one or more hot interval engines and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing working substances, and connections for the circulating fluid between said passages through some or all of the condensers, the heater, the successive generators of the hot interval engines and return to heater from each pressure generator, and the series of pressure generators, substantially as described. 79th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying the circulating fluid to heating and condensing the working substances, of a heater, one or more hot interval engines and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing working substance, a cooler, and connections for the circulating fluid between said passages through the heater, the successive pressure generators of the hot interval engines and return to heater from each pressure generator, the series of pressure generators, the cooler, and some or all of the condensers, and return to heater, substantially as described. 80th. The combination with a series of expansion engines, and pressure generators and condensers therefor, provided with passages for applying a circulating fluid to heating and condensing the working substances, of one or more gas or other heating engines working above the maximum temperature of the hot circuit, passages for heating the circulating fluid by the waste heat of the heating engines, and connections for the circulating fluid between said passages of some or all of the condensers, heating engines, and pressure generators, substantially as described. 81st. The combination, with a series of expansion engines and pressure generators and condensers

88th. In a step-series engine, the combination with a primary pressure generator and an expansion engine, of one or more secondary pressure generators having uniformly distributed and closely spaced passages extending horizontally and downward through successive layers of the steam space and working substance, expansion engines for said secondary pressure generators, and connections for the exhaust from the expansion engines to said passages at the top of the next generator, substantially as described. 89th. In a step-series engine, the combination with a primary pressure generator and an expansion engine, of one or more secondary pressure generators having uniformly distributed and closely spaced passages with thin heat transmitting walls and extending downward through the working substance, expansion engines for said secondary pressure generators, and connections for the exhaust from the expansion engines to said passages at the top to the next generator, substantially as described. 90th. In a step-series engine, the combination with a primary pressure generator and an expansion engine, of one or more secondary pressure generators having passages with thin heat transmitting walls extending through the working substance, expansion engines for said secondary pressure generators, and connections for the exhaust from the expansion engines to said passages of the next generator, substantially as described. 91st. A boiler having its interior space divided by a series of parallel plates extending transversely to the boiler casing and placed side by side with spaces between them, alternate spaces connecting respectively with supply spaces for heating fluid and fluid to be heated, substantially as described. 92nd. A boiler having its interior space divided by a series of indented or corrugated parallel plates extending transversely to the boiler casing and placed side by side with spaces between them, alternate spaces connecting respectively with supply spaces for heating fluid and fluid to be heated, substantially as described. 93rd. A boiler having its interior space divided by a series of vertical parallel plates extending transversely to the boiler casing and placed side by side with spaces between them, and having an inlet at the top and outlet at the bottom for the heating fluid, and an inlet at the bottom and outlet at the top for the fluid to be heated, said pair of inlets and outlets connecting respectively with alternate spaces between the plates, substantially as described. 94th. A boiler consisting of a plurality of sections placed side by side, each section consisting of parallel plates with passages between them formed by indentations or corrugations in the plates, substantially as described. 95th. A boiler consisting of a plurality of sections placed side by side, each section consisting of parallel plates with serpentine passages between them formed by indentations or corrugations in the plates, substantially as described. 96th. A boiler consisting of a plurality of sections placed side by side, each section consisting of parallel plates having passages between them alternately contracted and expanded in cross section and formed by indentations or corrugations in the plates, substantially as described. 97th. A boiler consisting of a plurality of sections placed side by side, each section consisting of parallel plates having passages between them formed by intersecting spherical or spheroidal indentations in the plates, substantially as described. 98th. A boiler consisting of a plurality of sections placed side by side, each section consisting of parallel plates having zig-zag passages between them formed by intersecting staggered spherical or spheroidal indentations in the plates, substantially as described. 99th. A boiler consisting of a plurality of vertical sections placed side by side with passages between them formed by indentations or corrugations in the plates and extending horizontally and vertically, and having an inlet at the top and outlet at the bottom for the heating fluid, and an inlet at the bottom and outlet at the top for the fluid to be heated, said pairs of inlets and outlets connecting, one with the passages within the sections and the other with the space between the sections, substantially as described. 100th. A boiler section consisting of parallel plates with passages between them formed by indentations or corrugations in the plates, substantially as described. 101st. A boiler section consisting of parallel plates having serpentine passages between them formed by indentations or corrugations in the plates, substantially as described. 102nd. A boiler section consisting of parallel plates brazed together at the edges only and having passages between them formed by indentations or corrugations in the plates, substantially as described. 103rd. A boiler section consisting of parallel plates having passages between them of irregular cross section alternately contracted and expanded and formed by indentations or corrugations in the plates, substantially as described. 104th. A boiler section consisting of parallel plates having passages between them formed by intersecting spherical or spheroidal indentations in the plates, substantially as described. 105th. A boiler section consisting of parallel plates having passages between them, each passage being formed by intersecting staggered spherical or spheroidal indentations in the plates, substantially as described. 106th. In a step series engine, the combination with a heater, of a pressure generator thermally dissociated from the heater for applying a circulating fluid to heating a working substance, connections from the heater to the pressure generator for the circulating fluid, an expansion engine operated by said working substance, one or more secondary pressure generators and expansion engines, connections for the exhaust from the expansion engines to the next pressure generator, and a pipe from the heater passing to the successive pressure generators and carrying the waste gases of combustion for heating the working substances, substantially as described.

No. 51,157. Combined Traction Engine, Thresher Feeder and Gang Plow. (Locomobile à traction, machine à botte alimentaire et charrue à socs multiples.)

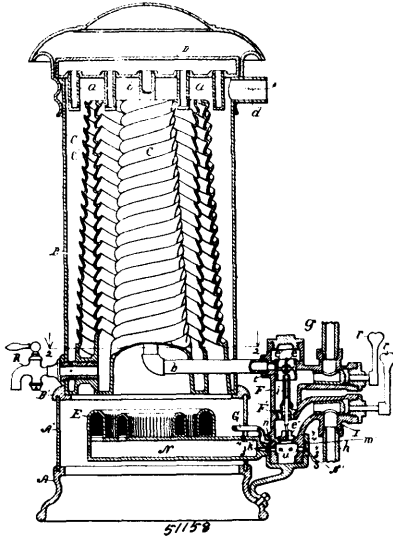


William Stephenson, Morris, Manitoba, Canada, 28th January 1896; 6 years. (Filed 11th January, 1896.)

Claim—1st. The combination substantially as specified, of a traction engine and a threshing machine, the latter carried on a platform attached to the engine and devices for transmitting power from the engine to the threshing portion, substantially as described. 2nd. The combination of a threshing machine, self-feeder and a traction engine, the latter supporting and carrying the former, and devices for transmitting power from one to the other, substantially as specified. 3rd. The combination of a traction engine, a threshing machine, the latter carried by the former, with devices for transmitting power from one to the other, and a gang-plough all, substantially as and for the purpose specified. 4th. The combination of a traction engine, a threshing device carried by and operated with engine, a self-feeding attachment, and a gang of ploughs attached thereto, all operated by the engine through pulley shafts and belts, substantially as described and for the purpose described. 5th. The combination with a traction engine, of an upright post attached to the front of the boiler, sills attached to the post to support a platform, upright posts attached to the platform, and horizontal and diagonal braces attached thereto from the main post in front of the boiler, all substantially as and for the purpose set forth. 6th. In combination with a traction engine, a platform attached to the engine for supporting and holding a threshing machine in operation, a platform for an operator to receive and bag the grain, a platform to receive the straw, and an opening in the latter for the exit of straw after being threshed, not required as fuel for the boiler, all substantially as and for the purpose specified. 7th. The combination with a traction engine, of upright posts secured to the axle of the boiler by curved iron brackets, each having an eye on the lower end to receive the end of the axle, and the upper part bolted to the uprights, cross beams attached to the upper portion of the uprights and to the vertical portion of the boiler, sills secured to the lower end of said posts, carrying platforms for threshing, receiving and bagging the grain, all substantially as specified. 8th. The combination with a traction engine, of platforms P, O, S, T, the vertical posts Q, W, d, d', g, g', and sills b, R, and then intermediates, brackets c, c', shaft B, and opening a in platform T, all substantially as and for the purpose specified. 9th. In a feeder for threshing machines, the combination of two carriers, one above the other, provided with suitable pulleys and belts for their operation in carrying sheaves to the cylinder. 10th. In a feeder for threshing machines, two carriers one above the other, the lower one having spikes attached to the slats or cross-bars, and the upper carrier having knives secured to the movable portion of the carrier, both carriers having pulleys and belts and devices for operating them simultaneously from the cylinder shaft of a threshing machine, at different rates of speed for the purpose set forth. 11th. In a feeder for threshing machines, the lower carrier provided with a sheet metal shield, having longitudinal slots through which spikes, attached to the slots, pass and assist in carrying up the sheaves to the cylinder. 12th. In combination with the upper and lower carriers, of the friction-wheel T¹, on the shaft O of the upper carrier and made to engage with the grooves k¹, of the grooved friction-wheel U¹, to transmit motion by a belt Z¹, to the pulley F and lower carrier, substantially as specified. 13th. The friction-wheel made in two separate halves, feather-keyed on the shaft V¹, and each half pressed to the other by a spring on each side to form an adjustable groove k¹, by the flaring margins of each half of the wheel, to receive and frictionally grip the side edges of the friction-wheel T¹, for transmitting motion from one to the other for the purpose specified. 14th. The combination with the upper carrier, of a shield W¹, the same provided with longitudinal slots for the knives l¹ to operate in, similar to the spikes operating in the slotted shield over the lower carrier. 15th. The combination of lower carrier having spikes e¹, the upper carrier having knives l¹, the said carriers operating on their respective shafts, and provided with belts, pulleys and friction-wheels to drive the carriers, from the source of power, substantially as and for the purpose specified. 16th. The combination of the frame 4, diagonal beams 8, 8, and

devices attached thereto for allowing the ploughs 9 to rise and fall independently to adapt themselves automatically to the unevenness of the ground, substantially as specified. 17th. The combination of a traction engine, platforms secured to the same, a threshing machine supported by and carried on the engine, and a frame carrying adjustable gang ploughs, and a roller, all substantially as specified.

No. 51,158. Water Heater. (Calorifere)

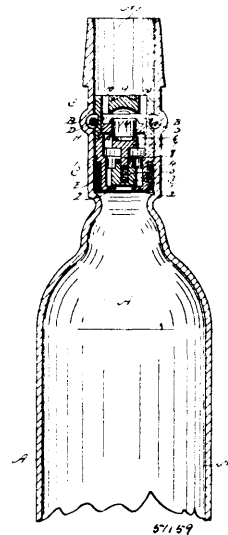


Alfred H. Humphrey, Fred J. Humphrey and Herbert S. Humphrey, all of Kalamazoo, Michigan, U.S.A., 28th January, 1896; 6 years. (Filed 18th July, 1895.)

Claim.—1st. In a water heater, the combination with the base A, the burner chamber A¹, and the upper casing B, of a suitable burner E, in the burner chamber, the central water pipe b, the water disc D, the descending delivery pipes a, a, from the water disc, the concentric tubes C, C¹, and C¹¹, with trough-shaped corrugations, the delivery cock R, for drawing-off the water and the valve e¹¹, in separate chambers united by a single stem and held to place by spring i¹, all formed and arranged substantially as described for the purpose specified. 2nd. In a water heater, the combination with a suitable heating apparatus below, of the casing B, the tubes C, C¹, and C¹¹, with spiral trough-shaped corrugations sloping down towards the wall of the tubes to retain the water and carry it around said tubes, said tubes forming annular concentric chambers, the delivery pipe for the water at the top of the tubes in said chamber, and open passages between said tubes for the passage of heat, all formed arranged and combined substantially as and for the purpose specified. 3rd. In a water heater, the combination of a tube, with spiral trough-shaped groove adapted to receive the water at the top and convey it in spiral trough-shaped grooves down the tubes, and a suitable heater to heat the walls of the tube opposite the passing water for the purpose specified. 4th. In a water heater, a tube C, of sheet metal with trough-shaped corrugations a supply pipe a, to deliver water on one side of said tube, and a burner E, to deliver heat on the opposite side all formed arranged and combined as described. 5th. In a water heater using gas as a fuel the combination of the valve casing F, with partition F¹, across it forming two valve chambers, the valve stem c, passing through said valve chambers, the elastic rubber tube on the valve stem for holding said valves against their seats, the water pipe g, to admit water to one valve which actuates it and admits gas to the burner and control it all formed, arranged and combined, for the purpose specified. 6th. In a valve mechanism for a water heater, the combination of the valve casing F, a partition across the same to divide it into two chambers, a valve e¹ in the upper chamber, a valve e¹¹ in the lower chamber both securely attached to said valve stem, a spring i to act upon said valve stem to hold the valves normally against their respective seats, the burner E, supported on a collar N¹, around the lower part of said valve casing containing an annular groove s surrounding said valve casing, openings u through said valve casing into said annular space, a vertical groove m¹, in the interior of said collar N¹ and projecting up therefrom, an aperture m, through the valve casing above the valve e¹¹, over which the groove m¹, will pass when the burner is swung around all formed arranged and combined, as and for the purpose hereinbefore specified. 7th. In a water heater, the combination of a suitable valve casing F, with a partition across the same dividing it into two independent valve chambers, a valve stem passing through both of said valve chambers, valves e¹, e¹¹, in the said valve chambers

adapted to fit against their respective valve seats, a spring on said valve stem to force the valves normally against their respective valve seats, a main burner E, with a collar n¹, around the walls of the lower of said valve chambers so that it is revoluble thereon, an annular passage s cut in the inner journal part of the collar around said valve casing F, apertures u, u through the walls of said valve chamber opening into the annular passage s, and an aperture K leading to the burner from said annular passage, a small auxiliary burner G extending along the upper side of said main burner E, a groove n¹ cut in the bearing part of said gas valve chamber and connected to said burner G, an auxiliary branch pipe from collar N¹, connecting the passage n¹, to gas pipe h, a passage m¹, in the collar N¹, in the bearing portion extending upward from the annular passage s, an aperture m, through the valve chamber above the valve e¹¹, and a groove n¹, out into the passage so that the main burner will only be lighted when water is passing through the valve e¹¹, into the heater above and so that the burner can be lighted when drawn to the outside from the passage of the gas through the aperture m, through the passage m¹ into the burner all formed arranged and combined, substantially as described, for the purpose specified. 8th. In a water heater using gas as a fuel, the combination of the upper receptacle for the water, a burner E below consisting of concentric hollow rings sawed with vertical slits through the sides of the rings leaving the tops of them whole all formed arranged and combined, as and for the purpose hereinbefore set forth. 9th. In a water heater, the combination of the valve casing F, the partition F¹, dividing the same into the upper and lower chamber, the water pipe g, connecting to the upper chamber through a suitable stop cock to the valve, the gas pipe h, connecting to the lower chamber with a suitable stop cock therein, a gas valve e¹¹ adapted to fit against a suitable seat in the lower chamber, a cylindrical valve e¹, with an aperture t, to one side adapted to reciprocate in a suitable seat in the upper chamber an aperture being through the chamber at that point to register with the aperture t, and a rubber tube i, secured to the partition and to the valve stem connecting the two valves to return the valves to their seats when pressure is removed. 10th. In a water heater, the combination of the valve casing F, the partition F¹, dividing the same into the upper and lower chamber, the water pipe g, connecting to the upper chamber through a suitable stop cock to the valve, the gas pipe h, connecting to the lower chamber with a suitable stop cock therein, a gas valve e¹¹ adapted to fit against a suitable seat in the lower chamber, a cylindrical valve e¹, with an aperture t, to one side adapted to reciprocate in a suitable seat in the upper chamber, an aperture being through the chamber at that point to register with the aperture t, the said valves being adapted to return to their seats when pressure is removed.

No. 51,159. Device to Prevent the Refilling of Bottles.
(Appareil pour empêcher le remplissage des bouteilles.)



Charles Booker, Toronto, Ontario, Canada, 28th January, 1896; 6 years. (Filed 30th July, 1895.)

Claim.—1st. In a device to prevent the refilling of bottles, a bottle having an interior groove in combination with a stopper composed of upper half C, and lower half C¹, provided with cork ring and joined together, the upper half having an annular groove for split spring ring D, a central disc, connected by means of wings 10, forming openings 12, the rigid guard having wings connected to its lower concave central piece 7, having central pin 8, to fit socket in valve F, having wings, said socket having a slight spiral spring, to

engage with said pin of guard, substantially as described and set forth. 2nd. In a device to prevent the refilling of bottles, a bottle having an interior groove, in combination with a stopper composed of upper half C, and lower half C', provided with cork ring and joined together, the upper half having a central disc, connected by means of wings 10, forming openings 12, the rigid guard having wings connected to its lower concave central piece 7, having central pin 8, to fit socket in valve F, having wings, said socket having a slight spiral spring, to engage with said pin of guard, substantially as described and set forth. 3rd. In a device to prevent the refilling of bottles, the valve F, having three wings and socket, containing spiral spring, the pin 8, of a guard having wings and central opening 14, in combination with a stopper having seat and opening for said valve, and upper openings 12, and disc 9, substantially as described and set forth. 4th. In a device to prevent the refilling of bottles, the stopper provided with a split spring ring fitting in a groove in said stopper and a groove in the neck of a bottle, a central disc connected to stopper by means of wings forming openings 12, in combination with a rigid guard having central opening and wings to connect to lower piece 7, having shank 8, to engage with spiral spring in socket of valve F, on seat with central opening at lower end of said stopper having outer ring E, substantially as described and set forth.

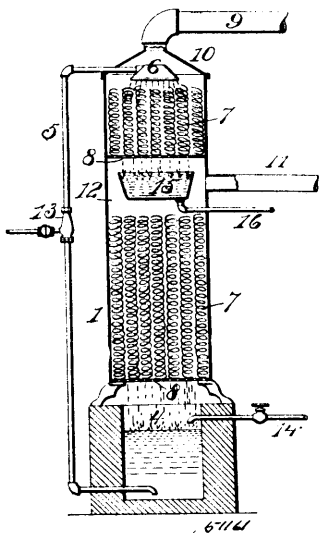
No. 51,160. Method of Testing Gas Mains.

(Méthode de faire l'essai des tuyaux de conduite du gaz.)

Adolphe Bowvier, Lyons, France, 28th January, 1896; 6 years. (Filed 13th August, 1895.)

Claim.—1st. The method of testing gas mains as described. 2nd. The method of testing gas mains by the application of siphon test boxes to a system of gas mains, for dividing them into sections which can be completely isolated the one from the other by introducing water into the siphon test boxes. 3rd. The method of testing gas mains by means of siphon test boxes and a portable gasometer, for the purpose of testing sections of gas mains for leaks and measuring their importance.

No. 51,161. Apparatus for Cooling or Condensing Fluids. (Appareil pour refroidir ou condenser les fluides.)

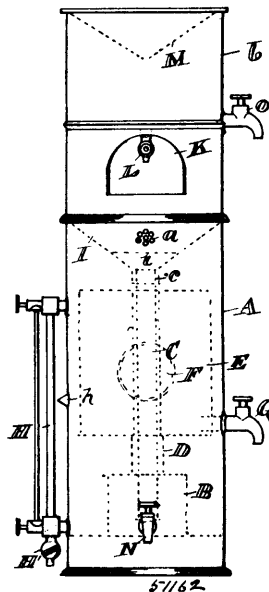


George A. Barnard, New York, U.S.A., 28th January, 1896; 6 years. (Filed 17th June, 1895.)

Claim.—1st. In an apparatus for cooling or condensing fluids, the combination of an inclosing case or shell, fluid supply and discharge passages leading to and from said case, an interposed piled or woven rod or wire filling, and an exhaust steam connection, substantially as set forth. 2nd. In an apparatus for cooling or condensing fluids, the combination of an inclosing case or shell, fluid supply and discharge passages leading to and from said case, a piled or woven rod or wire filling interposed, in separate bodies, between the supply and discharge passages, an exhaust steam connection leading into the case between the bodies of filling, and a feed water receptacle located within the case adjacent to the exhaust steam connection, substantially as set forth. 3rd. In an apparatus for cooling or condensing fluids, the combination of an inclosing case or shell, fluid supply and discharge passages leading to and from said case, a delivery receptacle below the case, a lifting device for elevating liquid from the delivery receptacle to the supply passage, a piled

or woven wire or rod filling interposed, in separate bodies, between the supply and discharge passages, and an exhaust steam connection leading into the case between the bodies of filling, substantially as set forth. 4th. In an apparatus for cooling or condensing fluid, the combination of an inclosing case or shell, fluid supply and discharge passages leading to and from said case, an interposed piled or woven rod or wire filling, an air blast pipe discharging into and through said filling, and an exhaust steam connection, substantially as set forth. 5th. In an apparatus for cooling or condensing fluids, the combination of an inclosing case or shell having fluid supply and discharge passages leading to and from said case, a filling or body of piled or woven rods or wires interposed between said supply and discharge passages, and means for admitting a fluid body under pressure in contact with fluid passing from the supply duct and percolating through said filling towards the discharge passage, substantially as set forth.

No. 51,162. Oil Filter. (Filtre à huile.)



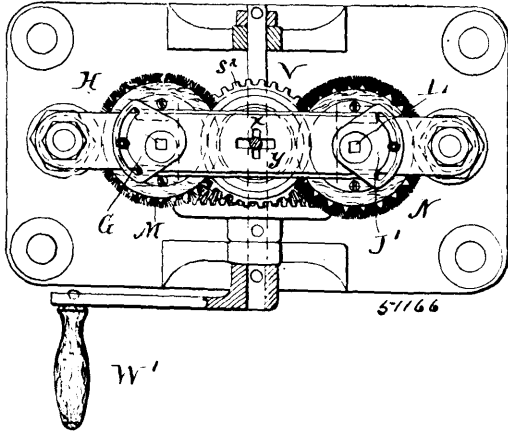
Edward Hill Downing, Vancouver, British Columbia, Canada, 28th January, 1896; 6 years. (Filed 7th November, 1895.)

Claim.—1st. In an oil filter, the combination of a tank A, having a chamber B securely fixed to its bottom, and provided with openings b at its base, and strainers b' around and from its centre at the top, a tube C passing through its centre and securely fastened thereto, and a funnel I carrying a strainer i, engaging the top of the said tube, all substantially as and for the purposes set forth. 2nd. In an oil filter, the combination of a tank A, a chamber B, with a tube C, and a reservoir E, encircling the tube C, and resting upon a seat D, and being provided with two or more recess openings F, which are provided with strainers e, and sponge-carrying frames f, an air tube e', and being connected from the outside by a tap G, substantially as and for the purposes set forth. 3rd. In an oil filter, the combination of a tank A, a chamber B, a tube C, carrying a reservoir E, which is provided with sponge-carrying recesses, and an escape air pipe e', with its mouth arranged adjacent to a series of apertures a, in the upper part of the tank A, a water gauge H securely fixed on the exterior of the tank, with a point h for high water mark, fixed in a horizontal line with the bottom of the recess openings in the oil reservoir, and adjacent to the water gauge, substantially as and for the purposes set forth. 4th. In an oil filter, the combination of a tank, having its bottom arranged some distance from its exterior support, and a tap M connecting to its interior immediately above the said bottom, a second tank placed as shown, upon its top, having its bottom fixed about the centre of its cylindrical part, and said bottom sloping, substantially as and for the purposes set forth. 5th. In an oil filter, the combination of a tank, being provided with suitable means for passing oil through an aqueous bath to a reservoir, a second tank arranged as shown upon the tank A, and divided by a sloping partition at or near its centre, an escape tap L fixed in the said bottom, a tap C fixed upon its exterior and connecting with the upper part of the said tank at a point approximate to the lower side of the sloping partition, and a strainer M depending at its centre, as shown, all substantially as and for the purposes herein set forth.

No. 51,163. Automatic Safety Attachment for Gas Burners. (Attache de surt t automatique pour bruleurs   gaz.)

Henry Havelock Cumming, Malden, Massachusetts, U.S.A., 28th January, 1896; 6 years. (Filed 7th November, 1895.)

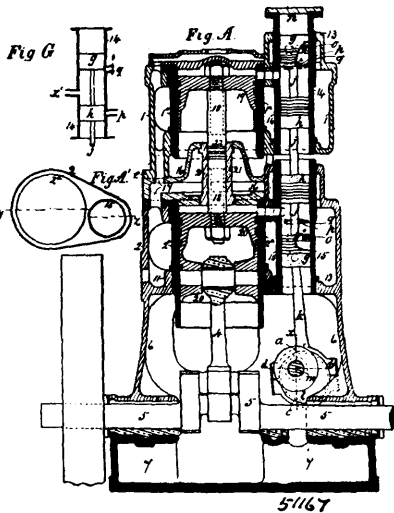
No. 51,166. Method of and Machine for Cleaning the Wire Gauze Cylinder of Safety Lamps.
 (Méthode et machine pour nettoyer les cylindres en gaze de lampe de surêté.)



Gottfried Grossmann, Dortmund, Germany, 28th January, 1896; 6 years. (Filed 19th April 1895.)

Claim.—1st. The method of cleaning the wire gauze cylinders of miners safety lamps, by revolving the same between two or more rotating brushes and under a flat brush, while an inner rotary brush is revolved inside the cylinder in the opposite direction to the same or in the same direction at a different speed. 2nd. The use and arrangement of a machine for cleaning wire gauze cylinders of safety lamps, containing a vertical rotary brush over which the cylinder is fixed upon a rotating plate or equivalent, two or more vertical rotary brushes acting on the sides of the cylinder and a flat brush acting on the top of the same, said rotary brushes and cylinder being rotated in opposite directions or at different circumferential speeds. 3rd. In a machine for cleaning the wire gauze cylinders of safety lamps by revolving brushes the arrangement of two or more hollow shafts with rotary brushes for cleaning the outside of the cylinder upon stationary spindles placed at different distances from the wire cylinder and adjustable relatively thereto.

No. 51,167. Gas etc., Motor Engine. (Moteur.)

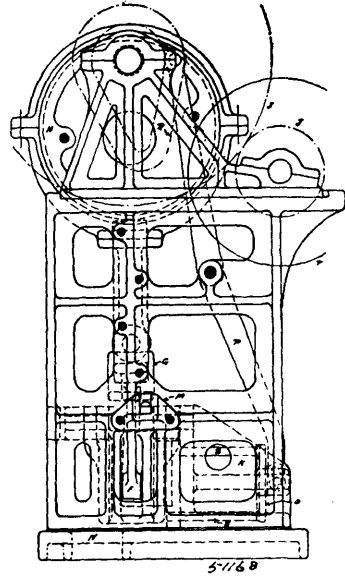


Peter Burt and George McGhee, both of Glasgow, Scotland, 28th January, 1896; 6 years. (Filed 23rd January, 1894.)

Claim.—1st. A gas or combustible vapour motor engine comprising two motor cylinders 1 and 2 fitted respectively with pistons 19, 20, piston rod 18 working fluid tight through cylinder cover 16, casings 14, 15 each having ports o, p, q controlled by a piston valve on rod J wrought by valve shaft m geared two to one with crank-shaft 5, all arranged and operating substantially as hereinbefore described and shown. 2nd. The combination with a gas engine comprising a motor cylinder 2 having a motor piston 20 and connecting rod 4 giving one impulse every two revolutions to a crank-shaft

5, of a second motor cylinder 1 mounted concentric with cylinder 2 and fitted with a piston 19 on piston rod 18 having packing rings 22 sliding inside a liner 21 in cylinder cover 16, and having a valve case with ports o, p, q controlled by a piston valve, all arranged and operating substantially as hereinbefore set forth and shown. 3rd. In a gas engine comprising two 4 stroke cycle motor cylinders and pistons, the combination with each cylinder and communicating therewith of a valve case having located about midway therein a motor fluid inlet port p and alongside said port p a small ignition port q, and also towards the controlling valve G an exhaust port O, said ports being controlled by a balance piston valve G on a rod reciprocated by mechanism geared two to one off crank-shaft, all as and for the purposes described and shown. 4th. In a gas engine, the combination of two 4 stroke cycle motor cylinders communicating each with a valve chamber, having towards one end a motor fluid inlet port P, controlled by a piston valve H, and towards the other end of said case and igniting port q controlled by a balance piston valve G, and the cylinder port X' located midway, all as and for the purposes set forth and shown.

No. 51,168. Machine for Bending Links.
 (Machine pour plier les mailles.)



George Percy Simpson, Montreal, Quebec, Canada, 28th January, 1896; 6 years. (Filed 30th March, 1895.)

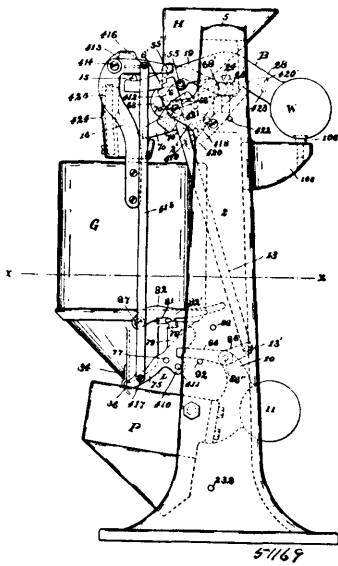
Claim.—1st. The combination of the dies A, A, and the mandrel D, so as to swing the dies round the mandrel on the pivots V, V, substantially as and for the purpose hereinbefore set forth. 2nd. The setting of the grooves E, E, in the dies A, A, at an angle, substantially as and for the purpose hereinbefore set forth.

No. 51,169. Weighing Machine. (Pont à bascule.)

Francis H. Richards, Hartford, Connecticut, U.S.A., 28th January, 1896; 6 years. (Filed 11th November, 1895.)

Claim.—1st. In a weighing-machine, the combination with a bucket having a closer, and with a valve, of means for actuating the valve to open and close the same independently of the operation of the bucket-closer, and mutually-dependent means operative, respectively, with the valve and with the closer for reciprocally limiting the opening movement of the closer by the non-closing of the valve, and the opening of the valve by the non-closing of the closer. 2nd. In a weighing-machine, the combination with a scale-beam, a valve mechanism, a bucket carried by the scale-beam, and a closer for the bucket, of means in position and adapted for actuating the valve mechanism on the descent of the scale-beam for reducing the supply-stream, a stop-arm on the valve mechanism, and means in connection with the bucket-closer and in position and adapted for engaging said stop-arm during the load-force period to hold the valve mechanism against return movement during said period. 3rd. In a weighing-machine, the combination with a scale-beam, a valve mechanism, a bucket carried by the scale-beam, and a closer for the bucket, of means actuated by the poising-movement of the beam for reducing the supply-stream and locking the valve mechanism against closing, means actuated by the overpoise-movement of the beam for releasing the valve mechanism and cutting off the supply-stream, a stop-arm on the valve mechanism, and means in connection with the bucket closer and in position and adapted for engaging said stop-arm during the load-force period to hold the valve mechanism against return movement during said period. 4th. In a weighing machine, the combination with a valve

mechanism, and with a bucket having a closer, of two coacting stops, one operative with the valve, and the other operative with the closer.



and in position and adapted, each to serve as a stop device for the other, substantially as described. 5th. In a weighing-machine, the combination with a valve mechanism having a stop-arm, and with a bucket having means for closing the same, of a stop adjacent to the valve mechanism and connected with the bucket-closing means and in position and adapted for engaging said stop-arm to hold the bucket closing means closed when the valve mechanism is open, and for engaging said stop-arm to hold the valve mechanism closed when the bucket-closing means is open, substantially as described. 6th. In a weighing-machine, the combination with valve mechanism, and with bucket mechanism having a closer, of a pivotally-supported swinging stop operative with the closer, and having its pivot in fixed relation with one of said mechanisms and movable therewith, whereby said stop has a swinging movement with said mechanism and relatively thereto, and a stop carried by, and operative with, the other of said mechanisms, said stops having coacting portions in position and adapted to serve, each as a stop device for the other stop, substantially as described. 7th. In a weighing-machine, the combination with a valve mechanism, and with a bucket having a closer, of a pivotally supported swinging stop having its pivot in fixed relation with the bucket and movable therewith, connecting means operative from the closer and pivoted to said stop, substantially midway between said first-mentioned pivot and the free end of the stop whereby said stop has a multiplied swinging movement with the bucket and relatively thereto, and stop carried by, and operative with, the valve, said stops having their free ends in position and adapted to serve, each as a stop device for the other, substantially as described. 8th. In a weighing-machine, the combination with a bucket having a closer, and with a valve, of means actuating the valve independently of the operation of the closer, and a valve-stop operative with the closer and independently of the operation of the valve, and in position and adapted for intercepting the opening movement of the valve on the opening of the closer. 9th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing the bucket and the regulator, of means in position and adapted for actuating said valve mechanism upon the descent of the scale-beam, and thereby cutting off the supply-stream, a stop-arm upon the valve mechanism, and means in connection with the bucket closing means and in position and adapted for engaging said stop-arm during the load-force period to hold the valve mechanism against return movement during said period, substantially as described. 10th. In an automatic weighing machine, the combination with a scale beam, valve mechanism, a bucket, means for closing the bucket, and a regulator, of means in position and adapted for actuating said valve mechanism upon the descent of the scale beam and thereby reducing and cutting off the supply-stream, a stop arm upon the valve mechanism, and means in connection with the bucket-closing means and in position, and adapted for engaging said stop-arm during the load-force period to hold the valve mechanism at any point of its closing movement against return movement during said period, substantially as described. 11th. In an automatic weighing machine, the combination with a scale-beam, valve-mechanism, a bucket, means for closing the bucket, and a regulator, of means actuated by the poising-movement of the beam for reducing the supply-stream and locking the valve mechanism against closing, means actuated by the overpoise-movement of the beam for releasing the valve mechanism and cutting off the supply stream, a

stop-arm upon the valve mechanism, and means in connection with the bucket-closing means, and in position and adapted for engaging said stop-arm during the load-force period to hold the valve mechanism against return movement during said period, substantially as described. 12th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing the bucket, and a regulator, of means actuated by the poising movement of the beam for reducing the supply stream, a stop adapted to lock said valve mechanism against closing at the end of the reducing movement, means actuated by the overpoise-movement of the beam for releasing the valve mechanism and cutting off the supply stream, a stop arm upon the valve mechanism, and means in connection with the bucket-closing means in position and adapted for engaging said stop arm during the load-force period to hold the valve mechanism at any point of its closing movement against return movement during said period, substantially as described. 13th. In an automatic weighing machine, the combination with a scale-beam, valve mechanism, and a bucket, of means controlled by the descent of the scale-beam for actuating said valve mechanism, and thereby cutting off the supply-stream, a detent for said valve mechanism, a latch adapted to engage said detent upon the descent of the beam, and thereby prevent return movement of the valve mechanism, and means controlled by the opening of the bucket for holding said latch in engagement with the detent upon the return of said bucket, substantially as described. 14th. In an automatic weighing-machine, the combination with a scale beam, valve mechanism, a bucket, means for closing the bucket, and a regulator, of means connected with the bucket-closing means and in position and adapted for closing the valve mechanism during the load-force period and preventing return movement of said valve mechanism during said period, and means also connected with the bucket-closing means and in position and adapted for locking said bucket-closing means closed, and opening the valve mechanism during the reactive-period, substantially as described. 15th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing the bucket, and a regulator, of means connected with the bucket-closing means and in position and adapted for closing the valve mechanism and releasing said bucket-closing means during the load-force period, and preventing return movement of said valve mechanism during said period, and means also connected with the bucket-closing means and in position and adapted for simultaneously locking said bucket-closing means closed, and releasing the valve mechanism during the reactive-period, and subsequently opening said valve mechanism during said period, substantially as described. 16th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, a regulator, and a stop-arm upon the valve mechanism, of mutually-dependent means co-operating with said stop-arm and in position and adapted, respectively, for closing the valve mechanism and opening the bucket during the load-force period, and mutually-dependent means connected with the regulator, and in position and adapted for closing the bucket and opening the valve mechanism during the reactive-period, substantially as described. 17th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, a regulator, and a stop-arm upon the valve mechanism, of mutually-dependent means co-operating with said stop-arm and in position and adapted, respectively, for releasing and closing the valve mechanism, and preventing the opening of the same and opening the bucket during the load-force period, and mutually-dependent means connected with the regulator, and in position and adapted for closing the bucket and opening the valve mechanism during the reactive-period, substantially as described. 18th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, a regulator, and a stop-arm upon the valve mechanism, of mutually-dependent means co-operating with said stop-arm and in position and adapted, respectively, for closing the valve mechanism and opening the bucket during the load-force period, and mutually-dependent means connected with the regulator and in position and adapted for successively closing the bucket and opening the valve mechanism during the reactive-period, substantially as described. 19th. In an automatic weighing-machine the combination with a scale-beam, valve mechanism, a bucket, means for closing the bucket, and a regulator, of means connected with the bucket-closing means and in position and adapted for closing the valve mechanism and releasing the bucket-closing means during the load-force period, and for preventing return movement of said valve mechanism during said period, and means connected with the regulator for locking said bucket-closing means closed and opening the valve mechanism upon the ascent of said regulator, substantially as described. 20th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing the bucket, and a regulator, of means connected with the bucket-closing means and in position and adapted for closing the valve mechanism and releasing the bucket-closing means during the load-force period, and for preventing return movement of said valve mechanism during said period, and means connected with the regulator for successively locking said bucket-closing means closed, and opening the valve mechanism upon the ascent of said regulator, substantially as described. 21st. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, and a regulator, of means connected with the bucket-closing means and

in position and adapted for closing the valve mechanism, and releasing the bucket-closing means during the load-force period, and for preventing return movement of said valve mechanism during said period, means connected with the regulator for locking said bucket-closing means closed, and opening the valve mechanism upon the ascent of said regulator, and means actuated by the closure of the bucket for unlocking the valve mechanism and permitting said return movement thereof, substantially as described. 22nd. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing said bucket, and a regulator, of means in position and adapted for actuating said valve mechanism upon the descent of the scale-beam, and thereby cutting-off the supply-stream, a detent for said valve mechanism, a latch adapted to engage said detent upon the descent of the beam, and thereby prevent return movement of the valve mechanism, means connected with the bucket-closing means and in position and adapted for bringing said latch into engagement with the detent upon the release of said bucket-closing means, and for maintaining said latch and detent in engagement upon the return of the bucket, and means also connected with the bucket-closing means and in position and adapted for locking said bucket-closing means closed, and opening the valve mechanism during the reactive-period, substantially as described. 23rd. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing said bucket, and a regulator, of means in position and adapted for actuating said valve mechanism upon the descent of the scale-beam and thereby cutting-off the supply-stream, a detent for said valve mechanism, a latch adapted to engage said detent upon the descent of the beam and thereby prevent return movement of the valve mechanism, means connected with the bucket-closing means in position and adapted for bringing said latch into engagement with the detent upon the release of said bucket closing means, and for maintaining said latch and detent in engagement

upon the return of the bucket, and means connected with the regulator for locking said bucket-closing means closed and opening the valve mechanism upon the ascent of said regulator, substantially as described. 24th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing said bucket, and a regulator, of means in position and adapted for actuating said valve mechanism upon the descent of the scale-beam, and thereby cutting off the supply-stream, a detent for said valve mechanism, a latch adapted to engage said detent upon the descent of the beam and thereby prevent return movement of the valve mechanism, means connected with the bucket closing means and in position and adapted for bringing said latch into engagement with the detent upon the release of said bucket-closing means, and for maintaining said latch and detent in engagement upon the return of the regulator, and means connected with the regulator for successively locking said bucket-closing means closed and opening the valve mechanism upon the ascent of said regulator, substantially as described. 25th. In an automatic weighing-machine, the combination with a scale-beam, valve mechanism, a bucket, means for closing said bucket, and a regulator, of means in position and adapted for actuating said valve mechanism upon the descent of the scale-beam, and thereby cutting off the supply-stream, a detent for said valve mechanism, a latch adapted to engage said detent upon the descent of the beam and thereby prevent return movement of the valve mechanism, means connected with the bucket-closing means and in position and adapted for bringing said latch into engagement with the detent upon the release of said bucket-closing means, and for maintaining said latch and detent in engagement upon the return of the bucket, means connected with the regulator for locking said bucket-closing means closed, and opening the valve mechanism upon the ascent of said regulator, and means actuated by the closure of the bucket for unlocking the valve mechanism and permitting said return movement thereof, substantially as described

**CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO
THE FOLLOWING PATENTS.**

4205. EDWARD DUMMER, 2nd term of No. 35,712, from the 7th day of January, 1896. Paper Feeding Machine, 3rd January, 1896.
4206. HENRY LOWELL LEACH, 2nd term of No. 35,817, from the 17th day of January, 1896. Track Sanding Apparatus, 4th January, 1896.
4207. JOSIAH ATKINS PARKER, 2nd term of six years of No. 41,454, from the 4th day of January, 1896. Telegraphic Apparatus, 4th January, 1896.
4208. FRED WILLIAM SNOW, 2nd and 3rd terms of No. 36,158, from the 16th day of March, 1896. Switch Stand, 7th January, 1896.
4209. FRED W. SNOW, 2nd and 3rd terms of No. 37,301, from the 3rd day of September, 1896. Switch Stand, 7th January, 1896.
4210. J. & J. TAYLOR (assignees), 3rd term of No. 23,186, from the 14th day of January, 1896. Fire-proof Safe, January 7th, 1896.
4211. PERRY BROWN, 2nd term of No. 35,711, from 7th January, 1896. Car Couplings, 7th January, 1896.
4212. THE RATHBUN COMPANY (assignee), 3rd term of No. 23,596, from the 13th day of March, 1896. Process of Manufacturing Terra Cotta Lumber, 7th January, 1896.
4213. CHARLES WALDO ADAMS, 3rd term of No. 23,158, from the 13th day of January, 1896. Slashed Metallic Screening, 7th January, 1896.
4214. CHARLES WALDO ADAMS, 3rd term of No. 23,427, from the 15th day of January, 1896. Process of Making Metallic Screening Material, 8th January, 1896.
4215. CHARLES WALDO ADAMS, 3rd term of No. 23,480, from the 23rd January, 1896. Machine for and Process of Preparing Metallic Screening, 8th January, 1896.
4216. CHARLES FAWCETT, 3rd term of No. 23,204, from 15th January, 1896. Culinary and Agricultural Boilers, 8th January, 1896.
4217. WESLEY HOWELL, 2nd term of No. 35,791, from the 16th day of January, 1896. Liquid Fuel Burner, 8th January, 1896.
4218. THOMAS H. ADAMS, 3rd term of No. 23,239, from the 19th day of January, 1896. Inhaler, 9th January, 1896.
4219. FREDERICK DUNCAN MERCER and JOHN SMITH MERCER, 2nd term of No. 35,738, from the 12th day of January, 1896, Harvester Binder, 11th January, 1896.
4220. WILLIAM ALEXANDER BERNARD, 2nd term of No. 35,834, from 20th January, 1896. Pliers, Pincers, and Similar Tools, 11th January, 1896.
4221. DOBSON and CRAWFORD (assignee), 2nd term of No. 35,816, from the 17th day of January, 1896. Bolting Reel, 11th January, 1896.
4222. HUGO KRANZ and HENRY ALETTER, 3rd term of No. 23,136, from 11th January, 1896. Stretcher for Felt Boots, Shoes and Stockings, 11th January, 1896.
4223. ALBERT BAUR, 2nd term of No. 36,015, from the 19th January, 1896. Process of Making Artificial Musk, 13th January, 1896.
4224. THE BELL TELEPHONE COMPANY (assignee), 2nd term of No. 36,537, from 4th of May, 1896. Electrical Fire Alarm, 13th January, 1896.
4225. THE BELL TELEPHONE COMPANY (assignee), 2nd and 3rd terms of No. 36,002, from the 17th day of February, 1896. Telephone Exchange Apparatus, 13th January, 1896.
4226. DANIEL CONBOY, 2nd term of No. 35,810, from the 17th January, 1896. Knob-eyelet for Carriage-Top Curtains, 13th January, 1896.
4227. JOHN MILNE, 2nd term of No. 38,277, a re-issue of No. 35,887, from the 28th day of January, 1896. Warehouse Scales, 13th January, 1896.
4228. JOHN B. F. HERRESHOFF, GEORGE H. NICHOLS, and WILLIAM HENRY NICHOLS, 3rd term of No. 23,436, from the 16th day of February, 1896. Sulphuric Acid Tower, 14th January, 1896.
4229. WILLIAM ALEXANDER COWAN, 2nd term of No. 35,866, from the 22nd day of January, 1896. Whip Socket and Rein Holder Combined, 14th January, 1896.
4230. C. B. TAGGART, 2nd term of No. 35,776, from the 15th day of January, 1896. Washing Machine, 15th January, 1896.
4231. KILGOUR BROTHERS (assignee), 2nd term of No. 35,888, from the 28th day of January, 1896. Paper Bag, 15th January, 1896.
4232. J. O. WISNER, SON & CO. (assignee), 3rd term of No. 23,224, from the 16th day of January, 1896. Seeding Machine, 15th January, 1896.
4233. THOMAS RILEY, 2nd term of No. 35,827, from the 19th day of January, 1896. Valve, 15th January, 1896.
4234. MATHIAS JENSEN and THE JENSEN CAN FILLING COMPANY (assignee), 2nd term of No. 36,153, from the 16th day of March, 1896. Machine for Forming Sheet Metal Can Bodies, 16th January, 1896.
4235. WILLIAM WALLACE HERR, 2nd term of No. 35,911, from the 2nd day of February, 1896. Pump, 17th January, 1896.
4236. HELEN DOIG KYDD and THOMAS W. KYDD, 2nd term of No. 35,839, from 20th January, 1896. Snow Skate, 17th January, 1896.
4237. FRANKLIN S. MCKENNEY, 2nd term of No. 35,823, from the 19th day of January, 1896. Lacing Eye, 18th January, 1896.
4238. FRANKLIN S. MCKENNEY, 2nd term of No. 35,824, from the 19th day of January, 1896. Fastening for Lacing Gloves, 18th January, 1896.
4239. FRANKLIN S. MCKENNEY, 2nd term of No. 35,825, from the 19th day of January, 1896. Lacings for Gloves, 18th January, 1896.
4240. HOWARD MATRAVERS ASHLEY, 2nd term of No. 35,822, from the 19th day of January, 1896. Machinery for Making Hollow Glass Articles, 18th January, 1896.
4241. GEORGE P. RISHEL, 2nd term of No. 35,894, from the 29th day of January, 1896. Wire Fencing, 20th January, 1896.
4242. CHARLES AVERY, 3rd term of No. 23,290, from 30th day of January, 1896. Fence Rail Fastener, 21st January, 1896.
4243. THOMAS TOMLINSON, 2nd term of No. 35,941, from the 3rd day of February, 1896. Seal Trap for Catch Basins, 21st January, 1896.
4244. THE GENDRON MANUFACTURING COMPANY (assignee), 2nd term of No. 35,873, from the 23rd day of January, 1896. Wagon, 22nd January, 1896.

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| 4245. THE GENDRON MANUFACTURING COMPANY (assignee), 2nd term of No. 35,873, from the 23rd day of January, 1896. Detachable Sleigh Runner, 22nd January, 1896. | 4249. CLEMENS VON BECHTOLSHEIM, 2nd term of No. 35,981, from the 13th day of February, 1896. Centrifugal Separator, 23rd January, 1896. |
| 4246. PITT WILLIAM STRONG, 3rd term of No. 23,604, from the 15th day of March, 1896. Milk Weighing Can and Conveyor, 22nd January. 1896. | 4250. DANIEL BOLWER MERRELL, 2nd term of No. 35,983, from the 24th day of February, 1896. Manure Spreader, 24th January, 1896. |
| 4247. PITT WILLIAM STRONG, 3rd term of No. 23,630, from the 24th day of January, 1896. Cheese Vat, 22nd January, 1896. | 4251. RUBY Z. CURTIS, 2nd term of No. 42,341, from the 20th March, 1896. Churn, 29th January, 1896. |
| 4248. EUGENE CAREZ, 2nd and 3rd terms of No. 37,542, from the 6th day of October, 1896. Saccharification of Amylaceous Matter, 23rd January, 1896. | 4252. JAMES SPENCER PARMENTER, 2nd term of No. 35,957, from the 6th day of February, 1896. Drying Kiln, 30th January, 1896. |
| | 4253. DANIEL R. SILLESKY, 2nd term of No. 35,953, from the 6th day of February, 1896. Shirt, 31st January, 1896. |

TRADE - MARKS

Registered during the month of January, 1896, at the Department of Agriculture—
Copyright and Trade-Mark Branch.

5510. ASPHALTINA COMPANY OF AMERICA, Syracuse, New York, U.S.A. Compositions for Sewer pipes, Electric Conduits, and Roofing and Paving, 2nd January, 1896.
5511. GEORGE FREDERICK MARTER, Toronto, Ont. Spices, Coffees, Extracts, Baking Powder and Herbs. 4th January, 1896.
5512. THOMAS CORNER & R. CROMWELL CORNER, New York, N.Y., U.S.A., trading as CORNER BROTHERS & COMPANY. Dry and Pickled Fish of all kinds. 4th January, 1896.
5513. THE METALLIC ROOFING COMPANY OF CANADA, LIMITED, Toronto, Ont. Paints and Preservative Compounds for Metal or Wood, 4th January, 1896.
5514. PETER GRAHAM PILKIE, Lindsay, Ont. A Cure for Diphtheria, 8th January, 1896.
5515. JOSEPH ADOLPHE CHRISTIN, Montreal, Que. Seltzer Water, 8th January, 1896.
5516. THE GOLDIE & McCULLOCH CO. Ld., Galt, Ont. A High Speed Engine, 9th January, 1896.
5517. THE WESTERN NEW YORK PRESERVING AND MANUFACTURING COMPANY, Springville, N.Y., U.S.A. Steamed Hominy (Hulled Corn), 13th January, 1896.
5518. WILLIAM H. H. CHILDS & EVERSLEY CHILDS, New York, N.Y., U.S.A., trading as THE MICA ROOFING COMPANY. Two Ply Roofing Felt, 14th January, 1896.
5519. WILLIAM H. H. CHILDS & EVERSLEY CHILDS, New York, N.Y., U.S.A., trading as THE MICA ROOFING COMPANY. Three Ply Roofing Felt, 14th January, 1896.
5520. GEORGE ROBERT EDGAR KENNEDY, Beebe Plain, Stanstead Co., Que. Fire Extinguishers, 17th January, 1896.
5521. E. A. SMITH, St. John, N.B. Flour, 20th January, 1896.
5522. WATSON GRIFFIN, Montreal, Que. A Newspaper, 21st January, 1896.
5523. J. WALTER ALLISON & FREDERICK J. WARD, Halifax, N.S., trading as JOHN P. MOTT & CO. Soap, 25th January, 1896.
5524. WILLIAM BRAMLEY, Montreal, Que. Jewellery, 27th January, 1896.
5525. } ONEIDA COMMUNITY LIMITED, Kenwood, Madison Co., New York,
5526. } U.S.A. Animal Traps, 27th January, 1896.
5527. }
5528. GEORGE A. MCGOWAN, Kingston, Ont. Cigars, 30th January, 1896.
5529. THE DURABLE PRINTERS' ROLLER COMPANY, LIMITED, London, England. Composition for the manufacture of Printers Rollers, 30th January, 1896.

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Copyright and Trade-Mark Branch.

8296. DON'T TELL MOTHER THAT HER BOY WENT WRONG. Song and Chorus. Words and Music by Charles Harvey. Whaley, Royce & Co., Toronto, Ont., 2nd January, 1896.
8297. DE 'POSSUM DADDY STOLE. (Coon Song.) Words and Music by Charles Harvey. Whaley, Royce & Co., Toronto, Ont., 2nd January, 1896.
8298. THE FANDANGO WALTZES. By Nathan Osborne. Op. 4. Whaley, Royce & Co., Toronto, Ont., 2nd January, 1896.
8299. WHO'S YOUR FRIEND? Words and Music by Harry Von Tilzer. Whaley, Royce & Co., Toronto, Ont., 2nd January, 1896.
8300. I WILL COME BACK TO YOU. Words and Music by Roma. Whaley, Royce & Co., Toronto, Ont., 2nd January, 1896.
8301. TABLEAU STÉNOGRAPHIQUE, à l'usage des Ecoles. (Duployé.) Joseph de LaRoche, Montréal, Qué., 3 janvier 1896.
8302. CHRYSANTHEMUM TWO-STEP. By Frank E. Blachford. The Anglo-Canadian Music Publishers' Association (L'd.), London, England, 3rd January, 1896.
8303. BELL TELEPHONE COMPANY OF CANADA, LIMITED, OTTAWA EXCHANGE SUBSCRIBERS' DIRECTORY, JANUARY, 1896. The Bell Telephone Company of Canada, (L'd.), Montreal, Que., 3rd January, 1896.
8304. PRÉCIS DE MÉDECINE VÉTÉRINAIRE, à l'usage des Cultivateurs. Par Joseph Alphonse Couture, Québec, Qué., 4 janvier 1896.
8305. THE SONG OF THE SOUTHERN MAIDEN. Words by W. W. Wakeham. Music by Albert Nordheimer. A. & S. Nordheimer, Toronto, Ont., 6th January, 1896.
8306. A FOUNT OF MUSIC. Song. Words from James Russell Lowell. Music by J. Lewis Browne. Whaley, Royce & Co., Toronto, Ont., 7th January, 1896.
8307. THE GLOBE FIRE. Descriptive Song. Words by A. C. Lawrence. Music by W. A. Hewton. Whaley, Royce & Co., Toronto, Ont., 7th January, 1896.
8308. APPEAL REPORTS. Volume XXII. The Law Society of Upper Canada, Toronto, Ont., 7th January, 1896.
8309. ONTARIO REPORTS. Volume XXVI. The Law Society, etc., 7th January, 1896.
8310. THE CANADIAN MAGAZINE, JANUARY, 1896. The Ontario Publishing Co. (L'd.), Toronto, Ont., 7th January, 1896.
8311. EXERCICES ORTHOGRAPHIQUES. Cours de Première Année. Par P. P. B. Jean Routhier, Montréal, Qué., 7 janvier 1896.
8312. PETIT DICTIONNAIRE OU LEXIQUE ORTHOGRAPHIQUE. Par L. F. E. C. Jean Routhier, Montréal, Qué., 7 janvier 1896.
8313. CALENDAR DESK PAD, 1896. *Re* The Toronto Steel-Clad Bath & Metal Company (L'd.), and The Booth Copper Company, Toronto. Arthur George Booth, Toronto, Ont., 7th January, 1896.
8314. THE COMBINED DOMINION POCKET DIARY AND MEMORANDUM, 1896. The Copp, Clark Co. (L'd.), Toronto, Ont., 9th January, 1896.
8315. HEARTEASE HYMNS AND OTHER VERSES. By William P. McKenzie, Toronto, Ont., 9th January, 1896.
8316. THE GOLFERS. Morceau de Danse. Par R. Humphreys. The Anglo-Canadian Music Publishers' Association (L'd.), London, England, 10th January, 1896.
8317. RITUAL OF THE CANADIAN ORDER WOODMEN OF THE WORLD. The Canadian Order of the Woodmen of the World, London, Ont., 10th January, 1896.
8318. UNDER THE STANDARD. Song. Words by Clifton Bingham. Music by Chas. A. E. Harriss. Whaley, Royce, & Co., Toronto, Ont., 13th January, 1896.

8319. SUPPLEMENTUM AD GRADUALE. (Livre.) C. O. Beauchemin et fils, Montréal, Qué., 14 janvier, 1896.
8320. SUPPLEMENTUM AD ANTIPHONARIUM. (Livre.) C. O. Beauchemin et fils, Montréal, Qué., 14 janvier, 1896.
8321. NORA. Words and Music by L. J. Doyle. Whaley, Royce & Co., Toronto, Ont., 15th January, 1896.
8322. THE TENDERLOIN TWO-STEP. By Charles Harvey. Whaley, Royce & Co., Toronto, Ont., 15th January, 1896.
8323. NOBODY WANTS TO PLAY WITH ME. (Pathetic Song and Chorus.) By Thos. M. Bowers. Whaley, Royce & Co., Toronto, Ont., 15th January, 1896.
8324. BELL TELEPHONE COMPANY OF CANADA, (LIMITED), HAMILTON AND DUNDAS EXCHANGES, SUBSCRIBERS' DIRECTORY, ONTARIO DEPARTMENT, JANUARY, 1896. The Bell Telephone Company of Canada, Limited, Montreal, Que., 16th January, 1896.
8325. THE CIRCUIT GUIDE—SPRING ASSIZES, 1896. By George Allan Kingston, Toronto, Ont., 18th January, 1896.
8326. WE STAND TO GUARD. (Poem.) By William Thomas James, Toronto, Ont., 18th January, 1896.
8327. MÈRE MARIE ROSE. (Fondatrice de la Congrégation des SS. Noms de Jésus et de Marie au Canada.) Par Fidelis. Les Sœurs de la Congrégation des SS. Noms de Jésus et de Marie, Hochelaga, Qué., 20 janvier, 1896.
8328. FASHIONS. (An Illustrated Monthly Journal for Canadian Women. Volume I, Number 3, Toronto, January, 1896.) David Irvine Barnett, Toronto, Ont., 20th January, 1896.
8329. TEACHERS' MANUAL OF NATURE LESSONS FOR THE COMMON SCHOOLS. By John Brittain. J. and A. McMillan, St. John, N.B., 20th January, 1896.
8330. THE MUSICIAN ; A LEGEND OF THE HARTZ MOUNTAINS. Poem which is now being preliminarily published in separate articles in WALSH'S MAGAZINE, Toronto, Ont. (Temporary Copyright.) Frank Waters, Cornwall, Ont., 21st January, 1896.
8331. THE POETICAL REVIEW. (A brief notice of Canadian Poets and Poetry.) By Alexander Charles Stewart, Toronto, Ont., 23rd January, 1896.
8332. CANADA LAW JOURNAL. (Vol. XXXII, No. 1, January 16th, 1896.) Arthur Henry O'Brien, Toronto, Ont., 23rd January, 1896.
8333. JUST OUTSIDE A MILLIONAIRE'S DOOR. Words and Music by Gussie L. Davis. Whaley, Royce & Co., Toronto, Ont., 24th January, 1896.
8334. OUT ON THE STREET. Words and Music by James Fax. Whaley, Royce & Co., Toronto, Ont., 24th January, 1896.
8335. THE CANADIAN LAW LIST 1896. Edited by Henry Ryerson Hardy, Toronto, Ont., 24th January, 1896.
8336. THE GLOBE ANNUAL AND ENCYCLOPÆDIA OF USEFUL INFORMATION, 1896. The Art Publishing Co., Toronto, Ont., 25th January, 1896.
8337. GRAMMATICAL ANALYSIS. (Explained and illustrated, with a large number of carefully selected sentences and passages for practice. Parts I and II.) By H. I. Strang, B.A. The Copp, Clark Co., (Ltd.), Toronto, Ont., 25th January, 1896.
8338. CANADA LAW JOURNAL. (Vol. XXXI.) Arthur Henry O'Brien, Toronto, Ont., 27th January, 1896.
8339. LOUISIANA LOU. Words and Music by Leslie Stuart. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 27th January, 1896.
8340. DARKIES' HOLIDAY. (Schottische or Barn Dance.) By Felix Burns. Patey & Willis, London, England, 28th January, 1896.
8341. GLENGARRY LANCERS. (On Scotch Airs.) Selected and arranged by Felix Burns. Patey & Willis, London, England, 28th January, 1896.
8342. A PROMISE OF LOVE WALTZ. Composed by Felix Burns. Patey & Willis, London, England, 28th January, 1896.
8343. THE PROBLEM SOLVED. (A Social Statute to Mitigate the evils of Poverty.) By Caleb Platt Simpson, London, Ont., 28th January, 1896.
8344. THE GASCOIGNE GRAND MARCH. By Beatrice Glen Moore. F. Gillespie Peters, Montreal, Que., 28th January, 1896.

8345. BABY'S LULLABY. (Song with Lullaby.) Words and Music by S. T. Church. The Anglo-Canadian Music Publishers' Association, (Ltd.), London, England, 29th January, 1896.
8346. THE TORONTO CITY DIRECTORY, 1896. The Might Directory Company of Toronto (Ltd.), Toronto, Ont., 29th January, 1896.
8347. THE DOCKET. (A Record of the Courts. Volume VII, No. 1, December, 1895.) Editor, A. H. O'Brien, M.A. Robert Reid Cromarty, Toronto, Ont., 29th January, 1896.
8348. GEMINI AND LESSER LIGHTS. By "Kim Biler." Province Publishing Company, Victoria, B.C., 30th January, 1896.
8349. DÉLICE DU CŒUR. (For Mandolins and Guitar.) By Geo. F. Smedley, Toronto, Ont., 30th January, 1896.
8350. A BRIGAND BOLD. Words by Leddie Warren. Music by Charles A. E. Harriss. Whaley, Royce & Co., Toronto, Ont., 30th January, 1896.
8351. NOW I LAY ME DOWN TO SLEEP. Words by Eugene Field. Music by Charles A. E. Harriss. Whaley, Royce & Co., Toronto, Ont., 30th January, 1896.
8352. MOTHER'S BIRTHDAY. (Waltz Song and Chorus.) Words and Music by George J. App. Whaley, Royce & Co., Toronto, Ont., 30th January, 1896.