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Liquid fuel burner. Charles M. Cookson, et al.	60,176	Match splint cutting and assembling machine. The Diamond		
Liquid fuel burner. James Des Brisay	60,192	Match Co.		60,761
Liquid fuel burner. Paul Emil Thurow	60,103	Matrix bar making system. The Monoline Composing Co.		58,652
Liquid measure. Joseph S. Long	59,757	Matrix letter locating and stamping machine. Everard		
Liquid raising apparatus. Ralph W. Elliott, et al.	58,824	Van der Wee		60,647
Liquid receptacle. Joseph Leduc	59,301	Matte bessemerizing method and apparatus. Oliver S.		
Liquid rectifying and deodorizing apparatus and process.		Garretson		59,666
The Electric Rectifying and Refining Company	58,942	Matress. Otto William Gröllmann		61,635
Liquids and gases. Apparatus for reducing the pressure of.		Manure carrier. Thomas G. Hodgins, et al.		60,804
Richard Mat. hett	58,765	Measuring device. Max Levi		61,842
Liquids with gases. Apparatus for mixing. Robert George		Measuring faucet. Benjamin F. Beard, et al.		59,424
Ferguson	59,901	Measuring funnel. Celestin Fournier		60,333
Lithographic machine. James Christopher Halligan, et al.	61,613	Measuring funnel. George B. Walker, et al.		60,504
Load carrier. Joseph Temperley, et al.	61,622	Measuring instrument. Lewis E. Howland		58,905
Lobster trap. Charles A. Woodman	61,734	Measuring rod. Martin Leithoff		60,321
Lobster trap. David Daishy	61,933	Measuring vessel. Ernest W. Clement		59,924
Lobster trap. Matthew W. Ingraham	62,023	Measuring vessel. Merlin A. Myers		62,091
Lock. Burton Rowley	59,698	Meat press. Florence M. McKown		61,067
Lock. Elijah D. Irwin, et al.	58,897	Meat tenderer. Emile Barbeau, et al.		58,655
Lock. Emerich von Marsovszky	58,819	Meat tenderer. Jesse E. Snelling, et al.		60,933
Lock. George A. Donaldson, et al.	60,275	Mechanical movement. Edward C. Riddle		60,445
Lock. Herbert Eidson, et al.	61,011	Medicine spoon. Franz Joseph Mohr		61,740
Lock. Jacob T. Hunter	60,311	Medicated preparations. Mode of using. William Heath		58,563
Lock. James D. Ross	60,656	Medicinal compound. Alexandre Lefebvre		62,115
Lock. John Alexander McKellar	60,503	Medicinal compound. Alphonse Brochu		58,902
Lock. John Ellis Lanceley	62,025	Medicinal compound. Fred C. Bond		60,414
Lock. Leon Martel, et al.	61,238	Medicinal compound. Henrich Bohone		60,518
Lock. Ludger Hébert	60,502	Medicinal compound. Hoffman, La Roche & Co.		60,755
Lock. Napoleon Guillemette	61,334	Medicinal compound. Peter Schneider, et al.		58,711
Lock. Oscar Damon	58,748	Medicinal compounds preparing system. Edwin Wiley		
Lock. Oscar Katzenberger, et al.	61,489	Grove		61,313
Lock. Prosper Côté	61,128	Medicinal powder mixer. Paul E. M. Jamian		61,318
Lock for railway waggon doors. Lincoln Gordon	58,918	Medicinal preparation. Samuel Theodor K. Endemann		61,902
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Locomotive. William M. Russell, et al.	61,881	Merry-go-round. Edward Independence Brannan		61,440
Locomotive boiler. Dugald Drummond	59,168	Merry-go-round. Thomas B. Tinney		58,705
Locomotive cab seat. Austin I. Harvey	59,388	Metal bedstead. Samuel Newman		59,122
Locomotive coupler. Robert M. Galbraith	58,680	Metal boat. William F. De Sanno		60,052
Locomotive drive-wheel. Philip Z. Davis	59,171	Metal can. National Key O'ening Can Co.		58,531
Locomotive protector. Annie Beasley Prophitt, et al.	61,626	Metal can lining machine. Max Ams		59,422
Locomotive smoke-stack. Charles S. Burton	61,325	Metal crown die for making teeth. Howard S. Lowry		60,071
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Plough point. Edward L. Troup, et al.....	58,715	Printing device for paper roll holders. Charles H. Long.....	60,264
Plough row gauge. Argent A. Havis.....	61,085	Printing device for paper roll holders. Joseph Spillinger.....	60,550
Plough share. Wellington Mills.....	60,515	Printing machine. Isidor Lam.....	61,185
Plough share and point. Charles LaDow.....	59,115	Printing machine. John Adam Gledhill, et al.....	60,162
Plug testing system. Michael J. Drummond.....	58,962	Printing plate. Benjamin Franklin Curtis, et al.....	60,631
Pneumatic drill. Henry James Kimman, et al.....	61,126	Printing plate. Ernst Fuchs.....	61,909
Pneumatic grain mowing apparatus. The Steel Storage and Elevator Construction Co.....	58,986	Printing press. William Grant Johnston, et al.....	61,086
Pneumatic grain pipe swivel. The Steel Storage and Elevator Construction Co.....	58,988	Printing press feeder. Robert Montgomery Donaldson.....	60,368
Pneumatic hammer. John Moore.....	59,672	Printing press ribbon cutting and counting device. Ferdinand Berkemeyer, et al.....	60,774
Pneumatic hammer. Joseph Boyer.....	59,070	Printing stamp. Lawrence Kendle Blackmore.....	61,298
Pneumatic handle. Harry Morrison.....	58,729	Printing telegraph. Leo Kamn.....	58,588
Pneumatic insect powder distributor. E. N. Heney & Company.....	62,078	Prism light. Frank Clement Soper.....	61,135
Pneumatic mattress. Henry Baxter, et al.....	59,702	Prism light. John Meiggs Ewen.....	60,981
Pneumatic motive power. Louis H. Mayer.....	61,737	Prism light. Olin Hanson Basquin.....	61,132
Pneumatic or spring tires. Thomas McKinnon, et al.....	61,680	Prismatic light. William S. MacHarg.....	58,549
Pneumatic railway system. Charles Comstock.....	61,768	Prismatic reflector. Renny Burger.....	59,575
Pneumatic straw stacker. Jacob Walker Miller, et al.....	61,640	Produce carrier. Rora C. Weltner.....	61,549
Pneumatic tire. Alexander Ogden.....	58,741	Projectile. Ferje A. Fidjeland.....	61,317
Pneumatic tire. Charles Kingston Welch.....	61,388	Propeller. Charles Emil Olsen.....	60,317
Pneumatic tire. Henry Bancroft.....	62,001	Propeller. Leopold E. Patenaude.....	61,448
Pneumatic tire. John Smith, et al.....	58,736	Provision bag. Moritz Gutman.....	59,580
Pneumatic tire. Lewis J. Miller.....	58,745	Provision rack. Thomas Carpenter Louden.....	59,265
Pneumatic tire. Peter T. McKay.....	58,733	Pruning implement. Thomas N. Wilson.....	58,622
Pneumatic tire. The Wapshere Tube Co.....	61,699	Pruning shears. Albert Barling.....	60,244
Pneumatic tire. Uzziel P. Smith.....	59,044	Pulley. Fred Hazelton Spear.....	61,652
Pneumatic tire. Uzziel Putnam Smith, et al.....	61,700	Pulley. John Charles Knoblock.....	60,183
Pneumatic tire. Webber G. Kendall.....	59,861	Pulley. John H. Watts.....	60,501
Pneumatic tire. William Irwin Dreisbach.....	59,339	Pulley. The American Pulley Co.....	58,827
Pneumatic tire and metal rim. Richard Green.....	58,746	Pulley. Theodor Kirchhoff.....	59,325
Pneumatic tire and wheel rim. Thomas Henry Ramsden.....	59,678	Pulley block. George T. Winnard, et al.....	58,673
Pneumatic tire cover. Thos. B. Jeffery.....	60,047	Pulp making process and machinery. Francis H. Clergue.....	59,592
Pneumatic tire fastener. Joseph A. Berger, et al.....	61,698	Pulp screen. David R. Davis.....	58,936
Pneumatic tire inflating apparatus. Bruno Zirrgiebel.....	61,540	Pulp screening machine. Charles Smith.....	62,088
Pneumatic tire pump. Harold R. Goodwin.....	58,749	Pulverizer. William H. Howe, et al.....	60,564
Pneumatic tire pump. James H. K. McCollum, et al.....	59,500	Pulp screen. James H. Bakeo, et al.....	60,808
Pneumatic tire puncture closer. William H. Humphreys.....	59,982	Pulverizing mill. Edwin C. Griffin.....	59,836
Pneumatic tire repairing compound. Charles Clare Allen, et al.....	59,760	Pump. Irvin J. Becknell.....	58,564
Pneumatic tire repairing compound. Philip J. Winch, et al.....	59,679	Pump. James Bewsher.....	59,152
Pneumatic tire wheel. John T. Trench.....	58,737	Pump. Jeremiah Lockwood.....	58,848
Pneumatic tires. Composition for repairing punctures in. Fred B. Parks.....	62,051	Pump. Nestor A. Wahtola.....	59,448
Pneumatic tires. Means for preventing punctures in. Arthur J. Cuning.....	58,724	Pump. Richard D. Benson.....	60,335
Pneumatic washer. John H. Coxen.....	58,781	Pump. Roderick J. Cameron.....	58,932
Pocket closing device. John Moore.....	59,733	Pump. The Pneumatic Engineering Co.....	60,085
Pocket fastener for ladies' skirts. Auguste Braum.....	62,120	Pump and compressor. Louis Marie G. Delannay-Belleville.....	59,305
Pocket guard. Edward H. Burger.....	59,981	Pump bucket. Charles Alford Bartliff.....	60,665
Poison distributor. Stephen Bird.....	60,586	Pump curb and reservoir. Charles A. Bartliff.....	61,356
Polychrome printing system. Edward Von Haken.....	58,596	Pump wind-mill. Gold Shapley and Muir Co.....	60,797
Pontoon bridge. Alexander McK. Wylie.....	61,138	Punch. Levi Fisher.....	59,210
Portable engine and boiler. George Kirkland, et al.....	60,037	Punching machine. Martin Boyer.....	61,166
Post hole auger. James Evans.....	61,064	Purse. Edwin L. Prickett.....	59,211
Post office money order form. Bernard Gross, et al.....	59,144	Push button, card receiver and ejector. Obadiah M. Bossert.....	60,662
Postage stamp. Frank Gunn Farnham.....	59,220	Puzzle. Charles K. Henkelman.....	61,052
Postal depositing and collecting receptacles and lock. Di Brazza Postal Device and Lock Co.....	60,026	Puzzle. Julia E. Jarvis.....	59,809
Postal letter box. James Teevan.....	59,641	Puzzle. William Herbert C. Mussen.....	60,831
Pot and kettle drainer. Edward A. Golle.....	62,018	Pyritic smelting method and apparatus. Oliver S. Garretson.....	59,948
Pot bail holder. Marcus A. Cogley.....	60,839	Quartz mill. Walter Palmer Wynne.....	61,618
Potato bug destroyer. Christian Nelson, et al.....	60,038	Race track for dogs. Michael Walsh.....	61,307
Potato bug destroying machine. William Barber.....	59,393	Radiator. Frederick Bason.....	58,766
Potato bug exterminator. Charles D. Loomis.....	59,725	Radiator. John T. Jackson, et al.....	58,928
Potato cutter and planter. Frederick D. Bell, et al.....	60,213	Radiator. Mary McMaster Travers.....	62,064
Potato digger. Arthur S. Bullock.....	59,687	Radiator. The Fowler & Wolfe Manufacturing Co.....	61,920
Potato digger. Arthur William Mackinlay.....	61,332	Radiator for heating purposes. John T. Jackson, et al.....	59,443
Potato digger. James A. Buck, et al.....	60,081	Radiographic apparatus. John Dennis, et al.....	61,692
Potato planter. Joseph A. Mengel, et al.....	61,870	Radioscope. Jacques Wertheimer.....	62,164
		Rag picking or shoddy machine. Otto Edward Hoddick.....	61,226
		Rail. Thomas F. Davies.....	61,748
		Rail brace. William Grant Graham.....	61,078

Rail brake. David Williamson Davis	59,816	Roof. William J. Woods	62,146
Rail Joint. The Continuous Rail Joint Co. of America	59,769	Roof bracket. Darius Cleland	60,717
Rail shifting device. Erastus Day	61,330	Roofing material. Paul Lehmann	59,085
Rail spike lock tie and gauge protector. Anthymne Lucas	60,411	Roofing tool. John Parkhill	60,547
Rail track cleaner. Edward George Jones	60,888	Rope, cord or twine. Robert C. Fisher	62,066
Railway. George Joseph Capewell	62,009	Rope grip. Warren Emerson Sargent, et al.	60,685
Railway accident preventing device. Cornelius Peters, et al	58,535	Rotary cultivator. John Scott	62,169
Railway car brake beam. The Monarch Brake Beam Co.	58,823	Rotary cutter. James A. Manning, et al	61,799
Railway car buffer. The Standard Coupler Co.	60,151	Rotary disc plough. Walter C. Peacock	58,965
Railway car centre bearing. The Standard Coupler Co	60,364	Rotary discs, wheels, and the like. Bearings for. Hermann Ganswindt	59,374
Railway car side bearing. John C. Wands	60,106	Rotary engine. Alexander Hastings Canning	60,616
Railway car truck. George Joseph Capewell	62,010	Rotary engine. Carl Engberg	59,050
Railway car truck. John Hector Graham	59,244	Rotary engine. Nelson Witts	61,104
Railway car truck. Richard Beeson	61,533	Rotary engine. Reuben P. Jarvis	59,986
Railway fog signal. The Electric Fog Signal Syndicate	61,689	Rotary engine. Robert Harris Isbela	61,719
Railway freight steel car truck. Frederick S. Owen	59,287	Rotary engine. Samuel T. Wilson, et al	61,367
Railway frog. John W. Hood	61,515	Rotary engine. Samuel W. Barr	59,006
Railway gate. Frederick A. Cramer, et al.	59,692	Rotary engine. Thomas Shortliff, et al.	59,814
Railway gate. James H. Fitzgerald	58,619	Rotary engine. Wattles Stearn and Gas Engine Co.	58,625
Railway horse stall. John Patterson Young	60,652	Rotary harrow. Leonard Spangler	58,903
Railway signal. Charles N. Frederickson	61,429	Rotary motor. Henri Chaudun	60,050
Railway signal lamp. Edward Still manning, et al.	61,496	Rotary plough. John F. Swanstro	58,984
Railway sleeper. Paul Czizler	62,099	Rotary plough. Sigmund Landauer	61,361
Railway spike. James H. Malven, et al	61,276	Rotary pump. The Hygienic Refrigeration Co.	60,632
Railway spike. Theodore A. Deakney	61,424	Rotary pump. William Henry Slade	60,757
Railway street car. Adeland Amiotte, et al.	60,365	Rotary steam engine. Benjamin F. Murphy	60,386
Railway switch. Charles D. McLean	58,757	Rubber overshoe. Angus Buchanan	59,686
Railway switch. Charles Henry Sherwood, et al.	60,952	Rubber overshoe. The Canadian Rubber Co. of Montreal	60,282
Railway switch. Charles H. Strauss, et al.	61,871	Rubber tire. Henri Bergeron	61,701
Railway switch. Duncan MacPherson	60,549	Rubber tubing manufacture. The Gutta Percha and Rubber Manufacturing Co. of Toronto	59,380
Railway switch. Edward William Coughlin	60,584	Rubber water bag. Adelbert H. Alden	61,181
Railway switch. Franklin Rice	59,434	Rudder. Francis Hull	62,086
Railway switch. Jonathan E. Young, et al	61,765	Ruling machine. Charles Stoll	60,255
Railway switch. John W. Thomas	61,423	Ruling machine. Ellis Graber, et al	60,943
Railway switch. Milton McCully	59,146	Sack filling and sewing machine. Arthur T. Timewell	59,110
Railway switch and lock. John W. Thomas	61,528	Saddle cloth. Ernst Wolfstein	58,632
Railway switch box. Edward William Coughlin	60,585	Safe. Anthony P. Prichard	61,096
Railway ticket. Frank E. Hodgins, et al.	62,139	Safe. Thomas West	59,487
Railway tie. Adolphus Bonzano	60,185	Safety pin. Willie E. Michael	59,477
Railway tie. Francis T. Wright	60,521	Sales book. Wilson Morton	61,351
Railway tie. John Kline	60,651	Sales book or pad. Hamilton H. Webber, et al.	60,355
Railway tie plate. Joseph F. Dionne, et al.	60,548	Salt cellar. Henry Binley	61,964
Railway track. John Pennie	58,790	Salt extracting apparatus. William Shedlock	61,225
Railway tracks from spreading. Device for preventing Jared I. Irwin, et al.	58,591	Salts from metallic anodes. Process of producing. Dr. Otto C. Strecker, et al.	91,571
Railway vehicle. Carl Schulze et al	59,321	Sample case. Charles H. Mersereau, et al.	59,457
Railway wrecking frog. Michael Farrall	59,653	Sample case. Charles H. Mersereau	61,164
Rake, scraper and cutter. John W. Lewis	60,269	Sample holder. Nelson M. Brinkerhoff	60,917
Range finder. Nicholas Bray	58,559	Sanitary appliance. Arthur O'Brien	59,383
Rasp punching machine. The Kearney & Foot Co.	61,293	Sanitary bowl. Herbert B. Hall	59,512
Rat exterminating compound. Frederick Witt	59,518	Sap evaporator. Norton L. Dunham	61,597
Rat trap. Oley P. Hill	61,419	Sap spout. Eben Willis	61,646
Rattan tissue. Victor Flosse	62,122	Sash fastener. Adolph Haenichen	59,788
Reaping and mowing machine finger. Thomas C. Sargeant	58,663	Sash holder. Lewis E. Bowman, et al.	60,623
Refractory ore treatment. John Edward Preston	61,373	Sash holder. Robert Hetherington, et al.	61,514
Refrigerating apparatus. Hans Henrik Schon	61,826	Sash lift and lock. William R. Reilly	60,174
Refrigerating machine. Charles H. Parshall	61,837	Sash lock. James W. Cole	58,802
Refrigerator. George C. Perkins	60,893	Sash lock. The Miller Lock Co	59,770
Refrigerator. James W. Kelley	61,472	Sash weight moulding apparatus. Wesley H. Fonda	60,795
Refrigerator. Llewellyn N. Bate, et al.	61,003	Satchel handle. Richard T. Eisenmann, et al.	61,127
Rein holder. Joseph Tranton	58,634	Saw. Edward Williams	59,058
Retort door. Alexander Morrison, et al.	60,786	Saw. Frank W. Walquist, et al.	61,554
Retracking frog. Henry B. Gilbert, et al.	59,375	Saw clamp or vise. Lucius Harvey Rand	59,255
Return envelope. Edward W. Russey	60,426	Saw filing device. Jacob W. Haddock, et al	61,879
Reversible pick. Nicholas Wetsue	60,419	Saw for cutting ice. George A. Foster	59,059
Revoluble stand for tables, etc. William A. Charlebois	59,933	Saw frame. George R. Clements	61,822
Ribbon measuring machine. Janvier Letourneau	60,667	Saw gate. Heinrich Zaring	60,724
Rifle plate for sluice boxes. Charles E. Geene	59,977	Saw guide. Thomas A. Halcomb	58,931
Ring slide for rope halters. Charles Arthur Conger	60,886	Saw handle. David Isaac Green	59,675
Ripping device. Frank A. Reynolds, et al.	58,720	Saw handle. Frank Chingar	61,062
River-bed mining apparatus. Robert B. Sproule, et al.	61,942	Saw handle. William B. Prouty	61,776
River mining apparatus. Charles G. Garrison, et al	61,222	Saw mill reversing mechanism. Frank E. Gowen	59,332
Rivet for wheel rims, etc. James Young Walker	61,428	Saw set. James A. Kidwell, et al.	58,662
Rivets, studs, etc. Process of making. The Indianapolis Chain and Stamping Co.	59,067	Saw set. William Clark	59,691
Rivetting implement. Warren J. Ball	59,178	Saw setting machine. John F. Bredin	58,863
Rivetting mandrel. John F. Mantey	60,529	Saw shaping and sharpening device. A. A. Wilcox	58,868
Road cleaning machine. Elias L. Lathrop	58,933	Saw sharpener. Frederick William Robertson	60,138
Road machine draw bar operating apparatus. The Indiana Road Machine Co.	59,116	Saw tool. Richard Bennett	61,595
Road roller tongue truck connections. John Challen	61,556	Sawing machine. William Henry Hoskin	60,642
Road making machine. The Indiana Road Machine Co.	59,117	Scaffold. Hezekiah McLaughlin	58,578
Rock breaking machine. Fred Loibnitz	61,456	Scaffold. W. H. Gray	58,930
Rock crusher. Bagster Roads Seabrook	61,175	Scaffold bracket. Louis S. Miller	60,979
Rock crusher. Bagster Roads Seabrook, et al	59,805	Scaffold hanger. Charles H. Bowie	61,865
Rock drill. James McCulloch	60,958	Scaffolding jack. Alvoid O. Manning	60,317
Rock drill. John George Leyner	62,098	Scales: see Price recording scales.	
Rock drill. Joseph W. De Camp, et al.	59,909	School chart. Louise Snyder	59,367
Roller bearing. Henry Timken, et al	62,161	School desk. Jacob H. Mickler	60,879
Roller bearing. The Electrical Vehicle Syndicate	58,644	School desk. John H. Hunter	58,627
Roller bearing. William F. Bauer	60,507	Scissors. Eli Bailey	59,803
Roller grinding mill. Rosia W. Welch, et al.	59,118	Scissors shears. John C. Ford	61,586
Roller harrow. Houghton D. Edwards	59,676	Scoop. Marwin R. Davenport	60,653

Screen door fastening. Hugo Frohlick	61,103	Shutter hinge. John H. Pineo	60,304
Screw coupling. Clinton Allen Higbee	59,214	Shutter worker. James W. Cole	58,801
Screw cutting tool. Frank G. Echols	58,550	Shuttle. George Fair	60,448
Screw propeller. Horatio F. Smyth	58,782	Sign illuminating system. Benjamin McKenzie, et al	58,958
Scrubber and dryer. Edward E. Newton	59,155	Sign writers apparatus. Herman Chester Carver	59,235
Sea distance measuring instrument. Joseph Thomas Brown	61,308	Signalling apparatus. The Bell Telephone Co. of Canada	59,927
Sea sickness preventing device. Carlo Calliano	60,964	Signboard lettering. Arthur Block	60,799
Sea weed treatment. Axel Krefting	61,251	Silk making process. Dr. Max Fremery, et al	60,709
Seal lock. Emil Tyden	60,131	Singletree. Joseph P. Ponton	60,444
Seal lock. William T. Scribner	59,850	Sink. Albert A. Russell	59,111
Sealing wax. Isidore Lambert	60,841	Skate. A. D. Fisher	58,764
Seam ripper. Lemuel Merrill	61,312	Skate. Charles Dumke	61,989
Seat. Murphy, Wasey & Co	61,278	Skate. David Way Matthieson	60,737
Seat for couches, etc. Joseph B. Gardiner	60,171	Skate. Flavie M. Rodier	61,300
Seat or cushion. Patrick F. Quinn, et al	61,877	Skate. The Starr Manufacturing Co	61,365
Sectional boat. William Herman Kurlbaum	60,819	Skein holder. Mary Anna Arrowsmith	62,138
Seed drill. Thomas J. King	58,653	Skirt. Edwin Slatter, et al	61,517
Seed drill disc shoe. William Stephenson	61,645	Skirt. William J. Hay	61,661
Seed wheat pickling device. Paul Fredreckson	59,797	Skirt packet fastening. Delbert C. Goodspeed	61,102
Seeding and fertilizing machine. James Samuel Heath	61,746	Skit protector. The Hensel Colladay Co.	60,357, 60,358
Separable book. Franklin H. Gilson	58,935	Skirt protector material. William Frederick Wyman	61,506
Separating apparatus. The California Agitating and Leaching Machine Co	61,053	Skirt supporter. Frank Miner Taggett	61,455
Separating machine. Orville Marion Morse	61,068	Slate cleaner and pencil holder. Robert B. Stevenson	60,340
Separator: see Mineral separator		Slate frame cushion. Gustav M. Beyer	60,807
Separator. Albert Roe Penprase	61,663	Sled. Henry L. Ferris	61,775
Separator. Edward Hards	60,458	Sleeping bag. Adelard Lapiere	58,914
Separator. The A. A. Griffing Iron Co	61,732	Sleeping bag. Ferdinand Jacob	60,236
Sewage purification process. John J. Deery	60,029	Sleeping bag. George W. Bartmann	60,456
Sewage treating apparatus. Donald Cameron, et al	59,548	Sleeping bag. Gillespie, Ansley & Dixon	58,539
Sewer gas innocuous. Machine for rendering	59,930	Sleeping garment. The W. Denton Co.	58,651
Sewing machine. Francis Joseph Freese	60,599	Sleigh. Onésime I. Bergeron, et al	58,721
Sewing machine. George Hilliar Colley	62,154	Sleigh and carriage. John M. Trull	60,895
Sewing machine. Joseph Arbes	59,305	Sleigh gearing. George H. Phillips	59,554
Sewing machine. Joseph Eli Bertrand	61,619	Sleigh knee. Goodson J. Alford	58,695
Sewing machine. Oliver Bellefeuille	59,620, 61,498	Sleigh runner. John Edward Hobbs	61,805
Sewing machine. The Industrial Manufacturing Co	58,717	Sleigh truck. Joseph J. Forcier	59,507
Sewing machine. The Union Special Sewing Machine Co	58,831	Slicer for bread and vegetables. John Electus Stuart, et al	61,123
	61,726		59,739
	61,628	Sliding door machinery. Charles R. Case	59,740
	59,202		59,741
Sewing machine. William Manning House	60,356	Slotting and slabbing machine. Morse-Keefer Cycle Supply Co	60,207
Sewing machine attachment. William D. Elger	61,735	Smelting furnace. Friedrich W. Minck	61,372
Sewing machine for attaching beads, etc. Henri André Domenget	59,055	Smelting furnace. Louis Rousseau	60,857
Sewing machine for boots and shoes. Napoleon Goddu, et al	60,764	Smoke consumer. Ralph W. Cavanaugh	61,910
Sewing machine needle guard. Olivier Bellefeuille	60,488	Smoke consumer. Walter Redpath, et al	62,046
Sewing machine ripping attachment. Maurice W. Talen, et al	60,121	Smoke consuming furnace. John Brandon, et al	58,786
Sewing machine stand. John Gilbert Sully	60,670	Smokeless powder. Francis A. Halsey, et al	60,020
Shaft attachment. Nelson Green	58,774	Smoothing iron. Ludwig Rieder	60,491
Shaft bearing. Orin Fritzello Cook	58,534	Smudge stove. Henry Jevors	59,731
Shaft locking device. Allan G. Mather	61,087	Snap hook. Charles M. Parsons	59,156
Shaking grate. George Ayres Gumphert, et al	61,435	Snap hook. Lucien Viel	60,720
Shears. William Maurice, et al	60,235	Snow catching trellis. George Lesemeister	59,671
Shears for cutting cloth. George Cole Boroughs, et al	61,203	Snow cleaning machine. Samuel Freeman McCusker	60,608
Shears sharpener. Ira J. Ide, et al	61,412	Snow locomotive. Sigurdur Anderson	59,537
Sheet iron finishing process. William M. Theobald, et al	60,536	Snow plough. Elwyn P. White	58,799
Sheet metal box. Tito L. Carbone	58,880	Soap. Guillaume Stecken	59,586
Sheet metal treating composition. William Edwm Harris	58,865	Soap holder. James Cornelius Baker	62,151
Shelf, table and desk. George A. Ank	59,971	Soap holder. John M. Brown	61,385
Shelfing and table. Frederick Yunck	61,816	Sole. Daniel Edward Smith, et al	61,791
Shingle sawing machine. George F. Steedman	58,707	Sole and heel fastening. Sebastian Kistler	60,876
Shingle sawing machine. Jerome Benett Flynn	61,937	Sole cutting machine. Francis Joseph Freese	61,660
Shingling stool. William H. Allen	60,974	Sole press for boots and shoes. Joseph H. Pellerin	59,476
Ship protector. Henri J. B. Gravier	60,463	So'e sewing machine. The Goddu Sewing Machine Co.	58,999
Ships' galley. Frank Johnson	60,285	Sole trimming and channelling machine. Zachary T. French, et al	59,531
Ships' railway. Axel Bernhard Anderson	58,846	Soles or heels. Machine for uniting welts or rands with. The McKay Shoe Machinery Co	61,875
Shirt. George Wells	60,107	Solid bodies from liquids. Mode of and apparatus for separating. Demis Gale	61,191
Shirt. John Forbes	61,421	Sorting table. E. P. B. Bourne	60,108
Shirt front. Emanuel Stern	61,687	Sound reproducing device. Joseph N. Brown	59,950
Shirt sleeve and drawer leg. William F. Williams	61,958	Sounding board. James Casey Livingston	59,451
Shoe. Alcide Poirier	60,119	Space-bar for line casting machines. Adam W. Hanigan, et al	60,366
Shoe. Arthur Ivey, et al	61,413	Spark conductor. Clarence Sleister	60,792
Shoe. Callix Vinette	61,914	Spectacle, fountain pen and pencil holder. William A. Johnston	58,552
Shoe. Edmond Héroux	61,105	Speed governor. Mark A. Replogle	61,704
Shoe. Edmond Parent	61,059	Speed indicator. The Speed Meter Manufacturing Co	61,582
Shoe. Eusebe Hardy dit Lesage	59,542	Speed indicator. William S. Scales	58,767
Shoe fastener. George W. Burford	61,874	Speed indicator for ships. Warren Henry McCurdy	61,575
Shoe holder. James H. Woodbury	58,607	Speed varying mechanism. The Reeves Pulley Co	60,475
Shoe-holding jack for nailing machines. The McKay Shoe Machinery Co	60,219	Spike. Michael Smith, et al	61,639
Shoe horn. William H. Lewis	61,965	Spike. Van Renssellar Paige	60,643
Shoe lace holder. Alfred Verlander	59,871	Spike drawing device. Van Renssellar Paige	60,595
Shoe pattern. Norman McLeod	60,014	Spike machine. George Barr	58,814
Shoe plate. Mansfield M. West	60,305	Spinning mule. Samuel Green	61,174
Shoesoling machine. The Carey Wire Sewing Machine Co	60,474	Spinning top. Edward Wallace Risbrough	61,829
Shoe tip. Henry Waters	59,366	Spirit burner. Otto Keidel	61,010
Shoulder strap. Abraham Copeman, et al	58,840	Spirit level. Adalbert Volswinkler	58,926
Show case. Adrian A. Chittenden	61,878	Sprocket wheel clutch. James Copeland, et al	61,918
Shower bath. William H. Callaghan		Spirometer. Daniel A. A. Buck	58,583
Shut-off and pipe-drilling device. Solon G. Howe, et al			

Spittoon. H. McLaren & Son	60,776	Stove. Ernst H. Huenefeld	60,461
Spittoon. Theodore N. Clark	58,847	Stove. Eugene Washington Vest	60,149
Splint making machine. John T. Whitten	58,893	Stove. Philorum Henry Picard	59,884
Spool rack. Margaret Graaf	58,567	Stove. Robert Fletcher	59,289
Spoon holder. John T. Cassino	59,151	Stove. Robert Wellington Biggar	59,356
Spouting work, etc. Machine for making. John Anderson	59,237	Stove. Samuel R. Kitchen	58,697
Spray pump. William Henry Heard	60,601	Stove. William G. Rogers, et al.	60,465
Spraying machine. Absalom W. Steeves	61,188	Stove. William H. Albach	59,940
Spring bed bottom. Peter Pelham Peugh	59,782	Stove damper. William J. Keep, et al.	61,543
Spring confining band. Charles Scott	61,252	Stove for heating. The William Buck Stove Co.	59,605
Spring motor. Paschal A. Tarbox, et al.	58,530	Stove for thawing frozen earth. Thomas E. Waller, et al.	60,056
Spring motor. William M. Luther	59,142	Stove heating oil burner. George McLaughlin	58,807
Spring seat. George Coxon, et al.	59,464	Stove hot air attachment. John H. J. Clare	60,904
Spring seat for railway cars. Shickle, Harrison & Howard Iron Co.	60,468	Stove-lid and pan-lifter. John A. Blomberg	61,402
Spur. Max Schiemangk	59,231	Stove pipe. Eliza J. Climo	59,129
Stamp cancellor: see Mail marking machine.		Stove pipe. George E. Yeoman	59,092
Stamp cancellor. Samuel B. Holmes, et al.	59,127	Stove pipe drum. William Buck, et al.	59,281
Stamp cancellor. Seymour Crane	60,524	Stove pipe joint. Agnes Brown McKelvie	61,512
Stamp mill. George Wood	61,890	Stove truck. David L. Fogleman	59,817
Stamp punch. Carl Pick	61,304	Straining wheel for liquids. Charles S. Wheelwright	59,937
Stamper box. Thomas Thompson	61,983	Straw and weed burner. Edgar Canniff, et al.	61,442
Starching machine. James Rickey	61,924	Straw cutter. The Peter Hamilton Manufacturing Co.	60,154
Starching machine. William A. Newton	59,120	Straw stacker. Robert Moy	59,943
Starchy material into sugar. Process of converting. Jokiche Takamine	58,584	Street annunciator for cars. Phillip Harold Patriarche	60,842
Station indicator. Anissim Ledowsky	60,820	Street railway car. George Moore	62,145
Station indicator. Orrie W. Allen	58,870	Street sprinkling, irrigating and fire extinguishing system. Alexander McGeoch	61,987
Steam and hot water heater. John D. Handbury	62,102	Street sweeper. Fred R. Smith, et al.	61,977
Steam boiler. Enos Hook	59,008	Street sweeper. John Hasson	59,591
Steam boiler. Horace Lizzelle Freeman	60,659	Street sweeper. John McKechnie, et al.	58,921
Steam boiler. John Eaton	60,008	Street sweeping machine. Simon D. Lanyon, et al.	60,177
Steam boiler. John I. Thornycroft	58,852	Stringed musical instrument picker. The American Automatic Banjo Co	62,074
Steam boiler. Melvin De Puy	58,839	Stump extractor. Onésime I. Bergeron	61,420
Steam boiler. Reginald A. Fraser	58,703	Submarine rock quarrying apparatus. Robert M. Scott, et al.	58,609
Steam boiler. Winnand W. J. Toussaint, et al.	59,911	Successive or alternating movement apparatus. Elizabeth Moore	61,664
Steam boiler and furnace. Samuel Fraser	61,838	Sucker rod elevator. Henry H. McLaughlin	61,009
Steam boiler and feeder. John Kirkwood	59,323	Sugar bowl. James Lachlin Weir	60,181
Steam cooker. Octavius Bailey	58,633	Sugar planter's hoe. Frank Herbert Foster	60,679
Steam cooker. William H. Kauffman, et al.	61,111	Sulky. Henry Marquardt	59,555
Steam engine. Charles Campbell Worthington	62,005	Sulky plough. The Cockshutt Plough Co	60,772
Steam engine. John Joseph Torpey, et al.	62,071	Sulphide ore treatment. Francis Ellershausen	61,886
Steam engine. Joseph Hardill	58,684	Surgical apparatus. Charles A. Bush	58,561
Steam engine exhaust and draft device. Leegora A. Blubaugh, et al.	59,169	Surgical appliance. Horatio G. Houghton	59,749
Steam engine governor. Fred W. Spacke	61,390	Surgical chair. Edward J. Wells	59,752
Steam engine reversing gear. Karl Voeste	59,159	Surgical dressing sterilizing process. Theodore Young Kinne	61,690
Steam generator. Alfred A. Fessler	61,350	Surgical pad. Henry W. Meinhardt	58,909
Steam generator. The Roberts Safety Water Tube Boiler Company	60,630	Surgical splint. John Boyd	60,201
Steam generator. Wilhelm Schmidt	61,357	Sunshade. Catherine M. Speer	58,841
Steam heater for thawing frozen ground. Silas Bradley, et al.	59,430	Suspender. Arthur J. Jackson	59,593
Steam injector. Francis Sticker	59,452	Suspender. Hugh Gordon MacWilliam	61,418
Steam scraper. John Austin	58,702	Suspender. John Messenger	60,719
Steam separator. George I. Roberts	62,006	Swaging machine. James S. Neill	61,202
Steam trap. John Spitzmiller, et al.	62,072	Swath turning machine for haymaking. T. M. Jarmain	60,939
Steam trap. Timothy J. Kieley	60,848	Swimming appliance. Patrick Andrew Devers	61,727
Steam turbine. The Honourable Charles A. Parsons	61,353	Swimming suit. Moise Viau	61,297
Steam whistle. Foriest A. Davey, et al.	61,804	Swimming suit. Robert B. Stevenson	60,095
Steel and malleable iron manufacturing apparatus. Thomas Doherty	60,806	Swine medicine. Rotlauf Serum Gesellschaft	61,806
Steering gear for vessels. Hugh Fairgrieve	59,565	Switch. Finlay W. Ross	61,080
Stenciling machine. The A. B. Dick Co.	61,978	Switch. George Bansall	58,866
Step for stairways, etc. Henry J. Hamilton	60,989	Switch. Orrin A. Bissel	59,988
Step ladder. Mary E. Grace, et al.	62,097	Switch for street railways. Anton Schmackers, et al.	59,400
Stiffening fabric. Edward K. Warren	59,832	Syringe nozzle. Henry H. Bennett	59,320
Stock feeder and waterer. Herman J. Bolinski	61,928	Syrup pitcher. Elmer G. Lantz, et al.	59,004
Stock watering device. Joseph Seiler	59,392	Table. Joseph F. Roman	60,200
Stocking. Sarah A. Winter	58,675	Table attachment for beds and chairs. Francis T. Heatly	59,013
Stoker mechanism. James C. Keough	58,657	Table leg fastening. William Hamilton Merrit	61,833
Stone dressing machine. George Leone Badger	61,927	Tack. Charles Beach Russell, et al.	61,292
Stone sawing machine. Frank Knobel	62,155	Tag. Gustaf L. Reenstierna	60,805
Stone sawing machine. Harry H. Cummings, et al.	59,917	Tag fastener. Simon C. Lauber	60,818
Stone sawing machine. John McIntosh	59,398	Tank cover. The Steel Storage and Elevator Construction Co.	58,990
Stool. George A. Coulson	60,318	Tank for oil waggons. George W. Gooding	59,648
Storage battery: see Electric battery.		Tank pipe. Thomas J. Murfin	61,179
Storage battery. Electricitäts Gesellschaft Triburg	60,471	Tanning apparatus. Edward H. Dewson	61,651
Storage battery. Henry Blumenberg	61,847	Tanning liquids. Preparation of. Percy Gerald Sanford	60,485
Storage battery. Henry W. Headland	58,560	Tanning machinery. James N. Smith, et al.	60,949
Storage battery. Herbert S. Lloyd	61,349	Tanning method. Marshall C. Dizer, et al.	61,234
Storage battery. John V. Sherrin, et al.	60,173	Tanning process. Adolfo Mario	60,728
Storage battery. Nathan H. Edgerton	62,142	Tanning process. Charles S. Dolley, et al.	61,696
Storage battery. Samuel Walter Hart, et al.	61,864	Tap. The Rochester Bunging Apparatus Co.	60,758
Storage battery plate connector. Gilbert Hart	62,124	Tap coupler and valve. Denis J. Reaume	61,403
Storm door. Theophilus Van Kannel	58,545	Target. Walter G. Fowler	59,246
Storm door and screen. Charles R. Moore, et al.	62,042	Target frame and carriage. John Herbert Wynne	60,783
Storm window and blind. Ezra B. Hallman	60,288	Tea kettle. Edward Candish Millard	61,782
Storm window fastener. Arthur P. Spiller	58,551	Tea kettle. William Gray	61,256
Stove: see Charcoal stove.		Tea pot, etc. Edwin E. Crook	59,057
Stove. A. Cheek	58,777	Telegram transmitter. Edward Porter	60,539
Stove. Azro D. Ellis	60,240	Telegraph switch. James S. Allen	59,505
Stove. Charles Cannon	59,738	Telephone circuit. The Bell Telephone Co. of Canada	59,926
Stove. David Zrénéé Bruneau	60,907		60,479

Telephone directory. John Douglas Browning, et al	60,854	Tote box. William Gates Avery	60,314
Telephone line. The Bell Telephone Co. of Canada	60,432	Towel rack. Henry S. Broughton	60,195
Telephone receiver. Charles W. Dennis, et al	60,925	Toy. Cassius M. Bartholomew	61,155
Telephone signal system. Wallace A. Stilwell, et al	61,988	Toy. William Frederick Simon	59,241
Telephone switch-board. Linval W. Davis	58,709	Toy boat. Josiah Thomas Crawley	61,745
	59,455	Toy or game. Thomas Brighton	61,311
Telephone switch-board. The Bell Telephone Co. of Canada	58,955	Trace. William H. Haglock	61,328
	60,010	Traction engine gear. The Waterloo Manufacturing Co	59,642
	60,011	Trace eye. Ole Larsen Myaer	61,058
Telephone switch-board apparatus. The Bell Telephone Co. of Canada	59,893	Trace fastener. Thomas S. Ballard	59,243
Telephone switch-board cut-off relay. The Bell Telephone Co. of Canada	58,533	Track fastening device. Frederick Laforest	59,433
Telephone switch-board signal. The Bell Telephone Co. of Canada	60,012	Track maker and cleaner. Hector McLean	61,527
Telephone switch-board signal. The Bell Telephone Co. of Canada	59,894	Track sanding apparatus. Washington Harvey Kilbourn	61,513
Telephone system. Burton R. Dodge	60,912	Train controlling device. Christopher A. Shea	59,375
Telephone transmitter. George F. Payne	61,025	Translucent plastic compound. Jules Heymansson	62,069
Telescopic clamp. George W. Kortright	61,454	Transplanter. Orville T. Millar	62,017
Telescoping tubular parts. International fastener for. George L. Thompson	61,991	Transplanting machine. Daniel François Réaume	61,281
Temperature regulator. Davis & Roesch Temperature Controlling Co	59,410	Trawl net. James William Pearson, et al	60,478
Temporary binder. Hermann H. Hoffman	59,372	Tree extracting and transporting apparatus. Malcolm Ryder, et al	61,159
Temporary binder. James S. McDonald	60,068	Tree planting method. Ignacio Panama	60,402
Temporary binder. Robert J. Copeland, et al	60,096	Trellis. Fred De Golia Clark	60,696
Temporary binder for music, etc. Theodore Wright	59,307	Trestle. William Andrew Reardon	61,400
Tension device for wires. John Stuart	59,795	Tricycle. Gilbert Paterson	59,025
Tent. Juan Watson Ernest	61,736	Trimming and drilling machine. The Morse-Keefer Cycle Co	60,206
Tethering pin. Reuben Cadwell Eldridge	60,498	Trip jack. Arthur O. Norton	61,972
Textile printing machine. James A. Sackville, et al	58,665	Triturating and reducing mill. Charles J. Best, et al	59,708
Textile waterproofing process. Josef Rudolf	61,650	Trolley. William Willett	59,549
Thatch roofing. Charles N. Bushnell	60,591	Trolley base. Harrison G. Taylor	61,266
Thawing apparatus. David Phillips	61,539	Trolley catch. Orville R. Sackett	59,718
Thawing apparatus. William E. Harris	60,120	Trolley catcher. Robert Orme	60,242
Thawing, heating and cooking apparatus. The Alaska Supply & Agency Co	61,921	Trolley pole. John N. Prisk	61,863
Thawing machine nozzle. David Phillips	60,668	Trolley wheel. George W. Duryea, et al	59,946
Theatrical scenery counter balancing device. Henry P. Cashion	60,520	Trousers. Andrew Birklund	60,193
Therapeutical apparatus. Austin V. M. Sprague	60,985	Trousers. John Samuel Fisher	60,197
Thermometer. Charles S. Ruckstuhl	60,254	Truck. Cornelius A. Buck	59,823
Thermostat. The Davis and Roesch Temperature Controlling Co	59,408	Truck. Monroe Blackburn	52,111
Thermostatic gas regulator. John Seely Coe	60,751	Truck frame and transom. The Shickle, Harrison & Howard Iron Co	60,467
Thill coupling. Elisha Moore	61,314	Truck or carriage. Casper T. Green	61,066
Thill coupling. James Morgan, et al	59,910	Truing device. George Wagner, et al	61,975
Thill coupling. William Edward Sherwood, et al	61,483	Trunk. Charles H. Mersereau, et al	59,458
Thill coupling. William M. Buchanan	61,490	Trunk. Edward L. Bean, et al	62,041
Thill coupling anti-rattlers. George H. Fernald	59,511	Trunk. Margaret A. White	61,706
Thill tug for harness. John W. Salzman	60,168	Trunk lifting device. Elias Edwards	60,451
Thrashing machine. Julius Borsum	58,922	Truss. Joel U. Adams	58,770
Thread from paper Method of making. Kunstwerber Claviez and Company	58,620	Truss. John Marshall Cullis	61,146
Threaded nut. Joseph James Harrell	61,382	Truss rod and corner brace for cars. Frederick Heidelberg	61,270
Thresher and huller. John W. Harvey	61,522	Tub, pail, etc. John A. Shearer	61,500
Threshing and separating machine. Absalom Merner	59,999	Tube making art and apparatus. Ralph C. Stiele	60,302
Threshing cylinder. George W. Morris	59,615	Tube making machine. John C. Sturgeon	61,303
Threshing machine. John A. Beam	60,000	Tube making machine. Marvin C. Stone	60,918
Threshing machine. John Abell	62,110	Tube obstructions. Mechanisms for locating. Birney Clark Batcheller	60,382
Threshing machine. Thomas S. Culbreath	61,667	Tubular joint making machine. Charles T. Crowden	61,195
Threshold. George Addison Seely	59,329	Tubular piece joining system. Bruno Wesselmann	58,723
Threshold and weather strip. William M. Barger	59,966	Turbine. Desirello Bartoloueo	58,671
Thrust bearing. The Cataract construction Co	58,686	Turbine. John Sharpe	58,666
Tire: See pneumatic tire. Wheel tire		Turbine fortide mills. Johann F. R. Knobloch	59,561
Ticket issuing machine. Emile M. Bossuet	58,555	Turnip loader. Arthur Thomson	62,143
Tie plate. Frank Elden Came	61,752	Type bar making mechanism. The Electric Compositor Co	59,417
Till and receipt check. The Globe Cashier (British and Foreign)	58,685	Type casting and composing machine. Charles Méray-Horvath	61,537
Tin plate manufacture. William Rogers	60,661	Type forming mechanism. Tolbert Lanston	58,556
Tire. Charles Taylor, et al	59,895	Type founding apparatus. Frederick Wicks	61,227
Tire setting machine. Bernard McGovern	61,387	Typewriter. Arthur A. Moore, et al	60,424
Tire shrinker and stretcher. Walter A. Ellis	61,742	Typewriter. Monnosuke Higuchi	61,923
Tire tightener. James Henry Osten	61,744	Typewriter. Oliver Kirk	61,355
Tire upsetter. John M. Bender	59,883	Typewriter. Robert Turner	59,432
Tobacco cutter. Samuel H. Arrell	60,606	Typewriter copy holder. The Peninsular Novelty Co	61,473
Tobacco leaves. Treatment of. Johann C.F.W. Feldhausen	60,495	Typewriter machine. Fritz Mayer	61,649
Tobacco packing machine. Richard H. Wright	60,695	Typewriting machine. Blitz Schreibmaschine, et al	58,794
Tobacco pipe. William Sale Hannaford	60,597	Typewriting machine. Frederick F. Anderson, et al	59,201
Tobacco stemming machine. Dell Barker, et al	58,950	Typewriting machine. George L. Rawdon	58,809
Tongue support. Jerry Weeter	60,874	Typewriting machine. Richard William Uhlig	58,975
Tool. The Jenkins Iron and Tool Co	61,627	Typewriting machine. Ville de Beaumont, et al	58,944
Tool chuck. James A. Craig	58,961	Tire: See Pneumatic tire, Pneumatic or spring tire, Rubber tire, Vehicle tire, Wheel tire	
Tool driver. Frank A. Reynolds, et al	58,719	Tire. Charles George Robertson, et al	60,641
Tool handle. Fred Pederson	61,986	Tire and cover. James Mcreedy Mac Lulich	61,548
Tool handle. Hugh Aaron Jeckendorf	60,596	Tire heater. Jacob J. A. Morath	60,725
Tool holder. John K. Severson	60,611	Umbrella. Charles H. Ely, et al	60,296
Tooth brush. Isaac N. Lincoln	60,709	Umbrella. Ernest Sydney Ross	60,796
Toothpick. Edward M. Lamb, et al	61,599	Umbrella. Frederick Shaefer	58,854
Toothpick. George B. Deardorff	59,268	Umbrella. Royal V. Hill, et al	60,078
Toothpick making machine. Howard Everett Barlow	61,828	Umbrella carrier. Charles H. McCormack	61,718
Torpedo steering device. John S. Eddy	58,678	Umbrella clip. Frank H. Mitchell, et al	59,765
		Umbrella holder. Harriet T. Stuckey	61,427
		Umbrella holder. Isabel H. Holmes	59,994
		Umbrella holder. James H. Barkeley	59,968
		Umbrella holder. Lonese A. D. Northrup	60,722
		Umbrella rack. Ulysses G. Rockwell	58,898

Umbrella tip. Frank Herbert Mitchell, et al	59,766	Ventilated car. John Clarke	60,557
Upholstering apparatus. The Novelty Tufting Machine Co.	61,280, 61,802	Ventilating and refrigerating car. Frank Thompson	62,032
Upright piano. Otto Wissner	60,544	Ventilating apparatus. Joseph Leather	61,214
Urinal. Anne Jane Arthurs	61,772	Vertical press. Archibald A. Dickson	58,689
Vaccine carrier. Ralph Walsh	62,100	Vertically lifting platform. John Doldt	59,873
Vacua producing apparatus. Archibald Barr, et al	59,182	Vessel caulking system. John E. Liddy	58,970
Valve. Carl W. Vollmann	60,175	Vessel steering appliance. Frank B. Turner	61,140
Valve. Charles Jenkins	61,039	Vise. Henning Mathias Knudsen	60,609
Valve. Charles S. Waybright, et al	58,540	Voting machine. A. Genest, et al	59,002
Valve. Edward J. Philip	60,225	Vulcanizer. Morgan & Wright	59,928
Valve. Ferdinand Roy	60,976	Vulcanizing apparatus. Henry James Doughty	60,881
Valve. Hiram T. Bush	60,565	Wad cutter. The Austin Cartridge Co.	61,938
Valve. James Hugh McPartland	61,198	Waggon. Andrew and William Boden	59,395
Valve. James N. Rundell	58,636	Waggon. Benjamin F. Kent	58,804
Valve. Joseph S. L. Wharton	59,462	Waggon bed. Edward E. Hartsell	59,311
Valve. Mathew Abt	58,573	Waggon brake. Charles Garver	60,441
Valve. Richard D. Watson	60,379	Waggon brake. John R. Kinkade	61,722
Valve. The Friction Pulley and Machine Works	58,998	Waggon brake. John T. Hillman	59,471
Valve. Thomas Garforth Rhodes, et al	60,187	Waggon brake lock rod. James H. Hoover	61,721
Valve. Will Joseph Frederick	60,297	Waggon gear. Charles E. Bostwick	58,874
Valve. William G. Urnson	60,496	Waggon jack. David E. Copp	59,747
Valve. William W. Wilson	58,915	Waggon jack. Isom L. Thompson, et al	58,946
Valve. Winfield O. Gunckel	59,099	Waggon spring. Philip W. Brown	58,949
Valve for air brakes. Niels A. Christensen	59,973	Waistband hook. Jennet Isabella Gilchrist	60,735
Valve for pneumatic tires. Irwin F. Kepler	60,443	Waiting tray. James John Marshall	61,398
Valve for steam car heating systems. Edward Ethel Gold	61,520	Wall protector. Richard L. Hardin, et al	62,045
Valve for water closets. David T. Kenney	61,519	Wardrobe. John Ernest Kennedy	60,391
Valve for water closets. Robert S. Watson	59,390	Wardrobe or cabinet. John Ernest Kennedy	59,291
Valve gear. Lincoln Alexander Lang, et al	61,730	Warp drawing machine. John Clarke	61,235
Valves in pipes and mains. Method of inserting. Morris R. Sherrerd	61,037	Washable leather or skin preparing process. Jean L. Garcin	58,590
Vapour bath. Peter John Holm	60,248	Washboard. Anna Poehlman	60,592
Vapour burner. Moritz Bernstein	61,572	Washboard. John Valentine	60,178
Vapour burning apparatus. Arthur Kitson	59,571	Washstand. Thomas Andrews	59,551
Vapourizer, carbureter and air governor for gas engines. Franklin Francis Snow	59,594	Washing and leaching apparatus. Robert Moodie	60,194
Vault. Edward C. Shankland	59,867	Washing and wringing machine. Margaret Killeen	60,938
Vault. Frank Kaufman	59,263	Washing board. George Bowron	59,827
Vegetable powder. The Merrill-Soule Co.	62,038	Washing board. Herbert Thomas Hamilton	61,267
Vehicle. Axel A. Johnson	58,899	Washing machine. Alonzo Abrun Caster	59,090
Vehicle axle. David A. Brown	61,115	Washing machine. Alexandre Chapman, et al	60,671
Vehicle axle. François Beaulac	58,639	Washing machine. Amédée Houle	60,794
Vehicle axle. James A. McLaughlin	59,674	Washing machine. Anna Sophia Fridolph	58,954
Vehicle brake. Adolf H. Marwede	62,049	Washing machine. Austin M. Belding, et al	61,405
Vehicle brake. John H. Punchard	61,581	Washing machine. George D. Bowswell	62,956
Vehicle coupling. Jerry Crowley	59,322	Washing machine. James W. Brownell	61,150
Vehicle draft device. Thomas S. Bailey	59,274	Washing machine. John Junkin Francis, et al	59,899
Vehicle evener. Matthew Kehoe	61,092	Washing machine. Lehman Weil	60,556
Vehicle frame. Julius Knoll	61,449	Washing machine. Lucas Milton Lent	61,643
Vehicle frame. Zdzislaw Maevisky	62,058	Washing machine. The Star Suction Washer Co.	61,993
Vehicle frame joint. The Pope Manufacturing Co.	60,784	Washing machine. Thomas Waldron	59,124
Vehicle gearing. William Mark Watson	61,541	Washing machine. William T. King	58,542
Vehicle parcel carrier. William M. Tegart	58,727	Waste tow cleaning method and machinery. The United States Flax Fibre Co	61,261
Vehicle recorder. James Ridge, et al	61,840	Watch. Samuel Lesnick, et al	59,603
Vehicle runner attachment. David E. Owen	58,910	Watch case spring. August Edward Wolkow	60,693
Vehicle seat. Charles H. Stratton	61,760	Water current motor. William W. Douglass, et al	60,921
Vehicle seat spring back. Perry Parkinson	59,980	Water faucet. Joel Cool Perry	61,865
Vehicle shaft. Pierre L. W. Dupré	61,091	Water free from germs. Process of rendering drinking. Dr. Wilhelm Schumburg	60,972
Vehicle spring. John C. Shepherd	59,509	Water furrow cleaner. Joseph A. McMicking	62,163
Vehicle spring gear. Samuel Q. Saunders	60,715	Water heater. George Alexander Perram	59,444
Vehicle tire. Thomas W. Mitchell, et al	62,061	Water heater. James Oliver Buchanan	62,033
Vehicle turntable. Louis E. Pomeroy	59,302	Water heater. Josephus Plenty	60,932
Vehicle tire. Herman A. Fontaine, et al	61,150	Water heater. Robert Rushton	60,692
Vehicle tire. Lestock Weatherley Cockburn	61,677	Water heater. The United States Heater Co.	60,098
Vehicle tire and wheel. Robert Heap Southall	60,732	Water heater and feed cooker. James F. Vigar	60,083
Vehicle tire making machine. Frederick William Huestis	59,677	Water heater and smoke consumer. William H. Bradley	60,209
Vehicle wheel. George Hayes	59,031	Water heater cleaning apparatus. George J. Dehn	59,885
Vehicle wheel. Isaac Henderson	60,991	Water lifting apparatus. Thomas Bearman	58,681
Vehicle wheel. James C. H. Vaught	61,678	Water lifting chain. Henri F. M. Lemaire	60,065
Vehicle wheel. James Napoleon Johnson	61,676	Water motor. Charles W. Horton, et al	59,773
Vehicle wheel. John E. M. Becker, et al	61,015	Water pipes. System of keeping them dry. Edward W. Giles	58,978
Vehicle wheel. Joseph Blais	58,690	Waterproof composition. Charles J. Grist	59,587
Vehicle wheel. Julian A. Foster	61,674	Waterproof fabric. The Publishing, Advertising and Trading Syndicate	58,793
Vehicle wheel. Robert G. McDowell, et al	61,711	Water purifier. Henry F. Cuno	61,065
Vehicle wheel. William J. R. Watson	59,030	Water purifying apparatus. William Greig, et al	61,205
Vehicle wheel and elastic tire. David A. McKnight	59,353	Water temperature regulator. David & Roesch Temperature Controlling Co	59,704
Vehicle wheel jack. Allan Quarrie	60,750	Water trap. Edwin Hope Murdock	61,504
Vehicles. Mechanism for utilizing the pumping of. George B. H. Austin	61,906	Water vehicle. Theodor Hugo August Lukatis	62,008
Velocipede. see Bicycle		Water wheel. Charles T. Munroe, et al	60,778
Velocipede. Isaac Philip Patton, et al	59,491	Water wheel. David Morgan	60,383
Velocipede. Norris F. Willatt, et al	59,502	Water wheel. Francis M. F. Cazin	59,640
Velocipede and motor vehicle. Thomas James Ryland, et al	61,476	Water wheel. James Leffel & Co.	61,481
Velocipede gear. Gilbert Paterson	59,026	Water wheel. John Drummer	60,813
Velocipede gear. Julius A. N. Rasmussen, et al	60,123	Water wheel. William H. W. Hamilton, et al	58,959
Velocipede gear. The Welland Vale Manufacturing Co.	61,629	Watering cart. Rosella R. Reilly	58,983
Velocipede motor car, etc. David A. McNeight	59,382	Wave motor. Wallace McDonald	60,738
Velocipede pedal clip. William J. Grotenhuis, et al	60,477	Waves. Means of utilizing the power of. The Ocean Power Co.	60,464
Velocipede propulsion gear. Robert F. Hughes	58,726		
Velocipede saddle. Theodore E. Beck	58,750		
Velocipede saddle. William Isaac Bunker	61,305		
Venetian blind. William Martin Green	60,497		

Wearing apparel. Joseph John Westgate	59,584	Wire clamp. Charles A. Conger	61,060
Weather proofing composition. Johannes Stocker, et al.	61,570	Wire cloth for paper making machines. John C. Bell	59,566
Weather strip. Eugene A. Partelow	59,983	Wire coiling machine. Kitselman Bros.	59,845
Weather strip. George M. White	59,086	Wire fabric making apparatus. George R. Lamb	61,206
Weather strip. George W. Golden	61,836	Wire fabric making machine. The Hercules Woodenware Co	61,940
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	61,084	Michaels, J., et al. Non-refillable bottle	61,363
		Michaels, J., et al. Non-refillable bottle	60,628
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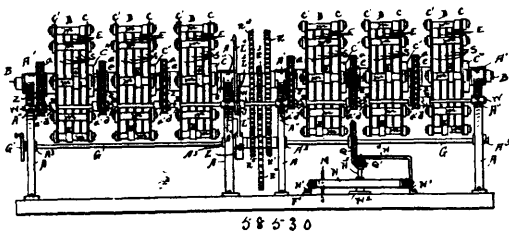
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INVENTIONS PATENTED.

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. 58,530. Spring Motor. (Moteur à ressort.)



Paschal A. Tarbox and Simeon T. Crone, both of Joliet, Illinois, U.S.A., 3rd January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. The herein described motor, the spring head comprising the hollow spindle provided with the face offsets, the disc heads sleeved on the end portions of said spindle, the cross-rods connecting said discs adjacent their periphery, the pawl case extending at the side of one of said discs, pawls arranged in said case and adapted to engage the teeth of a ratchet-wheel on the shaft upon which said head is mounted, a chain winding-wheel fixed on one end of said spindle, the multiple spiral springs consecutively hooked at their inner end on the offsets of said spindle, and looped consecutively, at their outer end about said cross-rods, and the spring dividing discs sleeved on said spindle, substantially as set forth. 2nd. In the herein described motor, in combination with the spring heads and their chain geared winding mechanism, the shaft supporting the drive-wheels of said gear, the ratchet-wheel fixed on the said shaft, the bell-crank lever sleeved on said shaft and provided with the pawl arranged to engage said ratchet-wheel, the motor counter-shaft, the eccentric fixed on said shaft and provided with a strap detachably connected with said bell-crank lever, substantially as and for the purpose specified.

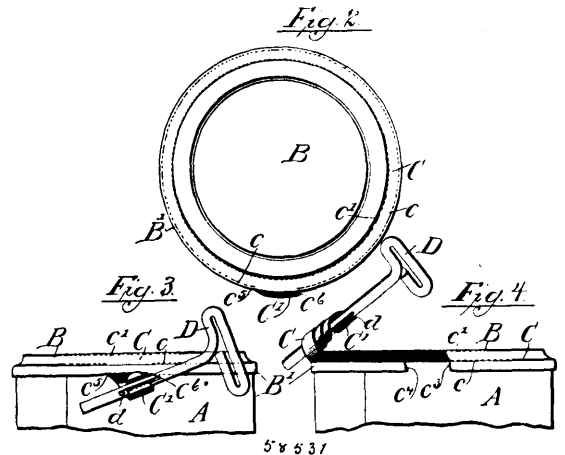
No. 58,531. Top Opening Sheet Metal Cans.

(Appareil pour ouvrir les boîtes métalliques.)

The National Key Opening Can Company, assignee of John Zimmerman, both of Chicago, Illinois, U.S.A., 3rd January, 1898; 6 years. (Filed 15th March, 1895.)

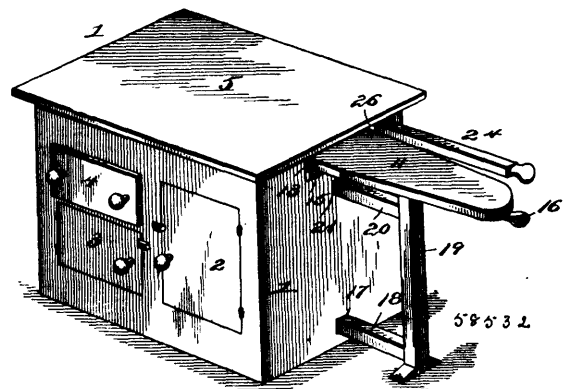
Claim.—1st. A sheet metal can having an external flanged cover provided with a free tongue projecting from the edge of its flange, said cover being also provided, adjacent to the flange, with a transversely inclined, detachable strip, the outer weakened line bounding

which strip is interrupted by a space opposite the tongue, substantially as described. 2nd. A sheet metal can having an external



flanged cover, provided with a free tongue projecting from the edge of its flange, said cover being also provided, adjacent to its flange, with an annular detachable strip, the outer weakened boundary line of which strip is interrupted by a space opposite the tongue, and the metal of the flange and strip being without weakened lines leading from the edges of the tongue to the weakened lines bounding the strip. 3rd. The flanged can head or cover described having an annular detachable strip situated radially inside its marginal flange and having also a free tongue projecting from said flange, said tongue terminating at its base in sharp entering angles and the metal between said angles and the weakened lines being of full strength.

No. 58,532. Kitchen Cabinet. (Cabinet de cuisine.)

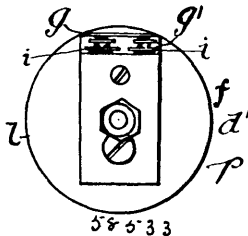


Fortune Washington, Silas Cuba and Ambrose Cuba, all of Colchester, Illinois, U.S.A., 3rd January, 1898; 6 years. (Filed 29th November, 1897.)

Claim.—1st. A kitchen cabinet provided with a chamber having an open front and adapted to receive a churn, transverse bars supported within the chamber intermediate its upper and lower ends, bearings on said bars, a vertical shaft and a horizontal shaft journaled in the respective bearings and provided with meshing bevel-gears, the vertical shaft being adapted to be detachably connected to the shaft of the churn-dasher, and the horizontal shaft extending through the open front of the chamber, pins on one of said bars projecting through the open front of the chamber, a hinged door to close the front openings below the transverse bars, a shutter to close the remainder of said front opening, said shutter having openings for the reception of the horizontal shaft and the said pins, devices to lock the shutter and the door in their closed positions, and a crank-handle removably connected to the outer end of the horizontal shaft, substantially as described. 2nd. A kitchen cabinet provided with a chamber at its upper end, ways in said chamber, an ironing-board adapted to slide between said ways in the chamber and through an opening in the wall of the cabinet, said board being provided with a recess in its lower face, a standard provided with laterally-projecting guide-arms, said arms sliding in ways within the cabinet, and a lug or pin on the upper end of the standard adapted to fit in the said recess in the ironing-board, substantially as described. 3rd. A kitchen cabinet provided with chambers at its upper and lower end, a clothes-rack consisting of a series of parallel bars supported within the upper chamber and adapted to slide through openings in the wall of the cabinet, a cross-bar connecting the outer ends of said parallel bars, spaced standards connected at their upper ends to the said cross-bar and having their lower ends connected by a cross-brace, and guide-arms projecting horizontally from the said standards through openings in the wall of the cabinet into the lower chamber, substantially as described.

No. 58,533. Cut-off Relay for Telephone Switchboards.

(*Relai à détente pour commutateurs de téléphones.*)

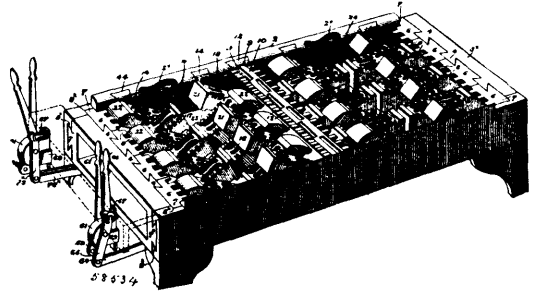


The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Frank Robert McBerty, Downer's Grove, Illinois, U.S.A., 3rd January, 1898; 6 years. (Filed 20th April, 1897.)

Claim.—1st. The combination with a straight core and the winding thereof, of pole pieces for the core extending at right angles thereto and bending toward each other, an armature between the core and the pole pieces overlapping the pole pieces, a switch spring parallel with the armature outside the pole pieces and a normal resting anvil therefor, and a stud connecting the armature with switch spring, substantially as described. 2nd. In combination in a rectangular magnetic circuit, a core with a winding thereon, pole pieces for the core extending toward each other, and an armature lying between them, the inner faces of the pole pieces and the core and overlapping the pole pieces, one extremity of the armature being connected with the corresponding pole piece through a flexible strap of magnetic material, substantially as described. 3rd. In combination, a straight core, pole pieces therefor extending at right angles thereto and having their extremities presented toward each other, an armature lying between the core and the inner faces of the pole pieces and overlapping the pole pieces, one extremity of the armature being secured to one of the pole pieces by a flexible strap of iron, switch springs extending parallel with the armature and carried on the pole piece which is connected with the armature, contact anvils for the other extremities of the springs, and studs upon the armature adapted to engage the switch springs when the armature is attracted to raise them from their contact anvils, substantially as described. 4th. In combination, the core a and its winding, the pole pieces d and d^1 , the armature e lying within the said pole pieces, the anvil straps i and i^1 secured to the pole pieces d , and resting upon but insulated from the pole piece d^1 , the switch spring g and g^1 secured to the pole piece d and insulated therefrom and resting on the said anvils, and the studs k and k^1 of insulating material on the armatures adapted to engage the switch spring to move them, as described. 5th. The combination with the base plate carrying several relays, of the core projecting at right angles thereto, the armature parallel with the core, pole pieces for the core bent to overlap and enclose the extremities of the armature, a switch spring parallel with the armature and a contact anvil therefor, said switch spring being fixed near the base plate and the movable extremity and contact point thereof being presented near the other end of the magnet, as described. 6th. The combination with the core a , and its winding of pole pieces d and d^1 , formed as shown, the armature e , supported near the pole piece d , and the adjusting screw f passing through pole piece d^1 , and having a

bevelled extremity engaging said armature as a stop, substantially as described. 7th. The combination with the core a , and its winding pole pieces d and d^1 , the armature e , and the flexible strap e^1 of iron securing it to the pole pieces d , anvil strap i and i^1 secured at their opposite extremities to pole pieces d and d^1 , respectively, by insulating material, the switch springs g and g^1 , secured to pole piece d and insulated therefrom and resting on the said anvils i and i^1 , and the studs k and k^1 of insulating material carried by the armature and adapted to raise the switch springs from their anvils when attracted, substantially as described. 8th. In combination, the core a , with its winding, the pole pieces d and d^1 , the armature e , the switch springs controlled by the armature, the screw o , and distance piece p carried on the pole piece d^1 , the circular base-plate h fixed to pole piece d , the cylindrical casing n enclosing the appliance and embracing the plate h , and the screw q retaining the casing in place, as described.

No. 58,534. Shaking Grate. (*Grille à secousse.*)

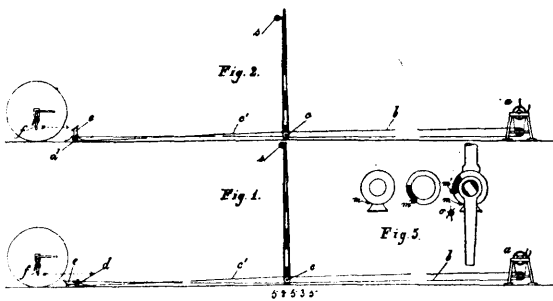


George Ayres (Gumphert and Thomas Marrin, both of Philadelphia, Pennsylvania, U.S.A., 3rd January, 1898; 6 years. (Filed 2nd December, 1897.)

Claim.—1st. In a grate, an outer frame, the same consisting of side bearing bars, and head-pieces or end frames, dovetailed tongues or grooves common to said bars and frames, and a series of sectional key blocks having tongues and grooves, and adapted to engage similar tongues and grooves in said side bearing bars and end frames. 2nd. In a grate, an outer frame consisting of side bearing bars, having in their ends the dovetailed recesses 9^x , head-pieces or end frames having the dovetailed tongues 7^x adapted to engage the similarly shaped recesses, and a series of key blocks 6 , said blocks having dovetailed-shaped recesses therein, adapted to engage dovetailed tongues on said end frames and the end key blocks having tongues 7 , adapted to seat in recesses 8^x in said side bearing bars. 3rd. In a grate, an outer frame consisting of side bearing bars, having in their ends the dovetailed recesses 9^x , head-pieces or end frames having the dovetailed tongues 7^x adapted to engage the similarly shaped recesses, and a series of key blocks 6 , said blocks having dovetail-shaped recesses therein, adapted to engage dovetailed tongues on said end frames, the end key blocks having tongues 7 adapted to seat in recesses 8^x in said side bearing bars, in combination with an intermediate tie-piece, and dovetail tongues and grooves common to said tie-piece and side bearing bars, the opposite faces on said key blocks and tie-pieces having serrations or teeth thereon, which are adapted to co-act with the faces of adjacent slice bars. 4th. In a grate, a slice bar, consisting of a suitable body portion having a convex top and serrations at the side thereof, a sinuous or serpentine web having similarly shaped ports on either side thereof and extending through the body of said slice bar and lugs depending from the latter, a bearing bar and connections common to said bearing bar and slice bar, whereby said slice bar is adapted to be actuated by said bearing bar. 5th. In a grate, a slice bar consisting of a suitable body portion, having a convex top and sinuous or serpentine ports extending through said body portion, thereby forming a sinuous web, one extremity of said body portion being rectangular to the axis of said slice bar, the other extremity being curved relative thereto, and lugs depending from said slice bars, said lugs having polygonal and concave recesses therein. 6th. In a grate, a slice bar consisting of a suitable body portion, having one end squared and the other curved, serpentine ports through said body thereby forming a serpentine web, serrations or teeth on the sides of said body portion, said serrations terminating below the top of the bars and lugs projecting from said body portion and having a space therebetween, the upper portion of said space being of polygonal shape and the lower portion of the space between said lugs being concave and adapted to receive a reinforcing device. 7th. In a grate, a reinforcing device, the same consisting of a disc or plate 30 having the cylinder 31 projecting laterally therefrom, said disc being provided with a curved hemispherical shell or cap projecting therefrom, in proximity to said cylindrical projection, and means for attaching said reinforcing device to a slice bar. 8th. In a shaking grate, side bars, transversely extending bearing bars, having bearings in said side bars, said transverse bars being cylindrical at their intermediate portion and of polygonal shape in cross-section adjacent thereto, a plurality of slice bars mounted upon said transverse bars, every alternate slice

bar fitting snugly in said transverse bar, and adapted to move in unison therewith, while the other alternate slice bars are capable of independent movement relative to said transverse bars, and means for actuating said slice bars. 9th. In a shaking grate, side bars, a plurality of transverse bearing bars, a plurality of slice bars mounted on said transverse bars, every alternate slice bar fitting snugly upon said transverse bar and moving in unison therewith, and the intermediate slice bars being capable of independent movement relative to said transverse bars, reinforcing devices mounted upon each outer pair of slice bars, the inner pair of said reinforcing devices having the ends of a rod or transmitter seated therein, the latter engaging the depending lugs of the centre slice bar, and means for actuating the alternate longitudinal series of said slice bars independently or in unison. 10th. In a grate, side bearing bars, and frames interlocked therewith, transverse bearing bars having slice bars mounted thereon, in longitudinal series, and means for actuating each of said longitudinal series, so that each pair of adjacent slice bars rock in opposite direction to its neighbour, independently of its neighbour, or can remain stationary thus serving as a dead bar during the oscillation of its neighbour. 11th. In a shaking grate, a plurality of side bars, transverse end frames, therefor, transverse bearing bars, a plurality of longitudinal series of slice bars mounted on said transverse bars, one set of slice bars in longitudinal series, having a connecting rod common thereto, a link pivoted to one of the last mentioned series of slice bars, a bell crank having a member suitably fulcrumed and pivoted to said link, the other member of said bell crank having means attached thereto for actuating the same in combination with a connecting rod common to the links of said slice bars, a link pivotally attached to said connecting rod, and means for enabling each of the longitudinal series of said slice bars to be operated independently or in unison. 12th. In a grate, an outer framework, consisting of side bearing bars having openings therein, one of said side bars having a tongue projecting therefrom, and a head on the end of said tongue, said tongue and head being adapted to seat in similarly shaped recesses in a contiguous bar, a ledge projecting from the recesses bar and adapted to support the bar or section, provided with said tongue and head. 13th. In a grate, an outer frame work consisting of side bearing bars, and end frames, interlocking devices common thereto, said side bearing bars being made in sections, one of said sections having the tongue 47 and head 48 adapted to seat in a similarly shaped recess in a contiguous section, and said first mentioned bar having a cut-out portion formed by the walls 49 and 50, said cut-out portion being supported on the ledge 51 of said recessed section. 14th. In a shaking grate, a plurality of side bars, end frames and interlocking devices therefor, a series of transverse bearing bars having slice bars mounted thereon, means for enabling said slice bars to oscillate independently or in unison, and locking devices for said actuating means. 15th. In a grate, transverse bearing bars, suitably supported, a plurality of slice bars mounted thereupon, every alternate slice bar rocking in unison with its bearing bar, and the other slice bars rocking on said bearing bar as an axis, the slice bars adjacent to the central slice bar having shortened lugs, a transmitter suitably supported, the lugs of said central bar engaging said transmitter, and means for actuating said slice bars.

No. 58,535. Device for Preventing Railway Accidents. (*Appareil pour empêcher les accidents sur les chemins de fer.*)

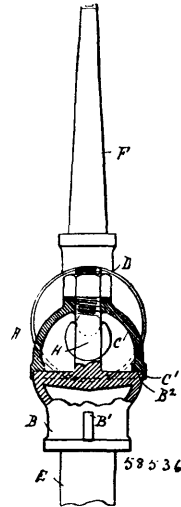


Cornelius Peters, Nymegen, Wilhelmus Schoondermark, Waspik, and Johannes Ahasuerus Anne Schoondermark, Leenwarden, all in Holland, 3rd January, 1898; 6 years. (Filed 4th October, 1897.)

Claim.—1st. An improved apparatus for preventing railway accidents, constructed and operating substantially as hereinbefore described and illustrated by the drawings, substantially as described. 2nd. On railways the arrangement of an arm or pallet actuated by means of a signal or switch apparatus in such a manner that when said signal or switch is not set for allowing the train to proceed the arm or pallet opens a cock or valve arranged on the brake piping on the train and puts on the brake so as to arrest the train independently of the driver or guard, substantially as hereinbefore described and illustrated by the drawings, substantially as described. 3rd. In apparatus for opening a cock in the brake piping of a railway by means of a lever on said cock and of an arm raised by setting a signal or switch to its danger position, the arrangement of the said

lever loose on the shank or spindle of the plug of the cock and of a projection on the plug encountered by the lever when turned, for the purpose of preventing the turning back of the plug from the driver's platform, substantially as hereinbefore described and illustrated by the drawings, substantially as described.

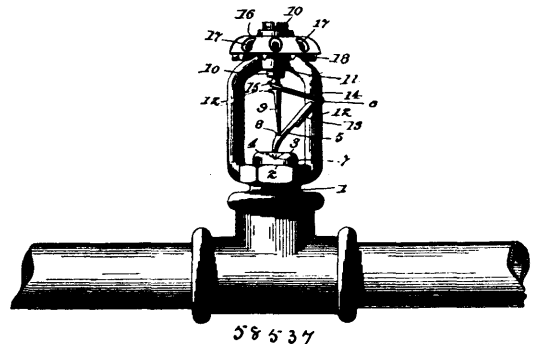
No. 58,536. Lawn Sprinkler. (*Appareil pour arroser le gazon.*)



Isaiah H. Gingrich, Grand Rapids, Michigan, U.S.A., and John B. Gingrich, Berlin, Ontario, Canada, 3rd January, 1898; 6 years. (Filed 6th December, 1897.)

Claim.—The herein described lawn-sprinkler, consisting of a stationary section, constructed to be attached to a service pipe and having a horizontal bar extending across the centre of its upper end, and a vertical bolt rising from said bar, an intermediate section comprising two cups extending at approximately right angles with each other, the outer wall of one of said cups being engaged by said bolt and the opposite end thereof being seated upon the upper edge of said stationary section so as to turn in a horizontal plane thereon, said cup also having a horizontal bolt extending through and beyond the outer cup of said intermediate section, and an outer section extending at approximately right angles with the latter cup and seated thereon so as to turn in a vertical plane upon the same, the front vertical wall of said outer section being engaged by said horizontal bolt, and a nozzle attached to said outer section.

No. 58,537. Sprinkler for Extinguishing Systems. (*Arrosoir pour système extincteur.*)

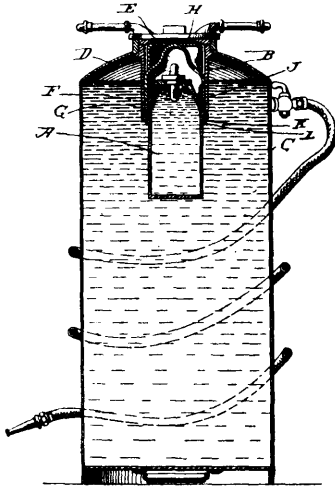


The Fire Extinguisher Manufacturing Co., New York, State of New York, assignee of Ernest F. Steck, Chicago, Illinois, both in the U.S.A., 3rd January, 1898; 6 years. (Filed 18th November, 1897.)

Claim.—1st. An automatic sprinkler having in combination with a valve, means for controlling said valve consisting of a lever having one arm impinging said valve and being provided with a notch or seat, a bearing opposite said valve, a post fitted between said seat and bearing, a second lever overlapping the other arm of said first lever and attached thereto by a fusible connection, and a link connection from said second lever to said post, substantially as and for the purpose set forth. 2nd. An automatic sprinkler having in combination a valve, the lever 5 having its end 7 impinging said valve and being provided with a notch 8, a screw arranged opposite said valve, the post 9 seated in said notch 8 and bearing under said screw,

the member 6 overlapping the under side of lever 5, and being soldered thereto, the link 14 pivotally secured to the member 6 and surrounding said bar 9, said bar being provided with lugs 15, substantially as set forth.

No. 58,538. Chemical Fire Extinguisher.
(*Extincteur d'incendie chimique.*)

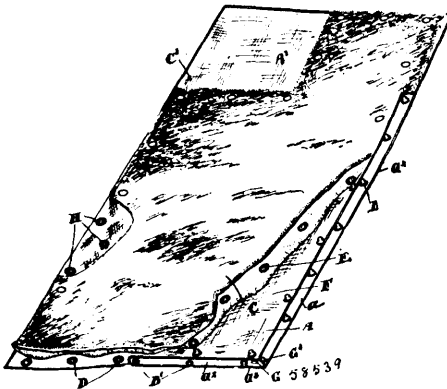


58538

The Fire Extinguisher Manufacturing Co., New York, State of New York, assignee of Ernest F. Steck, Chicago, Illinois, both in the U.S.A., 3rd January, 1898; 6 years. (Filed 13th November, 1897.)

Claim.—1st. In a chemical fire-extinguisher, the combination of an outer vessel for holding the alkaline liquid, an unsealed acid-containing vessel having an annular shoulder supported by and within the alkaline vessel, a supporting-frame, and a glass sealing-cap or bell seated upon the shoulder of the acid-containing vessel. 2nd. In a chemical fire-extinguisher, the combination of an outer alkaline-containing vessel, an inner acid-containing vessel, a supporter, and a cap or bell covering the upper part of the acid-containing vessel and having openings at the bottom whereby a liquid sealed escape is provided for the gaseous fumes. 3rd. In a chemical fire-extinguisher, the combination of an outer alkaline-containing vessel, an inner acid-containing vessel, a glass cap or bell covering the upper part of the acid-containing vessel, and means substantially as shown and described for introducing the escaping fumes from the acid-containing vessel directly into the alkaline water without contacting with the metallic parts. 4th. In a chemical fire-extinguisher, the combination of an outer vessel containing alkaline water, an inner vessel supported by the outer vessel, and containing acid, a glass bell, cap or dome arranged over the top of the inner vessel and retaining between it and the inner vessel a quantity of alkaline water, the latter forming a liquid seal, with said seal.

No. 58,539. Sleeping Bag. (*Sac à coucher.*)

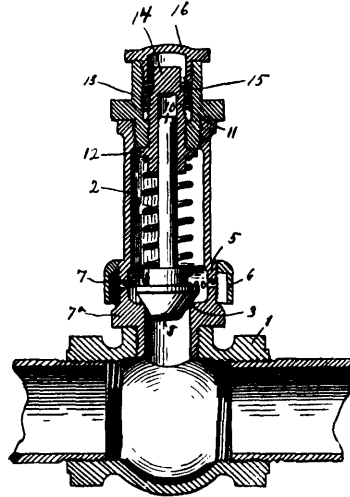


The Firm of Gillespie, Ansley & Dixon, assignees of John George Strohmeyr, all of Toronto, Ontario, Canada, 3rd January, 1898; 6 years. (Filed 4th December, 1897.)

Claim.—1st. As a new article of manufacture, a sleeping bag comprising an outer cover provided with a divided head flap and interior spring buttons around the entire edge thereof, and an inner fur lining having a rectangular corner cut out of the head and designed to have the plain side placed next the inside of the outer cover and

receiving eye sockets located at the underside thereof, as and for the purpose specified. 2nd. As a new article of manufacture, a sleeping bag comprising an outer cover provided with a divided head flap and interior spring buttons around the edge thereof, and an inner fur lining having a rectangular corner cut out of the head and designed to have the plain side placed next the inside of the outer cover receiving eye sockets located at the underside thereof, a side flap extending partially up one side thereof and designed to cover the major portion of the corresponding edge of the fur lining, spring buttons secured in the flap, and an end flap extending half-way across the foot end of the bag and provided with spring buttons, and the co-acting sockets on the opposite edge and half end of the bag designed to fasten in position on to the spring buttons on the flaps, as and for the purpose specified.

No. 58,540. Safety-Valve. (*Soupe de surtôté.*)



58540

Charles Switzer Waybright and Ephraim Wimer, both of Crabbottom, Virginia, U.S.A., 3rd January, 1898; 6 years. (Filed 4th December, 1897.)

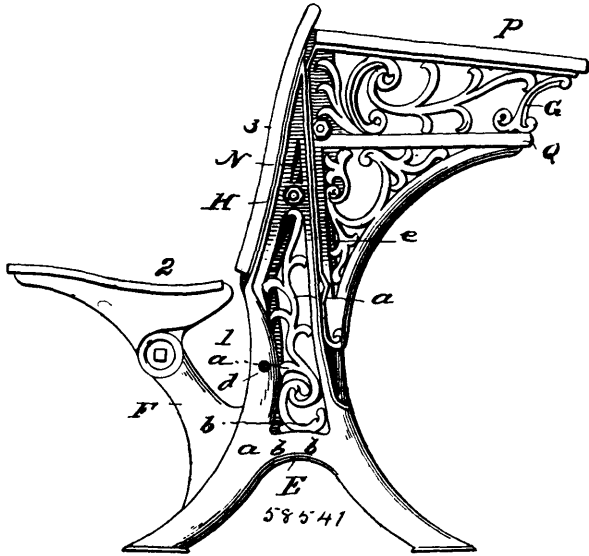
Claim.—1st. A valve of the class described having its casing provided with lateral vents and a contiguous valve-seat, a normally seated yielding valve controlling said vents, and a deflecting hood open at one side, provided with an interior flange threaded exteriorly upon the casing contiguous to the plane of said vents, and adapted to be reversed to extend either upwardly or downwardly thereover, said interior flange of the hood being of a thickness equal to the diameter of the vents, and the cylinder being threaded upon each side of the plane of the vents a distance equal to the distance of said flange to provide for arranging the flange on either side of the plane of the vents, substantially as described. 2nd. A valve of the class described having its casing provided with lateral vents and a contiguous valve-seat, a normally seated yielding valve controlling said vents, a head removably fitted in, and co-extensive with the casing and provided at the inner end of its bore with a threaded portion, a valve stem guide adjustably fitted in the threaded portion of the bore of the head and provided at its outer extremity with a wrench-seat, said guide being provided with a collar of smaller diameter than the interior of the casing to engage the contiguous extremity of a valve-actuating spring, and a cap removably fitted in a counterbored and threaded portion of said head to normally conceal and give access to the wrench of the guide, substantially as described.

No. 58,541. Combination Adjustable Desk and Seat.
(*Pupitre et siège.*)

The Grand Rapids School Furniture Company, assignee of Allen Dawson Linn, both of Grand Rapids, Michigan, U.S.A., 3rd January, 1898; 6 years. (Filed 4th December, 1897.)

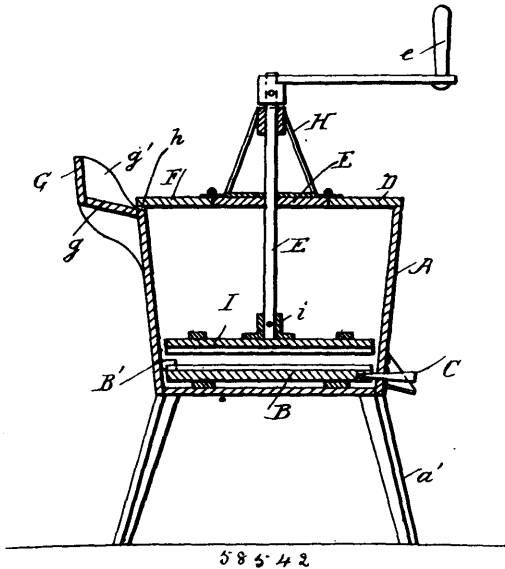
Claim.—1st. In combination with a standard, a vertically movable desk frame adjustably secured thereto, said frame being adapted to be advanced when lowered and retracted when raised by the same movement which lowers or raises it, substantially as described. 2nd. In combination with standards, a seat frame secured thereto, a desk frame also adjustably secured thereto, said frames having vertical movement on said standards and spreading or retracting movement in opposite directions as the frames are lowered or raised, substantially as described. 3rd. In combination with the standards, a desk frame adjustably supported thereby, and guides inclined to the front at their upper ends between the standards and frames adapted to advance the frame when lowered and retract it when raised, substantially as described. 4th. In combination, standards, a seat and back frame fitting within the same, adjustably connected there-

with, and a desk frame fitting recesses in the outer faces of the standards and adjustably connected therewith, substantially as



described. 5th. In combination with standards, supports F fitting within the same, connections located between the supports, and guiding projections on the standards engaging corresponding slots or depressions in the supports, substantially as described.

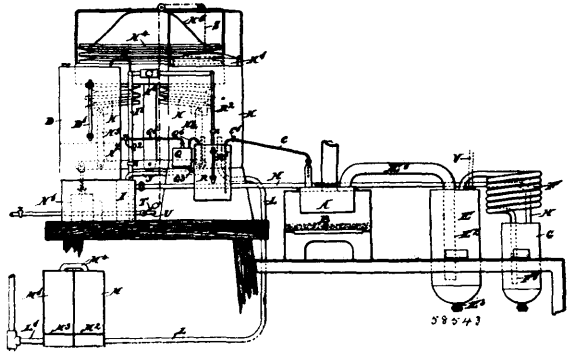
No. 58,542. Washing Machine. *c e d'aver.)*



Thomas Waldron, Carthage, Missouri, U.S.A., 3rd January, 1898 ; 6 years. (Filed 9th December, 1897.)

Claim.—1st. In a washing machine, the combination, with a tub, and a removable wash-board in the tub, of a plug closing a drain hole in the tub and engaging with a hole in the said wash-board, substantially as set forth. 2nd. In a washing machine, the combination, with a tub having a notched portion in its edge, of a wringer-board provided with side brackets arranged one on each side of the said notched portion, and an inclined bottom portion draining into the tub, substantially as set forth. 3rd. In a washing machine, the combination, with a tub, of a lid formed of three parts, one part being secured to the tub and the other parts being hinged together and to the aforesaid part, and a shaft carried by the middle part of the said lid and supporting a revoluble wash-board, substantially as set forth. 4th. In a washing machine, the combination, with a tub, of a lid provided with a hinged middle portion, a bracket carried by the said middle portion, a shaft provided with a crank handle and free to revolve and slide vertically in said bracket, and a wash-board secured to the lower part of the said shaft, inside the tub, substantially as set forth.

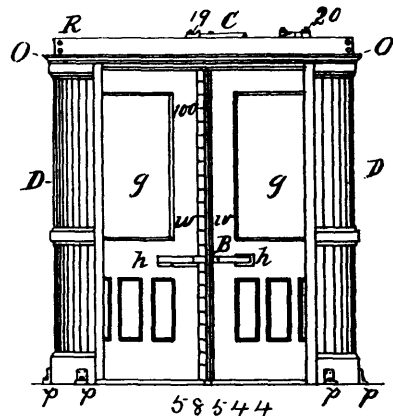
No. 58,543. Apparatus for the Manufacture of Gas for Lighting and Heating Purposes.
(Appareil pour la fabrication de gaz à éclairer et chauffer.)



Peter Brentini, Windermere Villas, Earlfield, London, England. 3rd January, 1898 ; 6 years. (Filed 12th March, 1896.)

Claim.—1st. Apparatus for producing gas for lighting and heating purposes from hydrocarbon liquid, which consists of a vaporizing retort or crucible, one or more condensers or washers with or without a cooling coil, a mixing vessel for mixing atmospheric air with the gas produced in the retort, devices for containing the hydrocarbon liquid, and for regulating the supply thereof to the retort, means for forcing air into the mixing vessel and into the vessels or reservoirs containing the hydrocarbon liquid, a motor for actuating the air-forcing devices, a gas holder or receiver, and devices connected with the latter for regulating the speed of the motor according to the requirements of gas-making in the apparatus, combined, arranged, and operating substantially as described. 2nd. In apparatus for producing gas for lighting and heating purposes from hydrocarbon liquid, regulating the supply of such liquid to the retort by air pressure applied to the surface of such liquid in the reservoir and regulating vessels containing it, such pressure being varied automatically according to the requirements of gas-making in the apparatus, substantially as described.

No. 58,544. Storm-Door Structure. (*Contre-porte.*)



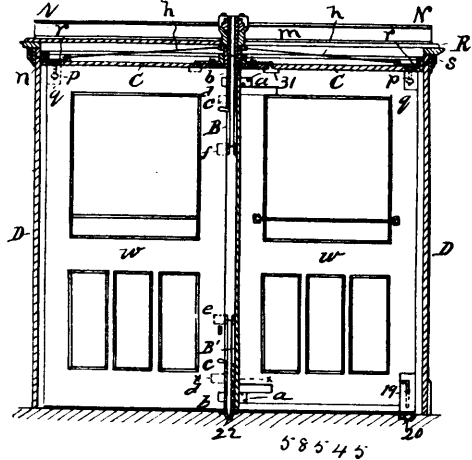
Theophilus Van Kannell, New York, State of New York, U.S.A., 3rd January, 1898 ; 6 years. (Filed 30th November, 1897.)

Claim.—1st. In a storm-door structure, the combination of a doorway and a door therefor having a series of radial wings united at a central line, means for adjustably connecting pairs with respect to each other, a rotating suspension device for said door depending from an elevated surface or structure, said surface or structure in area equalling the area covered by the revolving door, a wheeled carriage supporting said device, a track for said carriage extending transverse the doorway, fixed stops at the limits of movement of said carriage and a movable stop carried by the carriage to engage either fixed stop, substantially as described. 2nd. In a storm-door structure, the combination of a doorway with a door therefor having a series of radial wings united at a central line, a projecting roof or cover for the door, a pivot located upon said roof supporting the door and permitting free rotation thereof, a slot or passage in the roof through which said pivot passes, and a hinged cover for the slot, substantially as described. 3rd. In a storm-door structure, the combination of a doorway with a door therefor having a series of radial wings united at a central line, a projecting roof or cover for the door, a pivot from which said door is suspended, a wheeled truck supporting said pivot, a slot or passage in the roof through which said pivot passes, a hinged cover for said slot or passage and

a projection from the truck in position to engage said hinged cover, substantially as described. 4th. In a storm-door structure, the combination of a doorway with a door having a series of radial wings united at a central line, means for adjustably connecting pairs of wings with respect to each other, a pivot from which said door is suspended, means for moving said pivot transversely upon its support, a catch for holding said pivot in position, a longitudinally movable lower pivot connecting said door with a fixed point below it, and a movable mechanical connection between said lower pivot and said catch whereby the lifting of the lower pivot releases the catch, substantially as described. 5th. The combination in a revolving storm-door structure, of a series of radial wings united in pairs, means for connecting the wings of each pair rigidly together, and means for adjustably connecting pairs with respect to each other, substantially as described. 6th. The combination in a revolving storm-door structure of four radial wings united in pairs by a series of separate sections having flanges fixed at diametrically opposite points, said sections being superposed and the flanges of alternate sections connected to each pair of wings, substantially as described. 7th. The combination in a revolving storm-door structure, of radial wings united in pairs by a rigid connection, and a hinge connection at the central vertical line of the pairs whereby said wings may be placed in parallel planes or at any angle with respect to each other, substantially as described. 8th. The combination in a revolving storm-door structure, of a series of wings united in pairs by a rigid connection, a hinge connection between separate pairs and means for locking said pairs together in parallel planes, substantially as described. 9th. The combination in a revolving storm-door structure, of a series of wings united in pairs by a rigid connection, a hinge connection between separate pairs and means for locking said pairs together in parallel planes and to the casing, substantially as described. 10th. The combination in a revolving storm-door structure, of a series of wings united in pairs, a hinge connection between pairs, a bolt for locking one pair to a fixed point in the casing, and a link fixed to a second pair in position to engage the bolt between the first pair and the fixed point in the casing, substantially as described. 11th. The combination in a revolving storm-door structure, of a series of wings united in pairs, a hinge connection between pairs, a bolt located on one pair of wings for locking said pair to a fixed point in the casing, a link fixed to a second pair of wings and extending into the line of movement of said bolt between said door and fixed point, and means for holding the bolt in three positions, to wit, completely withdrawn, in position to unite the first and second pairs of doors, in position to unite said pairs together and to the fixed point, substantially as described. 12th. In a storm-door structure, the combination of a door having radial wings adjustably united at a central junction-line and a brace having its opposite ends hinged to each of a pair of wings and passing through a third wing, substantially as described. 13th. In a storm-door structure, the combination of a door having four radial wings united in pairs, said pairs being adjustably united at a central line and braces hinged upon opposite sides of one pair, each brace passing through a wing of a second pair, substantially as described. 14th. In a storm-door structure, the combination of a door having four radial wings united in pairs, said pairs being adjustably united at a central junction-line, a brace hinged upon each wing of one pair and means for locking said brace in position, substantially as described. 15th. In a storm-door structure, the combination of a series of wings adjustably united at a central junction-line, a brace hinged to each wing of a pair and extending through one wing of a second pair, said braces being located upon projections extending at least the thickness of a wing from the wing upon which they are supported, substantially as described. 16th. In a storm-door structure, the combination of a series of radial wings united in pairs, said pairs being adjustably united at a central junction-line, a rotating suspended support for said door, a lower pin entering a fixed socket below it, and means for moving said pin longitudinally and holding it in either of two positions, said means consisting of a slot or channel in the pin-case in position to be covered and uncovered by the movement of one of the radial wings, substantially as described. 17th. In a storm-door structure, the combination of a doorway and a door having a series of radial wings united in pairs, means for fixing said wings together in parallel planes, and a retracting device for returning the parallel wings to any predetermined angular position with respect to the doorway, substantially as described. 18th. In a storm-door structure, the combination of a doorway, a door having a series of radial wings united in pairs, means for fixing said wings together in parallel planes, a device for limiting the movement of said wings in one direction, and a retracting device for returning the parallel wings to a predetermined angular position with respect to the doorway, substantially as described. 19th. In a storm-door structure, the combination of a doorway having its contact surfaces substantially arc-shaped, a door composed of radial wings united at a central junction-line, and a projecting flexible strip fixed to the contact edge of each wing at an angle with respect to the plane of the wing, substantially as described. 20th. The combination in a storm-door structure, of a balanced revolving-door consisting of a series of wings suspended from a rotating support, a casing upon opposite sides, each side being in the form of an arc or segment composed of two or more smaller arcs or segments hinged at their junctions, substantially as set forth. 21st. The combination in a storm-

wings suspended from a rotating support, and door casings in the form of an arc or segment, partly of glass, forming the walls of show-cases, substantially as set forth. 22nd. The combination in a storm-door structure of a door consisting of a series of wings suspended from a rotating support, a door casing in the form of an arc or segment, and a mat or floor covering divided into sections, the sections adjacent to the door-casing being imperforate and the sections intermediate said sections being perforated to receive dirt and dust moved on the surface, substantially as set forth.

No. 58,545. Storm-Door Structure. (Contre-porte.)

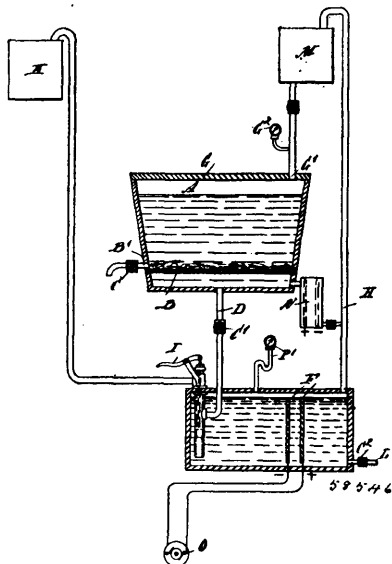


Theophilus Van Kannell, New York, State of New York, U.S.A.,
3rd January, 1898; 6 years. (Filed 30th November, 1897.)

Claim.—1st. In a storm-door structure, the combination of a series of radial wings united at a central line, a suitable doorway therefor, a ceiling connected to said wings, and means for rotatably supporting said ceiling, substantially as described. 2nd. In a storm-door structure, the combination of a rotating door composed of a series of radial wings united at a central line, an arc-shaped doorway therefor, a rotating ceiling separably connected to said wings, and means for supporting said ceiling, substantially as described. 3rd. In a storm-door structure, the combination of a rotating door composed of a series of radial wings with means for uniting them at a central line, an arc-shaped doorway therefor, a rotatably-supported ceiling, and pivot connections between said ceiling and two or more of the wings, substantially as described. 4th. In a storm-door structure, the combination of a rotating door composed of a series of radial wings separably united at a central line, a suitable doorway therefor, a ceiling covering the door structure, and a pivot connection between the upper exterior portion of each wing and said ceiling, substantially as described. 5th. In a storm-door structure, the combination of a series of radial wings separably united at a central line, a suitable doorway therefor, a ceiling extending over said wings, and a pivot connection between each wing and points in the ceiling and in the floor at or near the outer edge of said wings, substantially as described. 6th. In a storm-door structure, the combination of a series of radial wings separably united at a central line, a suitable doorway therefor, a ceiling extending over the radial wings, a pivot connection between the ceiling and each of said wings, and a separable pivot connection between a corresponding point in the lower part of each wing and a point in the floor, substantially as described. 7th. In a storm-door structure, the combination with a suitable doorway of a series of radial wings, an elevated rotating support for said wings, and means for uniting said wings at a central line consisting of a series of ring-shaped or tubular sections fixed in pairs at opposite extremities of each wing, each section being in a different horizontal plane, a bolt for uniting the sections at one extremity of the wings with each other and with the rotating support, and a bolt for uniting the sections at the other extremity of the wings with each other and with a point in the floor, substantially as described. 8th. In a storm-door structure, the combination with a suitable doorway of a series of radial wings, an elevated rotating support for said wings, means for uniting said wings at a central line consisting of a series of ring-shaped or tubular sections fixed in pairs at opposite extremities of each wing, each section being in a different horizontal plane, a ceiling extending over said wings and fixed to said rotating support, a bolt for uniting the sections at one extremity of the wings with each other and with the rotating support, a bolt for uniting the sections at the other extremity of the wings with each other and with a point in the floor, substantially as described. 9th. In a storm-door structure, the combination of a series of radial wings united at a central line, a suitable doorway therefor, a ceiling connected to said wings, means for rotatably supporting said ceiling, and a bolt for locking said ceiling

against rotation at a predetermined point, substantially as described. 10th. In a storm-door structure, the combination of a series of radial wings united at a central line, suitable doorways therefor, a ceiling connected to said wings, means for rotatably supporting said ceiling, a bolt for each wing registering with sockets in the floor, a bolt fixed to the rotating ceiling, and a socket therefor in a stationary part of the structure so located with respect to the sockets in the floor that when the ceiling bolt is in its socket the floor-bolts will register with corresponding sockets, substantially as described. 11th. In a storm-door structure, the combination with a suitable doorway of a rotating door composed of a series of radial wings united at a central line, a ceiling extending over said wings, a central rotating support for said ceiling and wings, and brace rods extending from said rotating support to points at or near the periphery of the rotating ceiling, substantially as described. 12th. In a storm-door structure, the combination with a suitable doorway of a door composed of a series of radial wings united at a central line, a rotating ceiling extending over the rotating door structure, a peripheral rail fixed to said ceiling, and a series of rollers fixed to stationary points in position to engage the peripheral rail and support the ceiling, substantially as described. 13th. In a storm-door structure, the combination of a series of radial wings, separably united at a central line, suitable doorways therefor, a ceiling extending over said wings, means for rotatably supporting said ceiling and wings, a pivotal connection between said ceiling and a point in the upper exterior edge of each door, an arc-shaped track or groove fixed to the ceiling for each wing, and a travelling connection between the upper edge of each wing and the corresponding groove or rail, substantially as described.

No. 58,546. Process of Treating Ores Containing Gold and Silver. (*Procédé pour le traitement des minerais contenant de l'or et argent.*)



Henry Hirsching, Salt Lake City, Utah, U.S.A., 3rd January, 1898; 6 years. (Filed 24th July, 1897.)

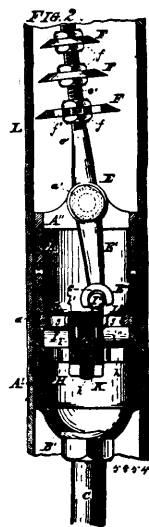
Claim.—1st. The process of treating copper ores, which consists in subjecting them in the presence of moisture to the action of ammonia and a nitrate, and then decomposing the resulting solution to separately recover therefrom the metal or metals and the ammonia, substantially as described. 2nd. The process of treating copper ores containing precious metals, which consists in subjecting them to the action of a solvent to dissolve the metals and then electrolyzing the solution, first with a cathode of the precious metal and then with a copper cathode, substantially as described. 3rd. The process of treating ores, which consists in subjecting them in the presence of moisture to the action of ammonia and a nitrate, and then precipitating the metal or metals from the resulting solution, substantially as described. 4th. The process of extracting metals from ores in the form of a solution, which consists in subjecting the ores in the presence of moisture to the action of ammonia and a nitrate, substantially as described.

No. 58,547. Flue-Cleaner. (*Nettoyeur de tubes.*)

Louis John Wolf, Buffalo, New York, U.S.A., 3rd January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. In a flue-cleaner, a suitable shell, a propeller-wheel located therein, a vibrating lever, a guide on the short arm of this lever, a suitable tool on the outer end of said lever, suitable means for connecting the vibrating lever with the rotary motor, and a

suitable supply-pipe for admitting steam to the interior of said shell, as described. 2nd. A boiler-tube cleaner, consisting essentially of



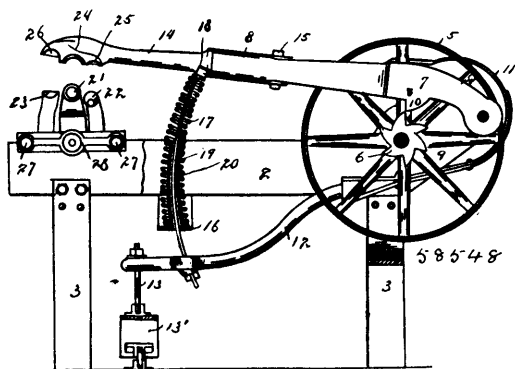
a suitable shell, a motor within said shell, a vibrating lever pivoted within said shell and connected with said motor with one end, and a series of circular cutting discs upon the other projecting end of said lever, said cutting discs being of progressively decreasing diameter and adjustably mounted upon the projecting end of said lever, as set forth. 3rd. A water-tube cleaner consisting essentially of a shell, a propeller-wheel within said shell, a ball-shaped arm on said propeller-wheel, a lever pivoted to a bridge in said shell, a groove at the lower end of said lever adapted to engage the ball of the said arm, and a series of sharp edged chisels adjustably arranged upon said lever, as and for the object set forth. 4th. In a boiler-tube cleaner, the combination, with the shell composed of two parts screwed together as described, of a bridge in one of said parts and located to one side of the centre thereof, a lever pivoted to said bridge and projecting with one end into said body, a spider on the top of said propeller-wheel, a suitable propeller-wheel, a spider located below said propeller-wheel, a ball-shaped projection on the upper surface of said propeller-wheel, a projection on the short arm of said lever having a groove engaging said ball, and a series of chisels at the upper end of said lever, said chisels being of different diameters, as and for the object stated. 5th. As an improved article of manufacture, a flue-cleaner consisting, essentially, of a body having a supply-pipe attached thereto, a rotary motor within said body, a vibrating lever pivoted in said body and connected with said motor, a suitable tool on the outer end of said lever, and means, substantially as described, for rotating the said lever around the axial line of said body, as and for the purpose indicated. 6th. A water-tube and boiler-flue cleaner, consisting essentially of a body, a supply-pipe attached thereto by a universal-joint connection, a motor within said body, a vibrating lever pivoted thereto, means for connecting the said lever with said motor, and further means for revolving said lever around the axial line of said body, as set forth. 7th. In a water-tube and boiler-flue cleaner, a body, a supply-pipe attached thereto by a universal joint connection, a shell within said body adapted to revolve therein, a vibrating lever pivoted to said shell and connected with said motor, and means, substantially as described, for revolving said shell within said body, as and for the use and purpose specified.

No. 58,548. Welding Machine. (*Appareil à souder.*)

Wilhelm C. Kroegher, Allegheny, Pennsylvania, U.S.A., 3rd January, 1898; 6 years. (Filed 7th October, 1897.)

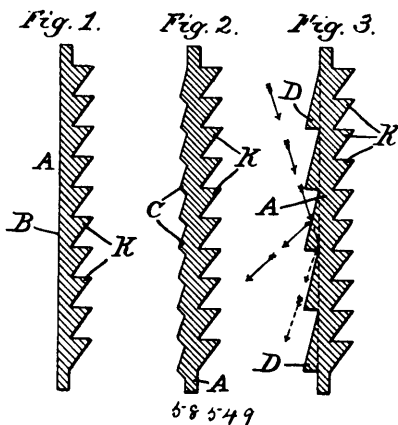
Claim.—1st. In a welding machine, a driven shaft having two cam-wheels thereon, a hammer having a bifurcated stock, each arm of the stock being pivoted to the frame in the rear of the cam-wheels, and the frame having, above the cam-wheels, guides arranged to contact with the two arms and prevent side motion of the hammer, substantially as described. 2nd. In a welding machine, the combination with a swinging hammer, of a pivoted lever having a curved spring arranged to bear upon the hammer-stock, and a yielding rest upon which the hammer bears, substantially as described. 3rd. In a welding machine, a swinging hammer, a cam-wheel arranged to oscillate the same, a lever having a curved spring arranged to bear upon the hammer-stock, a spring upon which the hammer-stock rests, and a connection between said spring and a pivoted lever, substantially as described. 4th. In a welding machine, a hammer having a bifurcated stock, each arm of the stock being pivoted to a

side frame, a driven shaft having cam-wheels arranged to contact with their stock-arms, and provided between said arms with a



pulley, and a pivoted lever having springs to bear upon the arms of the hammer-stock, substantially as described. 5th. In a machine for scarfing tubes, the combination with a scarfing horn and a welding-horn, of a swinging hammer having recesses arranged to co-operate with both of said horns, substantially as described. 6th. A scarfing machine having a scarfing horn, a welding-horn and a swaging-block, and provided with a swinging hammer, having portions arranged to co-operate with each of the horns and the swaging-block, substantially as described. 7th. A machine for swaging pipe, said machine having attached thereto at one side a loosely-sliding head arranged to contact with the side of the machine and having a gaging aperture for the end of the pipe, substantially as described.

No. 58,549. Prismatic Light. (Lumière prismatique.)

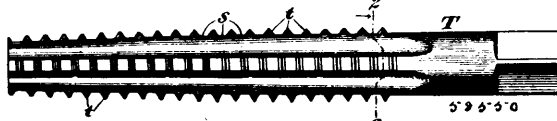


William Storrs MacHarg, Chicago, Illinois, U.S.A., 3rd January, 1898; 6 years. (Filed 12th April, 1897.)

Claim.—1st. A prism light comprising a body of transparent material substantially in the form of a plane with prisms on one side inclined at an angle to the plane of the glass so as to receive and refract light which would otherwise be reflected off from a plane surface, and substantially parallel prisms on the opposite side of the glass adapted to again refract the light so as to deliver it in the desired direction, the angles and arrangement being such that substantially all the light passing through is sent in the same direction. 2nd. A prism light consisting of a substantially flat body of transparent material with prisms on its opposite side substantially parallel to each other and extending substantially across the body of glass, said prisms shaped so that the light delivered upon the receiving surface is successively refracted in the same direction, the angles and arrangement being such that substantially all the light passing through is sent in the same direction. 3rd. A prism light comprising a body of transparent material substantially in the form of a plane with transverse substantially parallel prisms in its opposite side extending substantially across the body of the glass, the angles and arrangement being such that substantially all the light passing through is sent in the same direction. 4th. A glass for the transmission of light comprising a body with prisms on one side and receiving surfaces inclined at an angle to the plane of the glass on the other side.

No. 58,550. Screw Cutting Tool.

(Appareil à couper les vis.)

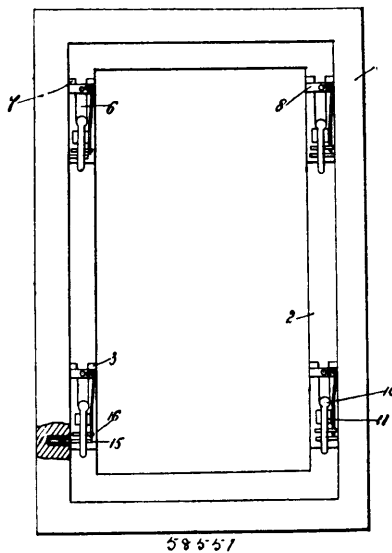


Frank Glenn Echols, Hartford, Connecticut, U.S.A., 3rd January, 1898; 6 years. (Filed 13th December, 1897.)

Claim.—1st. A screw-cutting tool having an odd number of wings each equipped with teeth having no side relief, and interdental spaces located in a single spiral and alternating from end to end of the working portion of the tool, said interdental spaces being at all points of the full depth of the teeth and having flat bottom walls in line with the roots of said teeth. 2nd. A screw-cutting tap having an odd number of wings formed with teeth each of full depth from the front to the rear edge thereof, and interdental spaces located in a single spiral and alternating from end to end of the working portion of the tool, said teeth having no side relief, and said interdental spaces being at all points of the full depth of the teeth and having flat bottom walls, substantially as and for the purpose specified.

No. 58,551. Storm Window Fastener.

(Attache de contre-porte.)

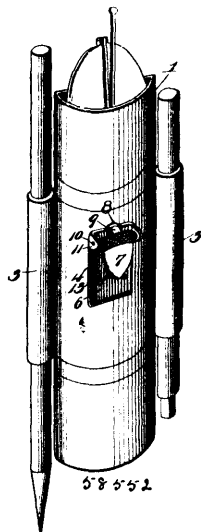


Arthur Parley Spiller, Manchester, New Hampshire, U.S.A., 3rd January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. A device of the character set forth, comprising a suitable plate adapted to be secured to the sash of a storm window, a sliding bolt maintained in said slot and adapted to move vertically therein, a spring arm secured to said plate and adapted to normally maintain the sliding bolt in elevated position in the upper end of the slot, a laterally extending bolt upon the frame, to which the storm window is to be applied, adapted to be engaged by said spring arm to release the sliding bolt and cause the same to be extended across the laterally extending bolt, substantially as described. 2nd. The herein-described device, comprising a plate having an elongated slot therein, open at one end, said plate being adapted to be secured to the sash of the storm window, a bolt maintained in said slot and adapted to slide vertically therein, said bolt being provided near its lower end with a laterally extending lug, a spring arm secured to the plate and provided with a shoulder adapted to engage said lug and hold the sliding bolt in elevated position, a laterally extending bolt upon the window frame adapted to be engaged by the spring arm to cause the same to release the sliding bolt and permit the same to move downwardly across the laterally extending bolt, substantially as described. 3rd. The herein-described device, comprising a plurality of plates having elongated slots therein, open at one end, and adapted to be secured to the sash of the storm window, said plates being provided with bevelled under sides approximate to the slots, sliding bolts provided with bevelled shoulders adapted to fit snugly against the inclined under edges of the plates, laterally extending flanges integral with the shoulders and adapted to rest upon the upper sides of the plates approximate to the slots, said bolts being provided with downwardly extending portions

having inclined under sides, laterally extending bolts provided upon the inner edges of the window frame, lateral projections upon the vertically sliding bolts, spring arms secured to the plates and having shoulders therein adapted to engage the lateral projections, said spring arms being adapted to engage the laterally extending bolts to permit the sliding bolts to fall across the laterally extending bolts, substantially as described. 4th. In the herein-described device, the combination with the portion adapted to be secured to the frame of the storm window, of laterally sliding bolts maintained in recesses in the frame to which the storm window is to be applied, said bolts being provided with heads and recesses approximate to said heads on opposite sides of said bolts, said bolts being adapted to be engaged by the inclined under sides of the sliding bolts upon the storm window frame, and means for limiting the lateral movement of said bolts, substantially as described.

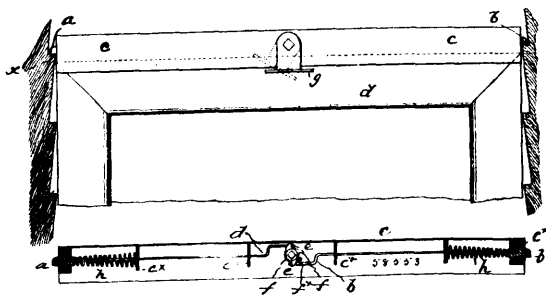
No. 58,552. Combination Spectacle Case, Fountain Pen and Pencil Holder. (*Porte-lunettes, plume-fon-taine et crayon combinés.*)



William A. Johnston, Homer, Louisiana, U.S.A., 3rd January, 1898; 6 years. (Filed 28th October, 1897.)

Claim.—1st. A holder provided with a clasp comprising a back plate mounted on the holder and provided with a resilient tongue, the latter having a stop on its outer face, and a jaw hinged to the back plate and provided with a heel bearing against the spring tongue and arranged to engage the stop to limit the movement of the jaw, substantially as described. 2nd. In a device of the class described, the combination of a holder provided with parallel slits, and a clasp comprising a back plate provided with a resilient tongue and having ears at opposite sides of it, said tongue being provided with a stop formed by striking up a portion of the metal of the tongue, a jaw provided at one end with teeth and having pintles at opposite sides to fit in said ears and provided with a heel bearing against the tongue and arranged to engage the stop, and a plate or strip secured to the back plate and forming flanges, the latter being passed through the said slits and bent against the inner face of the holder, substantially as described.

No. 58,553. Fastening Applicable to Railway Carriages, etc. (*Appareil pouvant être appliqué aux voitures de chemins de fer.*)

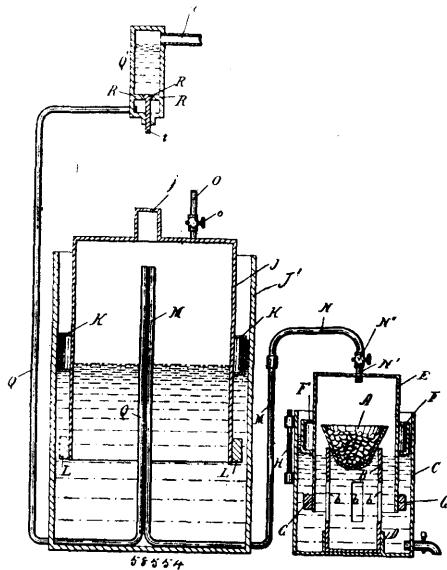


William Wright, Gorton, Manchester, Lancaster, England, 3rd January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—An improved fastening applicable for raising, lowering, sliding and fixing railway carriage and other windows, sliding panels and the like, consisting in the combination with a hollow

metal casing, adapted to be fitted to the top or bottom rail of the sash or the like, of two sliding bolts thrown outwards by a spring or springs and capable of being withdrawn by partially turning an external thumb piece, lever or handle fitted to a central boss having teeth or projections gearing with teeth or projections on the inner ends of the said sliding bolts, the said thumb piece lever or handle being also adapted to be used for raising and lowering or otherwise sliding the window sash or the like, when the bolts are withdrawn, substantially as hereinbefore described and illustrated by the drawings annexed.

No. 58,554. Acetylene Gas Generator. (*Générateur de gaz acétylène.*)



Marie Georges Forstall, Winnipeg, Manitoba, Canada, 3 janvier 1898; 6 ans. (Déposé le 30 juin 1897.)

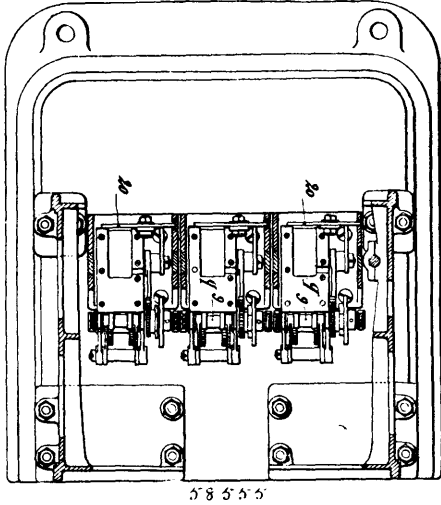
Résumé.—1° La combinaison, avec un vase extérieur pour contenir un liquide, d'un vase intérieur, pour le gaz, ouvert au fond, muni de poids à sa partie inférieure, d'un anneau circulaire vers son milieu servant à le faire flotter, et d'un tuyau reliant le dit vase intérieur à un récipient à gaz, en substance tel que décrit et pour les fins indiquées. 2° La combinaison, avec un récipient à gaz, comprenant un vase extérieur pour contenir un liquide, un vase intérieur pour le gaz, ouvert au fond, flottant dans le dit liquide et pourvu d'un tuyau de distribution, d'un tuyau d'échappement mettant l'intérieur du récipient à gaz en communication avec une valve de sûreté disposée au-dessus du dit récipient, en substance tel que décrit et pour les fins indiquées. 3° La combinaison, avec un récipient à gaz, d'une valve de sûreté (Q') disposée au-dessus du dit récipient, la dite valve comprenant un compartiment supérieur pour contenir de l'eau, un compartiment inférieur pour recevoir le tuyau de sûreté et un tampon conique (R) muni d'une tige r, le dit tampon étant soulevé (lorsque la pression devient excessive) soit par la pression du gaz lui-même ou encore par le récipient à gaz qui presse sur la tige r, le tout tel que décrit et pour les fins indiquées.

No. 58,555. Machine for Printing, Checking and Issuing Railway and other Tickets. (*Machine pour imprimer, vérifier et émettre les billets de chemins de fer et autres.*)

Emile Méderic Bossnet, Paris, France, 4th January, 1898; 6 years. (Filed 5th October, 1897.)

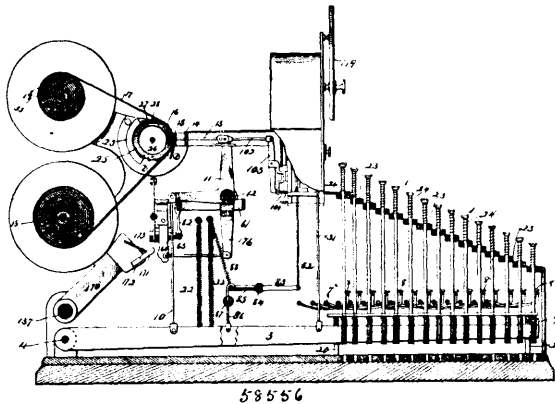
Claim.—1st. A machine for printing, checking, and issuing railway and other tickets, consisting essentially in the combination of a stationary printing device for printing the invariable matter at the upper part of the ticket, movable printing devices corresponding in number to that of the stations and capable of being brought into printing relation with the fixed printing device, a printing table receiving vertical movement and serving to press the cardboard strip against the fixed and movable printing devices, a radius arm carrying a check strip and adapted to be brought into position after the ticket has been printed, for causing the printing of the check strip to be effected by a roller pressing the check strip against a corresponding part of the movable printing device, all as hereinbefore described. 2nd. In a machine of the kind specified the feed mechanism for the cardboard strip consisting of a lever and toothed segment gearing with a toothed wheel acting through a ratchet and pawl on the feed drum, said lever being mounted on the printing table and oscillated in opposite directions when the printing table

risers and falls, by contact with fixed abutments as specified. 3rd. In a machine of the kind specified the mechanism consisting of a pair



of radius arms carrying the check strip spool, a lever carrying a roller which presses the check strip against the movable printing device and a roller for winding up the strip after it has been printed, said roller being fast with a ratchet, engaged by a pawl carried by the radius arm, and a lever carrying an inking roller, all substantially as hereinbefore described and illustrated in the drawings for the purpose specified.

No. 58,556. Machine for Preparing the Perforated Record Strips of Type-forming Machines.
(*Machine à préparer les bandes perforées pour machines à former les caractères.*)



Tolbert Lanston, Washington, Columbia, U.S.A., 4th January, 1898; 6 years. (Filed 15th December, 1897.)

Claim.—1st. The combination of a series of keys, a series of key levers upon which the keys directly operate, a second series of key levers, a series of connections for communicating the motion of the keys to the said second series of key levers and two series of punches operated respectively from the two series of key levers, substantially as described. 2nd. The combination of a series of keys arranged in rows with reference to the body width, set way, of the characters they represent, a series of key levers arranged beneath said rows of keys, each adapted to be operated by any key in its particular row, a second series of key levers arranged alongside the first mentioned series of key levers, a series of transverse bails extending across the first mentioned series of key levers and communicating the motion of the keys to the second series of key levers and a series of punches for each series of key levers, substantially as described. 3rd. The combination of a series of finger keys, arranged in longitudinal and transverse rows, a series of long key levers one for each longitudinal row of keys, a series of shorter key levers arranged alongside the series of long key levers in alternation therewith, a series of transverse bails, one for each transverse row of keys for communicating the motion of all the keys in such transverse row to one of the shorter key levers, and a series of punches for each series of key levers, substantially as described. 4th. The combination of the series of long key levers, the series of shorter key levers arranged in alternation with the first mentioned series of levers and having the vertical projections or fingers, the transverse bails extending across the longer key levers and above the projections or fingers of the

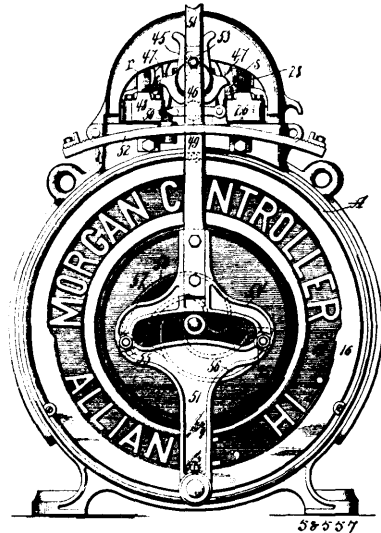
shorter levers, and the series of finger keys bearing upon the series of long key levers and having lateral projections bearing upon the transverse bails, substantially as described for the purpose specified. 5th. The combination of the hollow stationary cylinder, the shaft 26 passing longitudinally through said cylinder, the toothed feed discs secured to said shaft at opposite ends of the cylinder, the motor device applied to one end of said shaft, the ratchet wheel on the opposite end of said shaft and the escapement pawls co-operating with said ratchet wheels and deriving motion from the key levers, substantially as described. 6th. The combination of a series of keys representing the various characters, etc., used in printing, a register or counter for indicating the number of justifying type designated for a given line, and a justification indicator operated by the keys and having a dial and pointer for indicating the appropriate justifying fraction to be added to the ascertained number of justifying type, substantially as described. 7th. The combination of a series of keys representing the various characters in a font of type, a line scale mechanism operated from the keys for indicating to the operator the filling up of the line and showing as the end of the line is neared how much space remains to be filled by justification, a register or counter operated by the keys representing the justifying type for indicating the number of justifying type designated for a given line, and a justification indicator operated by the keys and having a dial and pointer for indicating the appropriate justifying fraction to be added to the ascertained number of justifying type, substantially as described. 8th. The combination with a key board provided with a series of keys representing the various characters, spaces, etc., in a font of type, another series of keys representing justifying fractions that may be added to the normal width of the justifying type for a line, a units mechanism, which is advanced upon the operation of each key representing a character, space, etc., as many units of measurement as the character, space, etc., designated by that particular key will occupy, set way, in the line, a register or counter for registering the number of justifying type, such, for instance, as space type, designated for the particular line, a justification indicator operated by the units mechanism for showing the number of units of measurement remaining in the line as the end of the latter is neared and indicating the justifying fraction to be added to the justifying type for the line, and two sets of punches, one operated by the keys representing the characters, etc., and the other by the justifying keys, for recording the operations of said keys, substantially as described. 9th. The combination with a key board provided with a series of keys representing the various characters, etc., in a font of type arranged in rows with reference to the body width, set way, of the characters for which they stand, another series of keys representing justifying fractions that may be added to the normal width of the justifying type for a line, a units mechanism which is advanced upon the operation of each key representing a character, space, etc., as many units of measurement as the character, space, etc., designated by that particular key will occupy, set way, in the line, a register or counter for registering the number of justifying type, such for instance, as space type designated for the particular line, a justification indicator operated by the units mechanism for showing the number of units of measurement remaining in the line as the end of the latter is neared and indicating the justifying fraction to be added to the justifying type for the line, and two sets of punches, one operated by the keys representing the characters, etc., and the other by the justifying keys, for recording the operations of said keys, substantially as described. 10th. The combination with a key board provided with a series of keys representing the various characters, spaces, etc., in a font of type, another series of keys representing justifying fractions that may be added to the normal width of the justifying type for a line, a units mechanism which is advanced upon the operation of each key representing a character, space, etc., as many units of measurement as the character, space, etc., designated by that particular key will occupy, set way, in the line, a line scale mechanism for warning the operator that the end of the line is being approached, a register or counter for registering the number of justifying type, such for instance as space type, designated for the particular line, a justification indicator operated by the units mechanism for showing the number of units of measurement remaining in the line as the end of the latter is neared and indicating the justifying fraction to be added to the indicated justifying type for the line, and two sets of punches, one operated by the keys representing the characters, etc., and the other by the justifying keys, for recording the operations of said keys, substantially as described. 11th. The combination with the units wheel and its motor, of the swinging arm mounted on the units wheel shaft, the toothed block movable longitudinally of said arm, the pivoted lever having a curved recess or raceway in which the toothed block is free to move, and the keys and connections for vibrating the pivoted lever, substantially as described. 12th. The combination with the units wheel and its motor, the swinging arm mounted on the units wheel shaft, the toothed block movable longitudinally of said arm, the swinging lever having a recess or guide for the toothed block, the pawl or detent which holds the units wheel normally in check and the connection between the hinged lever and said pawl or detent, substantially as described. 13th. The combination with the units wheel and its motor, the swinging arm, toothed block, the pivoted lever having the recess or guide in which the toothed block slides, the detent or pawl engaging the ratchet wheel and connected to the pivoted lever, the keys and the distance

determining stops projected in the plane of the swinging arm by the operation of the keys, substantially as described. 14th. The combination with the units wheel, the swinging arm mounted upon the units wheel shaft, the toothed block, the pivoted lever, by which the toothed block is supported and guided, the ratchet teeth on the pivoted lever and the pawl carried by the swinging arm, whereby rebound of the swinging arm when it strikes a distance determining stop is prevented, substantially as described. 15th. The combination with the keys, the pivoted lever of the units wheel mechanism and connections between the keys and said pivoted lever for operating the latter upon the depression of any key, the units wheel, the swinging arm mounted upon the units wheel shaft, the toothed block carried and guided by the pivoted lever and adjustably connected to the swinging arm, the pawl or detent for the units wheel and the means for operating it, the dial of the justifying indicator divided radially into spaces representing units of measurement and the hand or pointer co-operating with said dial driven from the units wheel shaft, substantially as described. 16th. The dial of the justification indicator divided radially into spaces each of which represents a unit of measurement and the hand or pointer driven from the units wheel shaft co-operating with said dial, the radial spaces of the dial being divided up and having numbers applied to it representing the justifying fractions and the hand or pointer having also numbers applied to its representing the various numbers of justifying type that may be designated for a given line, substantially as described and for the purpose specified. 17th. The combination with the space key, its lever and punch, of the counting or registering mechanism consisting of the sliding rack bearing numbers as described, the vibrating pawl carrier and pawl carried thereby for engaging the teeth of said rack bar, the rods and levers for operating said pawl carrier from the space key bar, and the stop pawl for preventing overthrow of the rack bar, substantially as described. 18th. The combination with the rack bar, of the space counting or registering mechanism, of the spring pressed pawl 135, rod 147, bell crank lever 146, rod 145, arm 143 on rock shaft 144, of the resetting mechanism, substantially as described. 19th. The combination with the units wheel, the pawl or detent 79 in engagement therewith, the rod 98 having a slot at its upper end into which projects a pin on the pawl, the rod 149, connected to the arm 179 of the pawl, and the arm 150 on shaft 144 of the resetting mechanism, substantially as described and for the purpose specified. 20th. The combination of the units wheel and the mechanism for winding the motor which propels the same, of the pins 160 projecting laterally from the sides of the units wheel, of the pawl arm 161, arm 164, spring 165, pin 168, stop 169, and arm 167 on the rock shaft 144 of the resetting mechanism, whereby the units wheel is arrested at the proper point if overthrown by the too rapid winding of its motor, substantially as described. 21st. The means for punching the galley feed perforation in the record strip consisting of the arm 170 on the hand lever shaft, spring pressed pawl 171, stop 172, swinging arm 174, rod 175, bell crank lever 11^b and punch 13^b, substantially as described. 22nd. The combination in a record strip preparing mechanism of a series of record producing devices for recording successive characters and spaces, an indicator for indicating the number of justifying type, and a justification indicator for indicating the necessary variations in the width of said justifying type to complete a line. 23rd. The combination in a record strip preparing mechanism of two series of record producing devices, the one pertaining to character spaces, and the other, to variations in width of selected justifying type, an indicator controlled by said series of character designating devices, for indicating the aggregate space occupied by the designated characters, an indicator showing the number of the designated justifying type, and a justification indicator actuated by the character designating devices to indicate which of the series of devices controlling variations in width of selected type is to be actuated to produce a justified record strip, substantially as described. 24th. The combination in a record strip preparing mechanism of the following elements, to wit, a series of type designating punches, a series of justification designating punches, a series of keys controlling said punches, an indicator responding to the action of the keys controlling the justifying type to indicate the number of the latter, and a justifying indicator responsive to the keys controlling the type designating punches, and operating to indicate which of the series of justification punches is to be operated to produce a record strip for a justified line, substantially as described. 25th. The combination in a record strip preparing mechanism of the following elements, to wit, a series of type designating punches, a series of justification designating punches, keys controlling both series of punches, an indicator responding to the keys of the type designating punches to indicate the aggregate length of the line as registered, an indicator responding to the action of the keys controlling such of the type designating punches as are assigned to justification, and a justifying indicator responding to the keys controlling the type designating punches and operating to indicate the appropriate justification designating punch or punches to produce the record for a justified line, substantially as described.

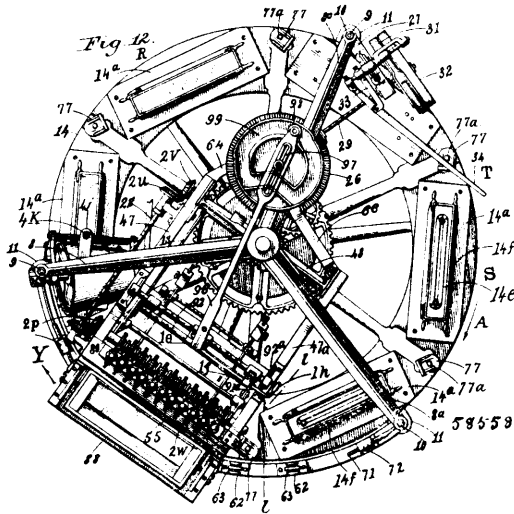
No. 58,557. Electric Controller. (*Contrôleur électrique.*) William Henry Morgan, Alliance, Ohio, U.S.A., 4th January, 1898; 6 years. (Filed 14th January, 1897.)

Claim.—1st. In an electric controller, the combination with a shell or frame, of an annular series of coils therein, said coils arranged

in two semicircular sets, the coils at one end of each set containing less material than the coils at the other end, contact plates con-



nected to said coils and a contact or switch arm adapted to be moved over said contact plates and cut the coils into or out of circuit, two at a time. 2nd. In an electric controller, the combination with a set of resistance coils, the coils at one end of the series containing less metal than the coils at the other end of the series, contact plates connected with said coils, a contact or switch arm to move over said contact plates, and devices constructed to operate said switch arm so as to cause the latter part of its movement to be accelerated, substantially as set forth. 3rd. In an electric controller, the combination with a shell or frame, of an annular series of resistance coils therein, divided into two sets, the coils at one end of each set containing more metal than the coils at the other end and contact plates connected with said coils, of a contact or switch arm adapted to bear on a contact plate of each set simultaneously, an operating lever, and connections between said operating lever and contact or switch arm, whereby to cause the contact or switch arm to always move over the contact plate in the same direction, regardless of the direction the operating lever is moved from its normal position. 4th. In an electric controller, the combination with a frame or shell, resistance coils therein, and contact plates for said resistance coils, of a reversing switch, and a lever adapted to operate said reversing switch, said lever having lateral enlargements between its ends, rollers on said shaft to engage said contact plates, and a plate secured to said shaft and having two cam grooves to receive the rollers on said lever whereby to cause the contact arm to be moved always in the same direction, regardless of the direction of movement of said lever from its normal position, substantially as set forth. 5th. In an electric controller, the combination with a frame or shell having a flange or ring on one side, and a spider within said shell, of a series of resistance coils supported by said flange or ring, contact plates for said coils, a shaft mounted in said spider and a contact arm secured to said shaft, substantially as set forth. 6th. In an electric controller, the combination with a frame or shell having a ring or flange on one side, and a spider within said shell, of a series of frames secured to but insulated from said ring or flange, contact plates electrically connected to said frames and insulated from said ring or flange, a shaft mounted in said spider, and a contact arm carried by said shaft and having brushes to move over said contact plates, substantially as set forth. 7th. In an electric controller, the combination with a rheostat, of a reversing switch comprising an oscillatory drum of insulating material carrying contact blocks connected together in pairs, and a set of contact devices at each side of said drum, each of said contact devices comprising a frame, a sliding contact block in said frame, a pivoted arm, a plate loosely connected to said arm and bearing against the sliding contact block and springs connected to said pivoted arm and to the frame, and an operating lever common to said rheostat and reversing switch. 8th. In an electric controller, the combination with an open shell having a ring or flange at one side, a spider made integral with said ring or flange and braces for said spider made integral with the shell, of frames secured to said ring or flange and insulated therefrom, contact plates attached to said frames, a shaft mounted in said spider, means for operating said shaft, a contact arm secured to said shaft and having contact brushes to move over said contact plates, and sheet metal plates closing the open portions of the shell, substantially as set forth. 9th. A contact device consisting of an open frame, of a sliding contact block therein, an arm pivoted to said frame, a plate loosely connected to said arm and adapted to bear on said sliding contact block, lugs on said pivoted arm and springs connected at one end to said lugs and at the other end to said open frame, substantially as set forth.

No. 58,558. Moulding Machine. (*Machine de moulage.*)

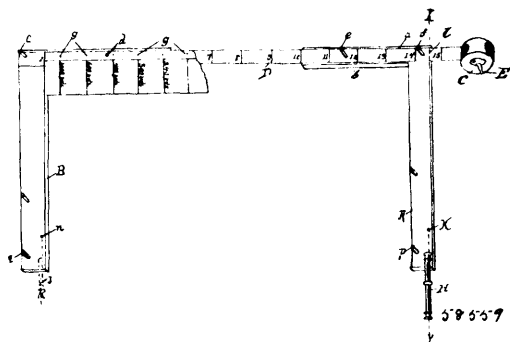
Orrin Bryant, Buffalo, New York, State of New York, U.S.A.
4th January, 1898; 6 years. (Filed 31st December, 1895.)

Claim.—1st. In a moulding machine, the combination of a continuously rotatable table mounted on rollers on a supporting base and having a series of brackets located on its horizontal face near the periphery at equal distances apart or substantially so, each bracket having a vertical portion facing the direction of movement, with a horizontally swinging frame mounted on suitable supports on the machine so as to swing thereon and carrying the sand feeding and ramming mechanism, a vertically movable bar mounted in guideways on one side of said frame, a cam secured to a shaft mounted in boxes on said swinging frame for engaging with and allowing the vertically movable bar to move downward and engage with one of said brackets so that the movement of the swinging frame coincides with that of the horizontal rotatable table, and then lifting said bar when the horizontally swinging table has reached the limit of its movement in the direction of that of the rotating annular table, means for rotating said table and means for operating said cam, substantially as described. 2nd. In a moulding machine, the combination of a continuously rotating table, carrying a series of patterns, and mounted on a suitable support on the machine, and means for rotating said table, with a horizontally swinging table and frame mounted on the central vertical shaft so as to swing thereon, and carrying the sand feeding and ramming mechanism, a frame-bar carrying a friction roller at the rear of the swinging table and frame for moving said table and frame in one direction, a tappet secured to a vertical rotative shaft mounted in bearings on the frame of the machine, and means connecting it with the driving shaft for rotating said vertical shaft and thereby reversing the movement of the swinging table, substantially as described. 3rd. In a moulding machine, the combination with a rotatable table and means for turning it, of a horizontally movable frame having its rear portion mounted on a central vertical supporting shaft so as to swing horizontally thereon, a curved supporting bar secured to the stationary table or base, a series of rollers mounted on said curved bar for supporting the front base portion of said horizontally swinging table above the annular rotatable table, and means substantially as above described for giving the swinging table a horizontal swinging movement back and forth as above set forth. 4th. The combination in a moulding machine, of an annular table mounted centrally on a vertical supporting shaft and resting on a supporting base so as to turn thereon, means for giving said table a rotary motion, a horizontally swinging frame or table having its rear end mounted on said vertical central shaft and its front end supported on rollers mounted on a suitable supporting base, means for giving it a swinging movement coinciding with the rotating table, a sand feeding receptacle mounted on said swinging table, and means for operating it or moving it back and forth while the swinging table is in motion, substantially as described. 5th. The combination in a moulding machine, of an automatically operated intermediate pressing platen and means substantially as above described for operating it, for partly condensing the sand on a pattern in a flask, a covering of felt on the top of said platen, a series of ramming hammers adapted to drop thereon to complete the condensing of the sand in said flask, and means for operating said hammers, substantially as described. 6th. In a moulding machine, the combination with the ramming drop hammers, of an intermediate automatically operated pressing platen, means for operating it, and a cover of felt or other equivalent material, located at the top of the platen upon which the ramming hammers drop, for the purposes described. 7th. In a moulding machine, the combination with a stationary circular table provided with rollers and a vertical central supporting shaft, of a rotatable table mounted on said rollers and

adapted to turn on the vertical shaft, means for giving said table a continuous rotary motion in one direction, a horizontally swinging frame having its rear end mounted on the vertical shaft so as to swing thereon and having its front base supported on rollers mounted on a stationary support on the machine, means engaging with the driving mechanism and rotating table for swinging said frame horizontally back and forth, a sand box mounted on said swinging frame, for feeding sand into a flask located on the continuously moving table, a pressing platen mounted on arms secured to a shaft set in bearings on the swinging table, ramming hammers, mounted on the horizontally swinging table above the pressing platen, for condensing the sand into the flask, and means substantially as above described for giving the sand feeding mechanism, the pressing platen and ramming hammers their operating movements while the horizontally swinging table is moving in unison with the continuously rotating table. 8th. In a moulding machine, the combination with the swinging frame, of the ramming hammers, and vertical hammer bars mounted in said frame, and the discs or collars mounted on top of said bars, with a shaft mounted in bearings at the top of the horizontally swinging frame and carrying two arms provided with foot pieces to limit their rocking movement and connected at their tops by a cross-bar, and means consisting of a weighted arm mounted loosely on its shaft and provided with a slot *5 h*, and pin rigidly secured to the shaft for limiting its movement, for moving said arms and cross-bar into or out of engagement with the discs at the top of the hammer bars, so that the weight will hold them in either position for the purposes described. 9th. In a moulding machine, the combination with a horizontally swinging table, means for operating it and a table adapted to rotate continuously in one direction while the machine is in operation, means for rotating said table, a series of rollers set in bearings upon a supporting base and a vertical shaft on which the table turns, of a sand feeding receptacle, arms connecting said receptacle with arms secured to a shaft mounted in boxes at the top of the horizontally swinging frame and provided with an arm operated by a horizontal arm, a vertical driving shaft on which it vibrates, and a friction roller carried by the horizontal arm, in engagement with a grooved cam mounted on the vertical driving shaft for operating the sand receptacle, substantially as described. 10th. In a moulding machine, the combination with a swinging frame, of a vertical rack-bar mounted in vertical bearings on the swinging frame and carrying a ramming hammer, a gear-wheel *2 b* in gear with said rack-bar, and mounted loosely on a shaft set in bearings on the horizontally swinging frame, collars rigidly secured to said shaft between which the gear-wheel rotates, a tooth secured to one of the collars, a spring-actuated pawl carried by the gear-wheel and adapted to engage with said tooth, to hold the wheel in engagement with the collar so as to rotate with it and the shaft, and means substantially as above described for disengaging said pawl from the tooth on the collar and thereby allowing the hammer to drop, as above set forth. 11th. In a moulding machine, the combination with a swinging frame of a vertical rack-bar mounted on the horizontally swinging frame and carrying a ramming hammer, a gear-wheel in engagement with said rack-bar mounted loosely on a shaft adapted to rotate continuously in one direction and set in boxes on said horizontally swinging frame, means for rotating said shaft, collars between which the gear wheel rotates, rigidly secured to said shaft, a tooth on one of said collars, a spring-actuated pawl adapted to engage with the tooth on the collar to hold the gear-wheel and collar in engagement and provided with a rear extension, an arm provided with a curved slot mounted on the collar and having an inward extending pin *3 f*, for disengaging said pawl, and a set screw for securing said curved slotted arm and its pin *3 f*, at any point of its adjustment, whereby the device may be adjusted to drop the hammer bar at any desired point, substantially as described. 12th. In a moulding machine, the combination with the sand feeding receptacle and means for operating it, of an automatically operated plate set in vertical slideways located within the sand feeding receptacle so as to operate by gravity, a sand-holding frame, and an irregular shaped bar secured at each inner end of the sand moulding frame below it on which the lower edge of said plate is moved back and forth as the sand receptacle is moved and thereby automatically operated, for scraping off the top of the sand in the frame above the flask, for the purposes described. 13th. In a moulding machine, the combination of a supporting table provided with a series of rollers set in bearings thereon, a central supporting shaft mounted in the centre of said supporting table, a rotatable table mounted on said vertical shaft and resting on said rollers so as to turn thereon in one direction only, means for rotating said table, a series of flask raising devices secured to the underside of the rotatable table and consisting of a frame rigidly secured to the underside of the rotatable table and carrying a roller at each end, a flat plate having flask raising pins which extend up through the table and platform *14 a*, and downward extending sides between which is mounted rollers located so as to be directly above the rollers in the stationary frame, a horizontal bar having a wedge portion at each end *44*, *44 a*, and located between the upper and lower sets of rollers, a depending slotted arm pivoted to the underside of the moving table and having its lower end connected by a pin passing through the slot and secured to a portion extending from the wedge-bar and a raised rib on the stationary table whereby the device is operated by said rib as the moving table carries it over, substantially as described.

No. 58,559. Range-Finder.

(Appareil pour trouver la portée.)

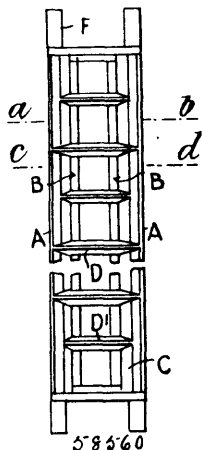


Nicholas Bray, Dubuque, Iowa, U.S.A., 4th January, 1898; 6 years. (Filed 30th November, 1897.)

Claim.—1st. A range-finder, consisting of two plates, a measure for setting the plates at a given distance apart, a register with calculations thereon, and one or more sighting-pins, for the purposes shown. 2nd. A range-finder, consisting of two right-angle plates, a measuring-line removably attached to one arm of each plate, a register having calculations thereon based upon the distance apart of the angle-plates, and removably attached to one angle-plate, one or more sighting-pins and a sighting-glass for viewing the object, all combined, as and for the purposes shown. 3rd. A range-finder, consisting of plates A and B, having pins c, d, e and f, measure D, having holes adapted to engage said pins, register S, sighting-pin P and sighting-glass H, all combined to operate as and for the purposes shown. 4th. A range-finder, consisting of two angle-plates, a measure, a register, one or more sighting-pins, and a plate W, with tape-line Q, combined, as and for the purposes shown.

No. 58,560. Secondary Battery.

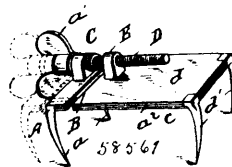
(Accumulateur électrique.)



Henry William Headland, Leyton, Essex, England, 4th January, 1898; 6 years. (Filed 24th October, 1896.)

Claim.—1st. A light and compact cellular structure or frame for retaining the active material within it, said frame being square or approximately so in section and consisting mainly of four outer corner posts A, four inner posts B, with spaces C between each outer and corresponding inner post, and ledges or transverse bars D and D' for uniting the aforesaid posts at suitable intervals, whereby a minimum surface of the frame and a maximum surface of the active material contained in the frame flush with the outside thereof are exposed to the action of the acid, while the active material is thoroughly keyed together, retained and supported, and no portion of same is of so large bulk as to tend to pull away from the rest, substantially as set forth. 2nd. The arrangement of a battery, in which two series of positive grid bars P are connected to one conductor and tang E F, and two series of negative grid bars N connected to conductors E' and tangs F' are intercalated between the positive grid bars in such manner that all the positive and negative grid bars form two rows, and provided with insulators G and H at top and bottom, substantially as set forth. 3rd. The arrangement of a battery, in which the negative grid bars N are arranged in rows and united at top by a frame E', and at the bottom by socket frames I with rubber feet K, while the positive grid bars P are united at top by a frame E, and united at bottom in rows to bars E' that rest in insulators H, which fit in notches in the socket frames I, and clip the same, substantially as set forth.

No. 58,561. Surgical Apparatus. (Appareil de chirurgie.)



Charles A. Bush, Canton, Ohio, U.S.A., 4th January, 1898; 6 years. (Filed 24th November, 1897.)

Claim.—In a fracture apparatus the combination of an adjustable head provided with a guide-plate, tangs pivoted to the plates and means for adjusting the tangs upon the head and plates to or from each other, substantially and for the purpose specified.

No. 58,562. Paper Fastener. (Oeillet à papier.)

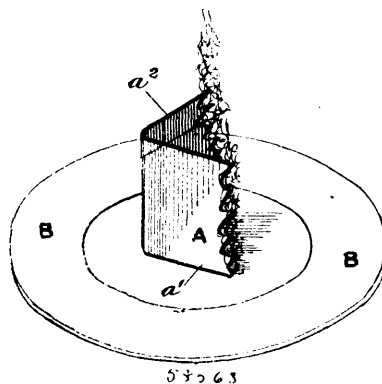


Richard M. Pancoast, jr., Camden, New Jersey, U.S.A., 4th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—1st. A paper fastener consisting of a thin plate of metal cut to shape, said plate being provided with an opening in the body thereof for the reception of assembled sheets of paper, an upper jaw, a lower jaw, and a score struck up from the metal on the line separating the jaws, the upper jaw being adapted to bend down upon the lower jaw and to grip the paper without perforating or mutilating the same, substantially as described. 2nd. A metallic paper fastener having an opening in the body thereof to receive assembled sheets of paper, a tongue adapted to be bent down upon the sheets of paper inserted in the opening, and without puncturing the same, a score struck up from the metal on the line of bending, and upper and lower jaws, substantially as described. 3rd. A metallic paper fastener having an opening in the body of the metal to receive assembled sheets of paper inserted in the opening, an upper jaw, a lower jaw, and a tongue integral with the body and adapted to be bent down upon the sheets of paper inserted in the opening, and without puncturing the same, the extreme ends of the tongue when bent down occupying a position adjacent and in line with a score struck up in the metal, whereby when the jaws are bent the paper will be forced by the tongue into the score and securely held, substantially as described. 4th. A metallic paper fastener having an opening in the body of the metal to receive sheets of paper, a plurality of jaws, and two scores on the lines of bending, substantially as described.

No. 58,563. Mode of Using Medicated Preparations.

(Méthode pour prendre des médecines sans répugnance.)

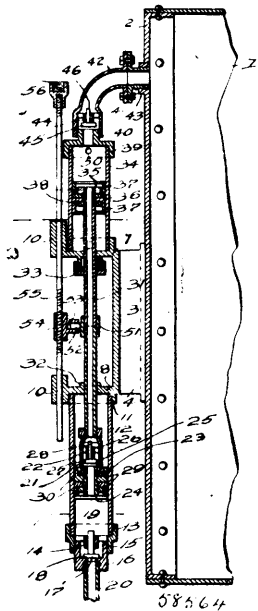


William Heath, Browns Grove Road, Redditch, Worcester, England, 4th January, 1898; 6 years. (Filed 18th February, 1896.)

Claim.—Paper made from pure straw and impregnated with the essence of herbs or other medicinal compounds, allowed to dry in a very slow and natural manner, and both surfaces of which are covered with various herbs or other medicinal compounds in a powdered state, made to adhere to the surface of the paper by paste or other adhesive matter, substantially as specified.

No. 58,564. Pump for Domestic Water Systems.

(*Pompe.*)



Irwin J. Becknell, Milford, Indiana, U.S.A., 4th January, 1898; 6 years. (Filed 17th November, 1897.)

Claim.—1st. In a water pumping apparatus, the combination with storage tank, of a pair of spaced vertically-aligned cylinders, the lower of which has a water-supply-pipe connection with its lower end, suitable air-pipe connections with the upper cylinder, a single delivery-pipe leading to the storage-tank and connected with the upper end of the upper cylinder, said delivery-pipe having at its point of connection with the upper cylinder a check-valve sealed with water when closed, and a reciprocating plunger-tube carrying at its lower end a valved plunger working in the lower cylinder, and at its upper end a piston-head which works in the upper cylinder and provides for feeding air from one end of said upper cylinder to the other and for the expulsion of air and water out of said cylinder through a single delivery-pipe, substantially as set forth. 2nd. In a water-pumping apparatus, the combination with a storage-tank, of a pair of spaced vertically-aligned cylinders, the lower of which has a water-supply pipe connection with its lower end, a valved gooseneck delivery-pipe having a valved lower end connected with the upper end of the cylinder and leading to the storage-tank, a valved air-inlet connection with the lower end of the upper cylinder, a valved air-delivery pipe leading from the lower to the upper end of said upper cylinder, and a suitably reciprocated plunger-tube carrying at its lower end a valved plunger and at its upper end a piston-head, said piston-head operating to draw air into the lower end of the upper cylinder, to deliver the supply of air into the upper end of said cylinder, and to expel the air and water thereabove out of the upper cylinder through said delivery-pipe, substantially as set forth. 3rd. In a water-pumping apparatus, the combination with a storage-tank, of a pump-supporting frame bolted to one end of the tank and provided at its upper and lower ends with integral offstanding vertically-aligned cylinder-caps having tubular rod-guides formed integrally at their outer side edges, a combined air and delivery cylinder supported on the upper of said cylinder-caps and having air-pipe connections for delivering a supply of air from the lower to the upper end thereof, a valved delivery-pipe connection between the upper end of the upper cylinder and the storage-tank, a lower water cylinder fitted at its upper end to the lower of the cylinder-caps, a reciprocating plunger-tube carrying at its lower end a valved plunger-head for the lower cylinder and at its upper end a piston-head for the upper cylinder, and a pump-rod working in said rod guides and having a coupling connection with the plunger-tube, substantially as set forth.

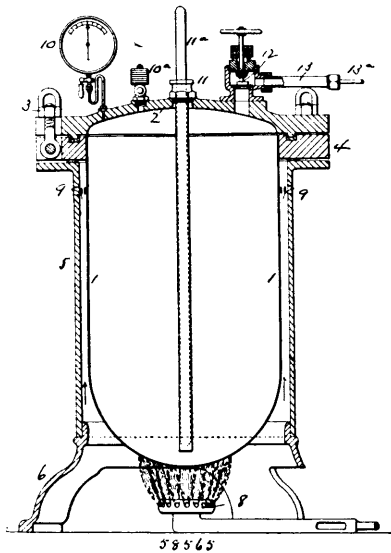
No. 58,565. Production of Vapours of Formic Aldehyde.

(*Production de vapeur d'aldehyde formique.*)

Jean Joseph Auguste Trillat, Paris, France, 4th January, 1898; 6 years. (Filed 10th June, 1897.)

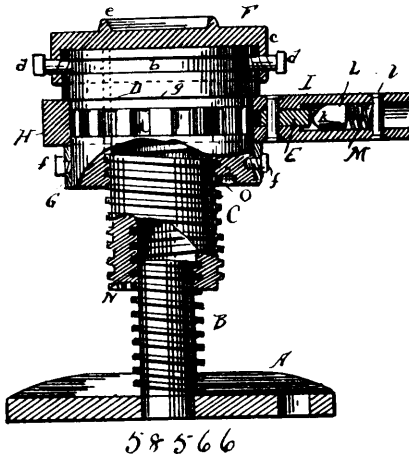
Claim.—1st. The mode or process hereinbefore described, of producing formic-aldehyde vapours without polymerization, which consists in heating formic-aldehyde solution in a closed vessel under a pressure of at least 2 atmospheres and then discharging the compressed vapours from said vessel through an outlet, substantially as set forth. 2nd. The addition to a formic-aldehyde solution of a neutral mineral salt, whereby the production of non-polymerized vapours from said solution is facilitated, substantially as described.

3rd. The mode or process hereinbefore described, of producing formic-aldehyde vapours, which consists in adding to a formic-



aldehyde solution a neutral mineral salt, and in then heating said solution under pressure in an autoclave and discharging the compressed vapours from said autoclave, substantially as and for the purpose described.

No. 58,566. Jack-Screw. (*Vérin.*)



John G. Rieff and Perl Kindlen, both of London, Wisconsin U.S.A., 4th January, 1898; 6 years. (Filed 25th May, 1897.)

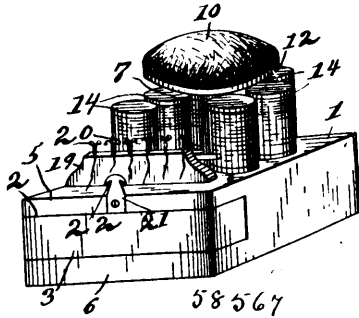
Claim.—A jack-screw, consisting of a suitable base and an exterior screw threaded post extending therefrom, a head having interior screw-threads, a notched periphery, and formed with a circumferential shoulder, an interiorly and exteriorly screw-threaded cylinder engaging with the post and head, spring-actuated pawls upon the head and cylinder respectively, a ring loosely fitting around the notched periphery of the head and held thereon by a detachable band, a tubular extension upon the ring, a double-headed pawl pivotally connected thereto, and having double concave cams and a laterally projecting knob upon each side of the dog to serve as handles, and a spring-actuating key acting in connection with the cams upon the dog, substantially as and for the purpose set forth.

No. 58,567. Spool Rack. (*Ratelier à bobines.*)

Margaret Graaf, Estherville, Iowa, U.S.A., 4th January, 1898; 6 years. (Filed 21st December, 1897.)

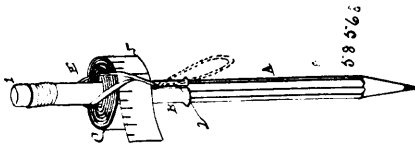
Claim.—1st. In a spool-rack, comprising a base having a recess in the side thereof, a drawer pivoted to slide in said recess, and a thread-cutter formed at one end with cutting-blades and having its lower end pivoted to the base so that said blade end is adapted to be turned down to hold the drawer closed, substantially as described. 2nd. A spool-rack, comprising a base, spool-holders mounted thereon, a thread-cutter at one end of the base, a trans-

verse rib provided with thread-guides and extending parallel with the end of the base adjacent said thread-cutter and arranged between



the thread-cutter and spool-holders, and a guard arranged between the spool-holders and transverse rib, said guard consisting of a piece of wire having one end secured to the base and formed with a resilience-coil, and the opposite free end thereof extending from said coil parallel with said rib and forming a guard for the thread, substantially as described.

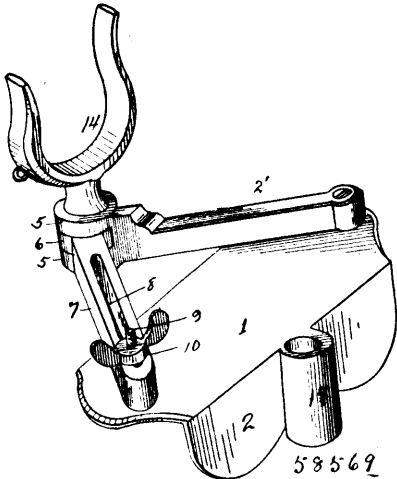
No. 58,568. Combination Pencil and Tape Measure.
(*Crayon et ruban à mesurer combinés.*)



Adeline Julia Miller, Brooklyn, New York, U.S.A., 4th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—The combination with a pencil, of an anchoring device connected to the pencil, a slotted pencil-tip encircling the pencil and anchoring device, a tape-measure connected to the anchoring device and passing through the slot in the pencil-tip, said tape-measure being adapted to be wrapped around the pencil-tip, and a fastener for holding the tape-measure in wrapped position on the pencil-tip, substantially as described.

No. 58,569. Oar Lock. (*Toletière.*)

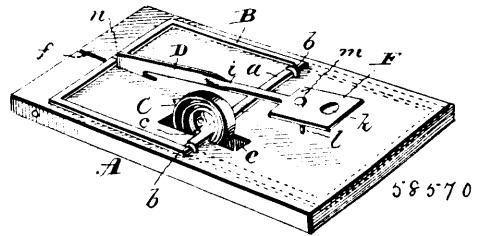


John S. Lofberg, Grand Rapids, Minnesota, U.S.A., 4th January, 1898; 6 years. (Filed 13th December, 1897.)

Claim.—1st. In a rowlock, the combination with the plate formed with depending flanges and the thumb-screw and clamping-plate, of the arm pivoted to one end of said plate provided at the outer end with a socket, the arm pivoted to said socket having a slot therein, the screw passing through the other end of said plate, and through said slot, and provided with a thumb-nut, and the fork provided with a stem working in said socket, substantially as described. 2nd. In a rowlock, the combination with the plate, the outwardly extending adjustable arms, and the socket formed with a rib on its inner side, of the fork, and the stem formed therewith provided with a spiral groove with which said rib engages, substantially as described. 3rd. In a rowlock, the combination with the plate formed with a socket, the depending flanges, the thumb-

screw and clamping-plate, of the adjustable arms, one of which is pivoted to said plate, while the other is formed with a slot, the screw passing through said slot, the thumb-nut engaging therewith, the apertured lugs at the outer ends of said arms, the socket formed with an interior rib, the fork, and the stem formed with a spiral groove with which said rib engages, substantially as described.

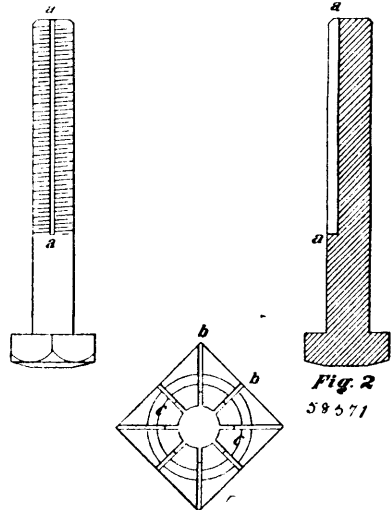
No. 58,570. Animal Trap. (*Piège.*)



Garnett Underwood Hall, Abingdon, Illinois, U.S.A., 4th January, 1898; 6 years. (Filed 11th December, 1897.)

Claim.—1st. An animal-trap consisting of a suitable base or platform, a pivoted bait-trigger, a pivoted jaw in the form of a skeleton frame having flat sides and an offset at its rear end having a curved tongue, and a coiled spring having its ends connected respectively to the tongue and the underside of the base or platform, substantially as for the purpose specified. 2nd. An animal-trap consisting of a suitable base or platform, a pivoted jaw in the form of a skeleton frame having four straight sides and a curved tongue at its rear, a coiled spring having its ends connected respectively to the tongue and the underside of the base or platform, a pivoted bait-trigger having shank and bait-plate, and a headed guide-pin therefor, as and for the purpose set forth.

No. 58,571. Nut Lock. (*Arrête-écrou.*)



William S. Ivins, Keokuk, Iowa, U.S.A., 4th January, 1898; 6 years. (Filed 10th December, 1897.)

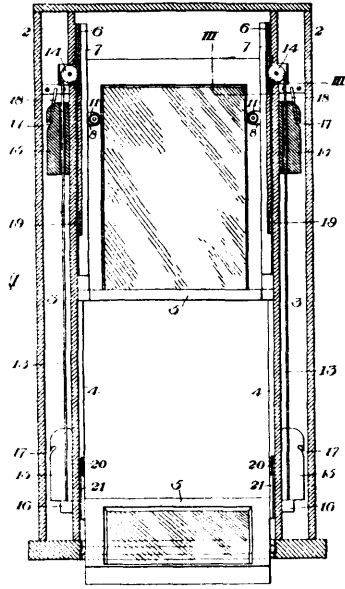
Claim.—The combination of a bolt, or other threaded shaft, having one or more grooves or channels in its lateral periphery, and a nut or cap, or other body in which the said threaded shaft may operate, having one or more radial grooves or channels therein and a flange or collar upon either or both of its vertical surfaces, and a key, or keys, to be inserted in any one or more of such radial grooves or channels in the nut or cap, or other body in which the said threaded shaft may operate, and such groove or channel, or grooves or channels in the bolt, or other threaded shaft, when continuously opposed one to the other, having a laterally extending, flexible arm or part to extend beneath such flange or collar of the nut or cap, or other body in which the said threaded shaft may operate, to retain the key, or keys, in position, substantially as and for the purposes set forth.

No. 58,572. Window. (*Fenêtre.*)

James C. Kahle, Oil City, Pennsylvania, U.S.A., 4th January, 1898; 6 years. (Filed 14th December, 1897.)

Claim.—1st. The combination with a window-sash, of a vertical slide fitted to its side edge, a projecting screw upon the sash provided with a thumb-nut, and a lug upon the slide arranged to take over the screw, and having a recess arranged to be engaged by the thumb-nut, substantially as described. 2nd. The combination with a window-frame and a sash movable therein, of a slide detachably

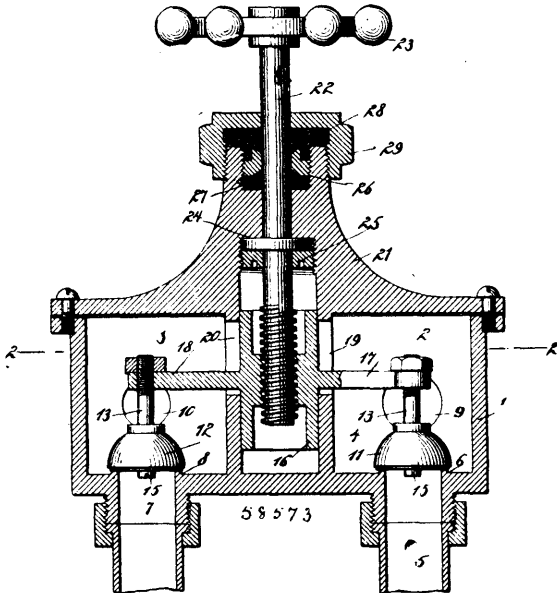
secured to the edge of the sash, a sash-cord secured to said slide and passing through a weight which slides freely thereon, an adjust-



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able catch for said weight, and another weight secured to the outer end of said cord, substantially as described. 3rd. The combination with a window-sash, having a slide detachably secured thereto, of a sash-cord secured to said slide, a weight having a slot arranged to be engaged by a loop within the weight-channel, a longitudinal hole in said weight through which the sash-cord passes, and a second weight secured to the end of the cord, substantially as described. 4th. The combination with a window-sash, of a slide detachably secured to its side edge, a sash-cord secured to said slide, a weight having a flat side to hold it in the same relative position in the weight-channel, and provided with an angular slot adapted to be engaged by a loosely swinging loop in the channel, said weight having a longitudinal hole through which the sash-cord passes, and a weight secured to the end of said cord, substantially as described. 5th. The combination with a window-sash, of detachable slides secured to its side edges, these slides being made in two parts, the sash being hinged to the lower separable parts of the slides, substantially as described. 6th. The combination with a window-sash, of slides detachably secured to its side edges, each slide having a lower inner detachable strip to which the lower end of the sash is pivoted, these strips having lugs arranged to enter recesses in the slides proper, substantially as described.

No. 58,573. Valve. (Soupape.)

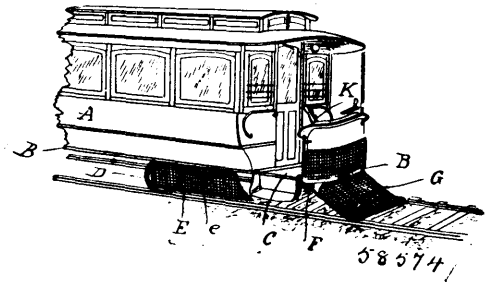


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Mathew Abt, New York, State of New York, U.S.A., 4th January 1897; 6 years. (Filed 10th December, 1897.)

Claim.—1st. A valve, comprising a casing having two chambers, a tubular guide-way separating the chambers and having opposite slots, a nut movable in the guide-way and having arms extended through the slots, valves carried by said arms for controlling inlet and outlet openings, and a screw rod engaging with the nut, substantially as specified. 2nd. A valve, comprising a casing having two chambers, a tubular guide separating the chambers and having opposite slots, a nut movable in the guide, arms extended from the nut through the slots, valves adjustably connected to the arms, and a screw rod engaging with the nut for raising and lowering the valves, substantially as specified. 3rd. A valve, comprising a casing having two chambers, one having an inlet and the other having an outlet, a valve for the inlet, a valve for the outlet, a nut having outwardly extended arms to which the valves are adjustably connected, and a screw rod engaging with the nut and extended outward through the bonnet of the casing, substantially as specified. 4th. A valve, comprising a casing, valves for controlling inlet and outlet openings, a tubular guide separating the casing into two chambers, a nut movable in the guide and having connection with the valves, a screw rod engaging with the nut, a collar on the rod, a packing arranged in a recess formed in the bonnet of the casing, a nut engaging with an interior thread of the recess and holding the packing in place, and a cap holding a packing in place above the nut, substantially as specified. 5th. In a valve, the combination, with a casing and an operating rod, of a nut engaged by said rod, an arm extended from the nut, a valve, a stem extended from the valve and having a screw thread engagement with the arm, and a screw for securing the valve to the stem, substantially as specified.

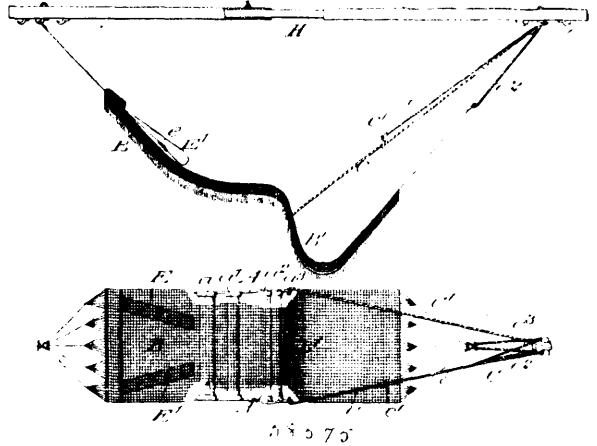
No. 58,574. Car Fender. (Défense de chars.)



Samuel James Harris, Millville, Massachusetts, U.S.A., 4th January 1898; 6 years. (Filed 6th December, 1897.)

Claim.—1st. The combination of the platform frame at the forward end of the street-car, of the hinged scoop, the mutilated gear H, the interlocking gear J, and the hand lever K to place and hold the scoop in an approximately horizontal position, substantially as described. 2nd. The combination with the platform at the forward end of the street-car, of the hinged scoop, the mutilated gear H, the interlocking gear J, the notched wheel M affixed to the gear J, and the hand lever fitted with a latch or bolt to engage the notches of the wheel M, substantially as described.

No. 58,575. Hammock.) Hamac.)

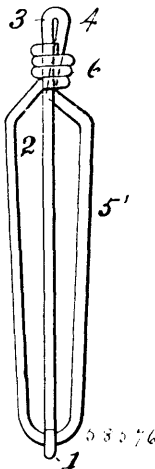


Isaac Emerson Palmer, Middleton, Connecticut, U.S.A., 5th January, 1898; 6 years. (Filed 15th December, 1897.)

Claim.—1st. The combination with the body of a hammock and means for suspending its head end, of a seat frame consisting of side rails and one or more cross slats connecting the side rails, the body of the hammock being formed throughout a portion of its length in two parts adapted to embrace the cross slat or slats and

suspension ropes leading from the foot end of the side rails of the frame to interrupt the natural curve of the body of the hammock to form a seat, substantially as set forth. 2nd. The combination with a seat frame and means for adjusting it along its support, of a foot and leg rest and means for adjusting it with relation to the seat, substantially as set forth. 3rd. The combination with the body of a hammock, and means for suspending it, of a frame adapted to interrupt the natural curve of the hammock, the said frame being provided with a removable cross rung, and the body of the hammock being provided with a series of pockets for the reception of the removable cross rung to hold the frame in different adjustments longitudinally along the body of the hammock, substantially as set forth. 4th. The combination with the body of the hammock and the seat frame engaged therewith, of suspension ropes leading from the foot of the seat frame and suspension cords leading from the foot of the hammock body and having a sliding engagement with the said suspension ropes, substantially as set forth. 5th. The combination with the body of a hammock, a seat frame engaged therewith and suspension cords therefor, of an adjusting cord leading from the foot of the hammock around a bearing and from thence to a point within the reach of the occupant of the hammock and means for securing the cord in its several adjustments for regulating the height of the foot portion of the hammock, substantially as set forth. 6th. The combination with a hammock, of arm rests comprising a pair of loops engaged at one of their ends with the head portion of the hammock, their other ends being free to adjust themselves to the arms of the occupant when the arms are inserted within the loops, substantially as set forth. 7th. The combination with a hammock body and means for suspending it, of a longitudinal stretcher for determining the angle at which the body of the hammock shall hang with respect to the vertical, substantially as set forth.

No. 58,576. Clothes Pin. (Épingle à linge.)



Hugh Lee, Calgary, Alberta, N.W.T., Canada, 5th January, 1898; 6 years. (Filed 13th December, 1897.)

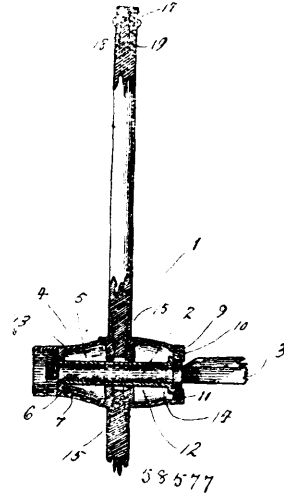
Claim.—1st. A clothes pin composed of a single piece of resilient wire, comprising an elongated loop and an S-shaped jaw or bow, the said parts adapted to clamp or secure the garments to a clothes-line, substantially as shown and described. 2nd. In a clothes pin, the combination of a stationary elongated loop and an S-shaped movable jaw, the two said parts forming the clamp and the device being of a single strip of resilient wire, substantially as shown and described. 3rd. In a clothes pin, the combination of an S-shaped bow and an elongated loop, the free end of the said loop being coiled around a projection of the S-shaped bow and the free end of the said bow having a loop or knob formed on the free end of the loop, the whole being composed of a single piece of resilient wire, substantially as shown and described.

No. 58,577. Carriage-Wheel. (Roue de voiture.)

William A. Pentecost, Worcester, Massachusetts, U.S.A., 5th January, 1898; 6 years. (Filed 13th December, 1897.)

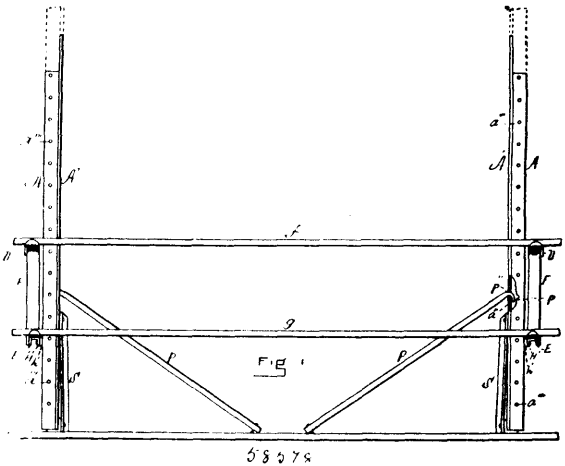
Claim.—1st. In a carriage-wheel, the combination with a hollow tube and a perforated diaphragm located therein at one end, of a screw-threaded cap fixed into the other end of the hub, an axle-box held in position between the diaphragm and the cap, and an axle-spindle journaled in said box. 2nd. In a carriage-wheel, the combination with a hub having spokes secured thereto and sockets having ears or face plates for receiving the outward end of said spokes and securely attaching them to the felly, substantially as described. 3rd. In a carriage-wheel, the combination with a hollow hub having a perforated diaphragm and a threaded portion, of a threaded collar adapted to fit said threaded portion and having a bevelled face, and a removable axle-box provided with bevelled ends

adapted to bear against the bevelled portions of the diaphragm and collar, and held in position by said diaphragm and collar. 4th. In



a carriage-wheel, the combination with a hollow hub having at one end an inner diaphragm provided with a bevelled opening, of a threaded collar adapted to screw into the hub at its outer end and provided with a bevelled face, a removable axle-box provided at one end with a bevelled portion and at the other end with an expanded recessed bevelled portion, said portions being adapted to bear against the bevelled portions of the diaphragm and collar, an axle-spindle received in the axle-box and having a collar adapted to fit within the recess of the expanded portion of the same, and means for holding said spindle in the box.

No. 58,578. Scaffold. (Echafaudage.)

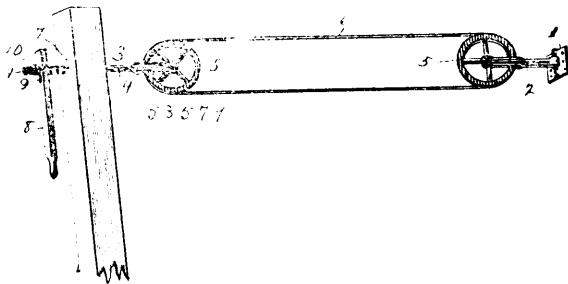


Hezekiah McLaughlin, Boston, Massachusetts, U.S.A., 5th January, 1898; 6 years. (Filed 10th December, 1897.)

Claim.—1st. In a scaffold of the character described, the telescopic main posts each comprising a pair of stationary channel-beams set vertically and with the flanges of one beam facing those of another but not in contact therewith, whereby vertical spaces are produced between the oppositely arranged flanges, a vertically arranged sliding channel-beam placed within and between said stationary beams and with its web opposite one of said spaces, and a vertical bar or plate bolted exteriorly to two opposite flanges extending from the webs of the stationary beams, means for raising and lowering the inner sliding-beam, and means for holding said inner sliding-beam at any-desired height, substantially as described. 2nd. In a scaffold of the character described, the telescopic main posts each comprising a pair of stationary channel-beams set vertically and with the flanges of one beam facing those of another but not in contact therewith, whereby vertical spaces are produced between the oppositely arranged flanges, a vertically arranged sliding channel-beam placed within and between said stationary beams and with its web opposite one of said spaces, and a vertical bar or plate bolted exteriorly to two opposite flanges extending from the webs of the stationary beams, said vertical plate or bar being provided with a series of substantially vertically arranged perforations a^1 , and the web of said sliding channel-beam being provided with a plurality

of substantially vertically arranged perforations B¹, a dog pivotally hung in the sliding beam and adapted to drop by gravity into engagement with said perforations a¹¹ in the vertical plate or bar, and means for lifting said sliding beam within the stationary beam, substantially as set forth. 3rd. In a scaffold of the character described, an external stationary hollow post, provided with a series of substantially vertically arranged perforations a¹¹, an internal telescopically arranged sliding post provided with a series of substantially vertically arranged perforations B¹ opposite said perforations a¹¹, and also with the relatively large opening c opposite said perforations a¹¹, and the dog C provided with the pointed engaging end C¹ and protuberance or weighted portion C¹¹, said pointed end dropping by gravity into one of said perforations a¹¹, and said protuberance or weighted portion extending into the large opening c, substantially as described. 4th. In a scaffold of the character described, the telescopic main posts each comprising a pair of stationary channel-beams set vertically and with the flanges of one beam facing those of another but not in contact therewith, whereby vertical spaces are provided between the oppositely arranged flanges, a vertically arranged sliding channel-beam placed within and between said stationary beams and with its web opposite one of said spaces, and a bar or plate rigidly connecting said stationary channel-beams on one side, horizontal blocks or extensions projecting from the web of the inner sliding beam and extending through the space a between the flanges of the stationary beams opposite said vertical plate or bar, and placed one above the other, and provided at their outer ends with the horizontal supporting plates H, and a pair of brackets D, E, set one above the other and rigidly connected together and supported by the plate H, substantially as set forth. 5th. In a scaffold of the character described, the combination with a telescopic vertical supporting post comprising a stationary upright beam and a sliding upright beam, the bracket D, E, set one above the other and rigidly connected with said sliding beam, rods or bars extending from the lower to the upper brackets, and the removable bolts K, extending through vertical openings in the two brackets, substantially as described. 6th. In a scaffold of the character described, telescopic upright posts, platform-supporting brackets rigidly secured to the vertically moving elements in said posts and extending on opposite sides thereof, and the supplemental hanging scaffolds consisting of the vertical portions L connected at their lower ends to receive a platform, the outwardly extending horizontal flanges L¹ for overlapping the inner edges of the platforms g supported by the brackets on opposite sides of the posts, and a suitable connecting bar L¹¹, all substantially as set forth.

No. 58,579. Clothes Line. (Corde à linge.)



Hort C. Eakin, Dallas, Oregon, U.S.A., 5th January, 1898; 6 years. (Filed 11th December, 1897.)

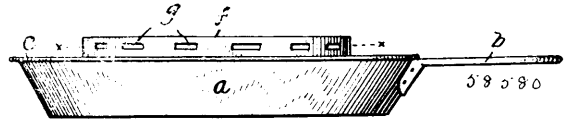
Claim.—1st. The combination with a pulley fork having a shank provided with a series of openings therethrough, of a pulley-wheel held within said fork, a standard through which said shank is adapted to pass, a pin held in one of said openings, and adapted to retain said shank in said standard, a lever having an opening therethrough held upon said shank, and a pin held in one of said openings and adapted to form the bearing point of said lever. 2nd. The combination with a hinge adapted to be attached to any suitable supporting-surface, of a pulley-fork attached thereto, a pulley held within said fork, a standard having an opening therethrough, a pulley-fork having a shank provided with a series of holes, said shank held normally within the opening in the said standard, a pulley located within said fork, an endless rope passing around said pulleys, a lever having an opening therethrough through which extends the shank of the pulley-fork, a pin held within one of said holes adapted to form the bearing-point of said lever, and a second pin adapted to be held within one of said holes and retain the shank in the position to which it may be thrown by said lever.

No. 58,580. Lid for Frying Pans, etc. (Couvercle de poêle à frire.)

Rachel A. Morgan, Braddock, Pennsylvania, U.S.A., 5th January, 1898; 6 years. (Filed 15th December, 1897.)

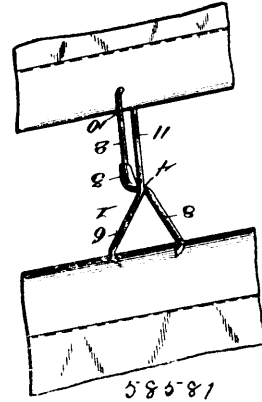
Claim.—1st. In a lid for frying pans and the like having a cupola on its upper face, said cupola being perforated and having a perforated band around said cupola, substantially as shown and

described. 2nd. A lid consisting of a cover, a cupola on said cover, said cupola having a series of perforations around the sides, a per-



forated band around said cupola, said band carrying projections, engaging in the perforations in the sides of the cupola, substantially as shown and described.

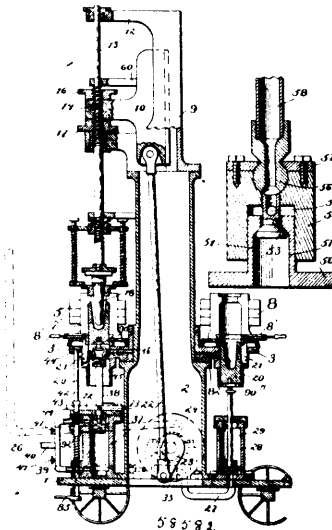
No. 58,581. Garment Supporter. (Support de vêtement.)



Emily F. Phillips, Jefferson City, Missouri, U.S.A., 5th January, 1898; 6 years. (Filed 15th December, 1897.)

Claim.—A garment-supporter formed from a single piece of wire, bent to form a safety-pin and a triangular loop, the planes of the pin and loop being at a right angle to each other, and two sides of the triangle crossing each other to form one of its apexes, one of said sides being of sufficient length and bent to form two arms of the safety-pin, and the other side being shorter and bent twice at substantially a right angle to bring its outer end in a plane parallel with that of the arms of the safety-pin, to form a support for the cap of the safety-pin, and the crossing sides of the triangle being unsecured and separable at the point of crossing, substantially as and for the purpose described.

No. 58,582. Machine for the Manufacture of Glass-ware. (Machine pour la fabrication de verrerie.)



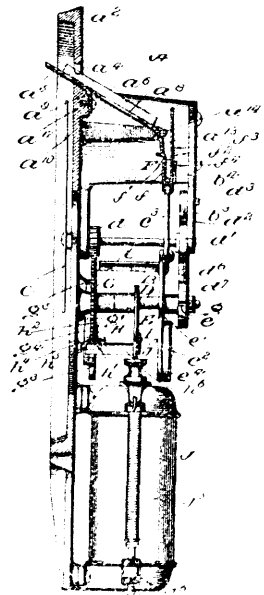
Charles Edwin Blue, Wheeling, West Virginia, U.S.A., 5th January, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—1st. In a glass pressing and blowing machine, the combination of a single endless carrier, a plurality of primary mould-bottoms carried by said carrier, a plurality of mould-bodies carried by said carrier, one for each primary bottom, the said bottoms and mould-bodies being in fixed relative relations and moving together, secondary bottoms for said mould-bodies supported by said single carrier, and an actuating member for said primary bottoms situated

at a point below the pressing point or mould and independent of said carrier, substantially as described. 2nd. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for the said moulds, an actuating member for elevating the primary bottom, a support holding the primary bottom when elevated, and an actuating member independent of the carrier adapted to engage the elevated primary bottom, disengage the support therefrom and to lower the primary bottom, substantially as described. 3rd. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for the said moulds, the said moulds including a fixing, charging, pressing and blowing mould, an actuating member situated at the fixing mould when the carrier is at rest and independent thereof, said actuating member adapted to carry the primary bottom to its operative position, a holder supporting said bottom in its raised position, and an actuating member situated at the pressing mould adapted to lower the primary bottom, substantially as described. 4th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, an actuating member for carrying the primary bottom to operative position, said actuating member situated in advance of the pressing mould or point, a holder supporting said bottom in its raised position, and an actuating member independent of the carrier and situated at the pressing mould or point, said member being vertically movable and controlling the downward movement of the primary bottom, substantially as described. 5th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, an actuating member for moving the primary bottom to operative position, a pressing mechanism, a communication between the actuating member and a motor, a controller situated in the said communication, the pressing mechanism constructed to regulate the communication controller, substantially as described. 6th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a cylinder situated at the fixing point for moving the primary bottom to operative position and independent of the carrier, a piston-head and rod within the cylinder, the rod adapted to engage the primary bottom for moving it to operative position, a communication with the cylinder and an air-supply with the communication, a valve situated in the said communication and controlling the same, and an operative connection between the valve and the pressing mechanism, substantially as described. 7th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a reciprocating member adapted to move the primary bottoms to operative position, a pressing mechanism, an oscillating or reciprocating member connected with and operating the pressing mechanism, an air-supply, a communication between the reciprocating member and the air-supply, a valve situated in the air communication, said oscillating or reciprocating member having a cam adapted to engage the valve and control the communication, substantially as described. 8th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds, primary and secondary bottoms therefor, a cylinder, a piston-head and rod adapted to operate the primary bottoms, a motor, a communication between the motor and the opposite ends of the cylinder, a movable controller for said communication to the cylinder, the controller engaging the carrier, the carrier constructed to automatically regulate the controller, substantially as described. 9th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a cylinder independent of the carrier, a piston-head and rod within said cylinder and adapted to operate the primary bottoms, a communication with the cylinder, a valve controlling the communication, a connection between the valve and the carrier, the carrier being constructed to control the valve, substantially as described. 10th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds, carried thereby, a cylinder independent of the carrier, a piston-head and rod for said cylinder adapted to control the primary bottoms, a communication with the cylinder for controlling the movement of the piston-head, a valve for said communication, the carrier having shoulders or depressions, the valve having an extension adapted to be controlled by the shoulders or depressions and thus control the communication to the cylinder, substantially as described. 11th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds, a cylinder independent of the carrier, a piston-head and rod for the cylinder adapted to operate the primary bottoms, a communication with the cylinder, a valve controlling the communication, the valve having an extension engaging the carrier, the carrier having shoulders or depressions for the end of the extension, a spring for holding the extension normally in contact with the carrier, the valve having an operating extension or foot-piece for moving it in one direction, against the tension of the spring, the parts adapted to operate as described. 12th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a cylinder independent of said carrier, a piston-head and rod for said cylinder, the rod adapted to engage and be separated from the

primary bottoms, communications at each end of the said cylinder to admit pressure to operate the piston, a valve controlling said communications, the valve having its upper end extended and engaging the carrier, the carrier having shoulders or depressions controlling the extension, a spring for holding the extension in contact with the carrier, and a foot-piece for moving the valve against the tension of the spring. 13th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a pressing-head, a reciprocating member actuating the pressing-head, a blowing-head, having an opening communicating with the mould, a hollow rod or pipe communicating with the blowing-head, a connection between the blowing-head and the said reciprocating member, a lifting stop connected with the blowing-head and adapted to be engaged by the reciprocating member, substantially as described. 14th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a pressing-head, a blowing-head, a reciprocating member connected with the pressing-head, a supporting hollow rod for the blowing-head, the blowing head having an opening in communication with said pipe, an arm extending from said reciprocating member through which the said pipe loosely passes, and a stop on said pipe above and adapted to be engaged by said arm, substantially as described. 15th. A blow-head for glass-blowing machines, consisting of upper and lower members having pressure communications, one member having a valve seat, and the other member a valve having a hollow stem forming part of said pressure communication, substantially as described. 16th. A blow head for glass-blowing machine, comprising a seating member, a lifting member, one member having an opening, and the other member a projection movable in said opening, the members having pressure communications, said projection having an internal valve-seat, the other member a valve stem projecting through said seat and carrying a valve, said stem having a pressure outlet above the valve for the purposes described. 17th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a cylinder independent of said carrier, a piston-head and rod for said cylinder adapted to lower the primary bottoms, jaws supporting the piston-rod when the rod is elevated, and a member adapted to separate the jaws and release the rod, substantially as described. 18th. In a glass pressing and blowing machine, the combination of an endless carrier, a plurality of moulds carried thereby, primary and secondary bottoms for said moulds, a cylinder independent of said carrier, a piston-head and rod for said cylinder adapted to operate the primary bottoms, a pressure communication for said cylinder, a supporting member for said piston-rod when elevated, a valve controlling said cylinder communication, the movement of the valve controlling and operating the supporting member for releasing the piston-rod, substantially as described.

No. 58,583. Spirometer and Coin-controlled Mechanism therefor. (Spiromètre actionné par une pièce de monnaie.)



Daniel Azro Ashley Buck, New Haven, Connecticut, U.S.A., 5th January, 1898; 6 years. (Filed 21st December, 1897.)
 Claim.—1st. A spirometer having a dial, an arbor and an index-hand on the latter, mechanism for moving said arbor comprising a

segment, a pneumatic device for moving said segment, and a pawl for normally holding the latter when gradually moved and for preventing the sudden movement thereof, as set forth. 2nd. A spirometer having a dial, an arbor and an indicator-hand on the latter, mechanism for moving said arbor comprising a segment engaging said arbor, a pneumatic device for moving said segment, and a weighted pawl having two teeth, one being normally in engagement with said segment and the other being forced into such engagement when the segment is moved too rapidly, substantially as set forth. 3rd. A spirometer having a dial, an arbor, an index-hand thereon, mechanism engaging said arbor comprising a double segment having opposite toothed portions, one of which engages said arbor, a pawl designed to engage the other toothed portion of said segment and weighted at one end, and a piston for moving said double segment, substantially as set forth. 4th. In a spirometer having indicating mechanism comprising a toothed segment, a double-toothed pawl weighted at one end, whereby one tooth of said pawl is normally in engagement with said segment and the other tooth will engage and hold said segment if the latter is moved too suddenly, as set forth. 5th. In a spirometer having indicating mechanism comprising a toothed segment, a pawl weighted at one end engaging said segment, a plate on which said pawl is pivoted having an open-end slot, and a single screw holding said plate, substantially as set forth. 6th. A spirometer having an arbor carrying the index-hand, means for rotating said arbor, a disc on the latter, a pivoted arm normally bearing on said disc, a cam for releasing said arm from said disc, when said arbor is being reversed, and means for operating said cam, as set forth. 7th. A spirometer having an arbor carrying the index-hand, means for rotating said arbor, a disc on the latter, a pivoted arm normally bearing on said disc, and a lever having a cam designed to engage and release said arm from said disc, as set forth. 8th. A spirometer having an arbor carrying the index-hand, means for rotating said arbor, a disc on the latter, a pivoted arm normally bearing on said disc, a lever, a cam rotary-adjustable on said lever and having an open-end slot and a curved portion designed to engage said arm and raise it from contact with said disc, substantially as set forth. 9th. In a coin-controlled apparatus having indicating mechanism, means for moving such mechanism having a pivoted pawl, and operating means designed to engage said pawl and effect the movement of said mechanism while so engaged, said pawl being so mounted that when once disengaged by said operating means it will move out of the line of movement thereof, as set forth. 10th. In a coin-controlled apparatus having indicating-mechanism, means for moving such mechanism having a pivoted pawl, and operating means designed to engage said pawl and effect the movement of said mechanism, said pawl being so mounted that when once disengaged by said operating means it will move out of the way thereof, and means for re-engaging said pawl with said arm when the means for moving said mechanism is returned to its normal position, as set forth. 11th. In a coin-controlled apparatus having indicating-mechanism, means for moving such mechanism having a pivoted pawl, and operating means comprising an arm designed to engage said pawl and move said mechanism, said pawl being so mounted that if said arm is disengaged therefrom it will move out of the line of travel of said arm, substantially as set forth. 12th. In a coin-controlled apparatus having indicating-mechanism, means for moving such mechanism having a pawl provided with a hooked end and a long arm, and operating means comprising an arm designed to engage said pawl and in its upward travel move said mechanism, and a stop for limiting the movement of said pawl when disengaged from said arm, substantially as set forth. 13th. The combination with the index-hand and its arbor having a pinion, of a segment engaging said pinion, a hooked pawl carried by said segment having an arm, two stops, one for limiting the movement of said pawl and the other for turning said pawl, an arm designed to engage the hook of said pawl and means for elevating said arm, substantially as set forth. 14th. The combination with the index-hand and its arbor having a pinion, of a segment engaging said pinion, a hooked pawl carried by said segment having upper and lower arms, a stop on said segment designed to limit the movement of said pawl, a second stop designed to be engaged by said lower arm and move said pawl, an arm designed to engage the hooked end of said pawl, and means for raising said arm, substantially as set forth. 15th. The combination with the index-hand and its arbor having a pinion, of a segment engaging said pinion, a pawl on said segment having a hooked end and an arm, a stop for limiting the movement of said pawl, a second stop designed to be engaged by said arm and move said pawl forward, an arm designed to engage the hooked end of said pawl, and a pneumatic device designed to raise said arm, substantially as set forth. 16th. The combination with the base, and the index-hand and its arbor carrying a pinion, of a shaft projecting from said base, a segment on said shaft engaging said pinion, a hooked pawl carried by said segment, an arm loose on said shaft having a lateral projection designed to engage said hooked pawl and a pneumatic device designed to elevate said arm, substantially as set forth. 17th. The combination with the index-hand and its arbor having a pinion, of a shaft, a segment thereon engaging said pinion, a pivoted pawl on said segment, an arm loose on said shaft designed to engage said pawl when the latter is moved forward, a disc on said arbor, an arm bearing on said disc, and a coin-controlled lever having a cam designed to engage said arm, and means for moving said segment, substantially as set forth. 18th. A spirometer having indicating means, a segment for

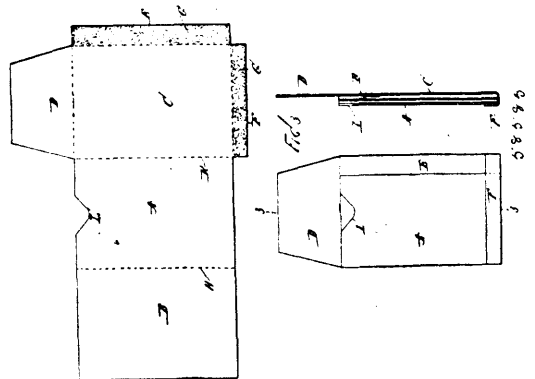
moving the same, a hooked pawl on said segment, an arm designed to engage with said hooked pawl, a pneumatic device for raising said arm, and a coin-operated lever designed to engage and move said segment in its descent, substantially as set forth. 19th. A spirometer having indicating means, a segment for moving the same, a stop carried by said segment, a pivoted pawl having a hooked end and an arm, a pivoted arm designed to engage said pawl, a pneumatic device for raising said arm, said pawl when disengaged being held out of the way of said arm against said stop, and a coin-operated lever having an arm designed to engage said stop and return said segment to its normal position, substantially as set forth. 20th. The combination with the index-hand and its arbor having a pinion, of a double-segment engaging said pinion, a stop and a pawl carried by said segment, the movement of said pawl being limited by said stop, a second stop for tilting said pawl, a pivoted arm designed to engage said pawl, a pneumatic device for raising said arm, a weighted pawl designed to engage said segment having upper and lower teeth for the purpose stated, and a coin-carrying lever having an arm designed to engage said stop of said segment, substantially as set forth.

No. 58,584. Process of Converting Starchy Material into Sugar. (*Procédé pour convertir l'amidon en sucre.*)

Jokichi Takamine, Chicago, Illinois, U.S.A., 5th January, 1898; 6 years. (Filed 4th June, 1897.)

Claim.—1st. The method of converting starchy material into sugar which consists, first, in obtaining a watery extract of the mass to be converted, then mixing with said extract taka-koji, then cooking the mass from which said extract is obtained, and finally adding to the cooked material the mixture, as and for the purpose set forth. 2nd. The method of converting starchy material into sugar, which consists in extracting the soluble matter contained in the mass to be converted, mixing with said extract taka-koji, then cooking the mass from which said extract has been made, then cooling it, and finally, adding the mixture, as and for the purpose set forth. 3rd. The method of converting starchy material into sugar, which consists in grinding the material to be converted to a meal, then treating with water to obtain an extract of the soluble matter thereof, adding to such extract taka-koji diastase, then cooking the mass from which said extract has been obtained, and finally, adding thereto the mixture to effect a conversion thereof, as and for the purpose set forth. 4th. The method of converting starchy material into sugar, which consists in treating the starchy material to be converted with taka-koji diastase in order to extract the soluble matter contained therein, then cooking the material from which the extract has been obtained, and finally, returning thereto said extract as a converting agent, as and for the purpose set forth. 5th. The method of converting starchy material into sugar, which consists in treating the mass to be converted, with water to extract the soluble matter therefrom, then cooking the residue, then mixing said extract, taka-koji diastase, and a watery extract from raw brans, and finally, adding such mixture to the cooked material, as and for the purpose set forth. 6th. A composition of matter as a converting agent, comprising a mixture of the following ingredients, a watery extract from a mass of starch containing material, a watery extract from taka-koji, and a watery extract from raw brans, as and for the purpose set forth. 7th. The method of converting starchy material into sugar, which consists in extracting the mass to be converted, mixing the extract with taka-koji, cooking the extracted mass, and then adding the mixture, as and for the purpose set forth. 8th. The method of converting starchy material into sugar, which consists in mixing taka-koji and the mass to be converted, then extracting the mixed masses, and finally, adding the extract to the extracted mass, as and for the purpose set forth.

No. 58,585. Envelope. (*Envelope.*)

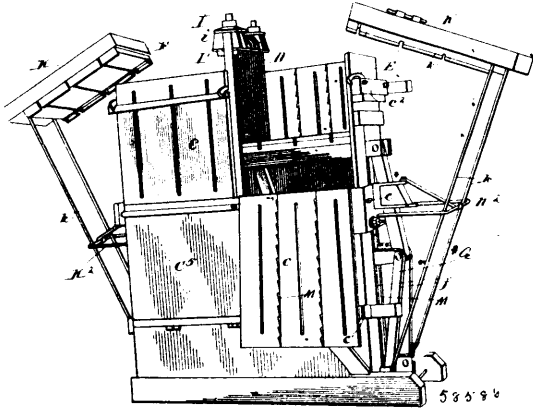


Richard Weber, Brooklyn, New York, U.S.A., 5th January, 1898; 6 years. (Filed 4th October, 1897.)

Claim.—An envelope consisting of a body portion A, having two similar side portions B and C, and having a notch at one end, said

side C being provided with a side flap E, and end flap F having sealing material on the inner surface thereof, and being also provided with a large end flap D, said envelope being formed by folding the side B upon the body portion A, the side C upon the side B, and sealing the end flap F, and the side flap E to the side of the body portion A, substantially as shown and for the purpose described.

No. 58,586. Baling Press. (Presse à emballer.)



Peter Kells Dederick, Louisville, New York, U.S.A., 5th January, 1898; 6 years. (Filed 15th December, 1897.)

Claim.—1st. In a press, the combination with the traverser, levers for operating the same and power mechanism for advancing the levers, of the check-line connected with the levers, for checking their rearward movement and controlled by the power mechanism, whereby the levers may be lowered gradually, substantially as described. 2nd. In a baling press, the combination with the vertical press case, the traverser working therein, of the extended toggle lever pivotally connected with the traverser, the fulcrum arms pivotally connected with said toggle lever and the stops co-operating with the toggle at or near the fulcrum of the extended lever to arrest the downward movement of the levers before the joint of the toggle passes below its centre, and operating as a fulcrum for initiating the upward movement of the toggle when the power is first applied, substantially as described. 3rd. In a baling press of the vertical type, the combination with the press case, the traverser, the power lever pivotally connected with the traverser and the arms pivotally connected to and forming with the lever a toggle the joint whereof works through the side of the press, of an inwardly movable door forming a portion of the side of the press and extending down beside the lever and adapted to retreat inward in front of the joint of the toggle, whereby but a very narrow slot is left when the power is lowered, with means for maintaining the traverser substantially horizontal, substantially as described. 4th. In a baling press of the vertical type, the combination with the press case, the traverser, the power lever pivotally connected with the traverser and the arms pivotally connected to and forming with the lever a toggle the joint whereof works through the side of the press, of an inwardly movable door forming a portion of one side of the press case and extending down beside the lever and adapted to retreat inwardly in front of the joint of the toggle, and a stop for arresting the outward movement of the door, with means for maintaining the traverser substantially horizontal, substantially as described. 5th. In a baling press of the vertical type, the combination with the press case, the traverser, the power lever pivotally connected with the traverser and the arms pivotally connected to and forming with the lever a toggle the joint whereof works through the side of the press, of a door hinged at the upper end to swing inward and extending down beside the lever into the path of travel of the joint of the toggle, whereby as the said joint advances the door will move inward and a stop for arresting the outward movement of the door in the plane of the side of the press, with means for maintaining the traverser substantially horizontal, substantially as described. 6th. In a baling press, the combination with the frame, traverser and toggles connected with opposite ends of the traverser for advancing the same and mounted in fixed pivotal bearings at the opposite ends, of the head forming the opposing abutment between which and the traverser the material is pressed, and pairs of rods directly connecting opposite ends of the head and the fixed pivotal bearings of the toggles whereby strain on the frame is relieved, substantially as described. 7th. In a baling press, the combination, with the frame, traverser and toggles connected with opposite ends of the traverser advancing the same and pivotally mounted in fixed bearings at the opposite ends, of the movable head forming the opposing abutment between which and the traverser the material is pressed, and rods pivotally connected with the fixed bearings of the toggles at their lower ends and engaging and supporting the head at their opposite or upper ends, substantially as described. 8th. In a baling press, the combination with the frame, traverser and toggles for advancing the traverser mounted in fixed pivotal bearings, of a movable head forming the opposing abutment between which and the traver-

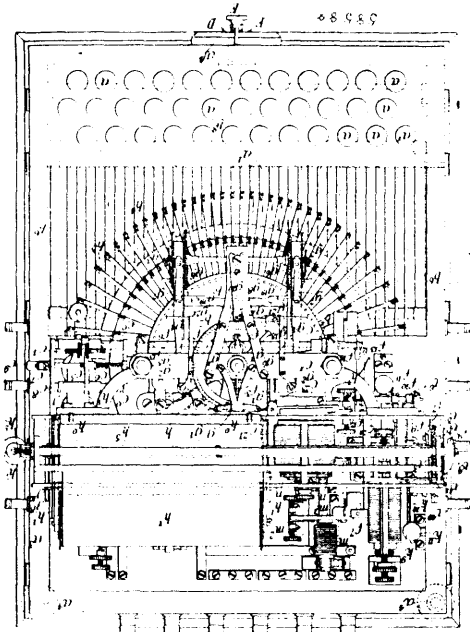
ser the material is pressed, rods connected with the pivotal bearings of the toggles at the lower end and having overhanging projections at their upper ends beneath which the movable head passes when in position for pressing, substantially as described. 9th. In a baling press, the combination with the frame, traverser and toggles for advancing the traverser mounted in fixed pivotal bearings, of a pair of rods connected with the bearings of one of the toggles at the lower ends and having an overhanging projection at their upper ends, a second pair of rods connected with the pivotal bearings of the other toggles at their lower ends, a head connected with said last-mentioned pair of rods and adapted to pass in beneath the said overhanging projection and to form the opposing abutment between which and the traverser the material is pressed, substantially as described. 10th. In a baling press, the combination with the press case having a vertical centrally arranged partition dividing the press case into two bale chambers, one end of said press case and the central partition being provided with narrow vertical openings or slots, plates extending through said slots, a traverser of which said plates constitute the framework and heads forming the abutments opposing said traverser, of three toggles, two of which are located and work entirely within the respective chambers formed in the press case, and the third located and working entirely outside of the press case, said toggles being pivotally connected at their upper ends to the before mentioned plates and at their lower ends to the press case, substantially as described. 11th. In a baling press, the combination with the press case having a vertical partition dividing it into independent bale chambers, a traverser located in said press case and three toggles located respectively adjacent the end walls of the press case and central partition for advancing the traverser, of three pairs of bars extending respectively from the lower ends of each pair of toggles to the top of the press case and heads opposing the traverser supported by the upper ends of said pairs of bars, substantially as described. 12th. In a baling press, the combination with the power levers and driving mechanism, of a double flexible connection passing around sheaves between them having the loop or fold passage loosely through a hole or sheave on the lever so as to render therein and equalize the strain on the strands of the flexible connection, substantially as described. 13th. In a baling press, the combination with the press case and traverser working therein, of movable retainers arranged to operate oppositely to the direction of movement of the traverser in pressing to retain material tramped into the press, said retainers being mounted to project into the press case when moved down and to be withdrawn therefrom when moved up, and a controlling member connected thereto and projecting into the press case and adapted to receive pressure to draw the retainers down into the press case, substantially as described. 14th. In a baling press, the combination with the press case and traverser working therein, of movable retainers arranged to operate oppositely to the movement of the traverser in pressing, to retain material tramped into the press, said retainers being mounted to move into and out of the press case, and a controlling member connected therewith and embracing a portion of the traverser when the latter is down whereby when the traverser is down the retainers are projected into the press case and when the traverser is moved up the retainers are withdrawn, substantially as described. 15th. In a baling press, the combination with the press case having a side door and the traverser working in said case, of reverse retainers mounted in the door with means for moving the retainers independently of the doors, substantially as described. 16th. In a baling press, the combination with the press case having a vertically arranged central partition dividing the case into independent bale chambers, said partition having a vertical slot or opening therein, of a traverser head in each chamber, said traverser heads being connected through the slot and power mechanism for moving the traverser heads, substantially as described. 17th. In a baling press, the combination with the press case, traverser, power mechanism and heads opposing said traverser, of skelton corner pieces having internal recesses corresponding to the configuration of the edges of the bale, and end pieces projecting into the corners of the bale for forming the seats for the ties, substantially as described. 18th. In a baling press, the combination with the press case, and movable traverser, of angular corner pieces for forming the edges of the bale having tie spaces between them and having their central portions recessed to form the square edge of the bale, substantially as described. 19th. In a baling press, the combination with the press case, having the vertical slots and intermediate tongue cut away at the lower end, of the traverser working in the press case, the power mechanism connected with the traverser through said slots and working through the opening beneath the tongue, of a sliding gate mounted on said tongue and forming an extension thereof, when lowered to close said opening and projections on said gate co-operating with the power mechanism to move the gate, substantially as described. 20th. In a baling press, the combination with the press case, having the vertical slots and intermediate tongue the traverser and the power mechanism working through the press case beneath the tongue and connected with the traverser through said slot of the sliding gate mounted on said tongue and adapted to project below the same to close the opening, said gate having flanges projecting flush with the inner side of said press case and having outwardly extending projections between which the power mechanism works and whereby the gate is moved up and down, substantially as described.

No. 58,587. Electrolytic Anodes. (Electrode positive.)

Henry Blackman, New York, State of New York, U.S.A., 5th January, 1898; 6 years. (Filed 14th November, 1896.)

Claim. 1st. The use as an anode for electrolytic decomposition, of an electro-conductive metallic oxide substantially resistant to the electro negative products of electrolysis of chlorine compounds, such as magnetic iron oxide, $Fe^2 O^3$, or titanium oxide, as specified. 2nd. An anode for electrolytic decomposition composed of magnetic iron oxide. 3rd. An anode for electrolytic decomposition composed of ilmenite. 4th. An anode for electrolytic decomposition, consisting of a cast mass of a magnetic iron oxide, as magnetite or ilmenite, with sufficient fluxing materials to enable the oxide to be fused and cast. 5th. An anode for electrolytic decomposition, consisting of an iron plate, the exposed surface of which is covered with a dense impermeable coating of magnetic iron oxide. 6th. An anode for electrolytic decomposition, consisting of an iron plate the surface of which is oxidized by contact with superheated steam to form a dense impermeable coating of sufficient depth to protect the metallic iron from the oxidizing action of chlorine or other electro negative products of electrolysis.

No. 58,588. Printing-Telegraph. (Télégraphe imprimant.)

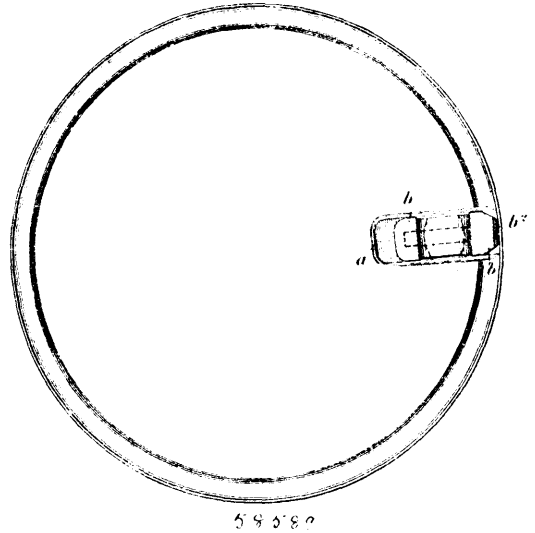


Leo Kamm, London, England, 5th January, 1898; 6 years. (Filed 2nd January, 1896.)

Claim.—1st. In printing telegraphic transmitting or receiving apparatus, the combination of a series of spring-pins arranged in the arc of a circle, finger keys connected to the said pins, a circuit-closing device in connection with the said keys, an arm arranged to work over the pins and provided with a movable hook projection and armature operatively connected, a magnet, the armature of which is adapted to engage with the said hook and close the line-circuit, a weight or spring for operating the arm in one direction, a magnet for operating it in the other direction, a magnet for operating the armature on the arm, a series of type arranged in the arc of a circle, and connected with the said arm, and a magnet the armature of which is arranged to close the line-circuit, all substantially as described. 2nd. In a printing-telegraph, the combination with the revolving spindle provided with a synchronizing arm and a series of stop-pins adapted to be moved into the path of said arm, of a weight loosely mounted on said spindle, and means connecting said spindle with the weight for movement in one direction only, substantially as described. 3rd. In a printing-telegraph, the combination with the revolving spindle, synchronizing arm and series of stop-pins adapted to be moved into the path of said arm, of a weight loosely mounted on said spindle and having a part provided with ratchet-teeth and a part connected with said spindle having a pawl engaging said teeth, whereby said weight will move with said spindle in one direction only, substantially as described. 4th. In a printing-telegraph, the combination with the spindle, the synchronizing arm, a series of stops adapted to be moved into the path of said arm, a series of movable type carried by said spindle, a stationary plunger for impressing said type, the paper-carriage and a screw for operating the same, of means for starting said synchronizing arm and moving one of said stops into its path, a printing-magnet for operating said plunger and the said screw, and means for returning the parts to their initial positions, substantially as described. 5th. In a printing-telegraph, the combination

with the synchronizing arm and a series of stops adapted to be moved into the path of said arm, of a magnet for returning said arm to its initial position, the printing-magnet, a bar operated by the printing-magnet to close a circuit through the returning-magnet, and a part operated by said bar for breaking the circuit through the printing magnet, substantially as described.

No. 58,589. Loose Covers and Cutters of Hermetically Sealed Metallic Boxes or Cases. (Couvercle et appareil à ouvrir les boîtes métalliques fermées hermétiquement.)



George Henry Williamson, Worcester, England, 5th January, 1898; 6 years. (Filed 11th December, 1897.)

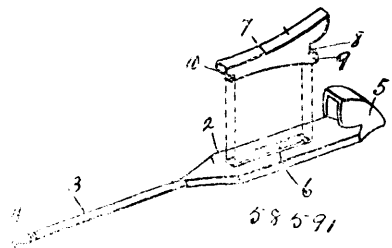
Claim. The improvements in the loose covers, and cutters of hermetically sealed metallic boxes or cases hereinbefore described and illustrated in the accompanying drawing, the said improvements consisting essentially in making a recess or sunken part in the underside of the loose lid or cover for receiving and guiding the cutter in its motion on the lid and preserving the cutter in its proper or cutting position on the rotation of the loose lid on its box or case the said recess having a single slot for receiving the cross arms of the paper like fastener or rivet like attachment of the cutter substantially as described and illustrated.

No. 58,590. Manufacture of Washable Leather or Skins. (Fabrication de cuire pouvant être lavée.)

Jean Louis Garcin, Grenoble, France, 5th January, 1898; 6 years. (Filed 9th August, 1896.)

Claim.—1st. The improved process of treating skins consisting in first tawing and then tanning them. 2nd. An improved product consisting of a washable leather formed by subjecting the skins to a tawing and to a tanning process.

No. 58,591. Device to Prevent Railroad Tracks from Spreading. (Appareil pour empêcher l'expansion des voies de chemins de fer.)

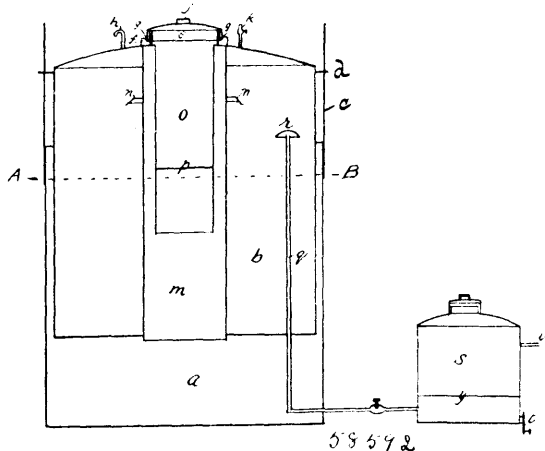


Jared I. Irwin and Andrew J. Irwin, both of Sandersville, Georgia, U.S.A., 5th January, 1898; 6 years. (Filed 13th December, 1897.)

Claim.—1st. In a holder of the class described, the combination with a series of clamp-sections, of a series of locking-blocks adapted to be applied to said sections, and springs for locking the blocks in

their applied positions upon the sections, substantially as described. 2nd. In a holder of the class described, the combination with a series of clamp-sections each of which is provided with a clamping-lug adapted to engage the sides of the track-rails, of a series of removable locking-blocks adapted to be applied to the sections, springs for locking the blocks in their applied positions upon the sections, and means for adjusting the sections toward and away from each other, substantially as described. 3rd. In a holder of the class described, the combination with a series of clamp-sections, of a series of locking-blocks adapted to be applied to said sections, springs carried by said blocks, and adapted to engage the sections to retain the blocks in their proper applied positions thereon, and means for adjusting the sections toward and away from each other, substantially as described. 4th. In a holder of the class described, the combination with a series of clamp-sections each of which is provided with an elongated slot, of a series of removable locking-blocks adapted to be inserted in said slots to apply the same to the clamp-sections, springs carried by the blocks for locking the same in their proper applied positions, and means for adjusting the sections toward and away from each other, substantially as described. 5th. In a holder of the class described, the combination with a series of clamp-sections each of which is provided with an elongated slot, of a series of removable locking-blocks adapted to be inserted in said slots to apply the same to the clamp-sections, springs carried by the blocks for locking the same in their proper applied positions, and means for adjusting the sections toward and away from each other, substantially as described. 6th. In a holder of the class described, the combination with a series of clamp-sections, each of which is provided with a clamping lug and an elongated slot spaced therefrom, of a series of locking-blocks adapted to be inserted in said slots, springs carried by said blocks for retaining the same in their proper applied positions, and means for adjusting the sections toward and away from each other, substantially as described. 7th. In a holder of the class described, the combination with a series of clamp-sections, each of which is provided with a clamping lug and an elongated slot spaced therefrom, of a series of locking-blocks adapted to be inserted in said slots, said blocks being provided with locking-shoulders adapted to lie beneath the clamp-sections when said blocks are inserted within the elongated slots, springs carried by the blocks for locking the latter within the slots, and means for adjusting the sections toward and away from each other, substantially as described. 8th. In a holder of the class described, the combination with a series of clamp-sections each of which is provided with a clamping-lug having a locking-shoulder, and an elongated slot spaced from said lug, of a series of locking-blocks adapted to be inserted in said slots, each of said blocks having a locking-shoulder adapted to lie beneath and engage the under surface of the clamp-sections when the blocks are inserted in said slots, springs carried by said blocks and adapted to lock the latter within the elongated slots, the ends of said slots farthest from the clamping-lugs being bevelled, whereby said springs are adapted to be seated thereon, and lock the blocks within the elongated slots, and means for adjusting the sections toward and away from each other, substantially as described.

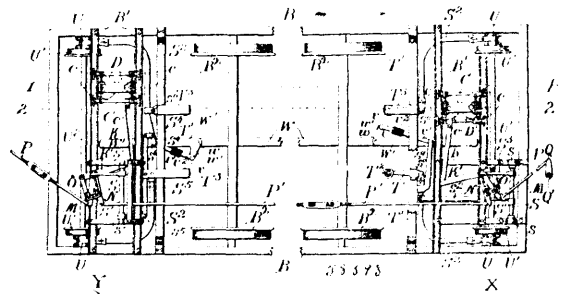
No. 58,592. Machine for the Generation of Acetylene Gas from Calcium Carbide. (Machine pour la génération de gaz acétylène du carbure de calcium.)



James T. Kearns, Delhi, Ontario, Canada, 5th January, 1898; 6 years. (Filed 27th February, 1897.)

Claim.—1st. The combination with the perforated cylinder *o*, of the floating cylinder *b*, and the tank *a*, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the concentric cylinder *m*, of the perforated cylinder *o*, and the floating cylinder *b*, and the tank *a*, substantially as and for the purpose hereinbefore set forth. 3rd. The combination with the check valve *N*, of the concentric cylinder *m*, of the perforated cylinder *o*, the floating cylinder *b*, and the tank *a*, substantially as and for the purpose hereinbefore set forth. 4th. The combination with the calcium carbide drier and purifier *s*, of the gas pipe *g*, substantially as and for the purpose hereinbefore set forth.

No. 58,593. Electric Railway. (Chemin de fer électrique.)



John Wesley Darley, jr., Baltimore, Maryland, U.S.A., 5th January, 1898; 6 years. (Filed 26th December, 1895.)

Claim.—1st. The combination with the wheel *U1*, and the boxes *U*, of the magnet-carriages, and magnets carried thereby, and a system of levers connecting said boxes with the magnet-carriages, whereby the position on the said magnets is adjusted automatically whenever the car goes around a curve, substantially as described. 2nd. The combination in an electric-railway system having an interrupted conductor with armatures adapted to connect the segments of said conductor with a source of electricity, of a car-truck carrying magnets adapted to operate said armatures, and means controlled by the car for automatically adjusting the position of the said magnets in curved portions of the track, substantially as described. 3rd. The combination in an electric-railway system, of an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor and connected thereto by leading-in wires with pivoted armatures adapted to complete or break the circuit through said leading-in wires, magnets carried by the car, and adapted to complete or break the circuit through said leading-in wires, magnets carried by the car, and adapted to operate said armatures, and either close or open the circuits, and means operated by the car for automatically adjusting the positions of said magnets in curved portions of the track, substantially as described. 4th. The combination in an electric-railway system, of an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor and connected thereto by leading-in wires with pivoted armatures adapted to make and break circuits through said leading-in wires, magnets carried by the car and adapted to operate said armatures and either close or open the circuits, wheels mounted on axles having journal bearings near the ends of the car, hubs having a lateral play operated by said wheels, and a system of levers operated by said hubs and adapted to automatically adjust the position of said magnets relative to said armatures, substantially as described. 5th. The combination in an electric-railway system, of an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor and connected thereto by leading-in wires with pivoted armatures adapted to make and break circuits through said leading-in wires, magnets carried by the car and adapted to operate said armatures and either close or open the circuit, wheels mounted on an axle having journal bearings near the end of the car, hubs having a lateral play operated by said wheels, and a system of levers operated by said hubs and adapted to automatically adjust the position of said magnets relative to said armatures, the said levers being pivoted near the longitudinal axis of the car, and being bent outward toward said hubs, substantially as described. 6th. The combination in an electric-railway system, of an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor and connected thereto by leading-in wires with pivoted armatures adapted to make and break circuits through said leading-in wires, magnets carried by the car and adapted to operate said armatures and either close or open the circuit, wheels mounted on an axle having journal bearings near the end of the car, hubs having a lateral play operated by said wheels, and a system of levers operated by said hubs, and adapted to automatically adjust the position of said magnets relative to said armature, the said levers being pivoted near the longitudinal axis of the car, and being bent outward toward said hubs, and springs pressing said levers downward to hold said wheels firmly on the track, substantially as described. 7th. The combination in an electric-railway system, of

an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor and connected thereto by leading-in wires with pivoted armatures adapted to complete or break the circuit through said leading-in wires, laterally movable wheeled magnet-carriages mounted on the car-truck, with magnets carried by said carriages and adapted to operate said armatures and either close or open the circuit, and means operated by the car for automatically adjusting the positions of said magnets in curved portions of the track, substantially as described. 8th. The combination in an electric-railway system, of an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor and connected thereto by leading-in wires with pivoted armatures adapted to make and break circuits through said leading-in wires, laterally movable wheeled magnet-carriages mounted on the car-truck, with magnets carried by said carriages and adapted to operate said armatures and either close or open the circuit, wheels mounted on an axle having journal bearings near the end of the car, hubs having a lateral play operated by said wheels, and a system of levers operated by said hubs and adapted to automatically adjust the position of said magnets relative to said armatures, substantially as described. 9th. The combination in an electric-railway system, of an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor, and connected thereto by leading-in wires with pivoted armatures adapted to make and break circuits through said leading-wires, laterally-movable wheeled magnet-carriages mounted on the car-truck, with magnets carried by said carriages and adapted to operate said armatures and either close or open the circuit, wheels mounted on an axle having journal-bearings near the end of the car, hubs having a lateral play operated by said wheels and a system of levers operated by said hubs, and adapted to automatically adjust the position of said magnet-carriages relative to said armatures, the said levers being pivoted near the longitudinal axis of the car, and being bent outward toward said hub, substantially as described. 10th. The combination in an electric-railway system, of an interrupted conductor running along the track, a working conductor approximately parallel to the interrupted conductor, and connected thereto by leading-in wires with pivoted armatures adapted to make and break circuits through said leading-in wires, laterally-movable wheeled magnet-carriages mounted on the car truck, with magnets carried by said carriage and adapted to operate said armature and either close or open the circuit wheels mounted on an axle having journal-bearings near the end of the car, hubs having a lateral play operated by said wheels, and a system of levers operated by said hubs and adapted to automatically adjust the position of said magnet-carriages relative to said armatures, the said levers being pivoted near the longitudinal axis of the car, and being bent outward toward said hubs, and springs pressing said levers downward to hold said wheels firmly on the track, substantially as described. 11th. In an electric railway, the combination with the car-truck and laterally-movable magnets carried thereby, of means operated by hand for shifting said magnets laterally, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 12th. In an electric railway, the combination with the car-truck and laterally-movable magnets carried thereby, of means operated by hand for simultaneously shifting said magnets laterally, and for altering the direction of the current for reversing the motor, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 13th. In an electric railway, the combination with the car-truck and laterally movable magnets carried thereby, of means operated by hand for shifting said magnets laterally, means for locking said hand-shifting apparatus, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 14th. In an electric railway, the combination with the car-truck and laterally-movable magnets carried thereby, of means operated by hand for simultaneously shifting said magnets laterally, and for altering the direction of the current for reversing the motor, means for locking said hand-shifting apparatus, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 15th. In an electric railway, the combination with the car-truck and laterally-movable magnets carried thereby, of means operated by hand for shifting said magnets laterally, comprising a shaft Q^1 with hand-lever for turning the same, and a system of levers operated by said shaft and connected to the said magnets, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 16th. In an electric railway, the combination with the car-truck and laterally-movable magnets carried thereby, of means operated by hand for shifting said magnets laterally, comprising a shaft Q^1 with hand-lever for turning the same, and a system of levers operated by said shaft and connected to the said magnets, means for simultaneously altering the direction of the current for reversing the motor, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 17th. In an electric railway, the combination with the car-truck of a laterally-movable carriage carried thereby, and magnets on the said carriage, means operated by hand for shifting said magnet-carriage laterally, the motor, means for locking said hand-shifting apparatus, and means operated by said magnets

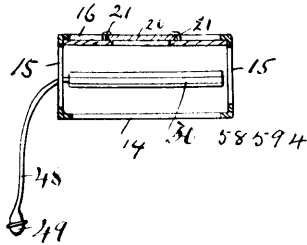
for completing the electric circuit through the motor on the car, substantially as described. 18th. In an electric railway, the combination with the car-truck of a laterally-movable carriage with magnets carried thereby, means operated by a hand for simultaneously shifting said magnet-carriage laterally, and for altering the direction of the current for reversing the motor, means for locking said hand-shifting apparatus, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 19th. In an electric railway, the combination with the car truck of a laterally-movable carriage with magnets carried thereby, of means operated by a hand for shifting said magnet-carriage laterally, comprising a shaft Q^1 with hand-lever for turning the same, and a system of levers operated by said shaft and connected to said magnet-carriage, means for locking said hand-shifting apparatus, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 20th. In an electric railway, the combination with the car-truck of a laterally-movable carriage with magnets carried thereby, of means operated by hand for simultaneously shifting said magnet carriage laterally, comprising a shaft Q^1 with hand-lever for turning the same, and a system of levers operated by said shaft and connected to said magnet-carriage, means for altering the direction of the current for reversing the motor, comprising a reversing-drum with contacts carried thereby, and gearing connecting said drum with said shaft Q^1 , means for locking said hand-shifting apparatus, and means operated by said magnets for completing the electric circuit through the motor on the car, substantially as described. 21st. In an electric railroad provided with a sectional conductor and armatures operating as switches along the roadway for cutting the conductor-sections into and out of circuit, of two travelling electro-magnets, one closing and the other opening the switches, and means for shifting the magnets laterally, substantially as described. 22nd. In an electric railroad provided with a sectional conductor and armatures operating as switches along the roadway for cutting the conductor-sections into and out of circuit, of two travelling electro-magnets, one for closing and the other for opening the switches, and means for shifting the magnets in opposite directions to operate the switches in the same order when the direction of travel is reversed, substantially as described. 23rd. In an electric railroad provided with a sectional conductor and armatures acting as switches along the roadway for cutting the conductor sections into and out of circuit, of two travelling electro-magnets, one for closing and the other for opening the switches, and a system of links and levers for shifting the magnets laterally, substantially as described. 24th. In an electric railroad provided with a sectional conductor and armatures acting as switches along the roadway, for cutting the conductor-sections into and out of circuit, of two travelling electro-magnets, one for closing and the other for opening the switches, guide or pilot-wheels, for each magnet, travelling on the tracks, and a system of links and levers between each magnet and the respective pilot-wheels for maintaining the magnets in alignment with the switches on curves, substantially as described. 25th. In an electric railroad provided with a sectional conductor and armatures acting as switches along the roadway for cutting the conductor sections into and out of circuit, two travelling electro-magnets, and operating mechanism for each magnet for shifting it laterally relative to its support consisting of two levers, one fulcrumed on the other and connected to the magnet, and the other lever being under the control of the motorman, and pilot or guide-wheels running on the traffic-rails and connected to the first-named lever, substantially as described. 26th. A current-collecting shoe for use on electric railways comprising a central portion connected to the truck, and end portions pivotally connected to the truck, and end portions pivotally connected to said central portion, and provided with lateral arms oppositely disposed, and means for operating said arms and swinging said end portions laterally about their pivots, substantially as described. 27th. In an electric railway, the combination with the car-truck and frame mounted thereon and laterally-movable magnets carried by said frame, of a collecting-shoe composed of a plurality of parts pivoted together also carried by said truck, means for shifting said magnets laterally, and for swinging parts of said shoe in the same direction that the magnets are moved, and means operated by said magnets and said shoe for completing the electric circuit through the motor on the car, substantially as described. 28th. In an electric railway, the combination with the car-truck and frame mounted thereon and laterally-movable magnets carried by said frame, of a collecting-shoe composed of a plurality of parts pivoted together also carried by said truck, means operated by hand for simultaneously shifting said magnets laterally, and for swinging parts of said shoe in the same direction that the magnets are moved, and means operated by said magnets and said shoe for completing the electric circuit through the motor on the car, substantially as described.

No. 58,594. Photography. (*Photographie*)

William Angus Martel, jr., Montreal, Quebec, Canada, 5th January, 1898; 6 years. (Filed 12th February, 1896.)

Claim.—1st. Artificial light-producing, controlling and distributing apparatus for use in photography and the like, consisting of an illuminating burner, an enclosing semi-transparent casing for the burner to contain the fumes of the burner, and a fume conductor leading therefrom, substantially as and for the purpose set

forth. 2nd. Artificial light-producing and controlling apparatus for use in photography and the like, consisting of an enclosing



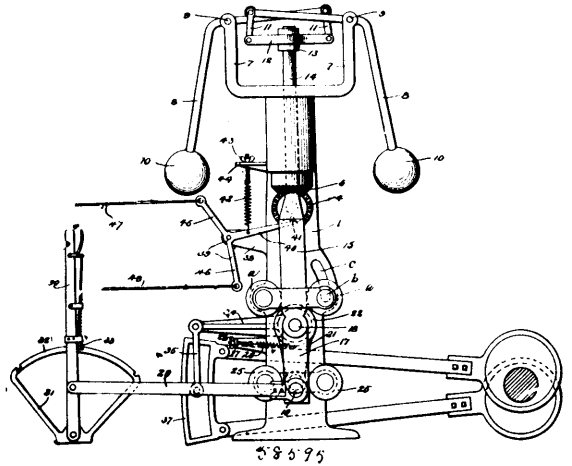
casing, a burner consisting of an oblong block contained therein and having a strip extending the full length of the top thereof and provided with perforations, an air-supply connected with such perforations, and one or more igniters located adjacent to said perforations, and one or more reflectors suitably arranged with relation to said casing, for the purpose set forth. 3rd. A burner consisting of an oblong block having a strip extending the full length of the top thereof and provided with perforations, an air-supply connected with such perforations, and one or more igniters located adjacent to said perforation, substantially as described and for the purposes set forth. 4th. Artificial light-producing and controlling apparatus for use in photography and the like, consisting of an enclosing casing, a burner enclosed therein consisting of an oblong block having a strip extending the full length of the top thereof and provided with perforations, an air-supply connected with such perforations, a flexible connection between said casing and the air, and opaque reflectors suitably arranged with relation to one another, for the purpose set forth. 5th. Artificial light-producing, controlling and distributing apparatus for use in photography and the like, consisting of an enclosing casing, a burner enclosed therein consisting of an oblong block having a strip extending the full length of the top thereof and provided with perforations, an air-supply connected with such perforations, and one or more igniters located adjacent to said perforations, flexible and adjustable connection between said casing and the air consisting of two lengths of piping pivotally connected together and having the portions thereof adjacent to their points of connection cut away, and two short lengths of piping having their ends cut away diagonally, such last-mentioned lengths being fitted over such pivotally-connected lengths with their cut away ends adjacent to one another, and such pivotally-connected lengths being flexibly connected to said casing, and connected with the open air, for the purpose set forth. 6th. Artificial light-producing, controlling and distributing apparatus for use in photography and the like, consisting of an enclosing casing, formed with a semi-transparent front and opaque sides, back, top and bottom, a burner enclosed therein consisting of an oblong block having a strip extending the full length of the top thereof and provided with perforations, an air-supply connected with such perforations, and one or more igniters located adjacent to said perforations, flexible and adjustable connection between said casing and the air consisting of two lengths of piping pivotally connected together and having the portions thereof adjacent to their points of connection cut away, and two short lengths of piping having their ends cut away diagonally, such last-mentioned lengths being fitted over such pivotally-connected lengths with their cut away ends adjacent to one another, and such pivotally-connected lengths being flexibly connected to said casing, and connected with the open air, for the purposes set forth.

No. 58,595. Governor Cut-Off for Steam Engines.
(*Detente de gouverneur pour machines à vapeur.*)

Martin Olson Arnegaard, Mayville, North Dakota, U.S.A., 7th January, 1898; 6 years. (Filed 17th December, 1897.)

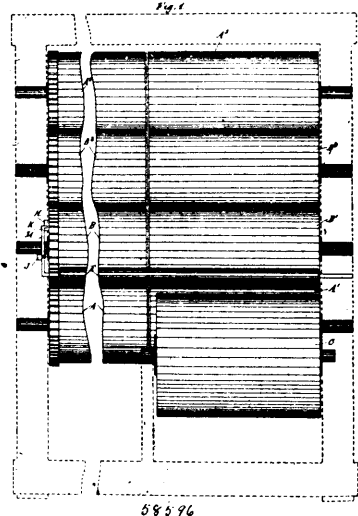
Claim.—1st. An automatic variable governor cut-off for steam engines, comprising the standard 1, the sleeve 6, vertically journalled therein, the governor levers 8, 8, fulcrumed in the upper end thereof, the vertical shaft 14, journalled in said sleeve and in operative connection with said levers, the connecting rod 17 pivoted to the lower end of said shaft 14, in combination with the lateral arm 24, the flanged guide-rollers 25, 25, journalled on said arm, and the rock-shaft 23, the crank 22, fixed thereon and carrying said arm, and means substantially as described for imparting a governing motion from said shaft to the link 37, as and for the purpose set forth. 2nd. An automatic variable governor cut-off for steam engines, comprising the standard 1, the sleeve 6, journalled therein, and means substantially as described for imparting motion to said sleeve, the governor levers 8, 8, carried by said sleeve, the shaft 14 journalled in said sleeve, and in operative connection with said levers, in combination with the shaft 23, its crank 22, the arm 24 fixed thereon, the rollers 25, 25, mounted thereon, the connecting rod 17 pivoted to the lower end of the shaft 14, the arm 34 fixed on said shaft, and in operative connection with the valve-gear, substantially as and for the purpose set forth. 3rd. An automatic variable cut-off governor for steam engines, comprising the stand-

ard 1, the vertical sleeve 6 journalled therein and terminating at its upper end in the vertical parallel arms 7, 7, the governor levers 8, 8



fulcrumed in the upper ends of said arms, the vertical cylindrical shaft 14 journalled in said sleeve 6, the horizontal cross-head 12 pivoted on the upper end of said shaft, and the rods 11, 11, connecting the outer ends of said cross-head to the inner ends of the levers 8, 8, in combination with the rod 17 pivoted at its upper end to the lower end of the shaft 14, the rock-shaft 23 provided with the crank 22, the bolt 19 connecting said rod 17 and rod 20, and the horizontal arm 34 fixed on said rock-shaft and in operative connection with the link 37, and means substantially as described for imparting motion to said link independently of the movement communicated to it by the governor-levers 8, 8, as and for the purpose set forth.

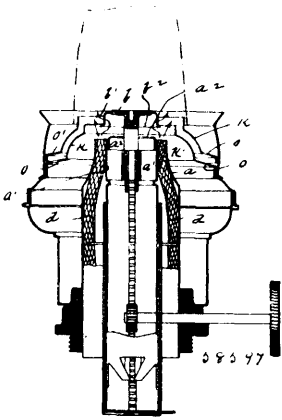
No. 58,596. Method of Polychrome Printing on Rotation Presses. (*Méthode d'imprimerie polychrome sur presses rotatives.*)



Edward Von Haken, Charlottenburg, Germany, 7th January, 1898. 6 years. (Filed 23rd June, 1897.)

Claim.—1st. An apparatus for polychrome printing, comprising the type cylinder A, a colour printing cylinder E arranged thereon and mounted in a double lever M that is pivoted on a pin I, and which cylinder E, when the printing cylinder B is rotated, is pressed against the paper that passes over the printing cylinder by means of a carrier H which is fixed to the said printing cylinder and operates the end K of the double lever N, substantially as hereinbefore described and shown. 2nd. In a polychrome printing press, the colour printing type cylinder E' driven direct by means of toothed wheels and having therein screw holes b or equivalent devices for attaching blocks and matter, substantially as hereinbefore described and shown. 3rd. In an apparatus for producing simultaneously impressions in different colours on rotary presses, a colour box divided into a number of compartments such as O', for the reception of different colours, with a roller also divided into corresponding divisions such as P, in which arrangement these divisions dip into the corresponding compartments of the colour box, as hereinbefore described and shown.

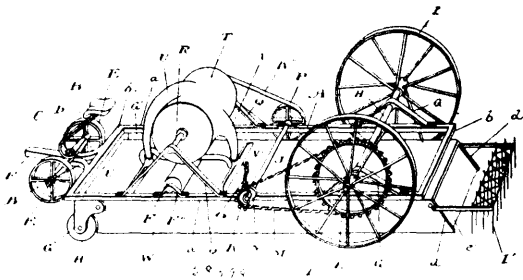
No. 58,597. Oil Burners for the Production of Non-Luminous Flame, Especially for Heating Incandescent Bodies. (Brûleur d'huile.)



Max Graetz, Berlin, Prussia, Germany, 7th January, 1898; 6 years. (Filed 24th August, 1897.)

Claim.—1st. In an oil-burner for the production of a non-luminous flame, the combination with the two concentric wick-tubes the inner of which is contracted at or near its upper end, of a spreading-disc having a downwardly bent rim and apertures in said rim, a cap surrounding the outer wick-tube, and terminating in about the height of the lower edge of said spreading-disc, and another cap surrounding said first cap and terminating in about the height of the lateral apertures of the said spreading-disc, substantially as and for the purpose hereinbefore set forth. 2nd. In an oil-burner for the production of a non-luminous flame, the combination with the two concentric wick-tubes a, a^1 , the inner of which a^1 has a contracting-cap a^2 at or near its upper end, of a spreading-disc b having a downwardly bent rim and apertures b^1 in said rim, a cap k surrounding the wick-tube a and terminating in about the height of the lower edge of said spreading-disc, another cap k^1 surrounding said cap k and terminating in about the height of the apertures b^1 , of the said spreading-disc, and openings o, o^1 , provided in the base-parts of said two caps the base-part of the cap k^1 being located above the base-part of the cap k , substantially as and for the purpose set forth.

No. 58,598. Machine for Burning the Seed of Noxious Weeds. (Machine pour brûler les graines des mauvaises herbes.)



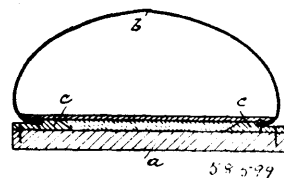
John James Setter, Poplar Point, Manitoba, Canada, 7th January, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—1st. In a machine for burning the seed of noxious weeds the combination of a burner, means for carrying the burner over the surface of the ground, and means for directing to the ground the flame from the burner, substantially as specified. 2nd. In a machine for burning the seed of noxious weeds the combination of a portable fire-box, a burner or burners within the fire-box, and means for directing to the ground the flame from the burner or burners, substantially as specified. 3rd. A machine for burning the seed of noxious weeds consisting of a carrying frame, a fire-box suspended from the carrying frame, adapted to travel on the surface of the earth, a burner or burners within the fire-box, a blower, and a wind spreader opposed to each burner in connection with the blower, substantially as specified. 4th. A machine for burning the seed of noxious weeds consisting of a main frame supported by carrying wheels, a fire-box suspended from the main frame consisting of a top, and two opposed sides, dampers pivotally connected to the sides at the front and rear of the fire-box, a blower mounted on the main frame having a plurality of wind trunks, a wind spreader for each wind trunk, the mouth of each wind trunk opening into the fire-box, a burner opposed to the mouth of each wind spreader, and

a fuel reservoir in connection with the burners, substantially as specified. 5th. A machine for burning the seed of noxious weeds consisting of a main frame, carrying wheels supporting the main frame, a fire-box suspended from the main frame consisting of a top and two opposite sides, adapted to travel on the surface of the earth over which the machine is passing, the front and end of the fire-box pivotally connected to the opposite sides, a burner or burners within the fire-box, and a fuel reservoir to supply the burners, substantially as specified. 6th. A machine for burning the seed of noxious weeds consisting of a main frame, carrying wheels supporting the main frame, a fire-box suspended from the main frame consisting of a top and two opposite sides, adapted to travel on the surface of the earth over which the machine is passing, the front and end of the fire-box, pivotally connected to the opposite sides, a burner or burners within the fire-box, a fuel reservoir to supply the burners, and a colter opposed to the front end of each of the opposite sides of the fire-box, substantially as specified. 7th. A machine for burning the seed of noxious weeds consisting of a main frame, carrying wheels supporting the main frame, a fire-box suspended from the main frame consisting of a top and two opposite sides, adapted to travel on the surface of the earth over which the machine is passing, the front and end of the fire-box pivotally connected to the opposite side a burner or burners within the fire-box, a fuel reservoir to supply the burners, a colter opposed to the front end of each of the opposite sides of the fire-box, a blower, a plurality of wind trunks for the blower extending into the fire-box, and a wind spreader for each wind trunk, having its mouth opposed to its respective burner, substantially as specified. 8th. A machine for burning the seed of noxious weeds consisting of a main frame, carrying wheels supporting the main frame, a fire-box suspended from the main frame consisting of a top and two opposite sides, adapted to travel on the surface of the earth over which the machine is passing, the front and end of the fire-box pivotally connected to the opposite sides, a burner or burners within the fire-box, a fuel reservoir to supply the burners, a colter opposed to the front end of each of the opposite sides of the fire-box, a blower, a plurality of wind trunks for the blower extending into the fire-box, and a wind spreader for each wind trunk, having its mouth opposed to its respective burner, a fanner shaft for the blower, a sprocket-wheel mounted on the fanner shaft, a counter shaft, a sprocket-wheel mounted on the counter shaft, a sprocket-chain passing around the sprocket-wheels on the counter shaft and fanner shaft a sprocket-wheel loosely mounted on the counter shaft, a sprocket-wheel rigidly mounted on one of the axles of the carrying wheels, a sprocket-chain passing around the sprocket-wheel on the axle of the carrying wheels and the sprocket-wheel loosely mounted on the counter shaft, and a clutch member slightly mounted on the counter shaft to engage a corresponding clutch member on the side face of the loosely mounted sprocket-wheel, substantially as specified. 9th. In a machine for burning the seed of noxious weeds the combination of a combustion chamber, means for carrying the combustion chamber over the surface of the ground, and means for directing to the ground the flames within the combustion chamber, substantially as specified.

No. 58,599. Manufacture of Boots and Shoes.

(Fabrication de chaussures.)



Marius Sorensen, Copenhagen, Denmark, 7th January, 1897; 6 years. (Filed 20th December, 1897.)

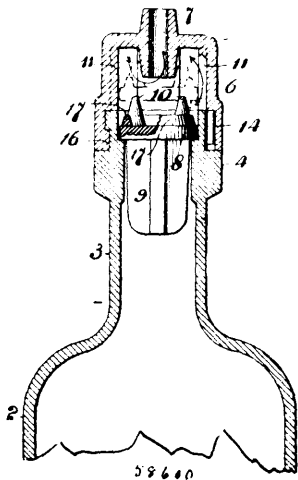
Claim.—Process for manufacture of boots and shoes characterized by that firstly to the sole a wholly or partly-round it is sewn a welt piece c , to which the upper b , then turned or with the wrong side outwards, is sewn on, as with turned shoes, where upon the upper is turned back and the shoe provided with insole and sock lining as usual.

No. 58,600. Non-refillable Bottle. (Appareil pour empêcher le remplissage des bouteilles.)

Moritz Rosenstock, New York, State of New York, U.S.A., 7th January, 1897; 6 years. (Filed 20th December, 1897.)

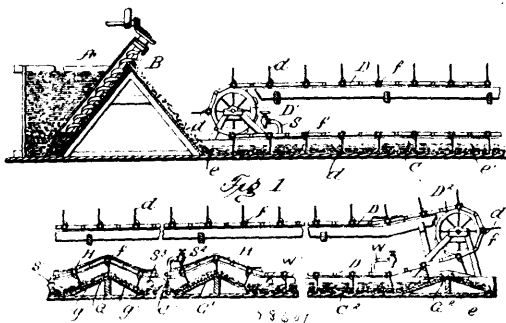
Claim.—1st. The combination with the neck of the bottle, of a flange thereon, a screw-thread, or equivalent device, on the neck above the flange, a cap secured to the outside of the neck, the lower end of which, when in place, abuts against the said flange, and a pawl-and-ratchet connection between the neck and said attachment, the throw of the pawl being less than the depth of the flange so that the cap is permanently secured, substantially as described. 2nd. The combination with the neck of a bottle, of a flange thereon, a screw-thread, or equivalent device, and a plain surface provided with a depression, both on the neck above the flange, a cap secured to the outside of said neck, the lower edge of which, when in place, abuts against the said flange, and a pawl-and-ratchet connection

between the plain surface on the neck and said cap, substantially as described. 3rd. The combination with the neck of a bottle, of a



flange thereon, a screw-thread, or equivalent device, on the neck above the flange, an attachment secured to the outside of the neck of said bottle, the lower edge of which, when in place, abuts against said flange, and a pawl-and-ratchet connection between the neck and said attachment, the pawl being narrower than its ratchet, so that it cannot be tampered with when the lower edge of the attachment is out of contact with the flange, substantially as described. 4th. The combination with the neck of a bottle of an attachment to prevent refilling, consisting of a cap, a valve operated by gravity to close the bottle when in an upright position and grooves in the cap or valve through which liquid may pass when the bottle is in an inverted position, substantially as described. 5th. In a device to prevent refilling of bottles, a cap, a valve provided with the downwardly projecting stem, as 9, and the upwardly projecting horns or stops, as 10. 6th. In a device to prevent refilling of bottles, a cap, a valve provided with the downwardly projecting stem, as 9, the upwardly projecting horns or stops, as 10, and an upwardly projecting flange, as 17, substantially as described. 7th. In a device to prevent refilling of bottles, a cap provided with an elongated nozzle or tube, as 7, to prevent the insertion of an implement of such form that it may be hooked around the valve to hold it off its seat when the bottle is upright. 8th. In a device to prevent the refilling of bottles, the combination with an elongated nozzle and a valve having an upwardly extending rib or projection, as 17, to prevent the valve being caught and held off its seat when the bottle is in an upright position, substantially as described. 9th. In a device to prevent refilling of bottles, a cap provided with an inwardly projecting nozzle or tube, as 7, to prevent the insertion of an implement of such form that it may be hooked around the valve to hold it off its seat when the bottle is upright, substantially as described.

No. 58,601. Apparatus for Leaching Ores.
(Appareil pour lessiver les minerais.)



Story Butler Ladd, Washington, Columbia, U.S.A., 7th January, 1898; 6 years. (Filed 2nd September, 1897.)

Claim.—1st. The combination, in a leaching apparatus, of two or more troughs or trough-sections, with a conveyer adapted to feed the pulp in a continuous flow successively through the same, each of said troughs having an independent fluid-supply pipe for the inflow of a solution independent of and different from that of the others, and a discharge for the charged solution from each of the troughs. 2nd. The combination with a leaching trough having

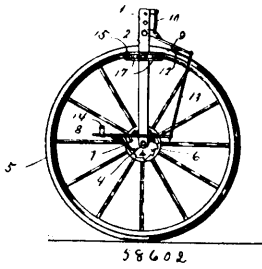
parallel sides and means for maintaining a solution at the desired level therein, of a substantially horizontal series of blades suspended within and extending nearly across the trough and so arranged that each blade in the solution will extend from the surface of the solution in the trough nearly to the bottom of the layer of solution, and means for effecting a longitudinal movement between the blades and the trough, whereby there is secured a progressive feed of ore-pulp through the trough, and a scouring action of the solution on the ore-pulp due to the underflow of the solution beneath the several blades, as set forth. 3rd. In a leaching apparatus, a trough divided by one or more bridges into sections, each section having an independent fluid-supply pipe and adapted to hold a solvent or fluid independent of and different from that of the other trough-sections, together with a pulp-conveyer adapted to feed the pulp through the several sections of the trough and over the intervening bridges thereof in a continuous flow. 4th. In a leaching apparatus, a series of troughs or trough-sections, each having an independent supply-pipe for a solvent or fluid different from that of the others, in combination with a common pulp-conveyer adapted to agitate the pulp in the several troughs or through-sections and feed the same in a continuous flow out of and into the several troughs or trough-sections and successively through the same. 5th. In a leaching apparatus, a trough divided by one or more bridges into a series of trough-sections with independent fluid-supply pipes for the several sections, in combination with an endless-chain conveyer having blades travelling in said trough and adapted to agitate the pulp therein and feed the same in a continuous flow through the several sections of the trough and over the intervening bridges. 6th. In a leaching apparatus, a trough divided by one or more bridges having inclined approaches into a series of trough-sections, in combination with an endless-chain conveyer having blades travelling in said trough, and adapted to agitate the pulp therein and feed the same in a continuous flow through the several sections of the trough and over the intervening bridges. 7th. In a leaching apparatus, a trough divided by one or more bridges having inclined approaches into a series of trough-sections, in combination with an endless conveyer having rake-blades travelling in said trough through the several sections of the same and over the intervening bridges. 8th. The combination with a leaching-trough having an end discharge for the solution, and means for maintaining the solution, in the trough at a normal level, of an endless conveyer adapted to move the pulp along the bottom of the trough, said conveyer having rake-edged blades with the upper portion of the blades impervious and adapted to extend above the normal level of the surface of a leaching solution in the trough. 9th. The combination with a leaching-trough having parallel sides and means for maintaining a solution at the desired level therein, of a substantially horizontal series of blades suspended therein and extending nearly across the trough, said blades having a series of openings or notches along the bottom of each blade, with the blades so arranged that each blade in the solution will extend from the surface of the solution in the trough nearly to the bottom of the layer of solution, and means for effecting a longitudinal movement between the blades and the trough, whereby there is secured a progressive feed of ore-pulp through the trough, and a scouring action of the solution on the ore-pulp due to the underflow of the solution beneath the blades, as set forth. 10th. The combination with a leaching-trough formed of a series of sections each adapted to hold an independent body of liquid, of the conveyer and the agitating-blades having passage-ways for the underflow of the liquid and adapted to feed the pulp from one section to another, throughout the trough, as set forth. 11th. In a leaching apparatus, a trough having one or more bridges dividing it into a series of sections, said bridges having an inclined slope adapted to serve as a drainage-floor for the pulp, combined with an endless conveyer having notched blades adapted to agitate the pulp and feed the same through the sections in one direction, and over the bridge or bridges, and leave an opening through the notches above the pulp-bed for the underflow of fluid in the opposite direction, as set forth. 12th. The combination in a leaching apparatus, of a settling tank, a conveyer for sedimentary matter from the bottom of said tank to the head of a leaching-trough, said trough having an endless conveyer extending the length of the same and adapted to feed pulp therethrough in a steady flow, bridges dividing the trough into a series of sections, supply-pipes for leaching solution leading into one or more of the first sections of the trough at one end thereof with an overflow-discharge at the opposite end of each of the same, and a water-pipe leading to the last section of the trough with an overflow-discharge from the same opposite to the point for entrance.

No. 58,602. Wheel Attachment for the Legs.
(Appareil pour attacher des roues aux jambes.)

Robert H. Kimbrough, Chickasaw Nation, Indian Territory, U.S.A., 7th January, 1898; 6 years. (Filed 17th December, 1897.)

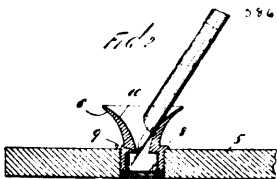
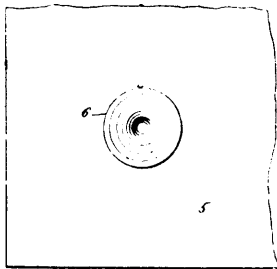
Claim.—1st. The herein described wheel attachment, consisting of a support having downwardly extending fork, a wheel or roller mounted for rotation in said forks, a foot-rest pivotally mounted on the inner side of the inner fork, means for attaching said support to the leg of the operator, a brake lever pivoted to the upper end of the inner fork, a brake shoe thereon adapted to engage the outer periphery of said wheel or roller, and a pitman connecting the forward end of said brake-lever and the herein described foot-rest, whereby

upon the depression of the toe of the latter, said brake-shoe will be drawn down into contact with the periphery of said wheel. 2nd.



The herein described wheel attachment, consisting of a support having downwardly extending forks, a shaft or axle connecting the lower ends of said forks and extending inwardly a short distance beyond said inner fork, a wheel or roller mounted for rotation upon said shaft or axle, a ratchet-wheel on the inner side of the hub of said wheel or roller, a foot-rest pivotally mounted upon the inner end of said shaft or axle, a spring actuated pawl or dog on the underside of said foot-rest adapted to engage the teeth on said ratchet-wheel, a brake-lever pivoted to the upper end of said inner fork having a laterally-extending arm thereon, a brake-shoe on said arm adapted to be forced into engagement with the outer periphery of said wheel, a rod or pit-man connecting the forward end of said brake-lever, and the rear end of said foot-rest, and means for attaching said support to the leg of the operator, substantially as and for the purpose set forth.

No. 58,603. Pen Rest. (Appui-plumes.)



Emry Davis, New York, State of New York, U.S.A., 7th January, 1898; 6 years. (Filed 21st October, 1897.)

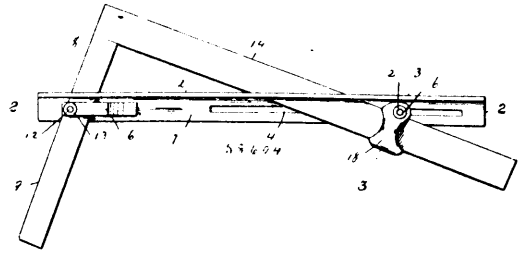
Claim.—1st. A holder for pen stocks and pens, consisting of an attachment which is adapted to be secured to a desk, table or other support, said attachment comprising a hollow conical portion, the base of which is directed upwardly and which is provided at its lower end with a cylindrical extension, and at the top of said cylindrical extension with an inwardly directed annular shoulder or projection, substantially as shown and described. 2nd. A holder for pen stocks and pens, consisting of an attachment which is adapted to be secured to a desk, table or other support, said attachment comprising a hollow conical portion the base of which is directed upwardly, and which is provided at its lower end with a cylindrical extension, and at the top of said cylindrical extension with an inwardly directed annular shoulder or projection, and also with an outwardly directed flange or rim, substantially as shown and described.

No. 58,604. Bevel Gage. (Jauge d'équerre.)

Lincoln Manning, Clarksville, California, U.S.A., 7th January, 1898; 6 years. (Filed 4th October, 1897.)

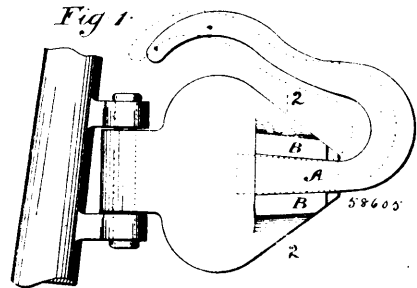
Claim.—1st. The combination of the bar 1, provided with the integral clamp bracket 6, and having the aligned orifice 5 and 7, with the square 8, having its shorter arm 9 provided with an orifice 11, and the pivot bolt 12 provided with milled thumb-nut 13 adapted to adjustably secure said arm between said bracket and the bar, substantially as shown and described. 2nd. The combination of the

bar 1, provided with the longitudinal slot 4, and the integral flange 2 having the guide slot 15, of the square 8, and having its longer



arm 14 extending diagonally through the slot in said flange, the adjustable clamp 18 formed with the transverse shoulder 19 and the encompassing jaw 20, engaging said arm, and the bolt 16, adjustable secured in the slot 4 and engaging said clamp 18, and provided with a milled thumb-nut 21, substantially as shown and described. 3rd. The combination with the bar 1, provided with the integral clamp bracket 6, the longitudinal slot 4 and the flange 2, having the guide slot 15, of the plane square 8, having its shorter arm secured between said bar and integral bracket, by a pivot bolt 12, and the adjustable clamp 18 formed with the transverse shoulder 19, the jaw 20 engaging the longer arm of said blade and the bolt 16 adjustable secured to said slot 4, and engaging said clamp 18 and provided with the milled thumb-nut 21, substantially as shown and described.

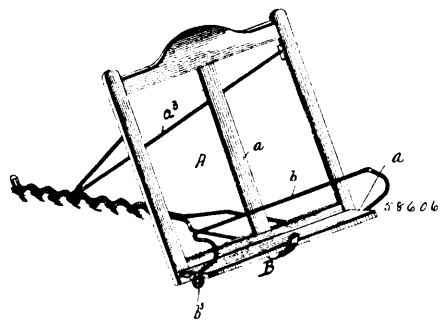
No. 58,605. Hame-Hook and Equivalent Trace connection. (Crochet d'attelles, etc.)



Murdoch McDonald, Clunes, Victoria, Australia, 7th January, 1898; 6 years. (Filed 15th December, 1897.)

Claim.—Hame-hook or equivalent trace connections, made in two parts detachably connected together, in the manner and for the purpose herein described and explained and as illustrated in my drawings.

No. 58,606. Book Support. (Support de livres.)

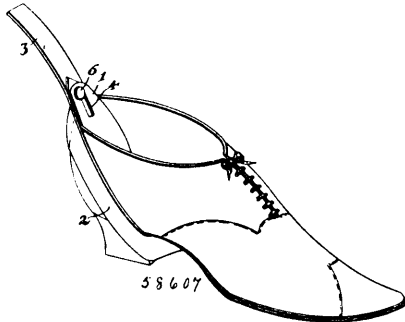


Charles Racine, Sainte Anne des Plaines, Quebec, Canada, 7th January, 1898; 6 years. (Filed 18th December, 1897.)

Claim.—1st. A book support, comprising a frame having a bottom rest, a pivotally mounted support secured to the rear thereof, and a corrugated arm pivotally mounted to the rear face of the frame, said corrugations being adapted to receive and retain the lower end of said support, substantially as described. 2nd. The combination with a book support, a rod for normally holding the pages of the book open, and means for automatically moving said rod outwardly away from the book, substantially as described. 3rd. The combination with a book support, of a rod or shaft revolvably mounted thereon, said rod or shaft being provided with a rod for

normally holding the book open, and means for releasing said rod or shaft from its normal position, thereby moving the rod outwardly from the pages of the book, substantially as described. 4th. The combination with a book support, of a rod or shaft pivotally mounted thereon, said rod or shaft being provided with a rod adapted to normally rest against the pages of the book when open, a disc secured to said rod or shaft, bearing plates for said rod or shaft secured to said support, a spring connection between said disc and one of said bearing plates, and means for retaining said disc in any desired position, substantially as described. 5th. The combination with a book support, of a rod or shaft mounted thereon, said rod or shaft being provided with a rod adapted to normally rest against the pages of the book, a disc secured on said rod or shaft, a band located about the face of said disc, said band being normally held against the face of said disc, a handle for releasing said band from contract with the face of said disc, and a spring secured to said disc and said support, adapted to rotate said rod or shaft after the band has been released, substantially as described.

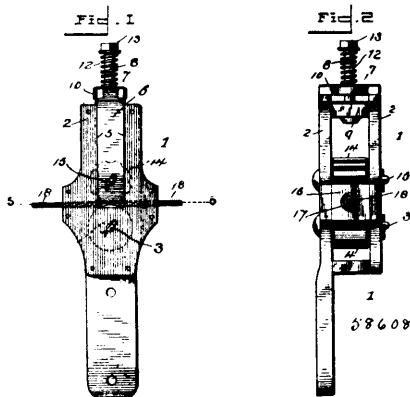
No. 58,607. Shoe Horn. (*Chausse-pied-(corne).*)



William Herman Lewis, Princeton, Indiana, U.S.A., 7th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. The combination with a shoe-horn, of a loop connected therewith and adapted to receive and embrace the rear portion of a shoe and engage with the inner end of the heel to hold the horn in place and provide for drawing the shoe upon the foot, substantially as set forth. 2nd. The combination with a shoe-horn, of a connected pulling-strap and loop attached thereto, the loop being adapted to engage with the heel portion of the shoe, substantially as and for the purpose set forth. 3rd. In combination, a shoe-horn, and a combined loop and pulling-strap having a loose connection with the shoe-horn so as to admit of the loop being disconnected from the heel of the shoe after the latter is in position upon the foot, substantially as set forth. 4th. In combination, a shoe-horn having a longitudinal slot at its upper or smaller end, a combined pulling-strap and loop and a fastening slidably connecting the loop with the horn and operating in the slot thereof, substantially as set forth. 5th. In combination, a shoe-horn having a longitudinal slot at its upper or smaller end, a combined pulling-strap and loop, and a fastening slidably connecting the loop with the horn and having an oblong or shouldered portion working in the slot thereof to hold the parts in alignment, substantially as set forth. 6th. In combination, a shoe-horn, a combined pulling-strap and loop connected with the shoe-horn, and means for varying the size of the loop to adapt the device for different-sized shoes, substantially as set forth.

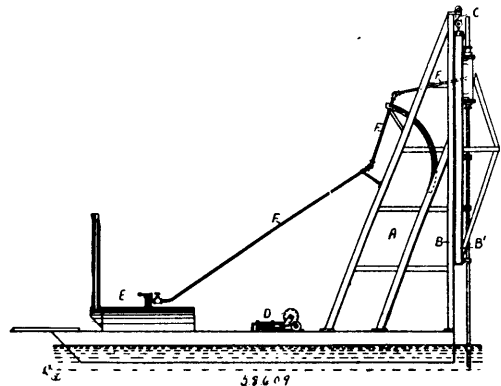
No. 58,608. Tension Device for Twine Grain Binders. (*Appareil de tension pour lieuses à grain.*)



Frank Joseph Doorak, Festina, Iowa, U.S.A., 7th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—A tension device for grain binders, comprising the cross-bar 9 and the bracket 1 formed with the vertical parallel arms 2, 2, having the dovetail guide-slots 5, 5, the yoke 7 formed with the cross-bar 10 and the dovetail parallel legs 6, 6, engaging said slots, the bolt 8 passing through the cross-bar 9 of the bracket and the cross-bar 10 of the yoke, the spring 12 encompassing the projecting end of said bolt between the yoke and the nut 13, the fluted roller 14 journaled in the lower ends of the legs 6, 6, the cylindrical roller 4 journaled between the arms 2, 2, in the same vertical plane with the roller 4, and the vertical parallel guide bars 16, 16, connecting the parallel arms 2, 2, of the bracket 1 and provided with the aligned guide-orifices 17, 17, arranged in the same horizontal plane with the meeting surfaces of the rollers 4 and 14, substantially as shown and described.

No. 58,609. Apparatus for Drilling, Excavating and Breaking up Submarine Rock. (*Appareil pour percer, creuser et briser le roc sous-marin.*)



Robert Melville Scott, Strathfield, and Alexander Goodsir, Balmain, both in New South Wales, Australia, 7th January, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—1st. Apparatus for the purposes described, consisting of a heavy rod terminated in an appropriate tool and reciprocated through a long stroke by the direct action of a piston which is connected rigidly to it and is operated by steam or air pressure, substantially as described. 2nd. Apparatus substantially as described, consisting of a heavy rod terminating in an appropriate tool, and a piston connected rigidly thereto acted on by steam or air pressure and working in a long cylinder which is mounted on a carriage movable in a slide or way fixed on a tower on a scow or piled structure. 3rd. The combination of a scow or piled decking, a tower thereon, a slide or way on the tower, a carriage movable in said slide or way, a long steam or air cylinder on said carriage with pipe connections to a source of pressure, means for adjusting the position of the carriage relatively to the slide or way, valves for the cylinder worked from the piston by tappets, a heavy rod connected directly to the piston and terminated in a chisel or other tool, and guides for said rod, substantially as described with reference to the accompanying drawings. 4th. The combination of the triple head piston valve with middle head cored, double ports, valve, spindle, and hand lever and automatic tappets for operating said valve, substantially as shown in figures 6 and 8 of the accompanying drawings. 5th. The combination of hand controlled balanced valve and automatic cushioning and returning valves operated by tappets and springs, substantially as shown in figure 7 of the accompanying drawings.

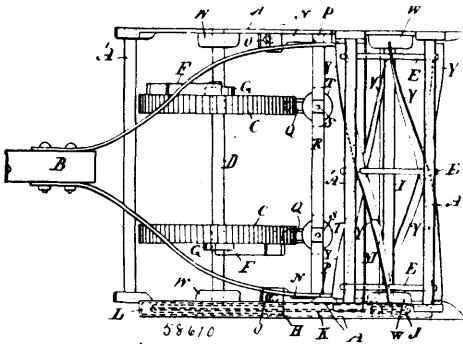
No. 58,610. Lawn Mower. (*Faucheuse pour pelouses.*)

Henry B. White, Prescott, Ontario, Canada, 7th January, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—1st. A lawn mower having a frame comprising the side plates A, A, connected by tie rods A', located two near the front and one at the rear, as set forth. 2nd. A lawn mower having a shaft rearwardly of the cutting cylinder and carrying two ground wheels located between the sides of the mower frame and having a fast and loose connection with said shaft, as set forth. 3rd. A lawn mower having a yielding knife bar actuated by springs and provided with regulating screws, in combination with a rotary cylinder having spiral knives as set forth. 4th. A lawn mower having at one side a sprocket-wheels and a chain gear connecting the shaft of the ground wheels and the journal of the rotary cutter cylinder, and a casing enclosing said gear, as set forth. 5th. A lawn mower having a

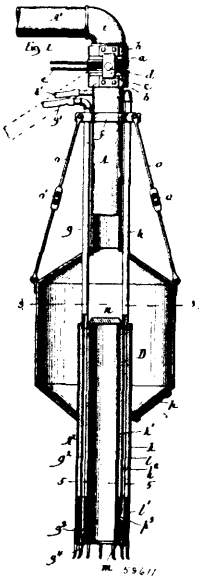
fixed bar between the shaft of the ground wheels and the journal of the rotary cutter, and castor wheels carried by said bar and having

be moved up and down the opening in the chimney. 2nd. The combination with a chimney, of a brush mounted therein, and means



a screw adjustment vertically, to regulate the height of cut. 6th. A lawn mower, as set forth, having ball bearings W, secured to the side A, and receiving the driving shaft D, and journal I, of the cylindrical cutter E.

No. 58,611. Dredging Apparatus. (Machine à draguer.)



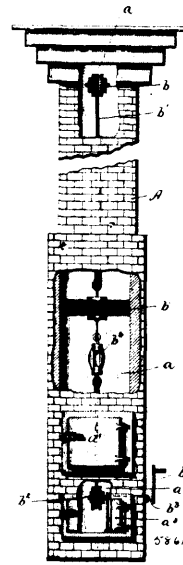
James Pennington Cole and John Clinton Whister, both of Chicago, Illinois, U.S.A., 8th January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. In dredging apparatus, the rotary suspended gangue tube provided with a cutter foot and with an air-pipe or passage having a jet-like discharge into said gangue tube near the lower end thereof, substantially as described. 2nd. In dredging apparatus, the combination with the upright gangue tube, of the suspension collar united swivel-like thereto, suitable means for rotating said tube, and the air and water pipes carried by such main tube and having jet terminals near the lower end thereof, said pipes being provided above with flexible connectors to unite them with the air and water supplies respectively, substantially as described. 3rd. In dredging apparatus, the combination with the gangue tube comprising an upper main portion, a separated lower section and an intermediate enlarged trap uniting them together, of the air and water pipes or passages separately carried by said conduit and terminating in jets near the foot of said lower conduit sections, substantially as described. 4th. In dredging apparatus, the rotary suspended gangue tube extending into the submerged deposits and furnished with separate air and water pipes or passages which have jet-like terminals, projected below into said conduit and beneath its lower end respectively, substantially as described.

No. 58,612. Chimney Cleaner. (Nettoyeur de cheminée)

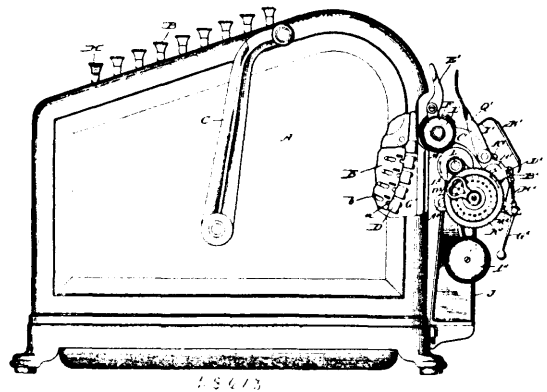
Victor Lefebvre, Telesphore Poliquin and Arthur Lavoie, all of Lowell, Massachusetts, U.S.A., 8th January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. The combination with a chimney, of a brush permanently mounted in said chimney, said brush being adapted to



for moving said brush up and down said chimney. 3rd. The combination with a chimney, of a brush mounted therein, and means, secured to said chimney, for imparting a vertical movement to said brush. 4th. The combination with a chimney, having pulleys mounted in the opening therein near the top and bottom thereof, of an endless band located in said pulleys, a brush secured to said endless band, and means for imparting a rotary motion to said pulleys. 5th. The combination with a chimney having pulleys mounted therein near the top and bottom, of an endless band located on said pulleys, means for regulating the tension of said endless band, a brush connected to said endless band, and means for imparting a rotary movement to said pulleys. 6th. The combination with a chimney, pulleys mounted therein near the top and bottom, the shaft of said lower pulley extending outside of said chimney, a handle mounted on the end of said shaft, and an opening formed at the bottom of said chimney, of an endless band located on said pulleys, and a brush mounted on said endless band.

No. 58,613. Printing Attachment for Calculating Machines. (Appareil à imprimer pour machines à calculer.)



The American Arithmometer Company, assignee of William Henry Pike, both of St. Louis, Missouri, U.S.A., 8th January, 1898; 6 years. (Filed 8th November, 1897.)

Claim.—1st. In a machine of the character described, the combination with the printing types and operating mechanism, of a feed roller mounted in fixed bearings at the rear of the machine, and advanced at each operation thereof, and a laterally adjustable paper carriage carrying a platen roller co-operating with said feed roller and with the types, whereby the printing may be effected in parallel vertical columns on a sheet of paper passed over the platen roller, and automatically advanced at each operation of the machine by the action of the feed roller, as described. 2nd. In a machine of the character described, the combination with the printing types

and operating mechanism, of a feed roller mounted at the rear of the machine, and advanced at each operation thereof, and a laterally adjustable and backwardly and forwardly movable paper carriage carrying a platen roller adapted to be moved into and out of contact with the feed roller, whereby a sheet of paper passed over the platen roller may be adjusted laterally across the printing line, to permit the printing to be effected in parallel vertical columns, and be advanced by the co-operation of the feed roller with the platen roller, as described. 3rd. In a machine of the character described, the combination with the printing types and operating mechanism, of a paper carriage mounted to swing backwardly and forwardly and move laterally upon supports at the rear of the machine, and carrying a platen roller co-operating with the types and adapted to have a sheet of paper passed over it and adjusted laterally of the printing line, to effect the printing in parallel vertical columns, and means for advancing the sheet of paper at each operation of the machine. 4th. The combination, with the feed roller and means for tuning the same, of the platen roller mounted to move longitudinally of the feed roller and to be swung into and out of contact therewith, for the purpose described. 5th. The combination, with the feed roller and means for turning the same, of the platen roller mounted to move longitudinally of the feed roller and to be swung into and out of contact therewith, and means for preventing movement of the platen roller longitudinally of the feed roller while in contact therewith. 6th. The combination, with the feed roller and means for turning the same, of the platen roller adapted to be moved longitudinally of the feed roller and to be swung into and out of contact therewith, and means for preventing movement of the platen roller toward and from the feed roller except in certain positions longitudinally of the feed roller. 7th. The combination, with the feed roller and means for turning the same, of the platen roller adjustable longitudinally of the feed roller and adapted to be swung into and out of contact therewith, means for preventing movement of it longitudinally of the feed roller while in contact therewith, and means for preventing it being swung toward and from the feed roller except when in certain positions longitudinally of the latter. 8th. In a machine of the character described, the combination with the printing types and operating mechanism, of a feed roller mounted in a fixed frame at the rear of the machine and automatically advanced at each operation of the machine, and a platen roller mounted to be moved longitudinally of the feed roller and to be swung into and out of contact therewith, for the purpose described. 9th. In a machine of the character described, the combination with the printing types and operating mechanism, of a feed roller mounted in a fixed frame at the rear of the machine and automatically advanced at each operation of the machine, a platen roller movable longitudinally of the feed roller and adapted to be swung into and out of contact therewith, and means for preventing movement of the platen roller longitudinally of the feed roller while in contact with the latter. 10th. In a machine of the character described, the combination with the printing types and operating mechanism, of a feed roller mounted in a fixed frame at the rear of the machine and automatically advanced at each operation of the machine, a platen roller movable longitudinally of the feed roller and adapted to be swung into and out of contact therewith, means for preventing movement of the platen roller longitudinally of the feed roller while in contact with the latter, and means for preventing the platen roller being moved toward or from the feed roller except when in certain positions longitudinally of the latter. 11th. In a machine of the character described, the combination with the printing types and operating mechanism, of a feed roller mounted in a fixed frame at the rear of the machine and automatically advanced at each operation of the machine, a paper carriage mounted to swing upon and slide longitudinally of a support in said fixed frame and carrying a platen roller adapted to be swung into and out of contact with the feed roller, and paper guides for directing a sheet of paper between the feed roller and platen roller and supporting it about the latter, for the purpose described. 12th. In a machine of the character described, the combination with the printing types and operating mechanism, of a feed roller mounted in a fixed frame at the rear of the machine, a paper carriage mounted to move longitudinally of said feed roller and carrying a platen roller adapted to be swung into and out of contact with the feed roller and to co-operate therewith and with the types, and means for holding the paper carriage in its different adjusted positions longitudinally of the feed roller. 13th. In a machine of the character described, the combination with the printing types and operating mechanism, of a feed roller mounted in a fixed frame at the rear of the machine, a paper carriage mounted to move longitudinally of said feed roller and carrying a platen roller adapted to be swung into and out of contact with the feed roller and co-operate therewith and with the types, means for holding the paper carriage in its different adjusted positions longitudinally of the feed roller, and means for preventing movement of the platen roller toward and from the feed roller except when in certain positions longitudinally of the latter. 14th. The combination with the printing types and operating mechanism, of the fixed frames J, K, secured to the rear of the machine, the feed roller M journaled therein and automatically advanced at each operation of the machine, the paper-carriage mounted to swing backwardly and forwardly upon and be moved longitudinally of the support A¹, the platen roller F mounted in said paper-carriage and adapted to be swung into and out of contact with the feed roller M,

and the paper guides for directing a sheet of paper between the feed roller M and platen roller F and supporting it about the latter. 15th. The combination with the printing types and operating mechanism, of the feed roller M journaled in the fixed frames J, K, at the rear of the machine and automatically advanced at each operation thereof, the paper-carriage mounted to swing back and forth upon and be moved longitudinally, of a support A¹ mounted in the frames J, K and provided with the grooves or notches M¹, the platen roller F journaled in the paper-carriage and adapted to be swung into and out of contact with the feed roller M, and the latch N¹ mounted upon the paper-carriage and co-operating with the grooves M¹ in the support A¹ and having an operating handle Q¹, for the purpose described. 16th. The combination with the feed roller M and means for advancing the same, of the fixed support A¹ provided with the longitudinal groove S¹ and transverse grooves or notches M¹, the paper-carriage mounted to swing upon and move longitudinally of the support A¹, the locking plate T¹ carried by the paper-carriage and co-operating with the grooves M¹ and S¹ in the support A¹, and the platen roller F journaled in the paper-carriage and co-operating with the feed roller M. 17th. The combination with the feed roller M and means for advancing the same, of the fixed support A¹ provided with the grooves M¹, the paper-carriage mounted to swing upon and move longitudinally of the support A¹, the rock shaft O¹ journaled in said paper-carriage and provided at one end with the latch arm N¹ co-operating with the grooves M¹ in the support A¹ and at its end with the operating handle Q¹, the spring surrounding the shaft O¹ and pressing the latch arm N¹ toward the support A¹, and the platen roller F journaled in the paper-carriage and co-operating with the feed roller M. 18th. The combination with the feed roller M and means for advancing the same, of the platen roller F adapted to be swung into and out of contact with the roller M, and the paper guide G projecting over the platen roller and provided with the fingers G¹, for the purpose described. 19th. The combination with the feed roller M and means for advancing the same, of the piston roller F adapted to be swung into and out of contact with the roller M, the paper guides G¹ and I¹ above and below the roller F, and the spring guides H¹ passing around the forward side of said roller from the upper guide G¹ to the lower guide I¹. 20th. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, a platen roller mounted to swing toward and from the feed roller and be moved longitudinally thereof and adapted to be automatically advanced by the feed roller when in contact therewith and to be turned backward by hand when swung out of contact therewith, and means for supporting a sheet of paper about the platen roller, whereby a column of figures may be printed upon such sheet of paper while the platen roller is in contact with the feed roller, and the platen roller be then swung out of contact with the feed roller and turned backward to reset the sheet of paper for the printing of another column of figures, and be shifted laterally into position therefor and swung back into contact with the feed roller. 21st. The combination with the feed roller M and means for advancing the same, of the platen roller F mounted to swing toward and from the roller M and move longitudinally thereof, said roller F being adapted to be advanced by the roller when in contact with the latter and adapted when swung out of contact therewith to be turned backward by means of the thumb piece L¹ secured to its spindle, and be shifted laterally, and sub-table paper guides for supporting a sheet of paper about the roller F, for the purpose described. 22nd. In a machine of the character described, for printing columns of figures, the combination with the feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, of an alarm or signalling device automatically sounded at the end of a predetermined number of movements of the feed roller to indicate the end of a column containing a corresponding number of printed amounts. 23rd. In a machine of the character described, for printing columns of figures, the combination with the feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, of an alarm or signalling device automatically sounded at the end of a predetermined number of movements of the feed roller, and means for varying at will such predetermined number of movements of the feed roller necessary to the sounding of the alarm, whereby the alarm may be caused to be sounded at the end of a column containing any desired number of amounts. 24th. In a machine for printing columns of figures, the combination with a feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, of a gong and a striker therefor, a revoluble trip for the striker adapted to be thrown into and out of gear with the feed roller, and means for resetting the trip to initial position after it has been turned forward by the movement of the feed roller to trip the striker and sound the gong. 25th. In a machine for printing columns of figures, the combination with a feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, of a gong and a striker therefor, a revoluble trip for the striker adapted to be thrown into and out of gear with the feed roller, a resetting spring for the trip put under tension by its forward movement under the action of the feed roller, and means for throwing the trip out of gear with the feed roller and permitting the spring to reset it to initial position. 26th. In a machine for printing columns of figures, the combination with a feed roller automatically actuated at each operation of the machine

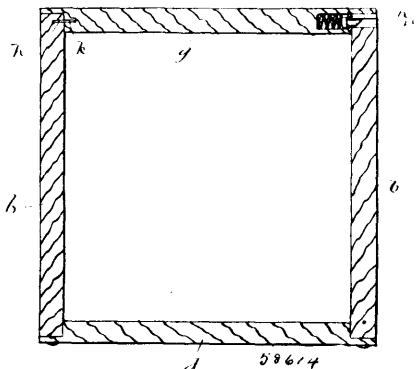
to advance the paper at the printing point, of a gong and a striker therefor, a wheel adapted to be geared to and ungeared from the feed roller, an adjustable trip carried by said wheel and co-operating with the gong striker to sound the gong at the end of a predetermined number of movements of the feed roller, and means for ungearing the wheel from the feed roller and returning it to initial position after the trip has sounded the gong. 27th. In a machine for printing columns of figures, the combination with a feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, of a gong and a striker therefor, a wheel adapted to be geared to and ungeared from the feed roller, an adjustable trip carried by said wheel and co-operating with the gong striker to sound the gong at the end of a predetermined number of movements of the feed roller, a resetting spring for the wheel and trip put under tension by their forward movements and means for ungearing the wheel from the feed roller after the gong has been sounded and permitting the spring to reset it to initial position. 28th. In a machine for printing columns of figures, the combination with a feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, of a gong and a striker therefor, a wheel adapted to be geared to and ungeared from the feed roller, and provided with an index or dial, an adjustable trip turning with said wheel and adapted to be adjusted about the dial thereof at different distances from the gong striker, to cause it to co-operate with the latter at different predetermined numbers of movements of the feed roller, as desired, and means for ungearing the wheel from the feed roller after the gong has been sounded by the trip and resetting the wheel and trip to initial position. 29th. In a machine for printing columns of figures, the combination, with a feed roller automatically actuated at each operation of the machine to advance the paper at the printing point, a gong and a striker therefor, a wheel adapted to be geared to and ungeared from the feed roller, and provided with an index or dial, an adjustable trip turning with said wheel and adapted to be adjusted about the dial thereof at different distances from the gong striker, to cause it to co-operate with the latter at different predetermined numbers of movements of the feed roller, as desired, a resetting spring for the wheel and trip put under tension by their forward movement, and means for ungearing the wheel from the feed roller after the gong has been sounded by the trip and permitting the spring to reset it to initial position. 30th. The combination with the feed roller M automatically advanced at each operation of the machine, of the gong I² and the striker G² therefor, the wheel K² mounted upon a movable support adapting it to be moved into and out of gear with the feed roller M, the pointer D² spring-pressed against the face of the wheel K² and provided with fingers H³ co-operating with the toothed periphery of said wheel and projecting at its outer end beyond the periphery of said wheel to constitute a trip for the gong striker, and the spring X² for resetting the wheel K² when ungeared from the feed roller M. 31st. The combination with the feed roller M, automatically advanced at each operation of the machine and provided with the pinion I², of the gong I² and striker G² therefor, the gear-wheel K² mounted upon the shaft O² fixed in a movable support B² adapting the wheel K² to be thrown into and out of mesh with the pinion I², and said wheel being provided upon its outer side with the extended hub or sleeve S² surrounding the shaft O², and upon its opposite side with the spring casing T², the coiled spring X² confined in the casing T² and connected at its inner end to the shaft O², and at its outer end to the wheel K², the sleeve E³ surrounding the sleeve S² and provided with the enlargement or housing F³ containing the spring G² confined by the disc V² secured to the end of the shaft O², and the pointer D² carried by the sleeve E³ and projecting at its outer end beyond the periphery of the wheel K² and provided with fingers H³ fitting between the teeth of the wheel K² for the purpose described. 32nd. The combination of the shaft O², the gear-wheel K² mounted thereon and provided with the spring casing T², the friction ring Y² fitting within said casing, and the spring X² located within the ring Y² and connected at its outer end to said ring and its inner end to the shaft O², for the purpose described. 33rd. In a machine for printing columns of figures, the combination of means for supporting and automatically advancing a sheet of paper at the printing point, and shifting it transversely from the position of one column to another, an alarm or signalling device automatically sounded at the end of a predetermined number of operations of the machine, and means for automatically resetting the signalling device at the shifting of the sheet of paper from one column printing position to another. 34th. In a machine for printing columns of figures, the combination of means for supporting and automatically advancing a sheet of paper at the printing point, and shifting it transversely from the position of one column to another, an alarm or signalling device automatically sounded at one end of a predetermined number of operations of the machine, means for varying at will such predetermined number of operations of the machine necessary to the sounding of the signal, and means for automatically resetting the signalling device at the shifting of the sheet of paper from one column printing position to another. 35th. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine, a platen roller movable longitudinally of the feed roller and provided with means for supporting a sheet of paper about it and causing it to be automatically advanced at each operation of the machine by the action

of a predetermined number of movements of the feed roller, and means for automatically resetting the signalling device when the platen roller is moved longitudinally of the feed roller to shift the sheet of paper from one printing column to another. 36th. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine, a platen roller movable longitudinally of the feed roller and provided with means for supporting a sheet of paper about it and causing it to be automatically advanced at each operation of the machine by the action of the feed roller, a signalling device automatically sounded at the end of a predetermined number of movements of the feed roller, means for adjusting the signalling device to vary at will such predetermined number of movements of the feed roller necessary to the sounding of the signal, and means for automatically resetting the signalling device when the platen roller is moved longitudinally of the roller to shift the sheet of paper from one printing column to another. 37th. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine, a laterally adjustable and backwardly and forwardly movable paper carriage carrying a platen roller adapted to be moved into and out of contact with the feed roller, means for supporting a sheet of paper in the paper carriage and directing it around the platen roller in position to be automatically advanced by the action of the feed roller when the paper carriage is in position for the platen roller and feed roller to co-operate with each other, a gong and a striker therefor, a revoluble trip for the striker adapted to be geared to and ungeared from the feed roller, a resetting spring for the trip, and means automatically operated at the shifting of the paper carriage laterally from one printing column to another to ungear the trip from the feed roller and permit its spring to reset it to initial position. 38th. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine, a laterally adjustable and backwardly and forwardly movable paper carriage carrying a platen roller adapted to be moved into and out of contact with the feed roller, means for supporting a sheet of paper in the paper carriage and directing it around the platen roller in position to be automatically advanced by the action of the feed roller, a gong and a striker therefor, a revoluble trip for the striker adapted to be geared to and ungeared from the feed roller and adjusted in relation to the gong striker to cause it to co-operate therewith at different predetermined points in its forward movement, a resetting spring for the trip, and means automatically operated at the shifting of the paper carriage laterally from one column to another to ungear the trip from the feed roller and permit its spring to reset it to initial position. 39th. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine, a paper carriage mounted to be moved longitudinally of a support parallel with the feed roller and carrying a platen roller adapted to be swung into and out of contact with the feed roller, means for supporting a sheet of paper in the paper carriage and directing it around the platen roller in position to be automatically advanced by the action of the feed roller when the two rollers are in contact, a gong and a striker therefor, a wheel mounted upon a movable support adapting it to be thrown into and out of gear with the feed roller and carrying a trip co-operating with the gong striker to sound the gong, a resetting spring for the wheel, and means intermediate the paper carriage and movable support for the wheel for causing the latter to be thrown out of gear with the feed roller when the paper carriage is moved longitudinally of its support from one printing column to another, to thereby release the wheel and permit its spring to reset it to initial position. 40th. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine, a paper carriage mounted to be moved longitudinally of a support parallel with the feed roller, and carrying a platen roller adapted to be swung into and out of contact with the feed roller, means for supporting a sheet of paper in the paper carriage and directing it around the platen roller in position to be automatically advanced by the action of the feed roller when the two rollers are in contact, a gong and a striker therefor, a wheel mounted upon a movable support adapting it to be thrown into and out of gear with the feed roller, a trip carried by said wheel and adjustable around the wheel to different positions relatively to the gong striker, and adapted to co-operate with the striker to sound the gong, a resetting spring for the wheel put under tension by its forward movement under the action of the feed roller, and means intermediate the paper carriage and the movable support for the wheel for causing the latter to be thrown out of gear with the feed roller when the paper carriage is moved longitudinally of its support, to release the wheel and permit its spring to reset it to initial position. 41st. In a machine for printing columns of figures, the combination of a feed roller automatically actuated at each operation of the machine, a paper carriage mounted to move longitudinally upon a support parallel with the feed roller and carrying a platen roller adapted to be swung into and out of contact with the feed roller, means for supporting a sheet of paper in the paper carriage and directing it around the platen roller in position to be automatically advanced by the action of the feed roller when the two rollers are in contact, a gong and a striker therefor, a movable frame extending longitudinally of the paper carriage and its support, a wheel mounted upon said frame and adapted to gear with and be ungeared from the feed roller, and provided with an index or dial, a trip for the gong

striker carried by said wheel and adjustable around its index or dial to different positions relatively to the gong striker, a resetting spring for the wheel, and means intermediate the paper carriage and movable frame for moving the latter and throwing the wheel out of gear with the feed roller when the paper carriage is moved longitudinally upon its support, for the purpose described. 42nd. In a machine such as described, the combination of a feed roller mounted in a fixed frame at the rear of the machine and automatically advanced at each operation thereof, a paper carriage mounted to slide longitudinally of a support in said fixed frame and carrying a platen roller adapted to be swung into and out of contact with the feed roller, paper guides for directing a sheet of paper between the feed roller and platen roller and supporting it about the latter, a swinging frame hung upon an axis parallel with the feed roller and paper carriage support and provided with a bar extending longitudinally of the latter, a gong and striker therefor, a gear-wheel mounted upon said movable frame and adapted to be moved into and out of gear with a pinion on the feed roller, a spring yieldingly holding the movable frame in position for the gear-wheel to mesh with the pinion, a trip for the gong striker carried by the gear-wheel and adjustable about an index on said wheel to different positions relatively to the gong striker, a resetting spring for the gear-wheel put under tension by its forward movement imparted by the feed roller, and means intermediate the paper carriage and longitudinal bar of the movable frame for causing the latter to be moved by the paper carriage when the platen roller is swung backward away from the feed roller and the paper carriage slid longitudinally of its support, to ungear the wheel from the pinion on the feed roller and permit the spring to reset the wheel and trip to initial position. 43rd. The combination of the feed roller M, and means for advancing the same, the paper carriage mounted to swing backward and forward and slide longitudinally upon the support A¹ parallel to the feed roller, and carrying the platen roller F adapted to be swung into and out of contact with the feed roller, the paper guides for directing and supporting a sheet of paper about the roller F, the spring-pressed swinging frame having the bar D² extending longitudinally of the support A¹, the gear wheel K², mounted upon one end of said frame and adapted to be carried into and out of mesh with the platen L² on the feed roller shaft when said frame is moved to different positions, the gong and gong striker, the pointer D³ movable over the index upon the wheel K², and engagable with said wheel in its different adjusted positions, and operating as a trip for the gong striker, the resetting spring X², for the gear wheel, and a projection upon the movable frame, such as the lug K³, adapted to contact with and move the swinging frame when the paper carriage is swung backward from the feed roller and moved longitudinally of its support, to disengage the wheel K² from the pinion L² and permit the spring to reset the wheel and pointer D³ to initial position. 44th. The combination with the feed roller and the paper carriage and platen roller, of the spring-pressed swinging frame having the bar D² extending longitudinally of the paper carriage and provided with the notches J³, the gear wheel of the signalling device mounted upon said frame and co-operating with the pinion on the feed roller, and the projection on the paper carriage adapted to enter one of the notches J³ in the bar D², when the paper carriage is swung backward, and to move said bar when the paper carriage is then moved longitudinally thereof, for the purpose described. 45th. The combination of two or more type arranged to print side by side, a support for a sheet of paper to be printed adapted to be set in different positions opposite the printing type, and means for moving the paper longitudinally on its support whereby parallel longitudinal columns may be printed upon the paper, substantially as described. 46th. The combination of two or more series of type, means for bringing any one type of a series into position to print side by side with those of other series, a rotary platen adapted to support a sheet of paper and to be moved longitudinally and set in different positions opposite the type, and means for intermittently rotating the platen in any position in which it is set whereby parallel longitudinal columns may be printed upon the paper, substantially as described. 47th. The combination of two or more series of type, means for bringing any one type of a series into position to print side by side with those of the other series, a platen adapted to support a sheet of paper and to be moved longitudinally and set in different positions opposite the type, devices for locking the platen in any position in which it is set, and means for intermittently moving the platen to feed the paper longitudinally whereby parallel columns may be printed upon the paper, substantially as described. 48th. The combination of two or more series of type, means for actuating any one type of each series to print side by side with those of other series, a rotary platen adapted to support a sheet of paper, a driving roller for rotating the platen, and means for intermittently rotating the driving roller whereby successive transverse series of impressions are made upon the paper one directly beneath the other, substantially as described. 49th. The combination with a series of type and their operating devices, of a platen adapted to support a sheet of paper, a driving roller adapted to frictionally rotate the platen, and means whereby the driving roller and type-operating devices are actuated from one source, substantially as described. 50th. The combination with a series of type and their operating devices, of a platen adapted to support a sheet of paper, a sectional driving roller adapted to frictionally rotate the platen, and means actuated through the type-

operating devices for positively rotating the driving roller after each printing action, substantially as described. 51st. A series of printing type and operating devices therefor in combination with supports for a sheet of paper, means for adjusting the same to different lateral positions in respect to the type, devices for locking the supports in such positions, and devices for automatically feeding the paper in each position longitudinally to print parallel columns, substantially as described. 52nd. The combination with a series of printing type and their operating devices, of a driving roller, means actuated through the type-operating devices for rotating the same after each printing action, and means whereby the platen roller may be moved into and out of driving contact with the driving roller, substantially as described.

No. 58,614. Butter Box. (Boîte à beurre.)



Horatio Nelson Whitcomb, Waterloo, and Alexander Wink Grant, Montreal, both in Quebec, Canada, 8th January, 1898; 6 years. (Filed 19th December, 1896.)

Claim.—1st. A butter box having a body with flush inside surfaces and one or more sockets on the inside of the back, an aperture through the front, a removable cover having an upper section extending completely over the top of the body and an inner downwardly extending section adapted to fit the inside surfaces of the body, one or more pin projections projecting from the rear edge of the inner downwardly extending section, said pin projections being adapted to take into the said socket or sockets in the back and a spring-actuated bolt carried by the front edge of such downwardly extending section of the cover and adapted to take into the inside end of the front aperture. 2nd. A box having apertures in opposite sides of its body and a removable cover carrying spring-operated bolts adapted to enter such apertures from their inner ends, for the purpose set forth.

No. 58,615. Process of Preparing Food from Flour and Milk. (Procédé pour la préparation d'aliments de farine et lait.)

The Dairy Improvement Company, assignee of Alexander Bernstein, both of Boston, Mass., U.S.A., 8th January, 1898; 6 years. (Filed 10th August, 1897.)

Claim.—1st. The process of preparing food from flour and milk, which consists in adding a farinaceous substance, such as flour, to the milk, then coagulating the milk while holding the flour in suspension, and then removing the whey, substantially as described. 2nd. As a new article of manufacture, a food product, consisting of a curd having a farinaceous substance, such as flour diffused uniformly in the mass and interposed between the particles of caseine, substantially as described.

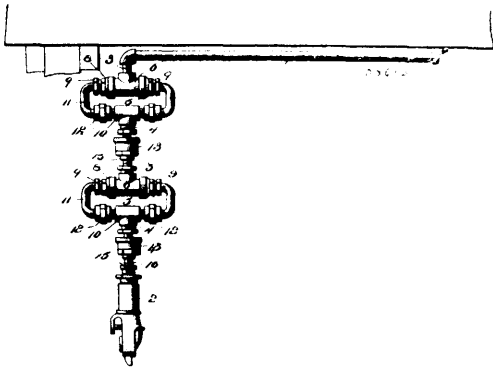
No. 58,616. Air-Brake Connection.

(Joint de frein à air.)

Charles Wesley Vaughan and John R. Sutton, both of Hillsdale, Michigan, U.S.A., 8th January, 1898; 6 years. (Filed 16th December, 1897.)

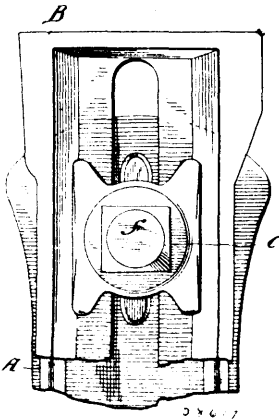
Claim.—1st. A connection for fluid-pressure brake-pipes having a plurality of longitudinal link-members connected at their contiguous ends by an interposed axially-transverse swivel, and also having other longitudinal link-members respectively connected with the first-named longitudinal link-members by axially-longitudinal swivels, one of the terminal longitudinal link-members being provided with a coupling-member for engagement with a corresponding coupling-member of a co-operating connection, substantially as specified. 2nd. A pipe connection having longitudinal link-members connected with an interposed link-member by means of axially-transverse swivels, substantially as specified. 3rd. A pipe connection having a plurality of elbowed link-members, a curved intermediate link-member, and axially-transverse swivels connecting the first-named link-members with opposite extremities of the intermediate link-member, substantially as specified. 4th. A pipe connection having

a plurality of longitudinal link-members, an intermediate link-member terminally connected by axially-transverse swivels with



the contiguous extremities of said longitudinal link-members, and other longitudinal link-members respectively connected with the first-named longitudinal link-members by axially-longitudinal swivels, substantially as specified. 5th. A pipe connection having a plurality of link-members connected by an interposed swivel, comprising a cup or seat carried by one link-member, a plug carried by the other link member and arranged axially in said seat, and an annular nut surrounding the plug and threaded in said cup, the nut being provided with an interior bevelled shoulder, and the plug with an exterior bevelled shoulder to receive the pressure of the shoulder in the nut, substantially as specified.

No. 58,617. Friction Side Clamp. (Morduche à friction.)



The Grand Rapids School Furniture Company, assignee of Allen Dawson Linn, both of Grand Rapids, Michigan, U.S.A., 8th January, 1897; 6 years. (Filed 4th December, 1897.)

Claim.—1st. In combination, the standard, the bracket having a vertical slot therein, the projections *a a*, on the standard extending through the said slot, the block between the projections having the portions for engaging the bracket and the bolt for drawing the parts together, said bolt passing through the slot in the bracket and through an opening in the standard, substantially as described. 2nd. In combination, the standard having a channelled face, the projections *a a*, extending from said channel, the bracket also of channel form fitted to the channel in the standard and slotted to receive the projections *a a*, and the block fitted between the projections and bearing on the bracket with the bolt for drawing the parts together, substantially as described. 3rd. In combination, the channelled and slotted bracket fitted thereto, the projections *a a*, extending through the slot, the block having recesses to receive the projections and a recess to receive the head of the bolt, the bolt having its head engaging the recess in the block and the spring within the block, substantially as described.

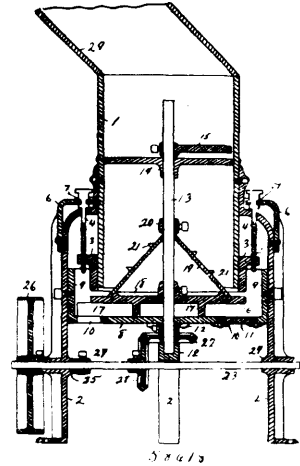
No. 58,618. Feeder and Mixer.

(*Alimentateur et mélangeur.*)

James Frazier and William S. Trisler, both of Hamilton, Ohio, U.S.A., 8th January, 1898; 6 years. (Filed 6th December, 1897.)

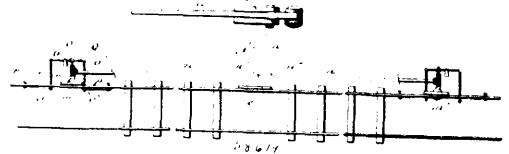
Claim.—1st. In a feeder and mixer, the combination with legs, of a hopper secured thereto, a shaft journaled vertically within the hopper, a disc upon the shaft, the upper surface of which is provided with a concentric ridge, a cone upon the ridge, the apex of which surrounds the shaft, and a vertically adjustable sleeve encircling

the lower end of the hopper adjacent to the disc, substantially as set forth. 2nd. In a feeder and mixer, the combination with legs



of a hopper secured thereto, a disc below the hopper, the upper surface of which is provided with a concentric ridge and the lower surface of which is provided with sweepers the ends of which extend beyond the periphery of the disc, an adjustable sleeve encircling the lower end of the hopper adjacent to the disc, and a bottom below the disc provided with openings and means for closing the same, substantially as set forth.

No. 58,619. Railway Gate. (Barrière de chemin de fer.)



James H. Fitzgerald and Benjamin S. Motley, both of Danville, Virginia, U.S.A., 8th January, 1898; 6 years. (Filed 9th December, 1897.)

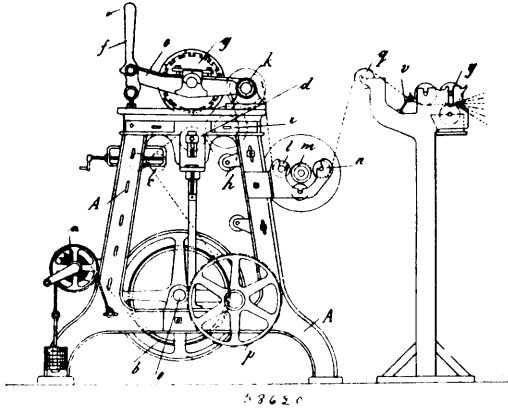
Claim.—1st. In combination with a gate-lifting cylinder, pump and catch, of a pneumatic pump for actuating the catch, said pump being provided with a vent, a valve for controlling the vent, and automatic device actuated by the train, whereby the vent is opened and the pump rendered inoperative by the departing train and whereby the vent is closed to produce a contrary effect by an approaching train, substantially as described. 2nd. In an air-operated railway-gate, a gate-releasing device consisting of an air-operated sustaining-catch, air-pumps located upon opposite sides of the gate and in air connection with the catch, a valve-controlled vent for each pump, and train-operated plates disposed upon opposite sides thereof, and so connected with the valve as to open the vent upon the approach of a departing train, substantially as described.

No. 58,620. Process for the Manufacture of Yarn or Thread from Paper and Apparatus therefor. (Procédé et appareil pour la fabrication de fil du papier.)

Kunstwerber Claviez & Co., G. M. B. H., assignees of Emil Claviez, both of David-strasse, Leipzig, Germany, 8th January, 1898; 6 years. (Filed 3rd March, 1896.)

Claim.—1st. A process for the manufacture of yarn or thread from paper characterized by, first, cutting narrow strips from a paper band previously saturated with chemicals such as potash, resinat, oleate or stearate of soda with an admixture of sulphate of a lumina starch and a solution of albumen substantially in the proportions specified, then impregnating such strips with adhesive substance and subsequently steaming and twisting same, as described and for the purpose set forth. 2nd. A process for the manufacture of yarn or thread from paper characterized by first cutting narrow strips from a paper band previously saturated with chemicals, then impregnating such strips with adhesive substance and subsequently steaming upon a spool from the interior outward and finally twisting same as described and for the purpose set forth. 3rd. In apparatus for the manufacture of yarn or thread from paper by a process such as described, a device for cutting the paper consisting of a revoluble knife-roller mounted in an oscillating frame and provided on its periphery with grooves running longitudinally, and adjustable knives secured on the periphery of said roller, whereby on the frame

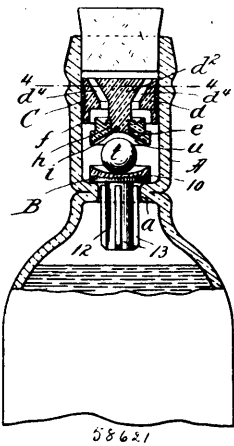
being pressed down the knife roller is brought in contact with a band of paper carried over a guide roller and effects the cutting of



the paper into strips substantially as described. 4th. In an apparatus such as described, the combination with a device for cutting the paper into strips, of a device for impregnating the paper strips with size or other suitable adhesive substance, consisting of a pair of rollers dipping into a trough containing liquid gum or other suitable adhesive substance, substantially as described. 5th. In an apparatus such as described, a spinning frame characterized by a revoluble and forked spindle and an axle or bolt mounted within the fork of said spindle and adapted to receive and hold the spool in such a manner that by rotating the spindle the necessary twist is imparted to the strips of paper, substantially as described. 6th. In an apparatus such as described, a drying apparatus consisting of suitable corrugated or coiled heating devices and fans arranged in a chest or casing, whereby heated air in the chest is set in circulation and imparts to the threads which are to be dried an oscillating or swinging movement and thereby produces a more rapid drying, substantially as described.

No. 58,621. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)

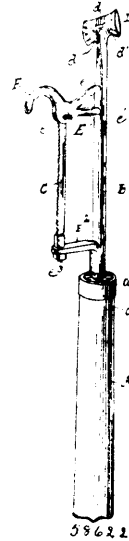


Francis Lucien Cook and Alfred Birnie, both of Springfield, Massachusetts, U.S.A., 8th January, 1897; 6 years. (Filed 13th December, 1897.)

Claim.—1st. In a non-refillable bottle, the combination with the bottle neck having the internal annular valve-seat, of the valve consisting of a head and stem, smaller than the opening within said valve-seat, comprising the several radial wings or extensions, and a guard device above the valve comprising an outer annular body and an inner circular body having integral uniting arms *j*, the passages between two said bodies being downwardly and inwardly deflected, the inner body having, at its lower end a depending outwardly extending flange with a space between its edge and the inner wall of the bottle, substantially as described. 2nd. The combination with the bottle neck provided with the annular valve-seat, of the valve consisting of head and depending stem, of a part located in the bottle neck above the valve permitting outflow past it and having its under surface concave, and the ball, the space between the valve-top and the middle portion of said concave part being slightly greater than the diameter of the ball. 3rd. A non-refillable bottle having annular valve-seat shoulder in neck, the same being produced by rendering the neck of the bottle below its

mouth plastic and while the glass is in such condition annularly grooving, and inwardly displacing the glass producing the internal ridge with a contracted opening therewithin. 4th. In a non-refillable bottle, the combination with the bottle neck provided with an internal annular valve-seat shoulder, of the valve consisting of the valve-head and the depending stem provided with the radial wings, and a part located in the bottle neck above the valve in a manner to permit of an outflow of liquid thereby, through the neck, and having its under surface concave or dish-shaped, and a guard located on top of the valve, the space between the valve and the valve-top and the middle portion of said concave part being slightly greater than the diameter of the ball, substantially as and for the purpose set forth.

No. 58,622. Pruning Implement. (Séateur.)

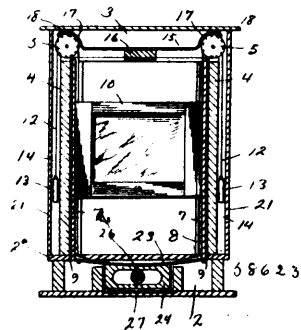


Thomas N. Wilson, assignee of Henry C. Lowe and Floyd C. Gandee, all of Gandeeville, West Virginia, U.S.A., 8th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. A pruning implement, consisting of a chisel cutting-head, a suitable shank for carrying the same, brackets projecting from the same, below the cutting-head, a hook formed upon the upper bracket, a saw secured between the brackets below the hook, and a handle, substantially as described. 2nd. A pruning implement, consisting of a chisel-head provided with an upper cutting edge and two lower edges, a shank for carrying the same, the said chisel-head and upper part of the shank being set slightly forward, brackets projecting from the said shank, below the chisel-head, and at right angles to the same, a hook formed upon the upper bracket, a saw removably secured to the said brackets, below the hook, and a handle, substantially as described.

No. 58,623. Sash and Car Window Fastener.

(Arrête-croisée et porte de chars.)



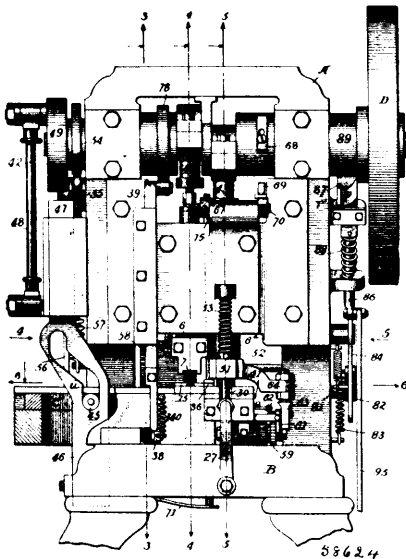
Charles F. Davis, Perry L. Cooper and Benjamin Bretz, all of Olivet, Michigan, U.S.A., 8th January, 1898; 6 years. (Filed 16th December, 1897.)

Claim.—1st. The combination of the window-frame provided with a base or sill-compartment, a sash, clamping-bars at each side of the window-frame, adapted to clamp the sash, a spring-metal connecting bar or bridge-piece in the base-compartment having its ends secured

to said clamping-bars, said bridge-piece being adapted to hold the clamping-bars out of clamping engagement by its spring action thereon, and means engaging said bridge-piece to move the clamping-bars into engagement with the sash, substantially as described. 2nd. The combination of the window-frame provided with two vertical side-bars and a sill-compartment provided with openings in the top thereof, a window-sash, a clamping-bar pivoted by links to each vertical side-bar and having its lower end adapted to move in the said sill-opening, a bow-shaped spring-metal bridge-piece connecting the lower ends of the clamping-bars and located in said sill-compartment, said bridge-piece being adapted to hold the clamping-bars out of engagement with the sash by its spring action thereon, a block secured to the bridge-piece and provided with a cam-slot, and a handle provided with an eccentric head occupying said slot and adapted to force the block, bridge-piece and clamping-bars downward so as to cause the latter to clamp the window-sash, substantially as described. 3rd. The combination of the window-frame provided with two vertical side-bars and a sill-compartment provided with openings in the top thereof, a window-sash, a clamping-bar pivoted by links to each vertical side-bar and having its lower end adapted to move in the said sill-opening, a bow-shaped spring-metal bridge-piece connecting the lower ends of the clamping-bars and located in said sill-compartment, said bridge-piece being adapted to hold the clamping-bars out of engagement with the sash by its spring action thereon, a block secured to the bridge-piece and provided with a cam-slot, a catch device on the exterior of the window-sill, a shaft provided with an eccentric head occupying said cam-slot and acting on the block to draw the bridge-piece and clamping-bar downward into locking engagement, and a handle secured to said shaft and adapted to engage with the catch to hold the parts in locking engagement, substantially as described.

No. 58,624. Blanking and Studding Machine.

(Machine à faire des blancs et clouter.)



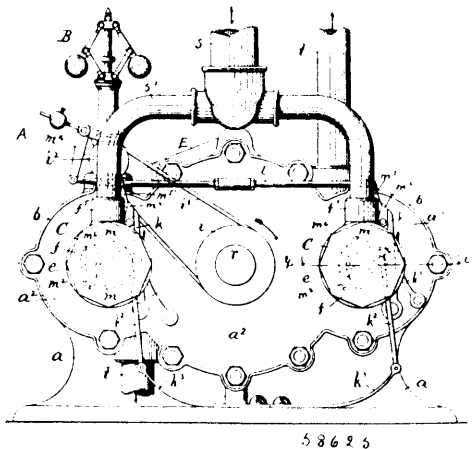
The Warner Brothers' Company, New York, State of New York, assignee of John Draher, Waterbury, Connecticut, both in the U.S.A., 8th January, 1898; 6 years. (Filed 9th September, 1897.)

Claim.—1st. In a machine for making articles having projecting pins or rivets, the combination of devices for cutting and perforating blanks and devices for feeding wires, of means for cutting pins from said wires and for carrying the same beneath the perforations in the blanks, means for moving the blanks to insert the pins in the perforations thereof, and a header die for spreading the ends of the pins to rivet the same to the blank, substantially as set forth. 2nd. The combination with devices for mechanically feeding a strip X, and for feeding wires and for cutting the wires to form pins, of punches for perforating the strip and cutting blanks therefrom, a carrier for carrying the blanks into position in line with the pins, grippers for engaging and positively gripping the pins, means for carrying them to positions in line with the perforations in the blanks, and means for introducing the pins into the openings in the blanks and for heading the pins, substantially as described. 3rd. The combination with devices for mechanically feeding a strip and punching devices, of a carrier moving transversely to the direction in which the strip is fed, means for cutting pins from the ends of wires, and grippers for positively gripping and carrying the pins to position opposite

the perforations in the blank punched from the strip, and means for inserting the pins in the perforations and for heading the pins, substantially as set forth. 4th. The combination with devices for mechanically feeding a strip, punching devices, and carrier C, of means for feeding wires, a cutter for cutting pins from the said wires, and grippers for positively gripping the pins and for carrying said pins into position below the blank, and heading devices, substantially as set forth. 5th. The combination with the devices for mechanically feeding and punching a strip, and the devices for feeding and cutting wires to form pins, of a carrier for the blank and grippers for positively gripping the pins, and means for operating the carrier and grippers to bring the blank with its openings in line with the pins, substantially as set forth. 6th. The combination with the strip feeding devices, of means for perforating the strip and for punching a blank therefrom, devices for transferring the blank to a reciprocating carrier, wire feeding mechanism, cutting devices for severing sections of wires through the perforations of the strip, and mechanism for upsetting the wire sections upon opposite faces of the blank, substantially as described. 7th. The combination with strip feeding devices, of means for perforating the strip and for punching a blank therefrom, wire feeding mechanism, means for transferring the perforated blank to bring the holes thereof in alignment with the ends of the wires, means for moving the blank to receive the ends of the wires in its holes, and devices for upsetting the wires upon both faces of the blank, substantially as described. 8th. The combination with strip feeding mechanism, of means for perforating the strip and for punching a blank therefrom, wire feeding mechanism, devices for moving the blank to receive the ends of the wires in the perforations, means for upsetting the wires upon opposite faces of the blank to form studs and mechanism for automatically discharging the blank and its attached studs, substantially as described. 9th. The combination with the strip feeding mechanism, of means for perforating the strip and for punching a blank therefrom, wire feeding mechanism, devices for transferring sections of the wire in alignment with the perforations of the blank, means for automatically locking said devices when the wire sections have been brought into proper position, mechanism for projecting the ends of the wires through the openings in the blank and devices for upsetting the wire upon opposite faces of the blank, substantially as described.

No. 58,625. Rotary Piston Engine.

(Machine rotative à piston.)



The Wattles Steam and Gas Engine Company, assignee of Luther Henry Wattles, both of Providence, Rhode Island, U.S.A., 8th January, 1898; 6 years. (Filed 11th December, 1897.)

Claim.—1st. In a rotary engine of the class described, the combination with a rotating piston and its adjunctive devices, of a movable hollow abutment forming the live steam-chest, and having a port there-through arranged to open into the steam-cylinder, and a mechanically actuated valve mounted in said steam-chest and in direct engagement with its port, substantially as described. 2nd. In a rotary engine, the combination with a rotating piston and the steam-cylinder therefor, of a cylindrical chamber, as *b*, arranged parallel with and intersecting said steam-cylinder, an oscillatory ported steam-chest or hollow abutment *d* mounted in said chamber having a concave side co-extensive with the bore of the steam-cylinder, and a mechanically actuated steam-valve mounted in the steam-chest and controlling the port opening, substantially as described. 3rd. In a rotary engine, a mechanically actuated ported hollow abutment or steam-chest having a hollow stem or trunion

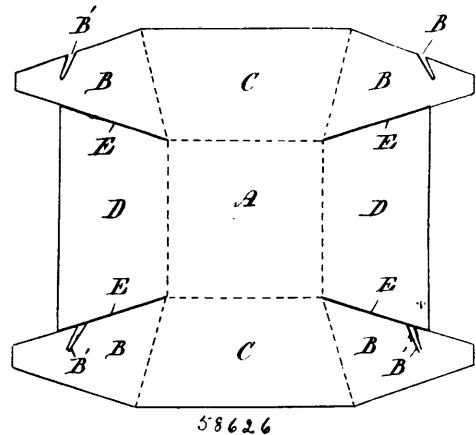
in continuous communication interiorly with the steam supply, and an independently movable cut-off valve mounted within the abutment having a hollow stem in continuous communication with the steam supply, said valve-stem being provided with an opening through which the steam passes into the abutment chamber *d*¹, substantially as described. 4th. The combination, with the steam-cylinder and a revoluble piston mounted therein, of a ported oscillatory steam-chest or abutment having a concave side forming the complement of the bore of said cylinder and arranged in the path of the piston, and further provided with means for maintaining steam-tight the surfaces of the piston and steam-chest when in engagement with each other, and a mechanically actuated cut-off or steam-valve mounted in the said steam-chest for closing the port thereof, substantially as described. 5th. In a rotary engine, the combination with a suitably mounted elliptical-shaped driving piston, as *p*, adapted to rotate continuously in one direction, of an oscillating steam-chest, as *d*, having a port through its wall for admitting steam from the chest directly into the steam-cylinder to actuate the piston, arranged whereby the movement of the chest uncovers the said port into the cylinder after the piston has travelled past the steam-chest, and a mechanically actuated cut-off valve mounted in the steam-chest adapted to close the port thereof, substantially as described. 6th. In a rotary-piston engine, the combination of an oscillatory steam-chest provided with a port through which live steam flows into the cylinder to actuate the piston, a hollow stem *c*² rigidly secured to one end of said steam-chest for conducting steam into it, a valve mounted in the steam-chest and adapted to close the port of the latter, a hollow stem *c* extending through the opposite end of the steam-chest also adapted to conduct live steam thereto and having said valve secured thereon, and independent mechanisms connected with the said two hollow stems for actuating the steam chest and valve, substantially as described. 7th. In a rotary engine, a suitably mounted oscillatory combined steam-chest and abutment adapted to receive live steam through both ends thereof, thus equalizing the pressure within it, a port extending through the steam-chest wall through which steam flows into the steam-cylinder, and a governor-controlled valve mounted in the steam-chest adapted to close said port automatically, substantially as set forth. 8th. In a rotary engine, the combination with a ported steam-chest in continuous communication with the steam supply, and mechanism for intermittently oscillating the steam-chest an invariable angular distance of a valve mounted in said steam-chest, and mechanically actuated liberating valve-gear adapted to close said port through the medium of said valve at various points within its range of action. 9th. In a rotary-piston engine, the combination with an oscillating steam-chest provided with an outlet port, and a central hollow stem or trunnion, as *c*², secured to the chest and in direct communication both with the steam supply and the interior of the chest, of a valve *v* mounted within the said steam-chest and arranged to overlap the port thereof, and a central hollow stem or trunnion, as *c*, secured to the valve and in direct communication both with the steam supply and the interior of the chest, the said valve-stem extending through an end of and capable of being actuated independently of the steam-chest. 10th. In a rotary-piston engine, the combination with a pair of suitably mounted transversely separated pistons geared together and revolving in unison in one direction, of an oscillatory combined steam-chest and abutment *d* in continuous communication with the steam supply interposedly between and communicating with both the said pistons, oppositely located steam ports formed in the chest walls through which steam enters the steam cylinder simultaneously, a pair of oppositely arranged valves *v* mounted within the steam-chest adapted to close said steam-ports, and independent mechanism for actuating said steam chest and its valves, substantially as described. 11th. In a steam engine, the combination with the cylinder thereof and an oscillatory steam-chest communicating therewith, of a revoluble non-cylindrical piston mounted in said cylinder, the piston having fixed at each end thereof a circular flange, as *p*², fitting the bore of the cylinder and an inclosed annular collar, as *a*⁵, mounted exteriorly to the end of the steam-chest and adapted to turn freely on the latter's journal or hub, the edges or peripheries of the said flange and collar being in frictional engagement, thus forming steam-tight joints at the ends of the piston, substantially as described. 12th. In a steam engine, the combination with a pair of laterally separated rotary elliptical pistons *p* having circular flanges, as *p*², at the opposite ends thereof whose diameters are substantially the same as the length of the major axes of the pistons, of an oscillating steam-chest or hollow abutment *d* located centrally between and parallel with said pistons, and having the two end portions of said abutment provided with circular flanges counterbored into the corresponding heads or covers and in engagement with the periphery of said piston flanges, substantially as hereinbefore described and for the purpose specified.

No. 58,626. Fruit Package. (*Sac à fruits.*)

William A Gardner, Leamington, Ontario, Canada, 11th January, 1898; 6 years. (Filed 20th December, 1897.)

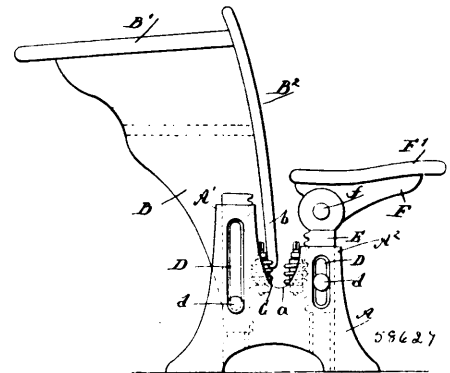
Claim.—1st. A blank for the formation of fruit packages, cut integrally from a sheet of veneer and consisting of the bottom, sides and ends, the sides having a tapering tongue B, extending beyond

the ends, and provided with a notch B¹, as set forth. 2nd. A coverless wooden fruit package having tongues B, integral with the



sides and overlapping the ends of the package, said tongues having a notch B¹, and interlocking at the ends of the package, as set forth.

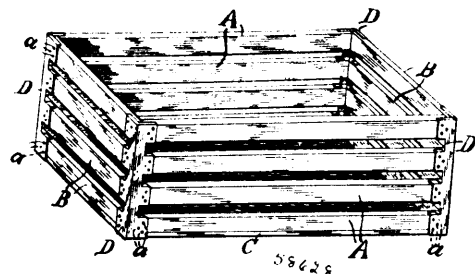
No. 58,627. School Desk. (*Pupitre d'école.*)



John Henry Hunter, Dickey, North Dakota, U.S.A., 11th January, 1898; 6 years. (Filed 18th December, 1897.)

Claim.—1st. A desk, comprising a base or standard for each end of the desk, having vertically extending recesses opening to one side, separate seat and desk sections having each a bar, the said edges of which closely fit within said recesses and are held thereby against tilting front and rear, said side bars being toothed upon one side, and a worm mounted upon the case and engaging said toothed side, substantially as described. 2nd. A desk, comprising end plates adapted to rest upon the floor and each having upwardly extending members forming respectively seat and desk posts, and a notch or depression between, each of said posts having vertically extending recesses opening to one side, separate seat and desk sections having each a bar, the side edges of which closely fit in the said recesses and are held thereby against tilting front and rear and positive raising and lowering mechanism for said seat and desk sections, substantially as described.

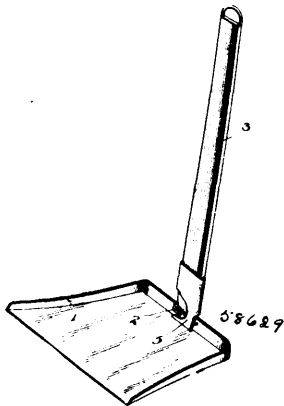
No. 58,628. Crate. (*Caisse.*)



Jeremiah Heagerty, Oswego, New York, U.S.A., 11th January, 1898; 6 years. (Filed 18th December, 1897.)

Claim.—1st. In a crate the combination of the slats and corner-pieces formed of sheet metal secured to the slats, said corner-pieces being formed with sockets to receive the ends of the slats and hold them apart, and open spaces between the sockets, as set forth. 2nd. In a crate, the combination of slats separated from each other, angular corner-pieces formed of metal secured to the slats, sockets in the corner-pieces for the ends of the slats, the sockets being formed by inwardly projecting lips on projections, and open spaces between the lips, substantially as described and shown. 3rd. In a fruit-crate, the combination of horizontal slats separated from each other forming the sides and ends of the crate, angular corner-pieces formed each of a single piece of sheet metal, said corner-pieces having their ends mitred and turned inward, and their sides recessed with lips bent inward on opposite sides of the recesses to form sockets to hold the ends of the slats, and means to secure the slats in the sockets, substantially as described and shown. 4th. As an article of manufacture, the angular corner-piece formed of sheet-metal and provided with projections and inwardly projecting lips extending parallel with each other on said projections, and at right angles to the main surface of the corner-piece, and with open spaces between the lips, substantially as shown and described. 5th. As an article of manufacture, the angular corner-piece formed from a single piece of sheet metal, having sockets at each edge extending at right angles to the edge, and recesses between the sockets, as set forth.

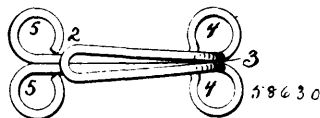
No. 58,629. Dust Pan. (Porte-ordures.)



Frank Bowers Johnson, Addison, New York, U.S.A., 11th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—1st. The combination with a pan provided with a fixed bail, of a handle having the lower end pivoted to said bail, and a sliding reversible sleeve adapted to lock the handle of the pan either in upright or parallel relation therewith, substantially as set forth. 2nd. The combination with a pan having a staple secured in its back wall, of a handle having its lower end hooked in said staple, and a reversible sliding sleeve engaged with said handle, and provided with a tongue for locking the handle in upright or horizontal relation to the pan, substantially as set forth.

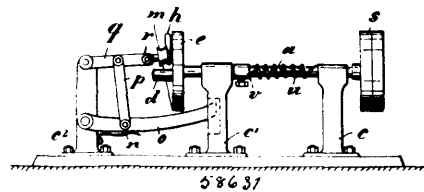
No. 58,630. Hook and Eye. (Crochet et aillet.)



Nettie Hyle, Syracuse, New York, U.S.A., 17th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—1st. A garment hook comprising parallel wire strands, lying closely together, fastening eyes or loops at its opposite ends, and a hook intermediate the eyes, the wire strands forming the front eyes extended backward from the hook, between and under the parallel strands, substantially as described. 2nd. A garment hook consisting of the hook portion, 3, the forward loops 4, the wire forming said loops extended backward from the hook between and under the parallel strands, and the loop 5, at the rear end of the hook, the terminal of the wire forming this loop being wrapped about the parallel base portion of the hook, substantially as described. 3rd. An eye to accompany a hook consisting of a single piece of wire bent to form the bight 8, then bent to form the side eyes 9, and having one free end extended from one side eye, across to and connected to the other one.

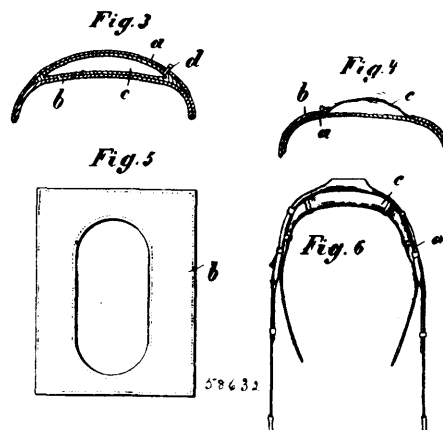
No. 58,631. Apparatus for forming Chain-links Rings, etc. (Appareil pour faire des mailles de chaines, anneaux, etc.)



Fritz Thiele, Schwerte, Westfalia, Prussia, Germany, 11th January, 1898; 6 years. (Filed 31st September, 1897.)

Claim.—The improved roller apparatus for the manufacture of chain-links and rings, consisting in a rotatable stud or core with an eccentric thumb mounted thereupon, which supports the material, the guide roller for bending the iron, an eccentric presser disc fastened upon a stud or core, all constructed, combined and operating substantially as and for the purpose herein described and set forth.

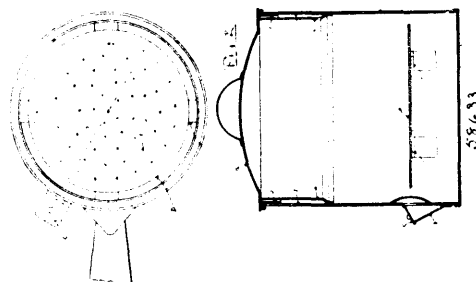
No. 58,632. Saddle-cloth. (Housse.)



Ernst Wolfstein, Günz, Stralsund, Prussia, Germany, 11th January, 1898; 6 years. (Filed 21st September, 1897.)

Claim.—1st. A saddle-cloth in which the part between the saddle and the back of the horse is provided with an enclosed air-tight chamber which may be inflated in order to form an elastic pad or cushion beneath the saddle, the said air-chamber being made in one piece with the saddle-cloth, substantially as described and illustrated. 2nd. A saddle-cloth in which the part between the saddle and the back of the horse is provided with an enclosed air-tight chamber which may be inflated in order to form an elastic pad or cushion beneath the saddle, the said air chamber being made detachable from the saddle, substantially as described and illustrated. 3rd. A saddle-cloth in which the part between the saddle and the back of the horse is provided with an enclosed air-tight chamber which may be inflated in order to form an elastic pad or cushion beneath the saddle, the said chamber being connected directly to the saddle, substantially as described and illustrated.

No. 58,633. Steam Cooker. (Appareil pour cuire à la vapeur.)

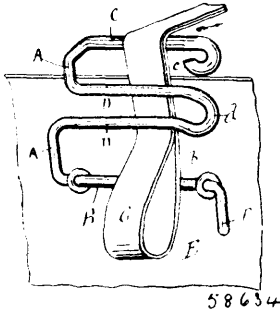


Octavius Bailey, Beckenham, Kent, England, 11th January, 1898; 6 years. (Filed 1st February, 1897.)

Claim.—A steam cooker composing a metal or earthenware pot, having an overflow outlet B, constructed a few inches above the

bottom of the cooker and having a lid or flap C, and movable perforated partition E and D, supported upon supports F, having a recess or groove I, formed by the band H, and having the lid or cover G, with the rim or edge J, substantially as and for the purpose hereinbefore set forth.

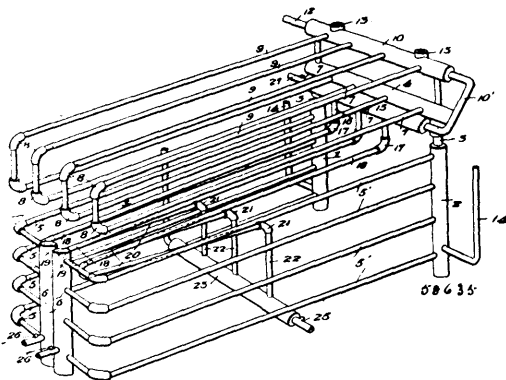
No. 58,634. Device for Holding the Reins of Road Vehicles. (*Appareil à tenir les guides pour voitures.*)



Joseph Trantom, Liverpool, Lancaster, England, 11th January, 1898; 6 years. (Filed 19th October, 1897.)

Claim.—1st. The improvement in rein holders, which consists in forming them of a hinged lever having two lateral arms with spaces between, into which the reins can be passed, one arm being adapted to receive the pull of the reins and communicate said pull to the other arm, in combination with an abutment so arranged relatively to said lever that if the reins be laid together and passed between one arm and the abutment, and in front of the other arm, and pressure applied, the said reins will be gripped against the abutment, the gripping action being proportional to the leverage and the pull on the reins, substantially as described. 2nd. A rein holder consisting of a lever hinged to the dashboard or other part of the vehicle, and having lateral arms with spaces between, into which the reins can be passed, said arms being so arranged that when the reins are placed in the holder and tension applied, one of the arms will grip or pinch the reins against the dashboard or other part, the pull of the reins acting on the other arm to maintain the grip, substantially as described. 3rd. A rein holder consisting of a hinged lever composed of two equal or unequal arms, both somewhat wider than the width of the reins, in combination with an abutment arranged in proximity to the end of one of the arms, whereby if the reins be placed on the face of the arms and tension applied, the pull on one arm of the lever will result in the reins being gripped between the other arm and the abutment, the gripping action being proportional to the leverage and the pull on the reins, substantially as described. 4th. In rein holders of the kind described, forming the stationary abutment, or conversely the gripping part of the lever, with a movable face so arranged that it will automatically adjust itself to grip reins of varying thicknesses, substantially as described.

No. 58,635. Combined Hot Water and Steam Heater. (*Chauffeur à eau chaude et vapeur.*)

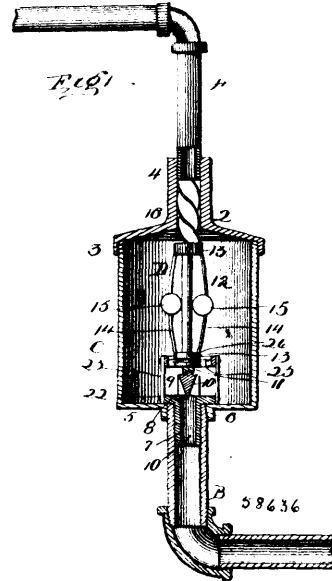


Charles Rodgers Meres, Norwalk, Ohio, U.S.A., 11th January, 1898; 6 years. (Filed 16th November, 1897.)

Claim.—The combination with the front manifolds 1 and 2, the rear manifolds 6, 6', their horizontal connecting pipes 5, 5', extend-

ing on each side of the combustion chamber, the manifold 4 connected to the upper ends of the front manifolds 1 and 2 by the short pipes 3, 3, in combination with the manifold 23 provided with the expansion pipe 24, the vertical connecting pipes 22, the pipes 20 leading upwardly and rearwardly therefrom, the pipes 18 extending forwardly from said pipes 20, and terminating in the manifold 15, the outflow manifold 10 connected thereto by the elbow 10', and the series of horizontal pipes 7 connecting the manifolds 10 and 4, substantially as shown and described.

No. 58,636. Governor Valve. (*Souape de gouverneur.*)



James Nelson Rundle, Santa Barbara, California, U.S.A., 11th January, 1898; 6 years. (Filed 25th October, 1897.)

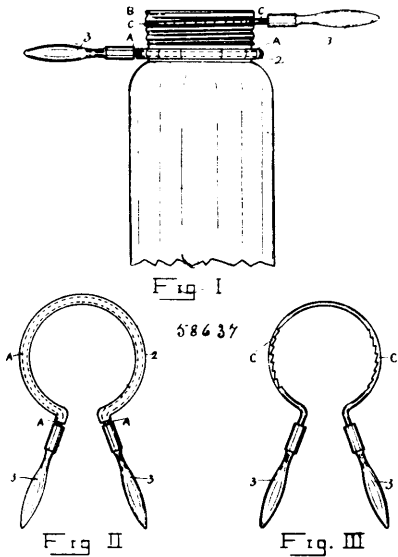
Claim.—1st. The combination with the steam pipes A and B, a suitable casing C interposed between said pipes, a shaft journaled in said casing provided with a governor, and a spiral, of the valve in the bottom of the casing and yoke mounted upon a fulcrum, said yoke connected to the valve seat, and to the free head or collar of the governor, substantially as shown and described. 2nd. In a valve governor, the combination with a steam pipe, of a casing interposed therein, a shaft journaled in said casing having a governor mounted thereon and its upper portion provided with a spiral groove, said spiral extending up into the inlet pipe, a valve in the bottom of the casing, and a yoke fulcrumed in said casing connected to the valve seat and to the free head or collar of the governor, a weight on said yoke, substantially as shown and described. 3rd. The combination with a steam pipe, of a casing interposed therein, a shaft mounted in said casing, said shaft provided with weighted governor springs and a spiral groove secured upon the upper end of the shaft and extending into the said steam pipe, a valve in the bottom of the casing, a yoke adjustably fulcrumed in the said casing connected to the valve and governor, and a screw to adjust said fulcrum, substantially as shown and described. 4th. In a valve governor, the combination of a steam pipe having a casing interposed therein, a shaft mounted in said casing provided with a governor and a spiral on its upper end extending from the casing into the steam pipe, a valve in the bottom of the said casing provided with a sleeve projecting into the discharge pipe, and connections between the said valve and governor, whereby the valve is opened and closed, substantially as shown and for the purpose set forth.

No. 58,637. Device for Holding Bottles and to Fasten and Loosen the Screwed Covers thereof. (*Appareil pour tenir visser et dévisser les couvercles des bocaux à conserves.*)

Joseph Tolhurst, Burlington, Ontario, Canada, 11th January, 1898; 6 years. (Filed 18th December, 1897.)

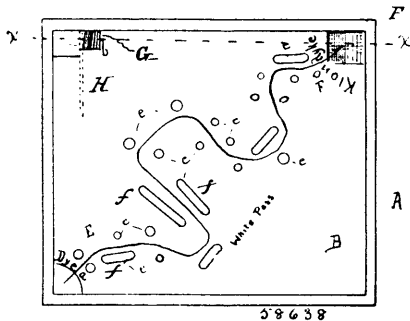
Claim.—1st. A device for holding bottles, consisting of a spring-clip, of circular formation, provided with a rubber covering to engage with the circular part of a bottle, and provided with projecting handles horizontally inclined and apart and at suitable angles that when compressed the bottle is held rigid with said clip, as described. 2nd. A device for fastening and for loosening the screwed covers of bottles, consisting of a spring-clip of circular formation, teeth formed at each inner side of the clip, the angles running one way, to engage with, and fasten the cover and by inverting said clip to loosen the cover, by means of projecting handles horizontally inclined and apart at suitable angles, for compression, as described.

3rd. A device of the character described, consisting of a spring-clip of circular form, having a rubber covering, handles projecting from



said clip horizontally inclined, and at angles to facilitate compression on a small cover, in combination with a spring-clip of circular form, teeth formed at each inner side of the clip, the angles running one way, to engage with and fasten the cover, and by inverting the clip to loosen the same, by means of handles projecting out and horizontally inclined and apart at suitable angles for compression, as described.

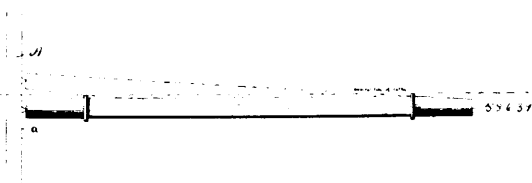
No. 58,638. Game. (Jeu.)



William Sonné, Montreal, Quebec, Canada, 11th January, 1898; 6 years. (Filed 27th November, 1897.)

Claim.—The combination with a box having a perforated surface B, of a drop of mercury or its equivalent arranged as a game to be rolled from a starting point to a terminus and accidentally to disappear through the perforations of such surface B, and the incline G, by means of which the mercury may be readily returned to the surface, substantially as set forth.

No. 58,639. Carriage Axle. (Essieu de voitures.)

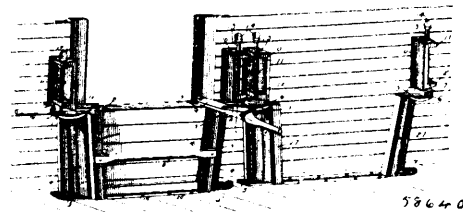


François Beaulac, St. Jude, Quebec, Canada, 11th January, 1898; 6 years. (Filed 27th November, 1897.)

Claim.—1st. A carriage axle tapering device comprising a face plate adapted to be secured to a lathe, and a centreing chuck, radially movable on said face plate, substantially as described. 2nd. A carriage axle tapering device comprising a face plate adapted to

be secured to a lathe, said face plate being provided with a radial slot, and a centreing chuck slidably mounted in said radial slot, substantially as described. 3rd. The method of turning carriage axles, which consists in providing a pivot point for one end of the axle, said pivot point being away from the central line of the lathe, then moving the tail stock to one side a distance equal to the distance between the pivot point and the central line of the lathe, then securing the uncompleted axle on to the centreing points, and turning the end adjacent to the tail stock, substantially as described.

No. 58,640. Grain Car Door. (Porte de chars à grain.)

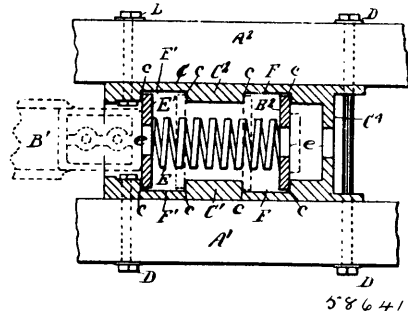


Harry M. Tyrrell, Coffeyville, Kansas, U.S.A., 11th January, 1898; 6 years. (Filed 16th December, 1897.)

Claim.—1st. The combination of fixed keepers provided at their upper ends with horizontal rigid flanges, stationary brackets arranged above said flanges, and spaced vertically with relation thereto, to leave openings between said brackets and said flanges, a door fitted slidably between said brackets, locking levers fulcrumed on, and carried by, said door and adapted to be swung horizontally to occupy the spaces between said brackets and the keeper-flanges, and vertically adjusted locking rods or pins carried by said brackets and arranged to be projected across the levers to confine the latter in their locked positions, as and for the purpose described. 2nd. The combination with fixed keepers and a slidable door, of brackets fastened above, and spaced vertically with relation to said keepers, locking-levers fulcrumed on, and carried by, said door, and provided with wedge or cam formed faces arranged to have wedging engagement with said brackets, and locking devices carried by the brackets to have fixed engagement with the keepers and to confine the locking-levers against displacement beneath the brackets, as and for the purpose described. 3rd. A vertically-sliding grain-door, in combination with locking-levers fulcrumed on vertical axles on the top edge of the door at opposite sides and provided with inclined surfaces, as described, stationary brackets on the car-body having inclined portions for engagement with said levers, and locking bolts mounted in said brackets and adapted to engage said levers, substantially as described. 4th. A sliding-grain-door, in combination with spaced keepers between which the door slides, horizontal flanges at the upper ends of said keepers having vertical openings as described, locking levers pivotally connected to said door at opposite sides, stationary brackets on the car-body arranged above said flanges, the locking-levers being movable between said flanges and brackets, and vertically movable locking-bolts mounted in said brackets and adapted to engage the openings in said flanges, substantially as described.

No. 58,641. Draft Apparatus for Railway Cars.

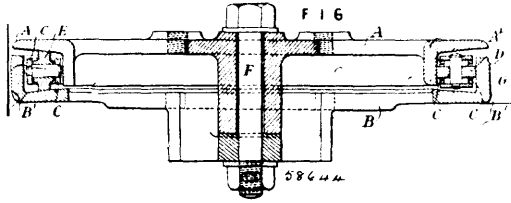
(Appareil de tirage pour chars de chemin de fer.)



The Thornburgh Coupler Attachment Company, Detroit, Michigan, assignee of William Thornburgh, Shelby, Ohio, both in the U.S.A., 12th January, 1898; 6 years. (Filed 19th November, 1897.)

Claim.—1st. In a draft apparatus, the combination of a draft-spring housing having two side walls, a top or cover and a rear end piece, a draft-spring provided with reciprocatory follower-plates located in said housing, and a removable support or spider carrying said follower plates, said side walls formed with integral inwardly projecting ribs or stops toward their extremities, and intermediate

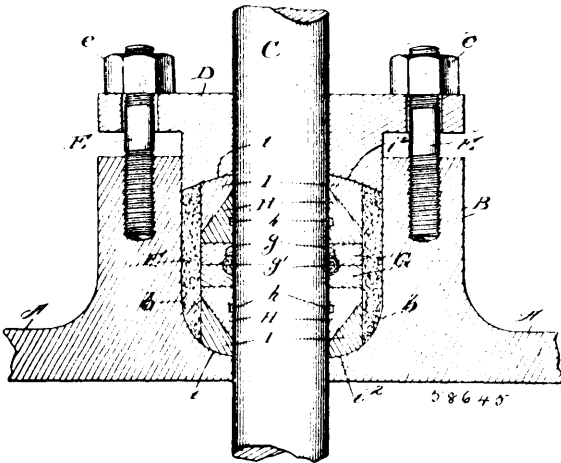
No. 58,644. Roller Bearing Locking or Undercarriage applicable to Electrical and other Motor Vehicle. (*Coussinet anti-frottant par rouls d'avant-train de vehicules.*)



The Electrical Vehicle Syndicate, Juxon Street, Lambeth, London, assignee of The Honorable Reginald Thomas Dudley Brougham, 22a Dorset Street, Portman Square, Middlesex, both of London, England, 12th January, 1898; 6 years. (Filed 15th December, 1897.)

Claim.—1st. A roller bearing locking or swivelling undercarriage composed of two concentric wheels one above the other and having their rims of angle iron form, the two rims enclosing an annular space into which a ring carrying horizontal and vertical rollers is inserted, the horizontal rollers being made conical and serving to keep the two wheels apart and the vertical rollers serving to keep them concentric. 2nd. The combination of the rims A¹, B¹, of the two wheels A, B, enclosing an annular space, the hollow ring C inserted into this space and carrying horizontal rollers D and vertical rollers E, and the bolt F which keeps the two wheels A, B, from moving apart. 3rd. The combination of the two rims A¹, B¹, enclosing an annular space and the hollow ring C inserted into this space and carrying horizontal rollers D and vertical rollers E, such hollow ring being formed of two concentric rings one smaller than and within the other, held together by distance pieces which may be the axes of the rollers E, and of two other rings or sections of rings held against the upper and under edges of the first rings by distance pieces which may be the axes of the rollers D.

No. 58,645. Piston Rod Packing. (*Garniture de tige de piston.*)



John Charles Williams, assignee of John William Dudley, both of Chicago, Illinois, U.S.A., 12th January, 1898; 6 years. (Filed 10th December, 1897.)

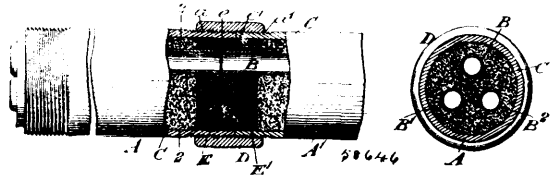
Claim.—The combination in a packing for piston-rods and the like, of the split rings H, and I, having inclined meeting faces and placed around the piston-rod, the rings H, having the grooves h, for a lubricant, with the rings G, provided with the grooves g, for a lubricant placed between the rings H, and an elastic packing sleeve composed of cork or analogous material located outside said rings against the walls of the packing box, substantially as described.

No. 58,646. Race-Way for Electric Conductors. (*Conduit pour fils electriques.*)

The American Silix Company, New York, State of New York, assignee of John Henry Bleo, Brooklyn, New York, both in the U.S.A., 12th January, 1898; 6 years. (Filed 30th June, 1897.)

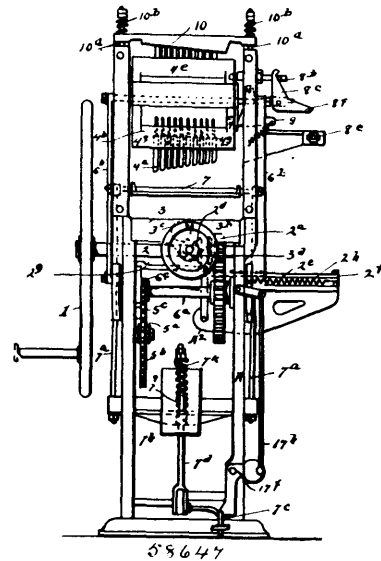
Claim.—1st. A race-way for the reception of a bare electric wire, the said race-way having an exposed inner metallic surface and

capable of being bent, in combination with means for insulating the race-way from surrounding objects, substantially as set forth. 2nd.



A metallic race way for the reception of an electric wire, in combination with a pipe surrounding the said race-way and an interposed layer of insulating material between the race-way and pipe, the said insulating material consisting of granules or particles free to move relatively to one another to adjust themselves to any bending of the race-way and pipe, to keep the insulating layer intact, substantially as set forth. 3rd. A race-way for the reception of a bare electric wire, the said race-way having an exposed inner metallic surface, in combination with a pipe surrounding the race-way and a layer of substantially pure powdered silix packed between the race-way and surrounding pipe, substantially as set forth. 4th. In combination, a plurality of pipe or conduit sections, metallic race-ways for electric conductors located within said pipe or conduit sections, an insulating packing intermediate of the race-ways and the interior walls of the conduit sections, wads of mica located at the adjacent ends of consecutive pipe or conduit sections, and means for holding the ends of the pipe or conduit sections in close contact, substantially as set forth. 5th. A plurality of pipe or conduit sections, means for insulating electric conductors from the interior walls of the sections, wads of mica fitted in the ends of adjacent sections and provided with corresponding receding and projecting portions on their adjacent faces, and means for drawing the adjacent faces of the mica wads into close contact, substantially as set forth.

No. 58,647. Indexing Machine. (*Machine à indexer.*)

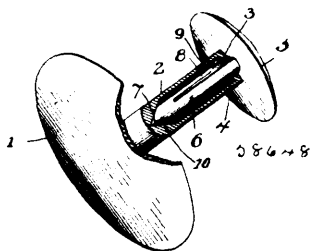


Robert J. Lerner, Grand Rapids, Michigan, assignee of Smith N. Webb, New York, State of New York, both in the U.S.A., 12th January, 1898; 6 years. (Filed 18th December, 1897.)

Claim.—1st. In an indexing machine, the combination of a cylinder provided with gauges and printing-type, and adapted to both rotate and reciprocate, an ink-pad adapted to contact the printing-type, a book-supporting table, and back-support adjustable on said book-supporting table, a presser-plate, means for reciprocating the cylinder, means adapted to rotate the cylinder during one part of its reciprocation, substantially as described. 2nd. In an indexing-machine, the combination of a book-supporting table, a presser-plate, a cylinder provided with gauges and type-arms, means for reciprocating and means for revolving the cylinder, a main driving-wheel, a clutch, connection between the main driving-wheel and the cylinder-actuating mechanism, and means for automatically disconnecting the clutch, substantially as described. 3rd. In an indexing-machine, the combination of a cylinder provided with gauges and printing-type, and adapted to both rotate and reciprocate, an ink-pad adapted to contact with the printing-type, a book-supporting table, a presser-plate, means for reciprocating the cylinder, and means

adapted to rotate the cylinder during one part of its reciprocation, and a locking-pin engaging the cylinder and preventing its rotation during another part of its reciprocation, substantially as described. 4th. In an indexing-machine, the combination of a cylinder provided with gougues and printing-type, a main driving-wheel and shaft, a crank-wheel adapted to reciprocate the said cylinder, a clutch engagement immediately connecting the main driving-wheel and the crank-wheel, means for actuating said clutch to bring it into engagement, and means for automatically disengaging the clutch, substantially as described. 5th. In an indexing-machine in combination with a book-supporting table, a rotating and reciprocating cylinder provided with gougues and printing-arms, means for adjusting the gougues, substantially as described.

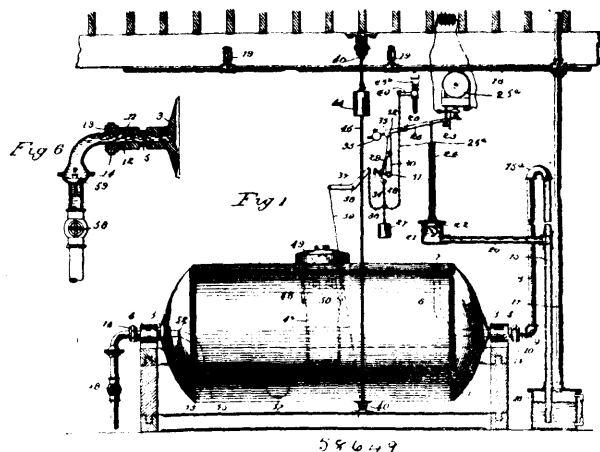
No. 58,648. Separable Button. (*Bouton séparable.*)



Willard A. Ingalls and Theodore Erwin Pearson, both of South Bend, Washington, U.S.A., 12th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—1st. A separable button comprising the back having the integral tubular stem formed at its lower end with a conical seat and at its upper end with an inwardly-projecting continuous annular flange, and with an external rib provided with inclined sides and a head provided with a stem tangentially slit longitudinally its length from its upper to its lower end to form a spring arm terminating at its upper separated end in a tooth adapted to engage the inwardly-projecting flange, the conical end of said stem resting in the conical seat of the shank, whereby lateral or wobbling motion of one part of the button with respect to the other part is prevented, substantially as set forth. 2nd. A separable button comprising the back 1, the integral tubular shank 2, provided with the conical recess 10, annular flange 3, and tooth or rib 4, in combination with the button head 5, provided with a stem 6, formed with a conical point 7, and a spring arm 8 terminating in a tooth 9, adapted to engage the flange 3 of the shank 2 to secure said head to the back, substantially as shown and described.

No. 58,649. Fire Extinguishing System. (*Système d'extincteur d'incendie.*)



The Fire Extinguisher Manufacturing Company, assignee of George Hozard Robinson and Ernest Frederick Steck, all of New York, State of New York, and Chicago, Illinois, U.S.A., 12th January, 1898; 6 years. (Filed 18th November, 1897.)

Claim.—1st. A fire-extinguishing system consisting of the combination of a series of fluid-distributing pipes normally free from liquid and containing a gas under low pressure, with a high-pressure primary fluid supply and a secondary fluid supply at lower pressure, means for throwing said primary supply into action, means whereby the low-pressure supply is thrown into condition for action by the

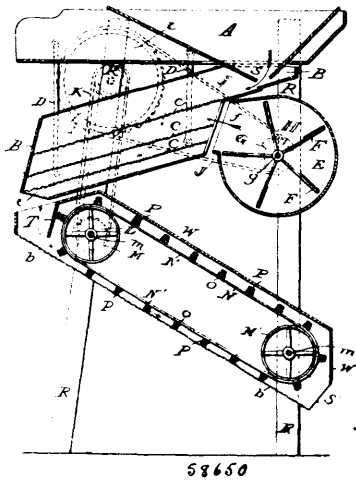
some act, and means whereby the excess of pressure of the primary supply will restrain the flow from the secondary supply until the primary supply is partially exhausted, substantially as described. 2nd. The combination of the dry distributing pipes, the chemical supply communicating therewith, the secondary liquid supply in communication with the chemical supply and having a normally-closed valve for holding it in check, and a single operating means held in check by the air in the dry pipes, and constructed to simultaneously set in operation the chemical supply and open the said valve of the secondary supply, substantially as shown and described. 3rd. A fire-extinguishing system consisting of the combination of a series of fluid-distributing pipes, with a primary chemically-operating fluid supply, and a secondary fluid supply, constructed and arranged substantially as shown and described, the primary fluid-supplying apparatus being an intermediate part in that system of consecutive channels which extends from the source of the secondary supply to the outlets of the fluid-distributing pipes, and means for setting the primary and secondary supply apparatus into action simultaneously, as and for the purposes set forth. 4th. A fire-extinguishing system consisting of the combination of a series of fluid-distributing pipes, with a primary chemically-operating fluid supply, a containing-cylinder, a secondary fluid supply connected by a pipe to the primary supply, a valve on said pipe, and means for upsetting the cylinder of the primary apparatus and simultaneously opening the valve. 5th. A fire-extinguishing system having in combination a partially-rotatable cylinder or receptacle for containing an extinguishing fluid and gas-producing substances held in separation, the piping system connected with said cylinder, a pipe or passage adapted to be connected with a head of fluid under pressure and having communication with said cylinder, and a valve for closing communication between said cylinder and pipe, opened by the movement of said cylinder, substantially as set forth. 6th. A fire-extinguishing system having in combination a partially-rotatable cylinder for containing extinguishing fluid and gas-producing chemicals held in separation, the pipe system connected therewith, the secondary supply also communicating with said cylinder and having a check-valve opening under pressure from the secondary supply, and a second valve for closing communication between said cylinder and secondary supply located at a point between the cylinder and check-valve and connected with and operated by said rotating cylinder, substantially as set forth. 7th. A fire-extinguishing system consisting of the combination of a series of fluid-distributing pipes, with a secondary fluid supply and a primary chemically-operating fluid supply connected to the secondary supply and to the pipe system, as shown, suitable valves between the primary and secondary supplies, and means for upsetting the chemical apparatus and means for opening said valves by the act of upsetting, whereby the opening of said valves will create a free channel from the secondary supply through the primary apparatus to the pipe system. 8th. A fire-extinguishing system consisting of the combination of a series of fluid-distributing pipes provided with one or more fusible sprinklers, a source or sources of extinguishing fluid or fluids, means for causing the discharge of said extinguishing fluids, a float connected to such means, a seat for said float and a liquid-retaining column extending above said seat and held to the seat by a compressible fluid situate between the liquid and the fusible sprinklers. 9th. A fire-extinguishing system having in combination a source or sources of extinguishing fluid, means for setting same in operation, the pipe system connected with said source or sources charged with a liquid counterbalance whereby the operative means are controlled, fluid-pressure in said pipes acting as a counterbalance for said liquid counterbalance, and a liquid-feeding column, whereby the elevation of the liquid counterbalance remains constant under certain changes of condition, substantially as shown and described. 10th. A fire-extinguishing system having in combination a source or sources of extinguishing fluid, means for setting same in operation, the piping system, a gooseneck having one end connected with said source or sources and forming an overflow, a chamber into which the other end of said gooseneck dips and from the upper side of which the piping system rises, a vessel communicating with said gooseneck and chamber and being located below the upper end of said gooseneck, and a float in said vessel connected with said operating means, substantially as set forth. 11th. A fire-extinguishing system having in combination a source or sources of extinguishing fluid, a gooseneck connected with said source or sources at one end, a chamber into which the other end of the gooseneck dips, the piping system rising from said chamber, a vessel located below the upper end of said gooseneck and communicating therewith, a float located in said vessel and having a connection with said operating means, and a stand-pipe rising from said cylinder around said connection for catching leakage, substantially as set forth.

No. 58,650. Grain Separator. (*Séparateur à grain.*)

John P. Rossiter, assignee of Reuben Wellington Rossiter, both of Minneapolis, Minnesota, U.S.A., 12th January, 1898; 6 years. (Filed 20th December, 1897.)

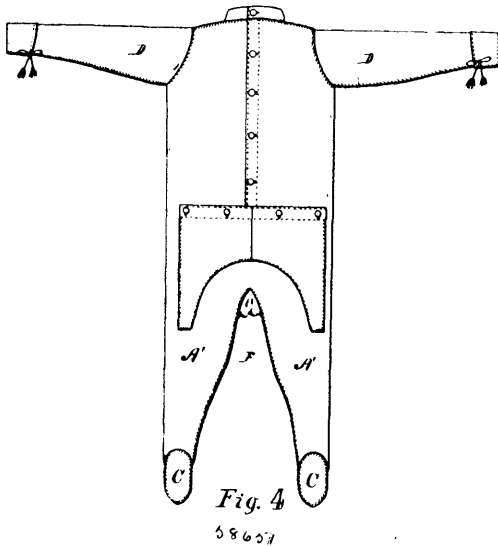
Claim.—1st. In a machine of the class described, the combination, with a screen, of a slatted belt operating over the same, and a series of brushes arranged at intervals upon the under surface of the slats, for the purpose set forth. 2nd. In a machine of the class described, the combination, with a screen, of a slatted belt operating over the

same, a series of brushes arranged at intervals upon the under surface of the slats, and said brushes alternating in position on each



slat with the brushes on the preceding slat, substantially as described. 3rd. In a grain-cleaning and separating machine, the combination, with a screen, of a slatted belt, a series of brushes arranged thereon, and a belt or apron drawn over said slatted belt and yieldingly supported by said brushes, for the purpose set forth. 4th. In a grain-cleaning and separating machine, the combination, with a perforated screen, of a pair of rollers, a brush-belt thereon having transverse brush-slats, and a canvas belt or apron drawn over said brush-belt and yieldingly supported by the transverse brush-slats for holding it flat and preventing vibration thereof, substantially as described.

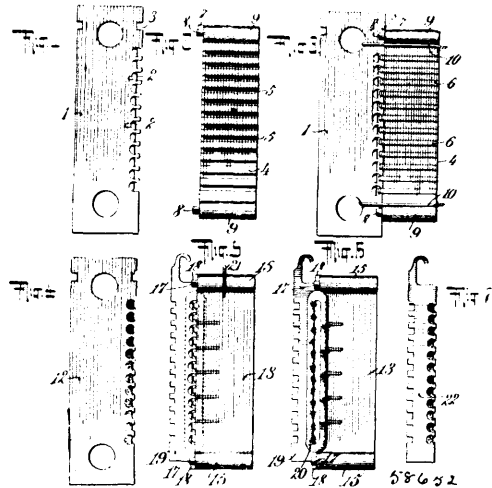
No. 58,651. Sleeping Garment. (*Vêtement de nuit.*)



The W. Denton Co., assignee of Lillian Denton, both of Centerville, Michigan, U.S.A., 12th January, 1898; 6 years. (Filed 10th December, 1897.)

Claim.—1st. A bifurcated sleeping garment consisting of a fabric tube, its upper portion forming the body and having its lower end divided centrally and the edges seamed together to form the leg portions, the outer sides of each leg portion being opened from the lower edge upwards to form in connection with the lower portion of the central cut, front and rear flaps for the toe and heel respectively, and a flat sole corresponding to and fitting the said flaps, the flaps and sole being joined at their edges. 2nd. As an article of manufacture, a garment having its leg portion opened at the lower end at each side to form a front and rear flap for the toe and heel respectively and a flat sole corresponding to and fitting the said flaps, the flaps and sole being joined at their edges.

No. 58,652. Method of and Means for Making Matrix Bars for Line Casting Machines. (*Méthode et moyen de faire les barres de matrices pour machines de coulage.*)

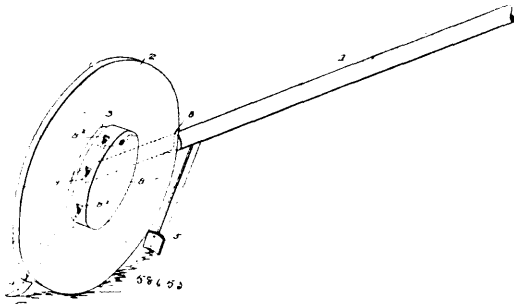


The Manoline Composing Company, Washington, Columbia, assignee of Wilbur Stephen Seudder, Brooklyn, New York, both in the U.S.A., 12th January, 1898; 6 years. (Filed 30th August, 1897.)

Claim.—1st. The method herein described of making a matrix-bar, which consists in constructing a primary master-matrix, reproducing the character-face thereof in relief on the edge of a plate, adjusting the relief character-face to the recessed edge of a matrix blank, insulating these parts except where an electro-deposit is to be made, and electro-depositing a metal to produce in intaglio in the recessed edge of the blank the relief character-face of said plate, substantially as set forth. 2nd. The method herein described of making a matrix-bar, which consists in fixing relief characters in a plate, adjusting this plate with its relief characters relatively to recesses in the edge of a primary master-matrix blank, insulating the parts except where an electro-deposit is to be made, electro-depositing a metal to produce in intaglio in the recessed edge of the master-matrix blank the relief characters of the plate to obtain a primary master-matrix, casting from this master-matrix a type line or slug having relief characters, fitting the relief characters of the type line or slug relatively to recesses in the edge of a matrix-blank, insulating these parts except where an electro-deposit is to be made, and electro-depositing a metal to produce in intaglio in the recessed edge of the matrix-blank the relief characters of the type line or slug, to obtain a completed matrix-bar bearing in one edge a plurality of intaglios, substantially as set forth. 3rd. In the art of manufacturing matrix-bars, a type-bar or slug having a solid line of relief characters on one edge and provided with gauge-lugs to position the type-bar or slug, lengthwise and sidewise, with relation to the recessed edge of a matrix-blank, substantially as set forth. 4th. A type-bar or slug for manufacturing a matrix-bar with intaglio characters, consisting of a solid plate having on one edge a line of spaced relief characters and gauge-lugs to position said solid plate lengthwise and sidewise with its relief characters in proper relation to the recesses in the edge of a matrix-blank in which the relief characters are to be reproduced in intaglio, substantially as set forth. 5th. The method herein described of making a matrix-bar, which consists in obtaining a primary master-matrix by electro-deposition of metal from relief characters of types or dies, casting a type-bar or slug from the primary master-matrix, fitting this type-bar or slug to the edge of a recessed matrix-blank, and obtaining a completed matrix-bar by electro-deposition of metal in the recesses of the matrix-blank about the relief characters of the type-bar or slug, substantially as set forth. 6th. As a means for manufacturing matrix-bars, for a line casting machine, a primary master-matrix obtained from relief characters fixed in a type or die holder, and by which is cast a type-bar or slug bearing a solid line of relief characters from which to reproduce intaglios in the recessed edge of a matrix-blank, substantially as set forth. 7th. The method herein described of making a matrix-bar, which consists in preparing a primary master-matrix by fixing relief characters in a plate having gauge-lugs, fitting a recessed blank lengthwise and sidewise relatively to the plate through the medium of said gauge-lugs, electro-depositing metal in the recesses of the blank about the relief characters to reproduce the latter in intaglio and obtain the primary master-matrix, casting from said master-matrix a type-bar or slug bearing a solid line of relief characters, positioning this type-bar or slug lengthwise and sidewise relatively to the recessed edge of a matrix-blank, insulating the parts, except where an electro-deposit is to be made, and electro-depositing a metal to produce in intaglio in the recessed edge of the matrix-blank the relief characters of the type-bar or slug, to obtain a completed matrix-bar bearing in one edge a plurality of intaglios, substantially

as set forth. 8th. In the art of manufacturing a matrix-bar, for a line casting machine, a type-bar or slug having a line of relief characters and gauge-lugs on one edge and formed integral at its end portions with thickened pillars or posts, substantially as set forth. 9th. In the manufacture of matrix-bars, a type or die holder, consisting of a plate having spaced, transverse grooves and opposing gauge-lugs on one edge, and cameo type fixed in said grooves with their cameo characters located centrally between said opposing gauge-lugs, substantially as set forth.

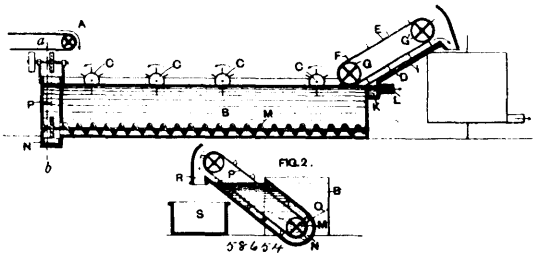
No. 58,653. Seed Drill. (Semoir en ligne.)



Thomas Joel King, Richmond, Virginia, U.S.A., 12th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—In a seed drill, the combination with a handle, of a supporting wheel or disc journaled to the lower end thereof, a furrow opener secured to said handle in advance of the supporting wheel, a furrow closer secured to said handle and projecting downwardly at the rear of the wheel, a seed cup secured to the side of said wheel and provided with a series of triangular openings, and a removable rotatably adjustable cap or cover having a corresponding number of registering triangular openings in its side, the apices of which are reversed to those of the cup, whereby in the rotary adjustment of the cup the seed openings will be enlarged or diminished without the necessity of extending said cup laterally, substantially as set forth.

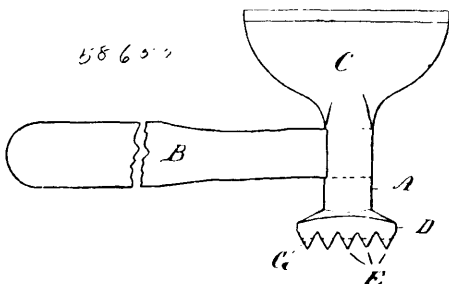
No. 58,654. Manufacture of Wood Pulp. (Fabrication de pulpe.)



Nils Pedersen, Borregard, Sarpsborg, Tunc, Norway, 12th January, 1898; 6 years. (Filed 22nd February, 1896.)

Claim.—1st. In the manufacture of wood pulp, the tank containing fluid, beaters for submerging the disintegrated wood, inclined plane and endless conveyer for moving the separated floating woody fibre, and receptacle to receive same, all acting together substantially as described and for the purpose set forth. 2nd. In the manufacture of wood pulp, the tank containing the fluid beaters for submerging the disintegrated wood, inclined planes and endless conveyer for removing the separated floating woody fibre, with receptacle to receive the same, and a conveyer for simultaneously removing the deposited foreign matters, all acting together substantially as described and for the purpose set forth.

No. 58,655. Meat Hammer. (Pilon à viande.)

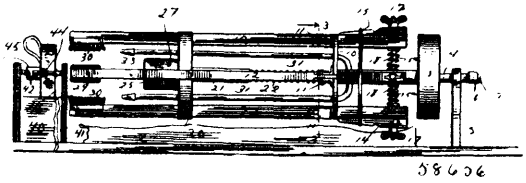


Emile Barbeau and Damien Morin, both of Ottawa, Ontario, Canada, 12th January, 1898; 6 years. (Filed 29th December, 1897.)

Claim.—A meat hammer having a face provided with parallel V-notches forming ridges E, said ridges crossed by lesser notches G, and forming oblong teeth, as and for the purpose set forth.

No. 58,656. Bottle-Washing Machine.

(Machine à laver les bouteilles.)

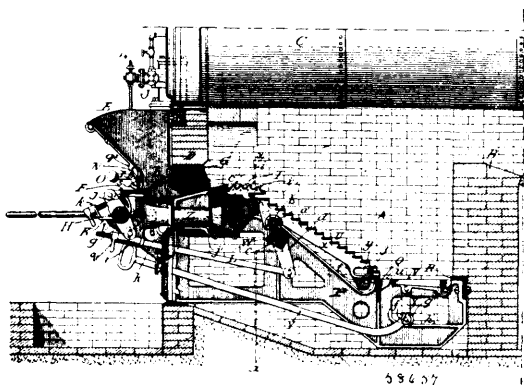


James Franklin Leeper and Harvey C. Burkett, both of Lewiston, Pennsylvania, U.S.A., 12th January, 1898; 6 years. (Filed 23rd December, 1897.)

Claim.—1st. In a bottle-washing machine, the combination with a rotary hollow shaft, a wheel carried thereby, arms pivoted in said wheel and standing approximately parallel with the shaft, brushes carried by the free ends of said arms, and springs pressing said brushes normally inward, of a disc whose hub slides longitudinally on said shaft and is provided with a conical mouth, said disc having a series of radial slots in which the arms move, and a spring forcing said conical mouth toward the end of the shaft, as and for the purpose set forth. 2nd. In a bottle-washing machine, the combination with a rotary hollow shaft, a wheel carried thereby, arms pivoted in said wheel and standing approximately parallel with the shaft, brushes carried by the free ends of said arms and means for limiting the movement of the brushes, of a disc sliding on the shaft and having radial slots in which said arms move, and provided with a conical mouth for the reception of the mouth of the bottle, as and for the purpose set forth. 3rd. In a bottle-washing machine, the combination with a rotary hollow shaft, a wheel carried thereby, and a radially slotted disc also carried thereby, and having a hub with a conical mouth, of arms pivoted in said wheel and movable radially in the slots of said disc, inwardly facing brushes carried by the free ends of said arms, rods radiating from said shaft, and passing through the inner ends of the arms, expansive springs between the shaft and said inner ends, and thumb-nuts on the outer ends of said rods, as and for the purpose set forth. 4th. In a bottle-washing machine, the combination with a rotary hollow shaft, and a wheel carried thereby, the end of the shaft having a conical mouth, of a series of arms pivoted in said wheel, inwardly facing brushes at their outer ends, wedges on the outer sides of their inner ends, a collar surrounding said inner ends and wedges, expansive springs between the shaft and said inner ends, and means for limiting the outward throw of said springs, as and for the purpose set forth. 5th. In a bottle-washing machine, the combination with a rotary hollow shaft having a sleeve forming a shoulder, a wheel carried by said shaft and having brackets, a series of arms pivoted in said brackets and standing approximately parallel with the shaft, brushes of wire, and of bristles carried by the front ends of alternate arms, and means for adjusting the opposite ends of said arms to and away from the shaft, of a disc whose hub slides longitudinally on said shaft and is provided with a conical mouth, the body of the disc having radial slots for the reception of said arms and an expansive spring between said disc and the shoulder of the shaft, as and for the purpose set forth. 6th. In a bottle-washing machine, the combination with a hollow rotary shaft, a disc thereon whose hub has a conical mouth and whose body is provided with radial slots, and a series of arms pivotally connected with the shaft, extending through said slots, and having inwardly facing brushes on their free ends, of pipes leading outwardly from said shaft, extending through holes in said disc, standing parallel with the shaft, and having their delivery ends directed toward the brushes, as and for the purpose set forth. 7th. In a bottle washing machine, the combination with a base having bearings, a hollow rotary shaft journaled therein and carrying at its extremity an interior washing device, a spring-pressed cone mounted on said shaft, and a series of brushes carried by the shaft for washing the interior of the bottle, of a bottle-support mounted upon said base, posts rising therefrom, longitudinal rods connecting the posts in pairs, and a presser-plate for the bottom of the bottle having lateral perforated ears sliding on said rods, as and for the purpose set forth. 8th. In a bottle washing-machine, the combination with a base, a hollow rotary shaft carried thereby, a spring-pressed cone mounted on said shaft, and a series of brushes connected with the shaft for washing the exterior of the bottle, of a bottle-support also carried by the base, a presser-plate movable longitudinally on guides carried by the support, a handle on the rear of said plate, and a facing on the front of said plate making frictional contact with the exterior of the bottom of the bottle, as and for the purpose set forth. 9th. In a bottle washing-machine, the combination with a base, a rotary shaft thereon having a spring-pressed conical mouth for the reception of the bottle-mouth, and a series of brushes carried by said shaft for washing the exterior of the bottle, of a bottle-support on the base, a presser-plate movable longitudinally

ally thereon, and having a facing sheet on its front face bearing frictionally against the exterior of the bottom of the bottle, and a pin movable longitudinally through said support and through the centre of such sheet so as to impinge against the bottom of the bottle, as and for the purpose set forth. 10th. In a bottle washing-machine, the combination with a base, a hollow rotary shaft carrying interior bottle washing devices, a spring-pressed cone mounted on said shaft, and a series of radially adjustable brushes carried by said shaft for washing the exterior of the bottle, of a bottle-support, a presser-plate mounted longitudinally thereon, a sheet carried by the face of said plate and bearing frictionally against the exterior of the bottom of the bottle and a longitudinally movable pin adjustable through the centre of said sheet, as and for the purpose set forth.

No. 58,657. Mechanical Stoker. (Chauffeur mécanique.)



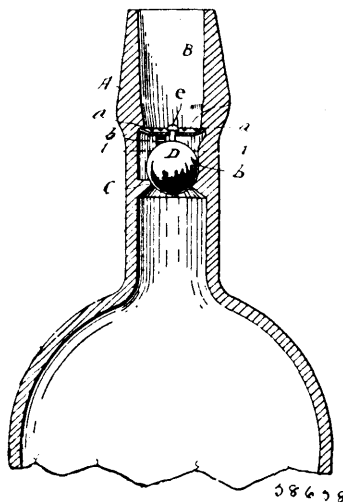
James C. Keough, assignee of R. Greuter, both of Holyoke, Mass., U.S.A., 12th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. In a stoking apparatus for furnaces, the combination of a downwardly inclined grate, a fixed bed or fuel support at the upper end of the grate, a feed hopper, an upwardly inclined feeding throat or passage, the lower wall or floor of which extends in a direct line and a slight upward inclination from the bottom of the feed hopper to the fixed fuel bed or support, and a reciprocating slide working across the hopper and serving to force material therefrom through the feeding passage and to deliver it upon the fixed fuel bed or support, substantially as set forth. 2nd. In combination with the fire-box or chamber of a furnace, a fuel hopper, a reciprocating slide or pusher movable across said hopper, an opening extending across the hopper above the slide, and a gravitating gate bearing upon the slide at the forward or outer side of the hopper, and serving the double purpose of a closure for the opening and a scraper for the slide. 3rd. In combination with hopper E, having lugs *g*, gate N, provided with lugs *s*, and levers O, provided with links *r*, all constructed and arranged substantially as described and shown. 4th. In combination with fuel hopper E, and slide or pusher F, a delivery trunk *c*, extending upward therefrom at a slight inclination and of regularly increasing vertical measurement, and a fuel bed or supporting plate T, at the rear end of the trunk *c*, all substantially as described and shown. 5th. In combination with a feed hopper, a delivery slide or pusher, a shaft, a sleeve encircling said shaft and having a radial arm connected with the slide or pusher, a rocking-head carried by the shaft, movable relatively to the sleeve and provided with a shoulder to engage the arm of said sleeve, and a screw also carried by the rocking-head and adapted to bear upon the arm of the sleeve at a point opposite that at which the shoulder bears, whereby the rocking-head is adapted to impart movement to the sleeve, but with lost motion determined by the adjustment of the screw. 6th. In combination with shaft I, sleeve H, encircling said shaft provided with arms *c*, slide or pusher F, connected with said arms, hopper E, rocker K, provided with shouldered rib *j*, and screw *l*, sleeve M, provided with bolt *n*, arm *f*, secured to shaft I, and motor J, connected with arm *f*. 7th. In combination with a feed hopper and a feeding slide or pusher, a rocking sleeve or shaft connected with and serving to reciprocate said slide, a rocking-head adapted to receive the power required for oscillating the sleeve or shaft, means for connecting and disconnecting the rocking-head with a source of power, and an adjustable connection between the rocking-head and sleeve or shaft, whereby the extent of movement of the sleeve or shaft may be varied while that of the head remains constant. 8th. In combination with hopper E, slide F, shaft I, sleeve H, provided with arms *c*, for moving the slide F, rocking-head K, and means substantially such as described and shown for connecting the sleeve and the rocking-head. 9th. In combination with a suitable frame, the grate composed of alternate fixed and movable bars, *v* and *x*, rock-shaft W, provided with removable sleeves *c*, having bosses *b*¹, and means for oscillating said shaft. 10th. In combination with grate bars *v* and *x*, provided with slots *y*, rollers *z*, passing through said slots, and rock

shaft W, having bosses *b*¹, seated in recesses in the bars *x*. 11th. In combination with a series of alternate fixed and movable grate bars, each provided with a slot *y*, two rollers *z*, passing through said slots and placed in axial alignment, substantially as and for the purpose set forth. 12th. In a furnace, an air box located at the front of the fire grate, and provided at its top with a series of upwardly projecting mouths or nozzles for delivery of air. 13th. In combination with an inclined fire grate, an air box at the front thereof provided with openings in its top for escape of air above the grate, and with an opening in its bottom provided with a slide or damper to permit and control delivery of air beneath the grate. 14th. In a furnace, the combination of an air box located at the front of the fire grate and provided with a series of upwardly projecting mouths or nozzles for delivery of air, and means for producing a blast or forced draft through said nozzles. 15th. In combination with a grate frame provided with a rib *h*¹, having an upwardly turned forward end, a grate V, pivoted at a point distant from its front edge, and a supporting brace X, having a roller *g*¹, arranged to traverse the upwardly turned portion of the rib and thereby to elevate the front of the grate above its normal plane. 16th. In combination with a grate frame having a toothed bar, and with an inclined grate carried by said frame, a clinker grate located at the lower side of the inclined grate, and means substantially as described for moving the edge of the clinker grate past the toothed bar, for the purpose set forth. 17th. In combination with a grate frame, having a toothed bar Q, and flange or rib *h*¹, curved as described, swinging grate V, brace X, roller *g*¹, carried by said brace and arranged to traverse the curved portion of rib *h*¹, and bar Y, for moving the brace, whereby the free edge of grate V is caused to move upward past the teeth of bar Q, and thereby to break and dislodge clinkers there located.

No. 58,658. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)



Frank G. Bradford and John H. Ricketts, both of Detroit, Michigan, U.S.A., 12th January, 1898; 6 years. (Filed 13th December, 1897.)

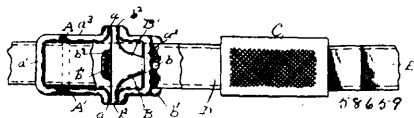
Claim.—1st. In a bottle, the combination with the neck having a reduced interior aperture forming an annular shoulder *a*, and having in the aperture of the neck below said shoulder a diametrically extending valve seat, the ball valve thereon, the vertical radially projecting ribs extending between the valve seat and said shoulder, and the spring confining disc located in the neck of the bottle above the valve and engaging said shoulder *a* therein. 2nd. In a bottle, the combination with the neck thereof having a reduced interior opening terminating in an annular shoulder therein, the annular valve seat below said shoulder, the ball valve, the series of vertical radial ribs embracing said valve and extending between said shoulder and seat, the spring disc located in the neck of the bottle and engaging said shoulder, and the screw passing through said disc and engaging said valve.

No. 58,659. Buckle. (Boucle.)

Lewis D. Rank and John Cramer, both of Williamsport, Pennsylvania, U.S.A., 12th January, 1898; 6 years. (Filed 11th December, 1897.)

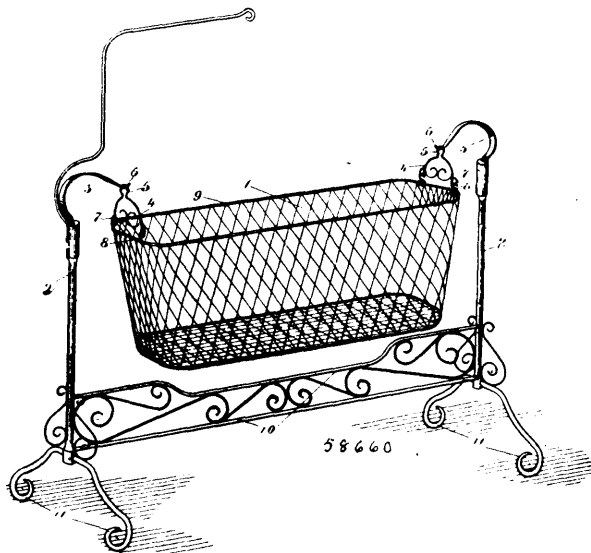
Claim.—1st. In a buckle, the combination with the main rectangular member thereof having upper and lower bars lying in different planes, the lower bars having a cross-piece connecting its side pieces, a second member adapted to be pivotally connected to the first, a triangular piece extending from the axis of the second member and

carrying the tongue of the buckle, and a frame also extending from the axis of the said member for attachment to the harness. 2nd.



In a buckle, the combination with the main member thereof provided with bearings, a second member having journals resting in the said bearings, a triangular piece extending from the axis of the second member and carrying the tongue of the buckle, a frame also extending from the axis of said member for attachment to the harness, and a friction roller journaled on the axis of the second member.

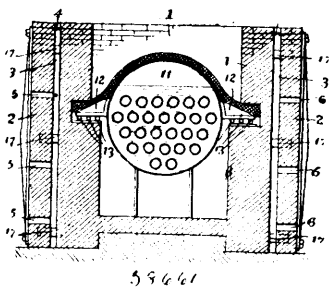
No. 58,660. Swinging Cot and Baby Jumper.
(Berceau.)



Thomas George Rice, Toronto, Ontario, Canada, 12th January, 1898; 6 years. (Filed 11th December, 1897.)

Claim.—1st. In a swinging cot or baby jumper, the combination of supporting circular band springs 3, secured in the standards 2, with the swinging cot 1, substantially as shown and described. 2nd. In a swinging cot or baby jumper, the combination of supporting circular band springs 3, secured in the standards 2, with the ornamental connecting links 4, and swinging cot 1, substantially as shown and described.

No. 58,661. Boiler Setting. (Support de chaudière.)

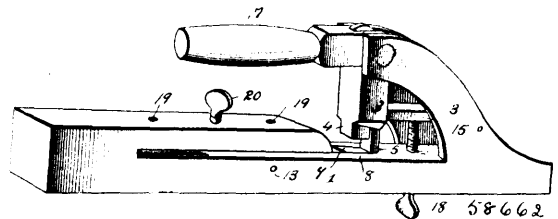


Louis Bernhard, Bridgeport, Connecticut, U.S.A., 12th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—1st. A boiler setting comprising an inner or main wall upon which the boiler is freely supported, an outer wall, an air space between the inner and outer walls and extended from the

bottom up through the top thereof into the outside air, openings through the outer wall whereby fresh air is supplied to said space, pockets in the outer wall and opening into said space, and loose bricks resting within these pockets and of a length slightly less than the distance between the end walls of these pockets and the main wall, substantially as set forth. 2nd. A boiler setting comprising double walls separated by an intermediate air space, one of such walls being provided with pockets opening into such space and with loose bricks resting in said pockets, and of a length slightly less than the distance between the end walls of said pockets and the opposite wall, substantially as set forth.

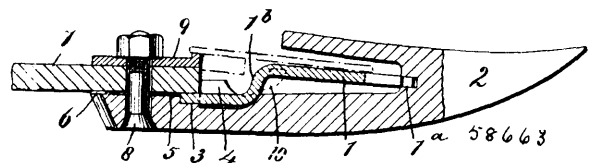
No. 58,662. Saw-Set. (Outil à contourner.)



James Adam Kidwell and Oscar J. Harn, both of Gorton Heights, Pennsylvania, U.S.A., 12th January, 1898; 6 years. (Filed 26th November, 1897.)

Claim.—1st. A saw-set, consisting of a body portion having a guide, an opening in said body portion, a rotatable screw-threaded bolt situated within said opening and provided with devices for turning the same and with a nut, a gauge-block pivoted to said nut, and an adjustable die and devices for operating the same. 2nd. A saw-set, consisting of a body portion having an adjustable gauge-block and a guide, a die and devices for operating the same, a slot in said die, and a pivoted finger having an extension situated within the slot, and a set-screw for controlling the extent of movement of said pivoted finger.

No. 58,663. Reaping and Mowing Machine Finger.
(Garde pour moissonneuses et faucheuses.)



Thomas Charles Sargeant, Northampton, England, 12th January 1898; 6 years. (Filed 21st December, 1897.)

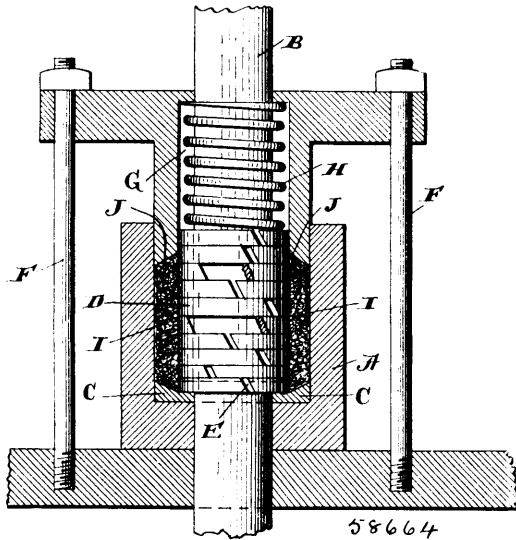
Claim.—1st. In a mowing or reaping machine finger and in combination, the cutter bar, a liner for the finger, and means for holding the rear edge of same between the lower edge of the cutter bar and the finger so that the liner is readily removable, substantially as described. 2nd. In a mowing or reaping machine finger and in combination, the cutter bar, a liner for the finger, and means for holding the liner between the finger and the cutter bar, so that the upper surface of the liner is level with one face of the cutter bar and with the rear edge of the finger so that the liner is automatically adjusted and readily removable, substantially as described. 3rd. In a mowing or reaping machine finger and in combination, the cutter bar, a liner for the finger, a recess in the back of the finger in which the liner seats, and in which it is held by the lower surface of the cutter bar, means for holding the forward end of the liner and means for securing the finger to the cutter bar so that the liner is readily removable, substantially as described. 4th. In a mowing or reaping machine finger and in combination, the cutter bar, a liner for the finger, a recess in the back of the finger in which the liner seats, ears on either side of the recess to prevent the liner moving laterally, and projections or seatings at the rear end of the finger with which the upper edge of the liner is in line, and means for holding the finger and liner against the cutter bar so that the liner is readily removable from the finger, substantially as described.

No. 58,664. Rod Packing. (Garniture de tiges.)

Clark F. Rigby, Mannington, West Virginia, U.S.A., 12th January, 1898; 6 years. (Filed 9th December, 1897.)

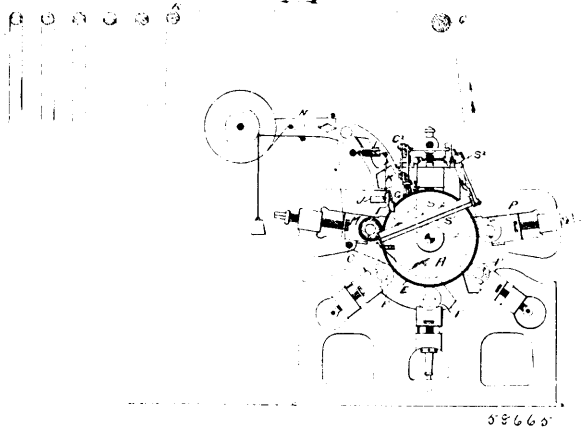
Claim.—The rod packing shown and described, comprising the rod, the stuffing-box, the bottom ring C therein, the split packing-rings on ring C, and surrounding the rod, the body of soft packing surrounding the packing-rings and resting on ring C, the portion of ring C on which the body of soft packing rests flared inwardly, the expansive coiled spring H surrounding the rod and bearing on the top packing-ring and yieldingly holding said rings to their work without excessive pressure of twisting or jamming, and the adjust-

able gland inclosing the spring and holding it to its work and provided with the extension inclosing the upper rings and having the



bevelled end pressing the soft packing against the rings, substantially as described.

No. 58,665. Calico and like Printing Machine.
(*Machine à imprimer l'indienne.*)



James Allan Sackville and John Henry Swallow, both of Pendlebury, Lancaster, England, 12th January, 1898; 6 years. (Filed 25th October, 1897.)

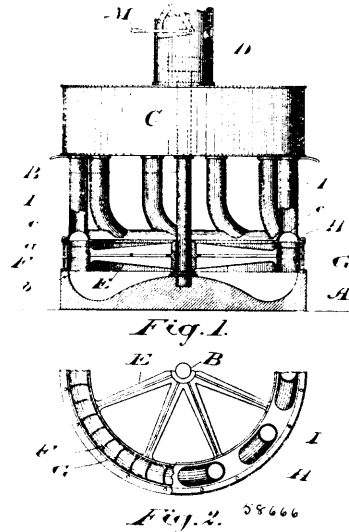
Claim.—1st. The process for printing fabrics without the use of lappings, blankets and back-greys, the herein described treatment consisting in, first, spraying or moistening any excess colour which may get on to the printing bowl, then working the said moistened colour into a puddle or curd, and then removing such liquified colour by a squeegee or like device and cleaning roller, as set forth. 2nd. In a calico and (or) like printing machine, the combination of rubber covered bowl A, spray pipe E, brush G, squeegee or doctors I and S and roller M, all mounted and operating, as and for the purposes set forth. 3rd. In a machine such as is hereinbefore described, the use of the combination of brush G, links G², and levers G¹, rod G³, and eccentric H, or other source of motion, as set forth. 4th. The combination of bowl A, with a belt of india-rubber or other similar elastic material passing round such bowl, and a side roller (or rollers) in combination with our aforesaid colour removing apparatus, substantially as set forth.

No. 58,666. Turbine Water-Wheel. (*Turbine.*)

John Sharp, Gravenhurst, Ontario, Canada, 12th January, 1898; 6 years. (Filed 3rd December, 1897.)

Claim.—1st. In a water-wheel, a wheel secured to a vertically journalled shaft, and a series of radial buckets inclined from the vertical and secured to the rim, in combination with a frame surrounding the buckets, a cover therefor provided with a series of openings each extending over two or more buckets, and a curved conductor connected with each of the said openings and with a source of water supply, substantially as and for the purpose specified.

2nd. In a water-wheel, a wheel secured to a vertically journalled shaft and a series of curved radial buckets inclined from the vertical at sub-



stantially an angle of forty-five degrees and secured to the rim, in combination with a frame surrounding the buckets, a cover therefor provided with a series of openings, each extending over two or more buckets and a curved conductor connected with each of the said openings and with a source of water supply, the arms in the conductors being such as to discharge the water at substantially a right angle to the surfaces of the buckets, substantially as and for the purpose specified. 3rd. In a water-wheel, a wheel secured to a vertically journalled shaft and a series of curved radial buckets inclined from the vertical at substantially an angle of forty-five degrees and secured to the rim, in combination with a frame surrounding the buckets, a cover therefor provided with a series of openings, each extending over two or more buckets, and a curved conductor connected with each of the said openings, a tank with which the said conductors are connected, a flume connected with the tank, a cut-off valve in the said flume, and a cut-off valve for each conductor, substantially as and for the purpose specified. 4th. In a water-wheel, a wheel secured to a vertically journalled shaft and a series of curved radial buckets inclined from the vertical at substantially an angle of forty-five degrees and secured to the rim, in combination with a frame surrounding the buckets, a cover therefor provided with a series of openings, and a curved conductor connected with each of the said openings and with a source of water supply, the arms in the conductors being such as to discharge the water at substantially a right angle to the surfaces of the buckets, substantially as and for the purpose specified. 5th. In a water-wheel, a wheel secured to a vertically journalled shaft and a series of curved buckets comprising a short vertical upper portion and a lower portion inclined substantially at right angles of forty-five degrees, in combination with a frame surrounding the buckets, a cover therefor provided with a series of openings, each extending over two or more buckets, and a curved conductor connected with each of the said openings and with a source of water supply, substantially as and for the purpose specified.

No. 58,667. Method of Preparing Substitutes for Coffee. (*Méthode de préparer un substitut pour le café.*)

Kathreiners Malzkaffee Fabriken, mit Beschraenkter Haftung, Munich, Bavaria, assignee of Joseph Geiger, Uerdingen on the Rhine, Prussia, both in Germany, 12th January, 1898; 6 years. (Filed 16th August, 1897.)

Claim.—A process for the improvement of coffee substitutes made of cereals, consisting in applying to the grain during the steeping process an electric current proportioned to the quantity and quality of the grain, whereby the substance between the skin and the starch body is so acted upon that, in the subsequent roasting process, a smaller quantity of nitrogenous matter injurious to the taste is made soluble in water, substantially as set forth.

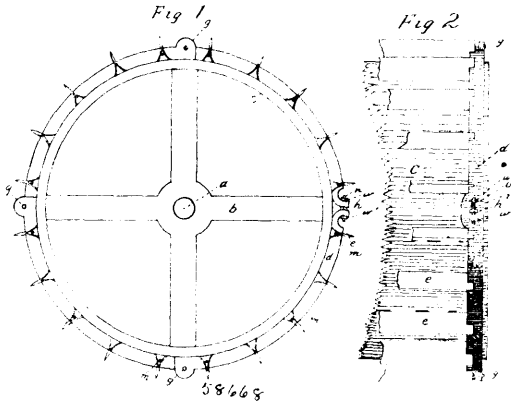
No. 58,668. Clod Crusher.

(*Machine pour pulvériser les mottes de terre.*)

James Moore, Port Dover, Ontario, Canada, 12th January, 1898; 6 years. (Filed 23rd December, 1897.)

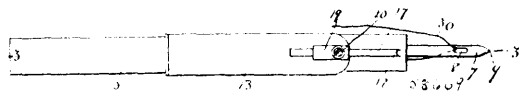
Claim.—1st. The combination with the cutter bars c, of the hinged iron rims d, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the cutter bars c, and the hinged iron rims d, of the bolts m, substantially as and for the purpose herein-

before set forth. 3rd. The combination with the cutter bars *c*, the hinged iron rims *d*, and the bolts *m*, of the slot *k*, substantially as



and for the purpose herebefore set forth. 4th. The combination with the cutter bars *c*, the hinged iron rims *d*, the bolts *m*, and the slot *k*, of the bolt *n*, and the nuts *h*, *w*, and *v*, substantially as and for the purpose herebefore set forth.

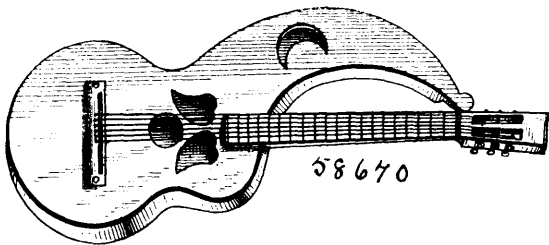
No. 58,669. Knitting Implement. (Machine à tricoter.)



John Hunter Gilmore, Huntingdon, Quebec, Canada, 13th January, 1898; 6 years. (Filed 6th November, 1897.)

Claim.—1st. A knitting implement comprising a main tubular portion carrying a longitudinally adjustable perforated needle, means for adjusting said needle, a sleeve portion taking over and sliding longitudinally of said main tubular section, means for limiting the extent of movement of the sleeve portion, a follower carried by said sleeve section, and a guiding eye in the main tubular portion, substantially as and for the purpose set forth. 2nd. In a knitting implement, the combination of a tubular portion 5, having an eye 12, an adjustable needle 7, and means for adjusting same, a yielding section 10, a set screw 11, a tubular slidable portion 13, adjustable means for varying the extent of movement of such slidable portion, and an adjustable follower 17, all substantially as described and for the purpose set forth.

No. 58,670. Musical Instrument. (Instrument de musique.)



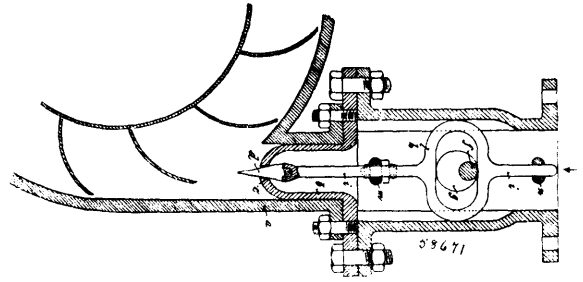
Chris Knutsen, Port Townsend, Washington, U.S.A., 13th January, 1898; 6 years. (Filed 22nd July, 1897.)

Claim.—A musical instrument consisting of a guitar body, its fret-arm and strings, said guitar body provided with a hollow harp arm that curves gradually outward, then abruptly inward, and has its ends secured to the free end of the fret-arm, and provided with strings, substantially as set forth.

No. 58,671. Regulating Device for High Pressure Water Turbine. (Regulateur pour turbine à haute pression.)

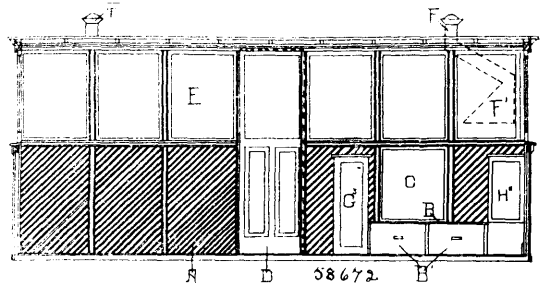
Desirello Bartolomeo, Jul Ponte, Rivarolo, Liguria, Italy, 13th January, 1898; 6 years. (Filed 9th October, 1897.)

Claim.—In a high pressure water turbine, the provision of a long tapering valve with a similar seat preferably of conical shape,



as a means for accurately regulating the flow of water without breaking up the impinging jet, substantially as hereinbefore described.

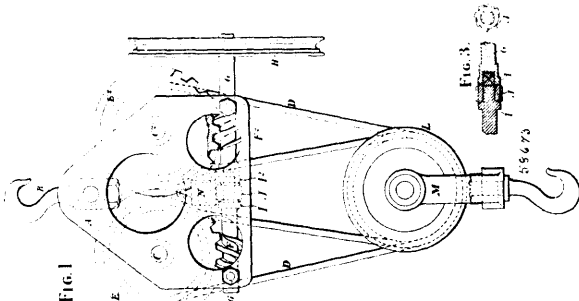
No. 58,672. Lunch-wagon. (Fourgon-buffet.)



William J. Gardner and Wildridge H. Gorman, both of Ogdensburg, New York, U.S.A., 13th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. A lunch-wagon body comprising an eating-room and a grill-room, a range of windows around the upper portion thereof, a sliding sash in the lower portion of one side of said body, opening from the grill-room, over a low serving-shelf, into the outer air; a grill-shelf at the rear end of said wagon-body with elevated cabinets on each side thereof and a smoke-hood suspended over such shelf and having a conduit to the outer air; an elevated sideboard contiguous to said grill-shelf, a serving-counter partitioning the grill-room from the eating-room, and one or more elevated ventilators in the roof of said wagon-body. 2nd. In a lunch-wagon body, the combination of an eating-room L, a grill-room K, the windows E, a sliding sash C, over a serving-shelf B, the deep drawers B¹, B², thereunder, a cabinet of elevated drawers H¹¹, a grill-shelf H, long drawers H¹, thereunder, the elevated sideboard I, the serving-counter G, the smoke-hood F¹, and the ventilators F, all arranged substantially as and for the purposes described.

No. 58,673. Pulley Block. (Poulie.)

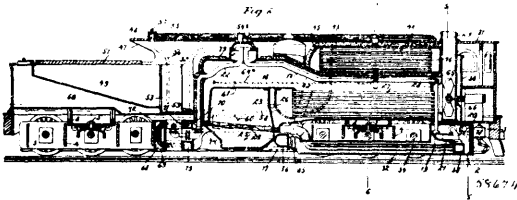


George Thomas Winnard and Joseph Bedford, both of Sheffield, York, England, 13th January, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—1st. A double drum lifting block, constructed and operating as hereinbefore described and set forth. 2nd. A single drum lifting block constructed and operating as hereinbefore described and set forth. 3rd. In a lifting block having a winding drum C, and a worm-wheel E², a worm shaft G, made in two parts, so connected as to permit longitudinal action while transmitting rotary motion, provided with ratchet wheel J, fixed loosely upon the shaft between the two parts, and so constructed that it is carried round by friction when the block is lifting, and is held stationary when lowering, substantially as hereinbefore described and set forth. 4th. In combination in a lifting block, a frame A, a spirally grooved winding drum C, a travelling link R, for supporting one end of the

rope D², a worm-wheel S, carried by the link, a screw T, operated by the movement of winding drum C, through the wheel E, and pinion U, and means for supporting the link, substantially as described and shown. 5th. In combination in a lifting block, a spirally grooved pulley C, a travelling rope guide Q, having a portion O, engaging with the groove of the pulley to be moved thereby, and a guide-way P, upon which the guide moves, substantially as hereinbefore described and shown.

No. 58,674. Locomotive. (Locomotive.)

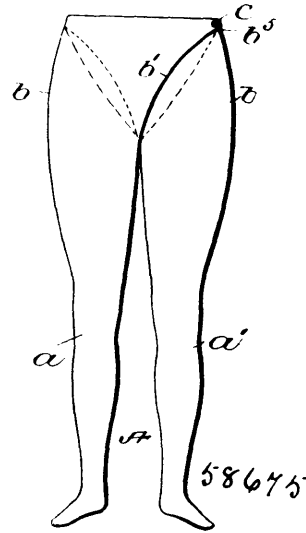


Joseph Jefferson Murray, Butte, Montana, U.S.A., 13th January, 1898; 6 years. (Filed 23rd December, 1897.)

Claim.—1st. A locomotive engine, comprising a main frame, forward and rear trucks supporting said main frame, high and low pressure cylinders, a boiler and cab supported on said frame, a housing covering said boiler and in the forward portion of which the cab is arranged, and a fuel and water tender mounted on said frame, substantially as specified. 2nd. In a locomotive engine, a main frame, trucks supporting said frame, bearing plates mounted on the trucks, bearing plates mounted on the frame and engaging with the first named bearing plates, ball bearings between the plates, and a peripheral flange extended from one of said plates and engaging around the other of said plates, substantially as specified. 3rd. A locomotive engine, comprising a main frame, trucks on which said main frame is mounted, steam cylinders mounted on each of said trucks, an air heating chest adapted to receive atmospheric air, pipes leading through said chest and receiving exhaust steam from the steam cylinders of one of the trucks, a flexible connection between said air heating chest and the furnace or fire-box, and a feed water heater receiving exhaust steam from said pipes, substantially as specified. 4th. In a locomotive, a main frame, front and rear trucks upon which said main frame is mounted, high and low pressure cylinders carried by each of said trucks, an air heating chest supported by the forward truck and receiving air through a jacket surrounding the smoke stack, the said chest having connection with the furnace or fire box, and steam tubes extended through said chest, the said tubes having connection with the exhaust pipes of the forward cylinders, substantially as specified. 5th. A locomotive engine, comprising a main frame, front and rear trucks on which said main frame is mounted, high and low pressure cylinders carried by each of the trucks, an air heating chest carried by the forward truck, an air heating box carried by the rear truck, exhaust pipes in the air heating chest and receiving exhaust steam from the forward cylinders, exhaust pipes in the air heating box and receiving steam from the rear cylinders, and connections between said chest and box and the interior of the fire-box below the grate, substantially as specified. 6th. In a locomotive engine, a main frame, a boiler mounted thereon, a fire-box, flues extended from the fire-box through the boiler and communicating with a smoke-box, a smoke stack communicating with the smoke box, a fan in the smoke box, a motor for the fan, an air heating chest having communication with the fire-box, and means for heating the air in said chest from the exhaust steam, substantially as specified. 7th. A locomotive engine, comprising a main frame, trucks upon which said main frame is mounted, a fire-box, an air heating chest having connection with said fire-box, exhaust steam pipes in said chest through which exhaust steam passes for heating the air, a feed water heater above the boiler and receiving the exhaust steam, and a condenser arranged above the feed water heater and receiving steam therefrom, substantially as specified. 8th. A locomotive engine, comprising a main frame, trucks upon which said main frame is mounted, high and low pressure cylinders on each of the trucks, air heating devices receiving steam from the cylinders, means for drawing the heated air through the fire box, the said means also serving to force the products of combustion out of the smoke stack, a feed water heater receiving the exhaust steam, and a condenser receiving the exhaust steam from the feed water heater, substantially as specified. 9th. In a locomotive engine, a condenser comprising a number of independent exposed pipes, and a receiving chest into which all of said pipes discharge, substantially as specified. 10th. In a locomotive engine, a condenser arranged above the boiler and comprising a number of independent exposed pipes receiving exhaust steam from the feed water heater, a chest into which all of said pipes discharge, and a pipe leading from said chest into the water tank of the locomotive, substantially as specified. 11th. In a locomotive engine, a condenser comprising a number of exposed pipes receiving exhaust steam from a feed water heater, a chest into which all of said pipes discharge, a pipe leading from said chest to the water tank of the locomotive, and a safety valve on said chest, substantially as specified. 12th. In a locomotive engine, a boiler, a feed water heater

arranged above the boiler, an injector for forcing water from the tank into the feed water heater, and a valve-controlled pipe leading from the feed water heater into the boiler, substantially as specified. 13th. In a locomotive engine, a main frame, a boiler and fire box mounted on the said main frame, a water and fuel tender also mounted on said main frame, and a cover for said tender, substantially as specified. 14th. In a locomotive engine, a main frame, front and rear trucks on which said main frame is mounted, high and low pressure cylinders mounted on each of the trucks, air heating pipes receiving exhaust steam from the front and rear cylinders, means for drawing the heated air through the furnace of the locomotive, and a feed water heater receiving exhaust steam from each of the sets of air heating pipes, substantially as specified. 15th. In a locomotive engine, a main frame, a housing mounted on said main frame, a boiler on the main frame within the housing, a feed water heater above the boiler and within the housing, and a condenser on the roof of the housing, substantially as specified.

No. 58,675. Stocking. (Bas.)



Sarah Annie Winter, Buffalo, New York, U.S.A., 13th January, 1898; 6 years. (Filed 28th December, 1897.)

Claim—1st. A stocking or sectional nether garment having a thigh-portion formed with a lateral elongation of length sufficient to pass around the waist of the wearer, and means for fastening the same, said elongation being of such width that a pair of said stockings will form a substantially closed garment, as set forth. 2nd. A stocking or sectional nether garment having a laterally-elongated thigh-portion of length sufficient to pass around the waist of the wearer, and means for fastening the same, said elongated thigh-portion being tapered so that a pair of said stockings will form a substantially closed garment, substantially as set forth. 3rd. A stocking or sectional nether garment having a thigh-portion formed with two lateral extensions of length sufficient to encompass the waist of the wearer, and means for fastening the ends of said extensions, which latter are tapered so that a pair of said stockings will form a substantially closed garment, substantially as set forth.

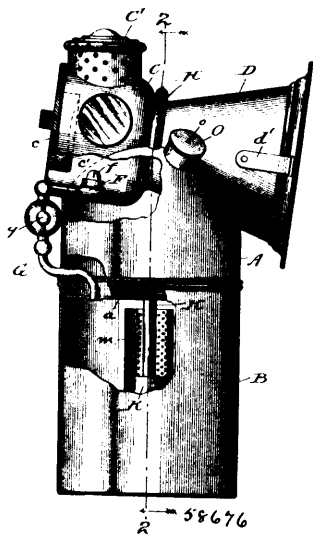
No. 58,676. Acetylene Gas Lamp.

(*Lampe à gaz acétylène.*)

Charles Knox Harding and Simon Henry Levy, both of Chicago, Illinois, U.S.A., 13th January, 1898; 6 years. (Filed 31st May, 1897.)

Claim.—1st. In a generator for acetylene gas, the combination with a water tank and a generating chamber below the tank, of a capillary siphon leading from the tank to the chamber and having its longer leg trapped. 2nd. In a generator for acetylene gas, the combination with a water tank having a vent aperture and a generating chamber below the tank, of a capillary siphon leading from the tank to the chamber and having its longer leg trapped. 3rd. In an acetylene gas lamp, the combination with a burner, of a water tank, a generating chamber below the tank, a capillary siphon leading from the tank to the chamber and having its longer leg trapped, and a gas pipe leading from the chamber to the burner. 4th. In an acetylene gas lamp, the combination with a burner, of a water tank having a vent aperture, a generating chamber below the tank, a capillary siphon leading from the tank to the chamber and having its longer leg trapped, and a gas pipe leading from the chamber to the burner. 5th. In a gas generator, the combination with a water tank and a generating chamber below the tank of a trapped tube

leading to the chamber from above the tank, and means for conveying water from the tank to the upper end of the tube by capillary



attraction. 6th. In a gas generator, the combination with a water tank and with a generating chamber below the tank, of a siphon tube leading from the tank to the chamber, the tank and chamber being otherwise disconnected. 7th. In a gas generator, the combination with a water tank and with a generating chamber below the tank, of a siphon tube leading from the tank to the chamber, and a fibrous filling for such tube. 8th. In a gas generator, the combination with a water tank, a generating chamber below the tank, and a siphon tube leading from the tank to the chamber, of a burner so located that it will heat the tube, and a gas tube leading from the chamber to the burner. 9th. In an acetylene gas generator and lamp, the combination with a generating chamber, a water tank above the chamber, and a lamp located above the tank and comprising a substantially horizontal tube of a single piece of sheet metal, the rearward end of such tube constituting the flame chamber and being closed, and the forward end of the tube being flared to form a reflector, the tube being contracted at the juncture of the flame chamber with the reflector, and a water supply tube leading from the tank, over the contracted part of the lamp body to the chamber. 10th. The combination with a lamp body, of a gas burner within the body, a water tank below the body, a gas generating chamber below the tank, a capillary siphon connecting the tank with the chamber and having its upper turn above the lamp body and its longer leg trapped, and a gas pipe leading from the chamber to the burner. 11th. The combination with a gas lamp, of an acetylene gas generator comprising a generating chamber, a water tank and a tube leading from the tank to the chamber and in which the flow of water is impeded by the gas generator, the column of water being such as to have a pressure equal to that at which it is desired to burn the gas, and a gas pipe leading directly from the generating chamber to the burner of the lamp. 12th. In a gas generator the combination with a generating and gas holding chamber of fixed dimensions, of a liquid chamber above the generating chamber and vented to the atmosphere, and a siphon for connecting the two chambers. 13th. The combination in a lamp, of a gas burner, a generating and gas holding chamber of fixed dimensions, and a gas pipe leading directly from such a chamber to the burner, of a liquid chamber vented to the atmosphere and being at a higher elevation than the generating chamber, and a continuously open siphon connecting the two chambers. 14th. The combination in a lamp, of a gas burner, a generating and gas holding chamber of fixed dimensions, and a gas pipe leading directly from such chamber to the burner, of a liquid chamber vented to the atmosphere and being at a higher elevation than the generating chamber, a continuously open siphon connecting the two chambers, and a fibrous packing within the siphon. 15th. The combination in a gas generating chamber, a liquid chamber above the generating chamber, and a tube packed with fibrous material and leading from the upper to the lower chamber.

No. 58,677. Hand Fire-Extinguisher.
(*Extincteur d'incendie à main.*)

Samuel Mastin Stevens, Manchester, New Hampshire, U.S.A., 13th January, 1898; 6 years. (Filed 21st May, 1897.)

Claim.—1st. A hand fire-extinguisher tube, having a tapered nozzle terminating in rigid projections at the discharge-opening to spray the liquid in combination with a sealing-cap detachably arranged on the exterior of the nozzle extending above and over and

out of contact with said projections and sealed to the exterior of the nozzle, substantially as described. 2nd. A hand fire-extinguisher



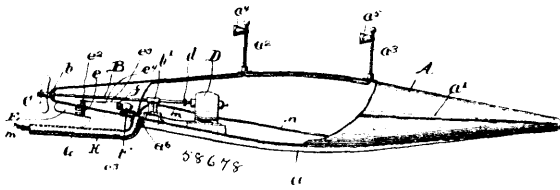
having a detachable sealing-cap closing its discharge, a tube-supporting hanger connected therewith and tube-sustaining means extending from the tube to the hanger in the line of strain and formed to detach itself from the hanger under sufficient force exerted longitudinally at the tube, substantially as described. 3rd. A hand fire-extinguisher having a discharge-nozzle, a weight-sustaining rod from the tube hooked at its upper end beside the nozzle, a hanger for the tube passing beneath said hooked end, and to one side thereof, provided with a detachable nozzle-sealing device. 4th. A hand fire extinguisher formed of an elongated tube at one end having a tapered nozzle terminating in a discharge opening, in combination with an exterior sealing-cap in the form of an inverted cup, open only, at the lower end, and of size to completely envelop the end of the nozzle with its lower annular edge engaging the exterior of the nozzle at a distance below said opening, and sealed thereto only at or about said edge annularly around the nozzle by fragile sealing means to form a tight joint and prevent the escape of liquid from or air into the cap, and a hanger so connected with the cap as to cause a complete separation of the tube from the cap under sufficient down-strain, substantially as described. 5th. A hand fire-extinguisher formed of an elongated tube having a reduced nozzle at one end terminating in a discharge-opening, in combination with an exterior closed cap inclosing the end of the nozzle and formed of thin metal, a metal ring around which the lower edge of said cap is turned and at which the cap is sealed to the exterior of the nozzle at a distance below the discharge-opening by fragile sealing means to form a tight joint, and a support connected with said ring so that under sufficient downstrain on the tube the ring will strip the cap from the end of the nozzle, substantially as described. 6th. A hand fire-extinguisher formed of a tube having a reduced nozzle terminating in a discharge-opening, the nozzle formed with projections at its edge in said opening, a detachable exterior sealing-cap in the form of an inverted cup having a hanger connected therewith, said cap arranged on the end of the nozzle over said opening and around its lower portion united to the exterior of the nozzle below said opening by fragile sealing means, substantially as described. 7th. A hand fire-extinguisher tube having a tapered discharge nozzle terminating in an opening, a sealing-cap fitted over the exterior of the end of the nozzle and united to the exterior of the nozzle at a point below the opening by fragile sealing material, said cap having the filling-opening in its top end above and registering with said nozzle-opening and means for permanently closing said filling-opening, substantially as described. 8th. A hand fire-extinguisher comprising the tube having a discharge-opening at one end, a detachable sealing-cap closing said opening by fitting into the exterior of said end and at its lower edge united to the exterior of the end by fragile sealing material, a tube hanger connected with said cap, and a detachable tube sustaining connection between the hanger and body of the tube arranged to become disengaged from the hanger under downstrain sufficient to detach the cap, substantially as described. 9th. A hand fire-extinguisher comprising an elongated tube closed at one end with a discharge-opening at the opposite end, a closure for said opening detachable therefrom under downpull of the tube, a hanger connected with said closure to detach the same and having an independent tube sustaining connection to the body of the tube arranged to normally remove the downstrain from the closure, but under abnormal downpull to transfer the strain to the closure, substantially as described. 10th. A hand fire-extinguisher comprising the elongated tube having a discharge-opening, a closure for said opening detachable under downpull of the tube, a hanger or support directly secured to the closure, and a tube sustaining connection directly secured to the body of the tube and extending to the hanger in the line of strain from the tube to the hanger and detachably connected with the hanger, substantially as described. 11th. A hand fire-extinguisher having a tapered nozzle terminating in an opening, a sealing-cap on the nozzle and detachably secured thereto, a ring in the lower edge of the cap having a hanger extending outwardly and upwardly therefrom, and a detachable connection from the body of the tube to the hanger, substantially as described. 12th. A spraying nozzle tapering to its end discharge opening and having its edge around said opening notched or serrated to form the short teeth projecting directly into such discharge opening to spray the liquid as it leaves the nozzle. 13th. A spraying nozzle having the end discharge opening with the rigid points or teeth around said opening and projecting radially into said opening to spray the liquid as it leaves the nozzle.

No. 58,678. Steering Device for Torpedoes, etc.
(*Appareil à gouverner pour torpilles, etc.*)

John S. Eddy, Chicago, Illinois, U.S.A., 13th January, 1898; 6 years. (Filed 5th March, 1897.)

Claim.—1st. The combination with a vessel having means for its propulsion and guidance operated by means of electricity, of a

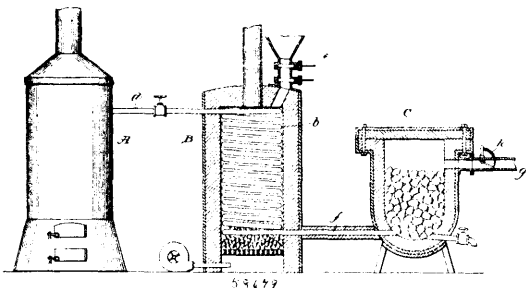
cable containing the necessary wires and extending from the vessel to a distant point, a suitably journaled drum for holding said cable



and having one end of the same secured thereto, a series of annular rings upon said drum and in connection with the ends of the wires contained in said cable, and a series of brushes bearing upon said rings and connected with suitable supply wires, whereby a constant connection is kept up between the wires in the cable and the supply wires during the rotation of the drum, substantially as described. 2nd. The combination with a vessel having means for its propulsion, of a rudder, a steering motor having upon the end of the shaft a drum or pulley carrying a cable extending to the rudder and adapted to operate the same, co-acting stops, one moving with the armature shaft and the other stationary, adapted to limit the movement of the armature shaft in either direction, conducting wires covered by a buoyant casing extending from said steering motor to a distant point and devices at said point for making, breaking and reversing the current through the steering motor, substantially as described. 3rd. In combination, a torpedo having a pair of signal lights carried thereby and above the same, said signal lights being arranged at some distance apart in the vertical plane in the axis of the torpedo and having reflectors to conceal them from view in front of the torpedo and throw the light to the rear thereof, a propeller upon said torpedo connected with an electric motor within the same and operated thereby, an explosive charge within the torpedo, a rudder attached to said torpedo and operated from within by means of a steering motor having an armature of limited movement in opposite directions, separate wires leading to the lights, the propelling motor, the charge and the steering motor, said wires being contained within a buoyant cable adapted to extend from the torpedo to a distant point and to float upon water because of its buoyancy, a drum for the support of the said cable when the same is not extended upon the water, said drum being secured to one end of said cable and mounted upon journals to permit of the rolling up or unrolling of the cable, a series of annular conducting rings from the drum concentric with the axis thereof and respectively connected by conducting wires with the wires within the end of the cable attached to the drum, a series of brushes supported adjacent to said rings and bearing upon the same to make electrical connections therewith, a series of wires extending from the brushes to a switch-board containing switches adapted to make and break the respective circuits and in the case of the circuit to the steering motor to make, break and reverse said circuit and suitable means for supplying each of the circuits with an electric current adapted thereto, substantially as described.

No. 58,679. Heat Transmission.

(Art de transmission de la chaleur.)

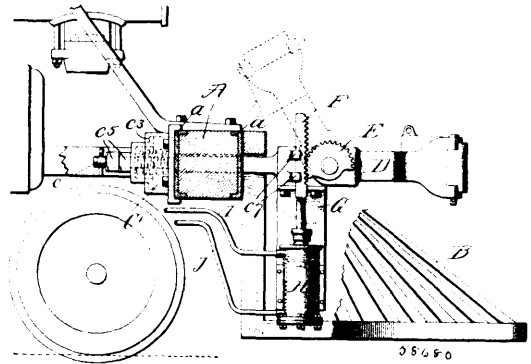


George Frederick Dinsmore, Boston, Massachusetts, U.S.A., 13th January, 1898; 6 years. (Filed 16th December, 1897.)

Claim.—1st. The art of transmitting heat energy, which consists in passing a rapidly moving fluid stream through a heater under such conditions that the heat or combustion is chiefly employed in increasing the velocity of said stream and expanding said fluid, whereby the energy of combustion is largely converted into kinetic energy available for heating purposes. 2nd. The art of transmitting and reproducing heat energy, which consists in passing a rapidly moving fluid stream through a suitable heater under such conditions that the heat of combustion is chiefly employed in increasing the velocity of said stream and expanding said fluid, and then arresting or obstructing the said fluid stream, whereby the heat of combustion is chiefly converted into kinetic energy, and the said kinetic energy is again reconverted into sensible heat.

3rd. The art of transmitting heat energy, which consists in passing a fluid stream at high pressure and velocity into a superheater, applying the heat of the superheater under the conditions indicated, expanding the fluid stream and enormously accelerating its velocity by the heat so applied, then arresting said rapidly moving stream by impact and pressure in a closed vessel, whereby the kinetic energy of the moving stream is converted into sensible heat. 4th. The art of fusing or incandescing a refractory mass, which consists in impinging upon said mass in a closed vessel, constructed to withstand high pressure, a fluid stream under such conditions of heat and velocity that the arrest of said stream by impact and compression will evolve an intense degree of sensible heat, substantially as set forth. 5th. An apparatus for transmitting heat energy, comprising a generator, a superheater, a retort constructed to exclude the outside air and provided with means for maintaining a high pressure therein.

No. 58,680. Pilot Coupler. (Attelage de pilotes de chars.)

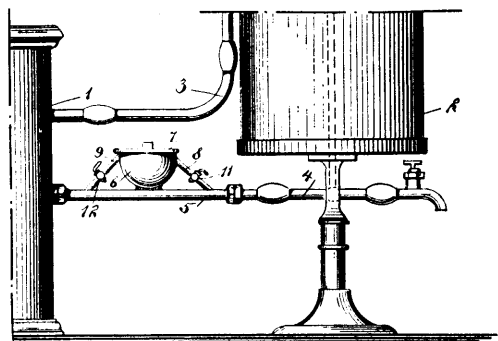


Robert Miller Galbraith, Pine Bluff, Arkansas, U.S.A., 13th January, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—1st. The combination with a pivoted pilot coupler, of a gear-wheel or segment fixed thereto, a cylinder, and a rack which is actuated by said cylinder to throw said coupler into and out of its operative position, substantially as described. 2nd. The combination with a pivoted pilot coupler, of a gear-wheel or segment fixed thereto, a cylinder, a rack which is actuated by said cylinder, said rack being in mesh with said gear-wheel or segment, pressure pipes leading to the ends of said cylinder, and a valve for admitting pressure through said pipes to either end of said cylinder, substantially as described. 3rd. The combination with a pivoted pilot coupler, of a gear-wheel or segment fixed thereto, a cylinder, a rack which is actuated by said cylinder, said rack being in mesh with said gear-wheel or segment, pressure pipes leading to the ends of said cylinder, and a valve for admitting pressure through said pipes to either end of said cylinder, and said valve exhausting the pressure from the end opposite that in which pressure is admitted, substantially as described. 4th. The combination with a suitable source of pressure supply, of a valve for directing the same into a plurality of pipes if desired, a cylinder to which said pipes lead, a plunger arranged in said cylinder, a rack which is connected to said plunger, a gear-wheel or segment in mesh with said rack, and a pivoted pilot coupler which is actuated by said gear-wheel or segment, substantially as described. 5th. The combination with the draw-bar C, of a suitable buffer-spring or springs therefor, a pilot draw-bar pivoted to the forward end of said draw-bar C, a cylinder carried on said draw-bar C, a plunger in said cylinder, and means for controlling the positions of said pivoted pilot coupler actuated by said plunger, substantially as described. 6th. The combination with the draw-bar C, of a buffer-spring or springs therefor, a cylinder carried by the forward end of said draw-bar C, pressure pipes leading to the ends of said cylinder, a plunger arranged within said cylinder, a rack which forms part of said plunger, a pilot coupler draw-bar pivoted to the forward end of said draw-bar C, and a gear-wheel or segment fixed to the end of said pivoted draw-bar and meshing with said fluid-actuated rack, substantially as described. 7th. The combination with the draw-bar C, of a tail-pin on its rear end, a follower c² strung on said tail-pin and normally resting against the shoulder formed at the enlarged portion of the draw-bar, a follower c⁴ strung on the tail-pin and normally impinging against the nuts threaded on the rear end of said tail-pin, a compression-spring arranged between said followers, and a housing for said spring, said housing co-operating with the follower c⁴, substantially as described. 8th. The combination with the draw-bar C, which is rectangular in cross-section, of a tail-bolt c arranged on its rear end, a follower c² which co-operates with the shoulder on the draw-bar and a timber through which said draw-bar passes, a housing c¹ formed with an in-turned flange c³, a follower c⁴ strung on the tail-bolt, nuts c⁵ which are threaded on the rear end of the tail-bolt, and which normally impinge against the follower c⁴, and a buffer-spring c⁶ arranged around the tail-bolt and between the followers c² and c⁴, substantially as described.

No. 58,681. Apparatus for Cleaning Water Heaters.

(Appareil pour nettoyer les chauffeurs d'eau.)

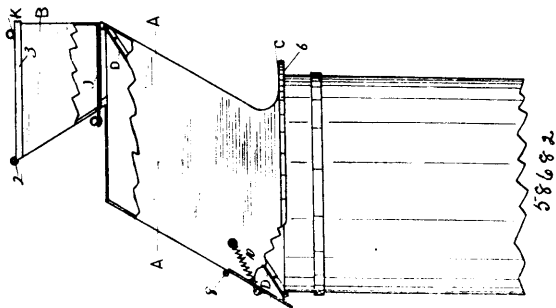


58681

George J. Dehn, Iron Mountain, Michigan, U.S.A., 13th January, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—An apparatus for cleaning water heaters, comprising a length of pipe designed for connection with a feed pipe, a vessel on said pipe for containing a compound, a removable cover for the vessel, an inlet leading from the pipe into the vessel near its top, an outlet leading from the upper portion of the vessel to the pipe, the said outlet having a downwardly turned portion within the vessel and extending nearly to the bottom thereof, and valves for the inlet and outlet.

No. 58,682. Cinder Sifter. (Crible à escarbilles.)

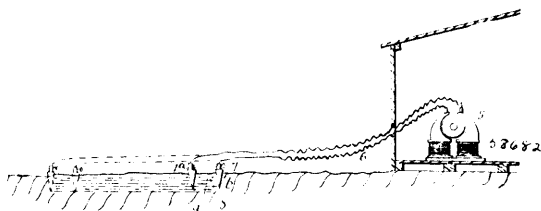


58682

Peter N. Kenney, Hamilton, Ontario, Canada, 13th January, 1898; 6 years. (Filed 24th December, 1897.)

Claim.—1st. A cinder sifter of the character described consisting of an oblique metallic casing, an oblique sieve in the interior at an angle from the upper and rear part and extending to the front lower part, a hopper over the said upper part, having hinged and flanged cover, and a slide base, a hinged door at the said lower front part of the casing for outlet for coal and cinders, said door having retaining springs, and a circular flanged base forming a part of said casing, with opening to conform thereto, for outlet of ashes, as described. 2nd. A cinder sifter consisting of an oblique casing having a circular flanged case, an opening to the interior, in said base, on upper hopper at the rear, having hinged and flanged cover, a slide base in said hopper, an oblique sieve inclining from the upper rear part of the casing to the front lower part thereof, and under said hopper, a door hinged to the casing to communicate with the lower part of the sieve and springs attached to the door and to the casing, capable of retaining said door in an open and in a closed position, as described.

No. 58,683. Electrical Thawing System and Apparatus. (Système et appareil électrique à dégeler.)

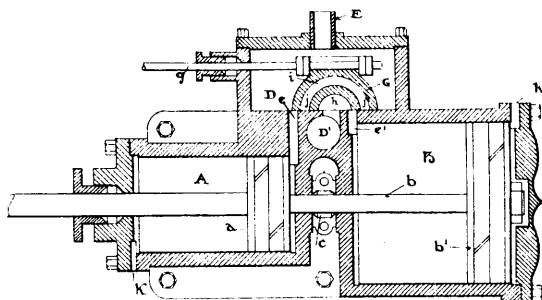


Nelson Graburn, Thomas Blaney and Joseph Byron Bessey, all of Montreal, Quebec, Canada, 13th January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. In the process of thawing or removing earth, passing an electric current through the section of earth to be removed to

facilitate its removal. 2nd. An electrical thawing system consisting of an electric circuit which includes a section of the substance to be thawed. 3rd. An electrical thawing system comprising an electric generator, a pair of thawing devices adapted to be inserted into the frozen substance a short distance from one another, and an electrical conductor for connecting each thawing device to said generator, for the purpose set forth. 4th. An electrical thawing system, comprising an electric generator, a pair of thawing devices of wedge form adapted to be inserted in the frozen substance a short distance from one another, an electrical conductor for connecting the head of each wedge to said generator, for the purpose set forth. 5th. An electrical thawing system comprising a generator 5, conductors 6, wedges 7, 7a, and projections 9 having recesses 10 and set screws 12, all arranged substantially as described and for the purpose set forth. 6th. An electrical thawing device in the form of a solid wedge having a cutting edge, and means for connecting an electrical conductor thereto, for the purpose set forth. 7th. An electrical thawing device in the form of a metal wedge 7, having cutting edge 8, head 11, projection 9, recess 10 and set screw 12, substantially as described and for the purpose set forth.

No. 58,684. Steam Engine. (Machine à vapeur.)



58684

Joseph Hardill, Stratford, Ontario, Canada, 13th January, 1898; years. (Filed 26th May, 1897.)

Claim.—1st. The combination, with a high pressure and a low pressure cylinder provided with pistons which are constrained to move in the same direction, and a steam chest having two ports extending between it and the respective cylinders, of a valve for admitting steam from the steam chest to one end of the high pressure cylinder during one stroke, said valve being provided with a passage for connecting the two said ports during the return stroke, whereby the steam in the high pressure cylinder is conducted into the low pressure cylinder, substantially as set forth. 2nd. The combination, with a high pressure and low pressure cylinder, and a steam chest having two ports extending between it and the respective cylinders, of a valve provided with a passage for connecting the two said ports, said valve being arranged in the said steam chest and operating to superheat the steam as it passes from one cylinder to the other, substantially as set forth. 3rd. The combination, with high pressure, and a low pressure cylinder, and a steam chest having two steam ports extending between it and the respective cylinders, and an exhaust port between the two said ports of a valve for admitting steam to the high pressure cylinder, said valve being provided with a passage for connecting the two said steam ports, and having an exhaust cavity for connecting the low pressure cylinder with the exhaust port, substantially as set forth. 4th. The combination with a high pressure cylinder, and a steam chest having two ports connecting it with the adjacent end of the respective cylinders, of a valve for admitting steam from the steam chest to the high pressure cylinder during one stroke, said valve being provided with a passage for connecting the two said ports during the return stroke, substantially as set forth. 5th. A slide valve for a steam engine provided with an exhaust cavity in its face and a passage extending behind the said cavity and terminating in its face one on each side of the exhaust cavity, substantially as set forth.

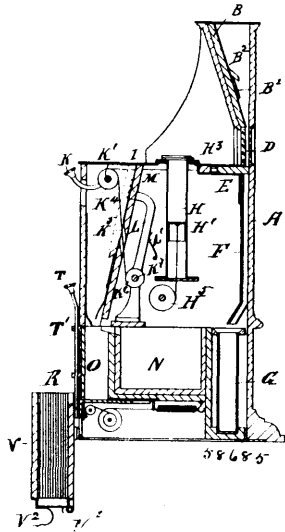
No. 58,685. Means for Checking Cash Receipts.

(Moyen de vérifier les recettes en caisse.)

The Globe Cashier (British and Foreign), assignee of Frank Septimus Devouteaux Scott, both of London, England, 14th January, 1898; 6 years. (Filed 6th December, 1897.)

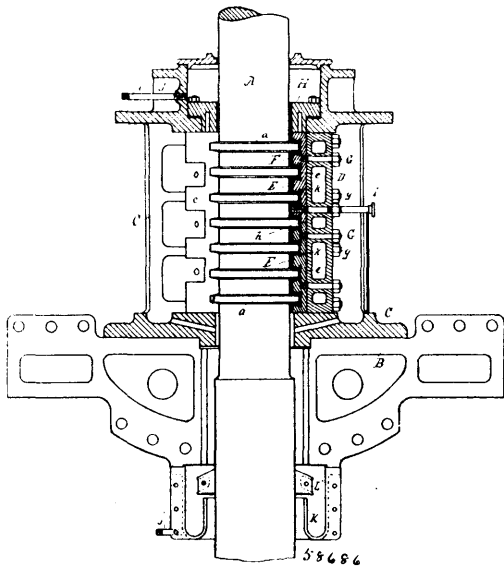
Claim.—1st. In money tills, the means for checking cash receipts consisting of a series of different size sets of checks, each set denoting the value of a purchase, said checks being stacked in holders H, and procurable therefrom at a level with the top of the apparatus case, the assorter B for distributing the checks so that they pass into inspection compartments D, the means for releasing the said checks from their compartments so that they fall through passage ways F into tubes G, and should correspond with the cash receipts, substantially as herein set forth. 2nd. In money tills, the means by which the total of the cash receipts can be ascertained, consisting of a series of different size sets of checks, each set denoting the value of a purchase and each check in each set bearing also the total of the check or checks above it when stacked in its proper position

in its holder H so that as the checks are withdrawn from the holders and passed into tubes G the top check in each tube



will represent the total of the checks below it, and the total of the amounts on these top checks should correspond with the cash receipts, substantially as set forth. 3rd. In money tills with a coin-assorting and change-ejecting device, the means for causing the coins to be diverted into the tray P² or other suitable receptacle when the cavities or receivers O are full, substantially as herein set forth. 4th. In money tills, the means for simultaneously locking the press knobs T and blocking the coin slots Q, consisting of the bar W having the notches W¹ for engaging the pins T² of the knob stems, and the studs W² which are capable of being moved across the coin slots Q, substantially as herein set forth. 5th. In money tills, the combination of the means for checking cash receipts, the change-ejecting device, the means for causing the simultaneous release of the coins in the indicator compartments J and J¹, and the checks in the compartments D by the manipulation of the knob K, the means for ascertaining the total amount of the receipts, and the means for simultaneously locking the press knobs T and blocking the coin slots Q, substantially as herein set forth.

No. 58,686. Thrust Bearing. (Butée.)

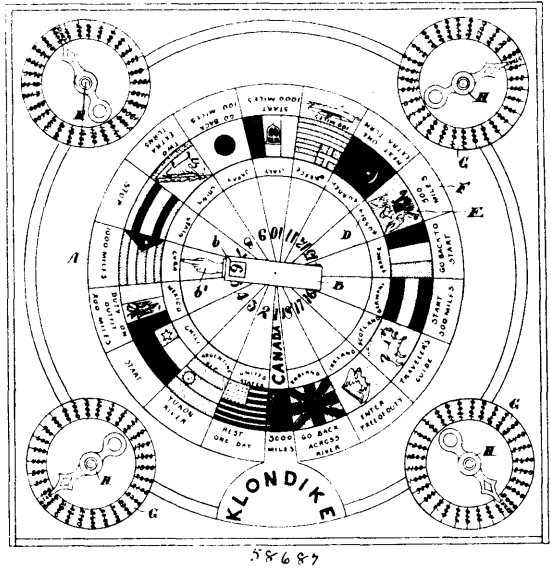


The Cataract Construction Company, New York, State of New York, assignee of Coleman Sellers, Philadelphia, Pennsylvania, both in the U.S.A., 14th January, 1898; 18 years. (Filed 24th December, 1897.)

Claim.—1st. In a thrust bearing, the combination of a frame and retaining blocks secured thereto, with removable bearing segments and means for securing the same to said retaining blocks, substantially as and for the purpose set forth. 2nd. In a thrust bearing, a frame, concave retaining blocks secured thereto and concentric with the shaft, concavo-convex bearing segments concentric therewith, and means by which said segments may be released or secured

in removing or replacing the same without removing or replacing the retaining blocks, substantially as and for the purpose set forth. 3rd. In a thrust bearing, a frame provided with columns having their inner faces parallel on planes tangential to a circle concentric with the shaft, concavo-convex segments concentric with said shaft and secured to said retaining blocks by means of bolts and means by which said segments may be released or secured in removing or replacing the same, consisting of said bolts and a gland of equal diameter with said segments, which is removably secured to the frame of the bearing, substantially as and for the purposes set forth. 4th. A thrust bearing, consisting of a frame, retaining blocks secured thereto and having their inner faces concave and concentric with the shaft, a shaft provided with annular projections or thrust collars, concavo-convex bearing segments removably secured to said retaining blocks and concentric with said shaft, there being annular recesses therein corresponding to said thrust collars, and a bearing metal facing secured thereto and held in place by recesses, substantially as and for the purposes set forth.

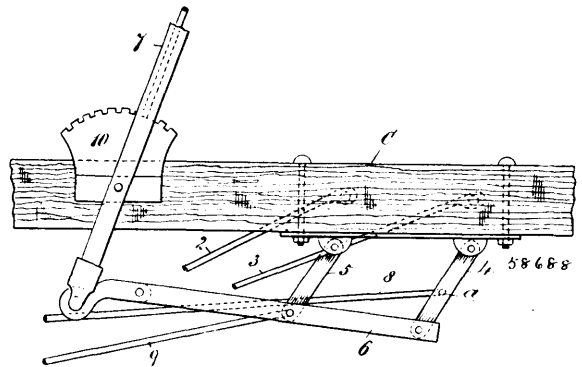
No. 58,687. Parlor Game. (Jeu.)



William Miles and Arthur James Phillips, both of Toronto, Ontario, Canada, 14th January, 1898; 6 years. (Filed 3rd December, 1897.)

Claim.—1st. A game board, comprising a circle arranged with a central indicator swinging arm and a series of radially arranged spaces, suitably numbered and provided on the outside with concentric spaces representing the name of the country, its flag, and a station with peculiar conditions attached thereto as to travel, as and for the purpose specified. 2nd. A game board, comprising a circle arranged with a central indicator swinging arm and a series of radially arranged spaces, suitably numbered and provided on the outside with concentric spaces representing the name of the country, its flag, and a station with peculiar conditions attached thereto as to travel, and corner concentric rings with radial indexes and numbered on same, and suitably pivoted hand for counting arranged centrally in the rings, as and for the purpose specified.

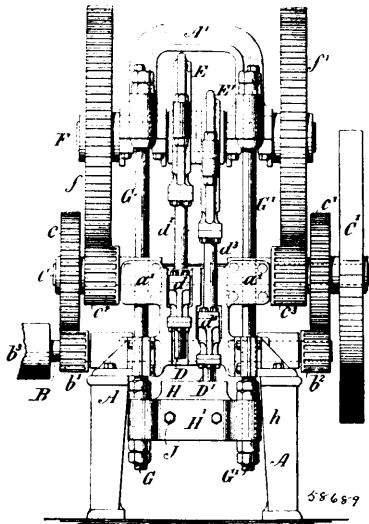
No. 58,688. Disc Harrow. (Herse à disque.)



The J. W. Mann Manufacturing Company, assignee of James A. Publow, both of Brockville, Ontario, Canada, 14th January, 1898; 6 years. (Filed 28th December, 1897.)

Claim—1st. The journal boxes D, having a round pivot pin G, and elongated head J, and the yoke A, connecting the gangs of discs having a hanger socket connection K bolted thereto, and provided with an elongated or oval hole coinciding with said head J, when the gang of discs is at an abnormal position, and coupling therewith when in a normal position, as and for the purpose set forth. 2nd. The combination with the hand lever 7, pendulum levers 4, 5, and pull- and push-bar 6, the inner draft-bar 8, of the forward gang of discs connected to the front pendulum lever at a point *a*, above or higher than the connection of the inner draft-bar of the rear gang to the rear pendulum lever, for adjusting the set of the rear gang to a greater inclination than the forward gang, as described.

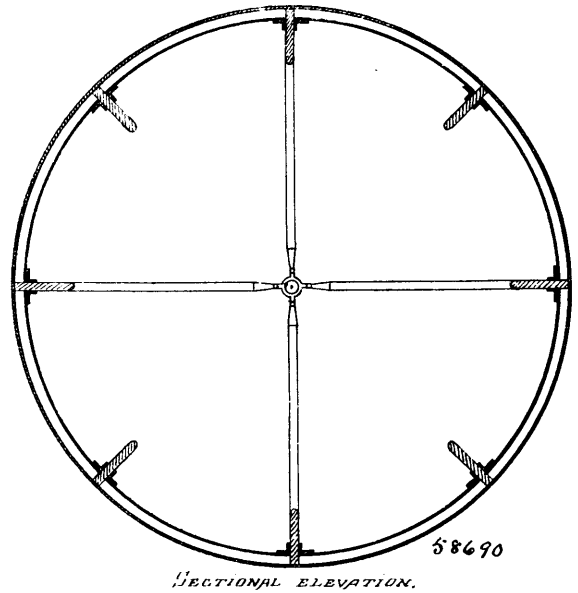
No. 58,689. Vertical Press. (Presse verticale.)



A. A. Dickson, Toronto, Ontario, Canada, 14th January, 1898; 6 years. (Filed 31st December 1897.)

Claim—1st. A vertical press, composed essentially of a die-block having open-ended vertical perforations or passage-ways (one or more) therein, adapted to act as forming tubes or female dies, and formers or male dies (one for each forming tube or female die) so combined and arranged with a yielding resistance that material fed between such male and female dies may be formed into blocks of even hardness one upon the other, and to automatically discharge such blocks by a continuous operation contemporaneously with the feed of material, substantially as set forth. 2nd. In a press, the combination with a die-block, of open-ended vertical perforations or passage-ways therein, adapted to act as forming tubes or female dies, and formers or male dies (one for each forming tube or female die), working therein reciprocally so as to form the material fed between such male and female dies, against a yielding resistance, into blocks, and to automatically discharge such blocks by a continuous operation, substantially as set forth. 3rd. In a press, the combination with a suitable framing, of a die-block having vertically arranged open-ended forming tubes or female dies therein, formers or male dies working therein, cross-heads sliding in the frame, connecting-rods, and eccentrics (one for each former), mounted upon a common shaft, and driving-gears rotating such eccentric shaft, all arranged so as to impart a reciprocal action to the formers, substantially as set forth. 4th. The combination with the frame, the head, and the die-block, of the tie-rods between said head and said die-block, the eccentric shaft journaled in the head, eccentrics mounted thereupon, such eccentrics being in connection with the formers and adapted to operate the same reciprocally, and gearing for rotating the eccentric shaft in train with the source of power, substantially as and for the purpose set forth. 5th. The combination with the frame A, head A', the tie-rods G, G', and die-block H having the female dies I, I', of the driving-shaft B, intermediate shaft C, and eccentric shaft F (said shafts being geared at both ends), eccentrics E, E', connecting-rods and cross-heads, male dies D, D', and suitable driving means, all arranged to operate substantially as and for the purpose set forth. 6th. The combination with the male dies, and the die-block having the female dies and supported from the head of the machine, of means whereby said die-block may be adjusted so as to centre said dies. 7th. The combination with the male dies and the die-block H, having the female dies formed therein, of the frame H' supported by the tie-rods and adjusting screws J, J, whereby the dies may be centred, and the retaining-plate H'', substantially as set forth.

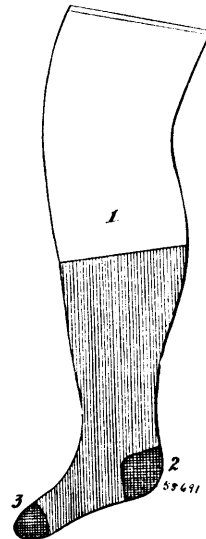
No. 58,690. Carriage Wheel. (Roue de voiture.)



Joseph Blais, Sherbrooke, Quebec, Canada, 14th January, 1898; 6 years. (Filed 14th August, 1897.)

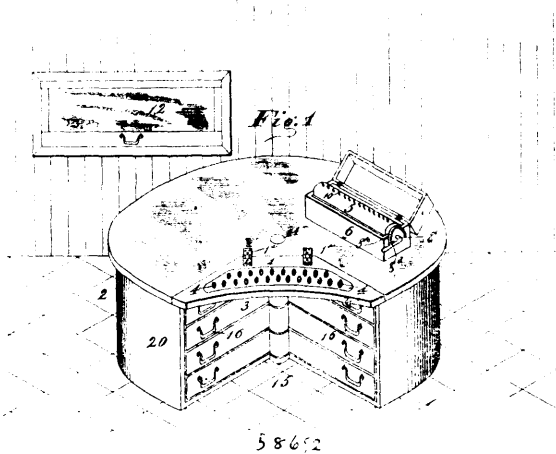
Claim—1st. A wheel composed of a metal hub having right and left threads, right and left nuts carrying sockets, spokes engaging said sockets, fellies adjusted on said spokes and a tire and means to turn the hub in order to tighten the wheel on the tire, substantially as described. 2nd. A wheel composed of a metal hub having right and left thread grooves *f*, parallel with the axis of the hub nuts B, engaging said hub, screw *f*, threaded in said nuts and engaging one of the grooves *f*, substantially as and for the purpose set forth. 3rd. A wheel composed of a metal hub having right and left threads, nuts B, carrying sockets, spokes engaging said sockets, metal fellies adjusted on said spokes, a tire having circumferential inner grooves receiving the edges of the fellies, substantially as described.

No. 58,691. Hosiery. (Bas.)



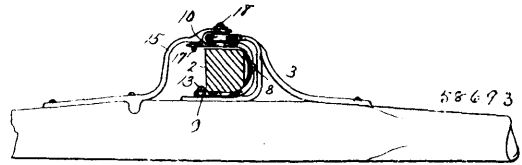
Elizabeth E. Bowen, Chester, Pennsylvania, U.S.A., 14th January, 1898; 6 years. (Filed 22nd July, 1897.)

Claim—As an improved article of manufacture, the herein described cap for the heel and toes of hosiery, consisting of a flexible cap of material similar to the body portion of the hosiery, said cap being adapted to be applied over the portion to be repaired without previous preparation of the hosiery by seaming, cutting, or removing portions of the hosiery, as set forth.

No. 58,692. Electric Circuit Controller.*(Contrôleur de circuit électrique.)*

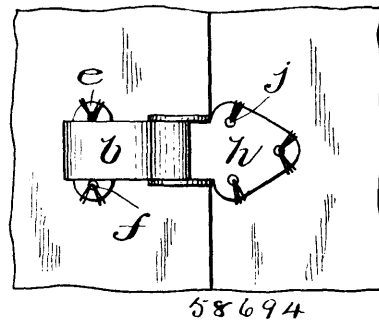
Joseph H. Rowley, Marengo, Illinois, U.S.A., 14th January, 1898; 6 years. (Filed 5th June, 1897.)

Claim.—1st. An automatic regulator for electric circuits, consisting of a receptacle having a base and neck portion, said neck portion having an upper and lower compartment, a float mounted in the lower compartment of the neck, a standard erected upon said float and in said neck and having fingers designed to engage the ends of the wires forming the circuit, substantially as specified and for the purpose set forth. 2nd. The herein described electric circuit opener and closer, consisting of the mercury receptacle having a base and neck portion, said neck portion being divided into two communicating chambers, the lower one being slightly larger, a float mounted in said lower chamber of the neck, a rod erected upon said float and extending upward through the upper neck-chamber, said rod carrying cross-bars or fingers designed to connect the adjacent ends of the wires forming the circuit as said rod is raised or lowered by the action of said float, all operatively combined in the manner and for the purpose set forth. 3rd. A switching device for electrical energy, consisting of a cylindrical coil of insulated wire, a series of contact points in electrical contact with said wire, a supporting axle for rotatably mounting said cylindrical coil and having electrical connection therewith, and a support or seat designed to receive part of said cylinder, said seat being provided with a series of transversely disposed contact-plates for co-operating with the points on said cylinder, each of said plates being connected with the source of electrical energy, substantially as described and for the purpose set forth. 4th. The herein described switchboard, consisting of an outer casing, a series of rotatable disc sections mounted therein, each of said discs having a series of segmental compartments, and an open section, electric batteries mounted in said compartments, an individual contact point or brush for each battery, attached to the periphery of said disc, a contact-plate for co-operating with said brush located upon the inner face of the outer casing, and a series of contact-plates located in a concave seat upon the table, each having wire connection with the plates on the casing, as and for the purpose set forth. 5th. As an improvement in differentiating mechanism for electric energy, the combination with a series of batteries having an individual plate for each cell thereof, each plate being transversely disposed in a concave seat, of a cylinder formed of insulated wire and provided with a series of spirally-disposed contact-points upon its surface designed to successively engage said plates, a supporting axle in electrical union with said wire and points, designed to rotatably hold said cylinder in said seat, and means for rotating and locking said cylinder in an adjusted position, as set forth. 6th. As an improvement in electric switches, the combination with a series of batteries and graduated plates having electrical union, of a rotatably-mounted cylinder formed of insulated wire having contact-points spirally disposed on the surface thereof, a supporting axle having suitable bearings, in electrical union with said contact-points and with the transmitting wire and a concave seat designed to receive said plates and cylinder and permit the contact-points thereon to successively engage the plates, substantially as described and for the purpose set forth. 7th. The herein described valve designed to permit liquid to pass through it in either direction, consisting of two contiguous drums, said drums having perforations in their contacting faces, one of said drums being stationary and having a plurality of pipe connections, while the other drum is rotatably mounted and provided with a single pipe connection, all of said parts being arranged in the manner and for the purpose set forth.

No. 58,693. Doubletree Fastener.*(Attache de palonnier.)*

Calvin J. Minton, Miles Point, Missouri, U.S.A., 14th January 1898; 6 years. (Filed 3rd January, 1897.)

Claim.—The combination with the pole and doubletree of a vehicle, of the forward brace extending upwardly and provided with a head having a central opening and a recess therein, and further formed with a downwardly projecting portion provided with an upwardly extending conical boss, a clip secured to the doubletree and having two parallel arms, each of which is formed with two curved stops, and one of which is formed with a recess to receive the upwardly extending boss of the brace, and the other of which is provided with an upwardly extending boss having a central screw-threaded aperture, a rear brace secured to the pole and provided with a head having a downwardly extending boss adapted to the recess in the head of the forward brace, and also provided with a pin to engage the curved slot in the upper member of the clip, a screw passed through the heads of said braces and into the screw-threaded aperture of the clip, and a bolt passed through the slot in the lower member of said clip, substantially as set forth.

No. 58,694. Fastener or Clasp for Articles of Apparel.*(Attache ou agrafe pour vêtements.)*

Caroline Louisa Lewis and Charles Edward Mixer, both of Boston, Massachusetts, U.S.A., 14th January, 1898; 6 years. (Filed 23rd December, 1897.)

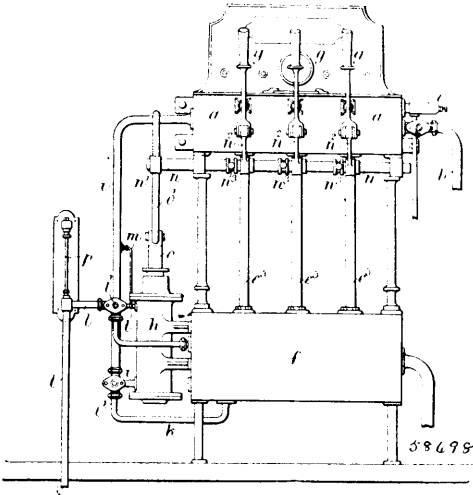
Claim.—A fastener or clasp comprising in its construction two members, each formed from a piece of sheet metal, one member consisting of a base-plate provided at the sides of its forward ends with upturned guiding and holding ears *d* and a part bent over upon itself, as at *b*, to form a catch, and the other member also consisting of a plate of metal adapted to be passed between the said ears and having its inner end made into the form of a catch *e*, the construction and arrangement of the parts being such that the latch member may be guided by the ears *d* and slipped under and engaged by the catch *e* to hold the members in clasped position, but enable the same to be buckled or bent back to raise the latch upward and release the member from clasped position, as set forth.

No. 58,695. Sleigh Knee. (Coudre de traîneaux.)

Goodson Jeremiah Alford, Harlem, Ontario, Canada, 14th January, 1898; 6 years. (Filed 3rd January, 1897.)

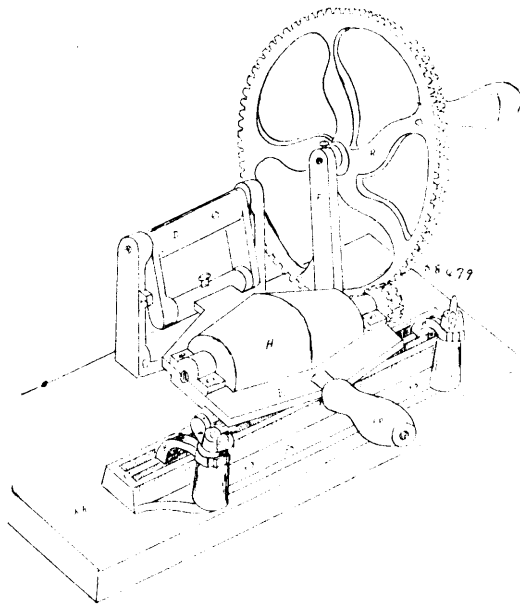
Claim.—1st. A sleigh knee consisting of two rods secured to the runner, a short distance apart, converging and having their upper ends secured to the bench and rave of the sleigh close together, and a third rod secured to the runner about midway between the two aforesaid rods and inclined towards the centre of the sleigh and secured to the bench, substantially as set forth. 2nd. In a sleigh knee, the combination with the runner *A*, bench *B* and rave *C* of the rods *D*, *D* and *E*, having shoulders *e* resting on the said runner,

and a shaft with suitable connections with piston and with the valves. 2nd. Valve controlling apparatus consisting of a cylinder



and piston, a supply to one end of the cylinder of fluid under pressure, a safety pipe connected with the other end of the cylinder, a shaft with an arm upon it by which the shaft receives motion from the piston and other arms by which the shaft moves the valves. 3rd. Valve controlling apparatus consisting of a cylinder and piston, a supply to one end of the cylinder of fluid under pressure, a safety pipe connected with the other end of the cylinder, a shaft with an arm upon it by which the shaft receives motion from the piston and other arms and clutches serving to lock fast with the shaft such arms as are required to operate. 4th. The combination of apparatus consisting of a valve chest containing a series of valves *d*, hand lever *g*, in connection with the valves, a weigh shaft *n* for actuating the hand levers automatically and which is rotated by automatic gear, arms *n*², loose upon this shaft and connected with the hand levers and clutches *n*³, upon the shaft connecting the same with the arms, so that the arms may be made fast upon the shaft when required.

No. 58,699. Mower and Reaper Knife Sharpener.
(*Aigiseur de lames de faucheuses et moissonneuses.*)

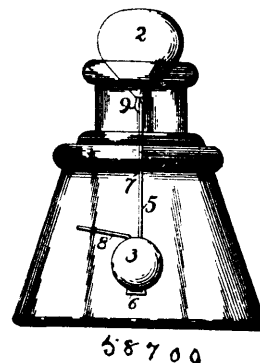


Joseph Woolsey, Ayr, Ontario, Canada, 15th January, 1898; 6 years. (Filed 14th September, 1897.)

Claim.—1st. In a sharpener for mower and reaper knives, a knife-holder, in combination with a stationary standard, a swinging frame journaled on the standard, a frame journaled on the said swinging frame, an emery stone journaled in said frame, a pinion fast on the spindle of the emery stone, a standard extending upwardly from the emery stone frame, and a driving gear-wheel journaled on said standard and meshing with the said pinion, substantially as and for the purpose specified. 2nd. In a sharpener for mower and reaper knives, a knife-holder, in combination with a stationary standard,

a swinging frame journaled on the standard, a frame journaled on the said swinging frame, an emery stone journaled in said frame, a pinion fast on the spindle of the emery stone, a standard extending upwardly from the emery stone frame, and forming half of the bearing-box for one end of the spindle of the emery stone, and a driving gear-wheel journaled on said standard and meshing with the said pinion, substantially as and for the purpose specified. 3rd. In a sharpener for mower and reaper knives, a knife-holder, in combination with a stationary standard provided with a projection or rest on its front side, a swinging frame journaled on the standard, a frame journaled on the said swinging frame, an emery stone journaled in said frame, a pinion fast on the spindle of the emery stone, a standard extending upwardly from the emery stone frame, and a driving gear-wheel journaled on said standard and meshing with the said pinion, substantially as and for the purpose specified. 4th. In a sharpener for mower and reaper knives, a knife-holder, in combination with a stationary standard provided with a projection or rest on its front side, a swinging frame journaled on the standard, a frame journaled on the said swinging frame, and provided at its front side with a handle, an emery stone journaled in said frame, a pinion fast on the spindle of the emery stone, a standard extending upwardly from the emery stone frame, and a driving gear-wheel journaled on said standard and meshing with the said pinion, substantially as and for the purpose specified. 5th. In a sharpener for mower and reaper knives, a knife-holder provided with a flat top and two vertical bolts, L-shaped dogs swung on said bolts, and thumb-nuts for the said bolts, in combination with a stationary standard, a swinging frame journaled on the standard, a frame journaled on the said swinging frame, an emery stone journaled in said frame, a pinion fast on the spindle of the emery stone, a standard extending upwardly from the emery stone frame, and a driving gear-wheel journaled on said standard and meshing with the said pinion, substantially as and for the purpose specified. 6th. In a sharpener for mower and reaper knives, a knife-holder provided with a flat top and two vertical bolts, L-shaped dogs swung on said bolts, and thumb-nuts for the said bolts, in combination with a stationary standard provided with a projection or rest on its front side, a swinging frame journaled on the standard, a frame journaled on the said swinging frame, an emery stone journaled in said frame, a pinion fast on the spindle of the emery stone, a standard extending upwardly from the emery stone frame, and a driving gear-wheel journaled on said standard and meshing with the said pinion, substantially as and for the purpose specified. 7th. In a sharpener for mower and reaper knives, a knife-holder provided with a flat top and two vertical bolts, L-shaped dogs swung on said bolts, and thumb-nuts for the said bolts, in combination with a stationary standard provided with a projection or rest on its front side, a swinging frame journaled on the standard, a frame journaled on the said swinging frame, and provided at its front side with a handle, an emery stone journaled in said frame, a pinion fast on the spindle of the emery stone, a standard extending upwardly from the emery stone frame, and a driving gear-wheel journaled on said standard and meshing with the said pinion, substantially as and for the purpose specified.

No. 58,700. Bottle Stopper. (*Bouchon de bouteilles.*)

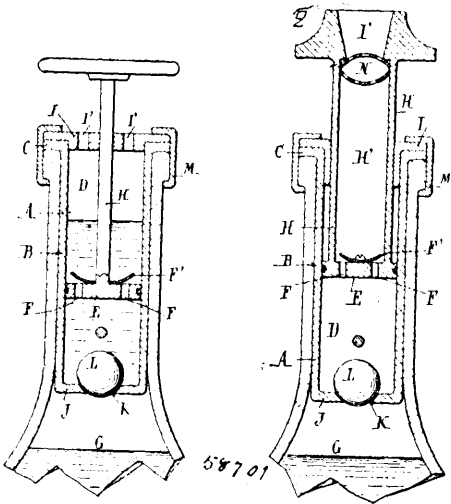


Samuel Crocker, Oklahoma, Oklahoma, U.S.A., 15th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. In a self-acting bottle-stopper, the combination of a stopper to fit in the mouth of the bottle, a wire flexibly connected at its upper end to the stopper and extending into the bottle and having its other end bent at an angle, and a weight connected to the wire within the bottle, said bent end serving to prevent the withdrawing of the weight from the bottle, substantially as described. 2nd. In a self-acting bottle-stopper, the combination of a conical stopper to fit in the mouth of a bottle, a weight having an opening extending through it, a wire bent upon itself and inserted through the opening in the weight, and the loop in the wire being expanded to form a support for the weight, one end portion of the wire being bent at an angle to prevent the withdrawal of the weight from the

bottle, a wire firmly secured to the stopper and having a link connection with the upper end of the wire connected to the weight, substantially as described.

No. 58,701. Apparatus for Stopping, Closing and Discharging the Contents of Bottles, etc. (Bouchon de bouteilles.)

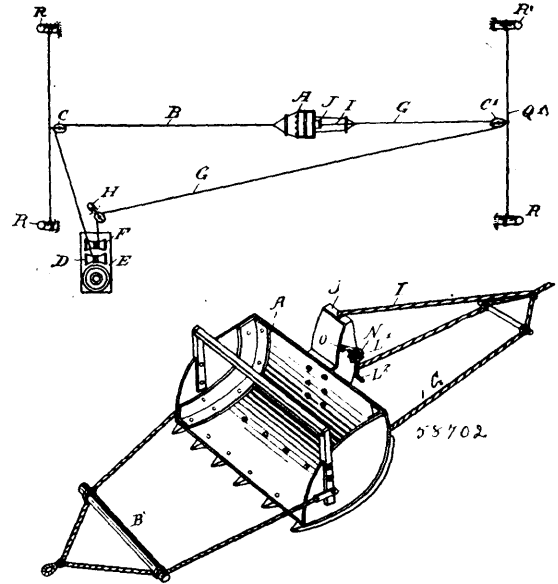


Baron Robert Personne, Sennevoy, Paris, France, 15th January, 1898; 6 years. (Filed 3rd January, 1898.)

Claim.—1st. A device for use in stoppering, closing and delivering the contents of bottles and other vessels, consisting of a cylinder arranged in the neck or delivery orifice of the vessel, and having an aperture and valve at its lower end, and a perforated cap for the passage and support of a plunger rod and for delivery of the liquid, in combination with a perforated plunger provided with a non-return valve or valves, substantially as described. 2nd. A device for use in stoppering, closing and delivering the contents of bottles and other vessels, consisting of a cylinder arranged in the neck or delivery orifice of the vessel and having an aperture and valve at its lower end and an open top to receive a tubular perforated plunger, provided with a non-return valve or valves, substantially as described. 3rd. A device for use in stoppering, closing and delivering the contents of bottles and other vessels, consisting of a cylinder arranged in the neck or delivery orifice of the vessel, and extending to the bottom of the vessel, its lower end being provided with an aperture and valve, in combination with a perforated tubular plunger provided with a non-return valve, substantially as and for the purpose described. 4th. The combination with a device of the character described in claim 3, of a non-return valve, a draw-off tap and a receiving vessel connected to the upper end of the tubular plunger, substantially as and for the purpose described. 5th. A device for use in stoppering, closing and delivering the contents of liquid containers, consisting of a cylinder arranged at the lower part of the vessel, and provided with a non-return valve at its inner end, a cap at its outer end, and a delivery outlet, in combination with a perforated plunger and a rod, the plunger being provided with a non-return valve or valves, substantially as and for the purpose described. 6th. A device for use in stoppering, closing and delivering the contents of bottles and other vessels consisting of a cylinder, as A, arranged in the neck or delivery orifice of the vessel, provided with an aperture K and non-return valve and a perforated cap I, and seal as M, in combination with a perforated plunger as E, provided with non-return valves as F', substantially as described. 7th. A device for use in stoppering, closing and delivering the contents of bottles and other vessels consisting of a cylinder, as A, having an aperture K, cap I, and seal, as M, in combination with a tubular perforated plunger, as E, provided with non-return valves, as F', with or without a perforated plate, as N, substantially as and for the purpose described. 8th. A device for use in stoppering, closing and delivering the contents of bottles and other vessels consisting of a cylinder as A, arranged in the neck or delivery orifice of the vessel and provided with an aperture at its lower end at the bottom of the vessel and a non-return valve, a tubular plunger H, provided with a non-return valve, and means for securing the cylinder in position, substantially as described. 9th. In combination with a device of the character described in claim 8, a receiver, as Q, connected to the tubular plunger, a non-return valve, as R, grating N, and draw-off cock R', substantially as and for the purpose described. 10th. A device for stoppering closing and delivering the contents of liquid containers consisting of a cylinder as A, non-return valves L, outlet N, perforated plunger E having non-return valves F', substantially as described and illustrated in Fig. 4 or Fig. 5 of the accompanying drawings. 11th. In a device of the character described, a piston rod or tubular

plunger provided with indications or marks in order to facilitate drawing a predetermined quantity of liquid, substantially as described.

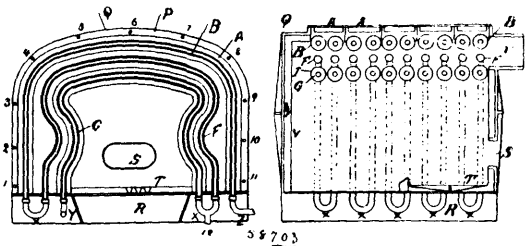
No. 58,702. Steam scraper. (Grattoir à vapeur.)



John Austin, San Francisco, California, U.S.A., 15th January, 1898; 6 years. (Filed 4th January, 1898.)

Claim.—1st. A steam-scraper, comprising a scoop, a pulling or head-line for the scoop, a holdback-line, a dumping line or cable connected with the holdback-line in the rear of the scoop and also connected with said scoop, and means for tightening and slacking the said dumping-line, whereby the scoop may be held in position for filling or be released so that it can be swung to a dumping position, substantially as shown and described. 2nd. A steam-scraper, comprising a scoop-carrying drum, a pulling or head-line for the scoop, a holdback-line for the scoop, and a dumping-line or cable adapted to wind upon the drum carried by the scoop and connected with the holdback-line, substantially as shown and described. 3rd. A steam-scraper provided with a scoop, a drum journaled on the said scoop, a pulling or head line connected with the scoop, a holdback-line also connected with the scoop, a dumping-line or cable connected with the holdback-line in the rear of the said scoop and adapted to wind upon the said drum, and means for rotating the said drum and locking the same in place, substantially as shown and described. 4th. A steam-scraper, comprising a suitable drum-hoisting engine, a scoop, a head-line extending from the front end of the scoop to one of the drums of said engine, a holdback-line connecting the rear end of the scoop with the other drum on the said engine, and a dumping-line connected with the said holdback-line and with the drum on the said scoop, substantially as shown and described. 5th. A steam-scraper, comprising a suitable drum-hoisting engine, a scoop, a head-line extending from the front end of the scoop to one of the drums of the said engine, a holdback-line connecting the rear end of the scoop with the other drum on the said engine, a dumping-line rigidly connected with the said holdback-line and with the drum on the said scoop, and means, substantially as described, for locking the said drum in place, as set forth.

No. 58,703. Steam Boiler. (Chaudière à vapeur.)

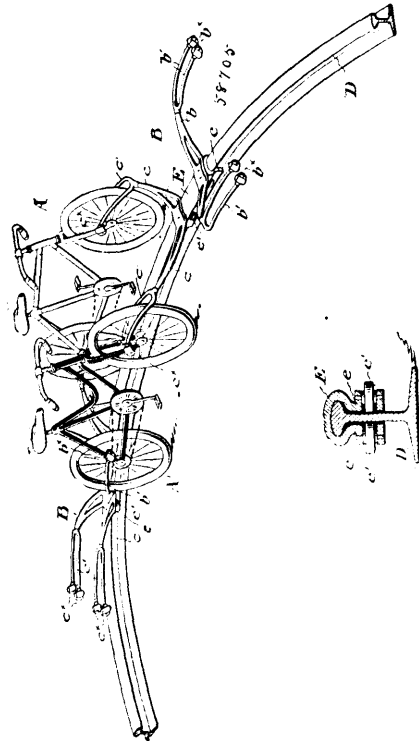


Reginald A. Fraser, Poplar Grove, Rotherham, England, 15th January, 1898; 6 years. (Filed 4th January, 1898.)

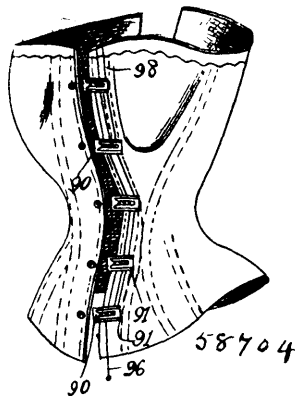
Claim.—1st. The combination in a steam generator of flatted tubes or flues with cast iron casings cast thereon, and wholly surrounding the said tubes or flues, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of any number

of flatted tubes with a steel retaining tube, in which the said flatted tubes are contained, substantially as and for the purpose hereinbefore set forth. 3rd. The combination with a retaining tube of sections of rolled steel having a water space between them, and being contained in the said retaining tube, substantially as and for the purpose hereinbefore set forth. 4th. The combination in a steam generator of any number of U-shaped flatted tubes connected in series, substantially as and for the purpose hereinbefore set forth. 5th. In a steam generator, the combination with the water and steam pipes of serpentine or wave-like flatted tubes or flues, substantially as and for the purpose hereinbefore set forth. 6th. In a steam generator, the combination with the fire-box of flatted metallic tubes arranged in series and having small or capillary water spaces therein, substantially as and for the purpose hereinbefore set forth. 7th. The combination in a steam generator, with the fire-box of flatted metallic tubes assembled in groups and encased in retaining tubes, substantially as and for the purpose hereinbefore set forth. 8th. The combination in a steam generator with the fire-box of assembled capillary tubes encased in retaining tubes and connected in series, substantially as and for the purpose hereinbefore set forth. 9th. The combination in a steam generator of flatted tubes contained in cast iron sections, with flatted tubes assembled and enclosed within retaining tubes the whole being joined together in series, substantially as and for the purpose hereinbefore set forth. 10th. In a steam generator, the combination of capillary tubes embedded in cast iron sections and flatted assembled tubes contained in retaining tubes, with sections of rolled steel having a capillary water space interposed and being contained in a retaining tube, substantially as and for the purpose hereinbefore set forth. 11th. The combination of the sections of cast iron A, with the flatted tubes C and D, substantially as and for the purpose hereinbefore set forth. 12th. The combination with the retaining tube B, of the capillary tubes C, D and F, substantially as and for the purpose hereinbefore set forth. 13th. The combination with retaining tube I of the sections of rolled steel G G, and the interposed waterspace H, substantially as and for the purpose hereinbefore set forth. 14th. The combination with the capillary tubes J, K, L, M and N, of the retaining tube O, substantially as and for the purpose hereinbefore set forth.

frames alternated with said vehicles, and each frame connected to the vehicle in front of and to the rear of it, and guide plates con-



No. 58,704. Garment Fastener. (Attache de vêtements.)



J. Fletcher Cook, Portland, Oregon, U.S.A., 15th January, 1898; 6 years. (Filed 13th December, 1897.)

Claim.—1st. The herein-described fastener, having a member which has a slotted top plate, and provided with a series of locking-pieces adapted for engagement with a stud, the outermost locking-piece being reversed, substantially as described. 2nd. The herein-described fastener, having a series of separate locking-pieces adapted to successively engage a stud, the locking-pieces having movement independent of one another, substantially as described. 3rd. The herein-described fastener, having a plurality of locking-devices adapted to engage a stud, the locking-pieces having operating cords extending in opposite directions, substantially as described. 4th. The combination with a garment, of a series of studs and a series of co-acting fasteners, each of which consist of a plurality of locking-devices for successively engaging one of the studs, and an operating cord connecting the corresponding locking-pieces of each fastener, substantially as described. 5th. The herein-described fastener, having a plurality of independent locking-pieces for successively engaging a stud, one of said locking-pieces being reversed to engage and disengage the stud by a movement opposite to that of the others, substantially as described.

No. 58,705. Merry-Go-Round. (Carrousel.)

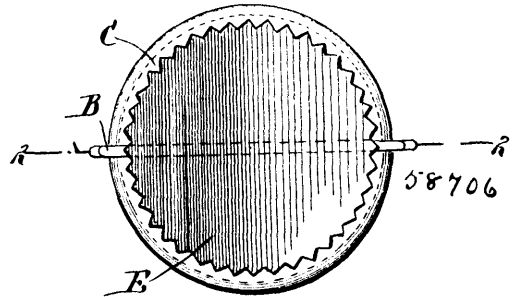
Thomas Brown Tinney, Philadelphia, Pennsylvania, U.S.A., 15th January, 1898; 6 years. (Filed 31st December, 1897.)

Claim.—1st. The combination to form a carrousel, of a permanent guide rail, a series of bicycles or bicycle-like vehicles, a series of

frames alternated with said vehicles, and each frame connected to the vehicle in front of and to the rear of it, and guide plates con-

necting to said frames and engaged with said rail, substantially as set forth. 2nd. The combination to form a carrousel, of a guide rail, a number of bicycles or bicycle-like vehicles disposed in two tandem series, one series on each side of said rail, and spider frames mounted and adapted to travel upon said rail, and having arms which extend rearwardly and engage with the frames of two bicycles in the rear, one in the outer and one in the inner series, and two arms which extend forwardly and engage with the frames of two bicycles in front, one in the outer and one in the inner series, substantially as set forth.

No. 58,706. Jar Closure. (Fermeture de jarres.)



Frank Hazen Palmer, Brooklyn, New York, U.S.A., 15th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—The combination with a jar having an annular shoulder, and a cover having a convex surface and provided with grooves extending across it at right angles to each other, of two spring bails having inwardly bent ends for engaging the shoulders of the jar, one bail being provided at its middle with a downwardly extending bend to receive the other bail, the body portions of the bails being curved when lying in the grooves and their upper surfaces flush with the upper surface of the cover, and a seal secured to the cover over the bails, substantially as herein shown and described.

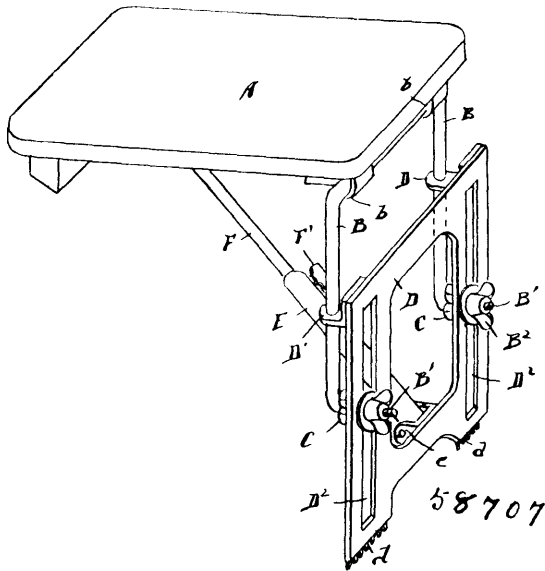
No. 58,707. Shingling Stool.

(Banc pour couvreurs en bardeau.)

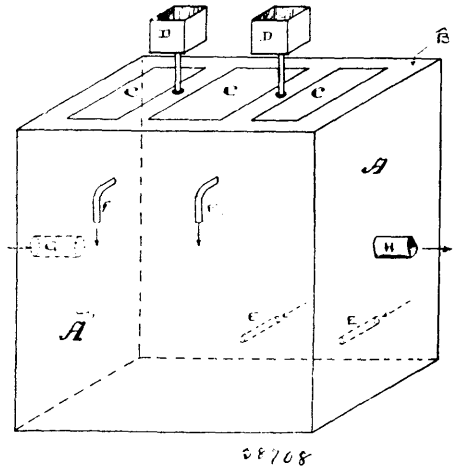
William H. Allen, Griggsville, Illinois, U.S.A., 15th January, 1898; 6 years. (Filed 22nd December, 1897.)

Claim.—1st. A shingling tool comprising a seat, supporting-arms attached to one edge thereof, and detachable feet having sockets

for the lower ends of the supporting-arms, substantially as described. 2nd. A shingling-stool comprising a seat, supporting-arms attached



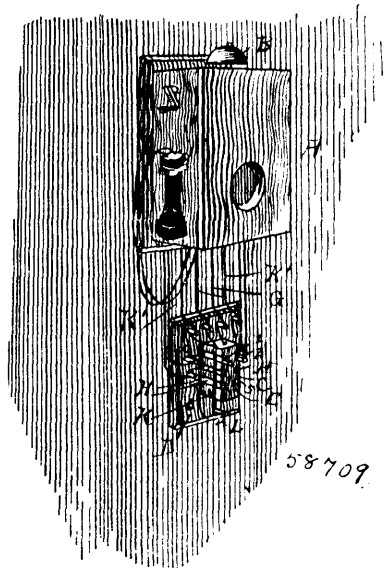
No. 58,708. Apparatus for the Production of Ozone.
(Appareil pour la production d'ozone.)



Emile Andreoli, London, S. E., England, 15th January, 1898; 6 years. (Filed 2nd November, 1896.)

Claim.—The use of hollow electrodes with cooling devices, such as cold air or water circulation in machines for the production of ozone, substantially as described and shown.

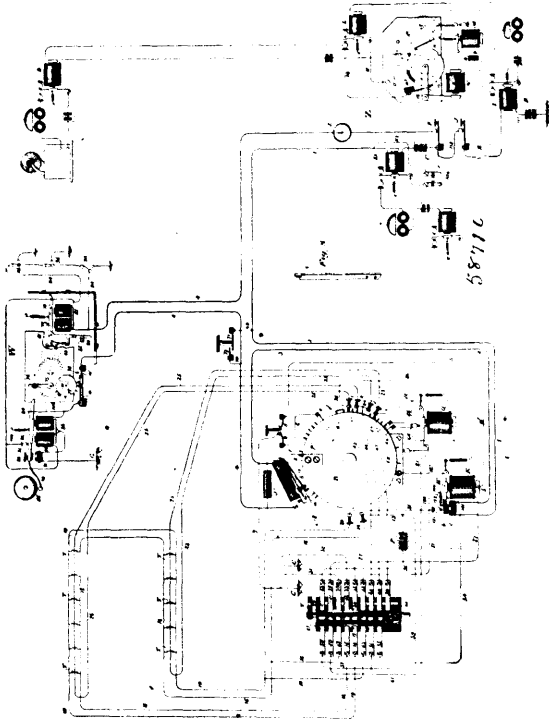
No. 58,709. Telephone Switchboard.
(Echange de téléphone.)



Linval W. Davis, Mineral, West Virginia, U.S.A., 15th January, 1898; 6 years. (Filed 7th January, 1897.)

Claim.—1st. In a telephone switch, a series of contact-plates, connected with a call-bell, a series of contact-plates each connected with a different line wire, the central instrument and contact-rods, the ground connections and plugs, all arranged, substantially as shown and described. 2nd. In a telephone switch, the combination with central instrument and call-bell of a block having a series of recesses, contact-plates located in said recesses, one of said plates being connected with the call-bell, and the other of said plates being connected to a line-wire, the contact-rods, and the ground connections, all arranged, substantially as shown and described. 3rd. In a telephone switch, the combination with the central instrument and call-bell, of a block having a series of recesses, such as 1, 2, 3 and 4, the contact-plates F located in said recesses, and connected with the call-bell, the contact-rods arranged upon the sides of the block and connected with the central instrument, the contact-plates H, located in the recesses and connected by line wires with distant instruments, the ground contact-plates located in recesses 5 in the side of the block, and the plugs for making such connections, substantially as shown and described.

to one edge thereof and adjustable at any angle and detachable feet for the lower ends of the supporting-arms, substantially as described. 3rd. A shingling-stool comprising a seat, supporting-arms pivoted to one edge thereof, so as to adjust themselves to any angle, and detachable feet for the lower ends of said arms, provided with means for engaging the roof, substantially as described. 4th. A shingling-stool comprising a seat, supporting-arms attached to one edge thereof, a bar attachable to the lower ends of the supporting-arms, and feet pivoted thereon, substantially as described. 5th. A shingling stool comprising a seat, supporting-arms attached to one edge thereof, a bar attachable to the lower ends of the supporting-arms and feet pivoted thereon, the said feet being faced with an adhering material, substantially as shown and described. 6th. A shingling stool comprising a seat, hinged supporting arms attached to one edge thereof, and a telescopic brace adjustable in length and attached to the opposite edge of the seat and to the lower ends of the supporting-arms, substantially as described. 7th. A shingling-stool comprising a seat, hinged supporting-arms attached to one edge thereof, detachable feet for the lower ends of said arms, and a telescopic brace adjustable in length, and attached to the opposite edge of the seat and to the lower ends of the supporting-arms, substantially as described. 8th. A shingling stool comprising a seat, hinged supporting-arms attached to one edge thereof, a bar detachably connected with the lower ends of the supporting-arms, and a brace of adjustable length connected with the lower ends of said arms, and the upper edge of the seat, substantially as described. 9th. A shingling stool comprising a seat, hinged supporting-arms attached to one edge, a bar detachably connected with the lower ends of the supporting-arms, feet pivoted thereto having a facing of an adhering material, and a brace of adjustable length connected with the lower ends of said arms and the upper edge of the seat, substantially as shown and described. 10th. A shingling stool comprising a seat, hinged supporting-arms attached to one edge thereof, adjustable in length, and a brace adjustable in length and attached to the opposite edge of the seat and the lower ends of the supporting-arms, substantially as described. 11th. A shingling stool comprising a seat, hinged supporting-arms of adjustable length attached to one edge thereof, detachable feet for the lower ends of said arms, and a brace of adjustable length attached to the lower ends of said arms and to the upper edge of the seat, substantially as described. 12th. A shingling-stool comprising a seat, hinged supporting-arms formed of two members adjustable one upon the other, a bar detachably connected with the lower ends of the supporting-arms, feet pivoted thereto, and a brace formed of two members adjustable one upon the other, and connected to the lower ends of the supporting-arms and to the upper edge of the seat, substantially as described.

No. 58,710. Fire Alarm Telegraph.*(Telegraphie d'avertisseur d'incendie.)*

J. W. Frost, New York, State of New York, U.S.A., 15th January, 1898; 6 years. (Filed 24th September, 1896.)

Claim.—1st. In an electric alarm system, the combination with a signalling mechanism and an electro magnet normally controlling the same, of a closed circuit through the said magnet, the said closed circuit being looped between the magnet and the battery on each side, cross connections, normally open, connecting opposite sides of each loop, and mechanically operated switches adapted to close said cross connections, as set forth. 2nd. In an electric alarm system, a closed electric circuit, including a translating device, such as an electro magnet, and including a series of loops located between the said magnet and the battery which supplies the circuit, normally closed connections between successive loops, cross connections, normally open, connecting opposite sides of each loop, and devices for opening said closed connections and closing said open connections, as set forth. 3rd. In an electric alarm system, a closed electric circuit, including a translating device, such as an electro magnet, and including a series of loops located between the said magnet and the battery which supplies the circuit, normally closed connections between successive loops, cross connections, normally open, connecting opposite sides of each loop, and automatic devices for opening said closed connections and closing said open connections, as set forth. 4th. The combination with an electric magnet, of a closed circuit through the said magnet, the said closed circuit including one or more loops located between the said magnet and the battery which supplies the circuit, cross connections, normally open, connecting opposite sides of each loop, and mechanically operated switches for closing the said cross connections simultaneously or substantially so, as set forth. 5th. In an electrical alarm system, the combination of a signalling mechanism and an electro magnet normally controlling the same, of a closed circuit, the said closed circuit including a series of loops with cross connections between successive loops, normally closed, and cross connections, normally open, connecting opposite sides of each loop, and devices operated simultaneously with said signalling mechanism, when actuated, for opening the said closed connections and closing the said open connections, as set forth. 6th. In an electrical alarm system, a signalling mechanism provided with distinctive signalling devices, an electro magnetic controlling device therefor, circuit controllers governing the said electro magnetic controlling device, the said circuit controllers being each provided with three or more contact parts in groups of two, all in combination with circuits and connections, substantially such as described, whereby on the operation of either or both groups of contact parts, definite signals will be transmitted, as set forth. 7th. In an electrical alarm system, a signalling mechanism provided with distinctive signalling devices, an electro magnetic controlling device therefor, thermostats governing the said electro magnetic controlling device, each thermostat being provided with three or more contact parts in groups of two, all in combination with cir-

cuits and connections, substantially such as described, whereby on the operation of either or both groups of contact parts, definite signals will be transmitted, as set forth. 8th. In an electrical alarm system, the combination with a signalling mechanism and an electro-magnet normally controlling the same, of a closed local or building-circuit through the said magnet, and a switch operated by the said signalling mechanism when actuated, the switch terminals being connected with the local circuit, one on each side of the magnet, whereby a break in the said circuit will be short circuited through the magnet, as and for the purpose set forth. 9th. In an electrical alarm system, the combination with a signalling mechanism, an electro-magnet normally controlling the same, of a closed circuit through the said magnet, and a switch operated by the said signalling mechanism when actuated, the switch terminals being connected with the closed circuit, one on each side of the magnet, as and for the purpose set forth. 10th. In an electrical alarm system, the combination with a circuit-controlling mechanism, provided with distinctive signalling devices and an electro-magnet normally controlling the same, of a closed circuit through the said magnet, and a switch operated by the said signalling mechanism, before the sending of the second signal, the switch terminals being connected with a closed circuit, one on each side of the magnet, whereby on a break in the local circuit a signal will be sent, and the said break will be short circuited, and the circuit restored through the magnet, as and for the purposes set forth. 11th. In an electrical alarm system, the combination with a circuit-controlling mechanism provided with distinctive signalling devices, an electro-magnet normally controlling the same, of a closed local or building circuit through the said magnet, and a switch operated by the said signalling mechanism, before the sending of the second signal, the switch terminals being connected with the local circuit, one on each side of the magnet, as and for the purposes set forth. 12th. In an electrical alarm system, a signalling mechanism provided with distinctive signalling devices, and an electro-magnet normally controlling the same, of a closed circuit through the said magnet, and a switch operated by the said signalling mechanism before the sending of the second signal, the switch terminals being connected with a closed circuit, one on each side of the magnet, all in combination with a dial in front of the signalling mechanism, and a pointer connected with the said mechanism traversing the face of the dial. 13th. In an electrical alarm system, a main circuit and a signalling mechanism located therein and provided with distinctive signalling devices, an electro-magnet for controlling the said signalling mechanism, and a closed local or building circuit through the said magnet, in combination with an artificial ground on one side of the local battery, and a switch in said ground and a mechanical device operated by the signalling mechanism, when actuated, for breaking the local ground, the said switch being located in the line of motion of the said mechanical device, and the relations being such that the mechanical device operates the switch only after a predetermined number of signals have been sent by the signalling mechanism, whereby if a foreign ground has short circuited the controlling magnet the ground circuit will be automatically broken, and the circuit restored through the said magnet, but only after a distinctive signal has been sent in, substantially as set forth. 14th. In an electrical alarm system, a signalling mechanism in the main circuit, an electric magnet for controlling the same, and a closed local or building circuit through the said magnet, the said local circuit being branched beyond the said magnet and extending through the building to be protected, the section and branches being on opposite sides of the magnet, all in combination with open double circuit controllers, such as thermostats extending between the branch and section wires, a device operated by the signalling mechanism, when actuated, for simultaneously lifting the ends of the branched wires, and afterwards those of the other, as and for the purposes set forth. 15th. In an electrical alarm system, a signalling mechanism, an electro magnet for controlling the same, and a closed building circuit through the said magnet, the said building circuit being branched beyond the said magnet and extending throughout the building to be protected, located in proximity to section wires, as described, the section wires and branches being on opposite sides of the magnet all in combination with open double circuit controllers, such as thermostats, extending between the branch and section wires, a device operated by the signalling mechanism when actuated, for simultaneously lifting the ends of one of the branched wires, and then those of the other, as and for the purposes set forth. 16th. In an electrical alarm system, a signalling mechanism in the main circuit, an electro magnet normally controlling the same and a closed local or building circuit through the said magnet, in combination with open circuit controllers, such as thermostats located in multiple are in a short circuit around the magnet, and a mechanical device operated by the said signalling mechanism, when actuated, for disconnecting the wires from the short circuit, the terminals of the short circuit being located in the path of movement of the said mechanical device. 17th. In an electrical alarm system, a signalling mechanism provided with distinctive signalling devices, an electro magnet normally controlling the same, and a closed circuit through the said magnet, in combination with open circuit controllers, such as thermostats, located in multiple are in short circuit around the magnet, a mechanical device operated by said signalling mechanism, when actuated, for disconnecting the wires from the short circuit, the terminals of the short circuit being located in the path of movement of the said mechanical device, and

the relations being such that the said mechanical device and the said terminals for disconnecting the circuit works only after a predetermined number of signals has been sent. 18th. In an electrical alarm system, a signalling mechanism in the main circuit, an electro-magnet normally controlling the same, and a closed local or building circuit through the said magnet in combination with open circuit controllers, such as thermostats, located in multiple arc in short circuit around the magnet, a mechanical device operated by the said signalling mechanism, when actuated, for disconnecting the wires from the short circuit, the terminals of the short circuit being located in the path of movement of the said mechanical device, all in combination with a dial in front of the signalling mechanism, and a pointer connected with the said mechanism and traversing the face of the dial. 19th. In an electrical alarm system, a signalling mechanism, an electro-magnet normally controlling the same and a closed circuit through the said magnet, in combination with open circuit controllers, such as thermostats, located in multiple arc in the short circuit around the magnet, a mechanical device operated by the said signalling mechanism, when actuated, for disconnecting the wires from the short circuit, the terminals of the short circuit being located in the path of movement of the said mechanical device all in combination with a dial in front of the signalling mechanism and a pointer connected with the said mechanism and traversing the face of the dial. 20th. In an electrical alarm system, a signalling mechanism in the main circuit, an electro-magnet normally controlling the same, and a closed local or building circuit through the said magnet, open connections from opposite sides of the magnet to opposite battery poles in combination with a mechanical device operated by the said signalling mechanism, when actuated, for closing the said open connections, the terminals of the said open connections being located in the path of movement of the said mechanical device as and for the purpose set forth. 21st. In an electrical alarm system, a signalling mechanism, an electro-magnet normally controlling the same, a closed circuit through the said magnet, the open connections from opposite sides of the magnet to opposite battery poles, in combination with a mechanical device operated by the said signalling mechanism, when actuated, for closing the said open connections, the terminals of the said connections being located in the path of the said mechanical device, as and for the purposes set forth. 22nd. In an alarm system, one or more expansible elements and two points of contact co-operating therewith and arranged at different distances from the said expansible element or elements, in combination with a subordinate alarm circuit connecting the nearer co-operative parts, a subordinate alarm circuit connecting the more distant co-operative parts, and a main alarm circuit connecting all the co-operative parts whereby distinctive signals will be sent on the closing of either contact and of all the contacts, as and for the purpose set forth. 23rd. In a thermostat, the combination with a concavo-convex disc, held at its edges, of two or more contact-pieces, co-operating therewith, and differentially located with respect to the disc, as and for the purpose set forth. 24th. In a thermostat, the combination with a solid expansible element, of two contact-points in the path of expansion of the said element, one of the said contact-points being nearer to the said expansible element than the other, and the relation of the parts being such that the contact of the expansible element with the more remote contact-point is mechanically resisted by its contact with the nearer point, as and for the purpose set forth. 25th. In a thermostat, the combination with a concavo-convex disc held at its edges, of two or more contact-pieces co-operating therewith, the said disc and the said contact-pieces having an adjustable relation to each other, as and for the purpose set forth. 26th. A signalling system, provided with transmission apparatus adapted to send a definite signal, a relay responding to the signals thus sent, a local circuit controlled by the said relay and including a second relay which controls through the medium of its armature, an alarm circuit, a normally closed short circuit around the said armature and means for breaking the said short circuit, as set forth. 27th. In an automatic repeater, a local circuit containing a trip magnet, and a normally short circuited armature which controls a subordinate alarm circuit, circuit changing devices, a clock-work tending to break the short-circuit around the said relay when brought into engagement with the said circuit changing devices, and a magnet in the said local circuit adapted to effect the said engagement, as and for the purposes set forth. 28th. In an automatic repeater, a relay adapted to control a subordinate alarm circuit through the medium of its armature, a short current around said armature, circuit breaking devices controlling the said short circuit, a clock-work adapted to be brought into engagement with the said circuit breaking device for operating the same, a trip magnet for the said clock-work, and a means adapted to effect the said engagement, the relations being such that when the engagement is long continued the said short circuit will be broken, as set forth. 29th. In an automatic repeater, a circuit breaking device mounted upon the armature of an electro magnet, the said circuit breaking device consisting of a disc having an insulated portion and a contact spring bearing upon the disc, and a clock-work adapted to engage with the said circuit breaking device, and a spring for restoring the disc, as and for the purposes set forth. 30th. In an automatic repeater, a circuit breaker device, consisting of a disc having an insulating or cut away portion and a contact spring co-operating therewith, a clock-work for operating the said circuit breaking device when in engagement therewith, a spring for restoring the said disc when released from engagement with the clock work, and a catch or

detent for holding the disc when it is carried beyond a certain point, as and for the purposes set forth. 31st. In a signalling system, a receiving apparatus at a station, such as the fire department office, a local circuit for operating the said receiving apparatus, the said local circuit being controlled by the armature of a relay, a normal short circuit around the armature, a means controlled by signalling apparatus at a distant station for breaking the said short circuit, as set forth. 32nd. In an electrical alarm system, a signalling mechanism provided with distinctive signalling devices, an electro magnetic controlling device therefor, thermostats governing the said electro magnetic controlling device, each thermostat being provided with three or more contact parts in groups of two, each group being adjusted to operate at different degrees of temperature, all in combination with circuits and connections substantially such as described, whereby distinctive signals will be transmitted upon the successive operation of the several groups of contact parts, as set forth. 33rd. The combination with a suitable transmitter, such as a push button, of a receiving magnet, a ground circuit passing through the same, the ground at the receiving station being taken off from between the spools of the magnet, whereby the receiver can be operated in spite of the break in the line, as and for the purposes set forth. 34th. In a signalling system, a closed metallic circuit and a ground circuit, a circuit controller in each, an automatic transmitter adapted to operate both circuit controllers, a receiving-magnet at the transmitter station, a short circuit around the same, an open ground circuit led off from between the spools, all in combination with a push-button or its equivalent at a distant station, all with devices actuated by the transmitter in its operation for breaking the said short circuit and closing the said ground circuit, as and for the purpose set forth. 35th. In an electrical alarm system, a signalling mechanism, an electro-magnetic controlling device therefor included in a closed circuit, the said closed circuit including one or more loops on either side of the said electro-magnetic controlling device, open circuit controllers in multiple arc relation between opposite loops, and an artificial resistance interposed between the battery and the loop or loops on either side, as set forth. 36th. In a signalling system, a metallic circuit and a battery therein, a branch or derived earth circuit and a battery therein with opposed poles, a circuit controller in each, and mechanism adapted to operate the said circuit controllers successively, the said mechanism being grounded, in a combination with two sets of receiving apparatus, one in the metallic and one in the derived earth circuit, as and for the purpose set forth. 37th. In a signalling system, a metallic circuit and a battery therein, a branch or derived earth circuit and a battery therein, a circuit controller in each, and mechanism adapted to operate the said circuit controllers successively, the said mechanism being grounded, in combination with two sets of receiving apparatus, each including recording mechanism, one in the metallic and one in the derived earth circuit, as and for the purpose set forth. 38th. In a signalling system, a metallic circuit and a battery therein, a branch or derived earth circuit and a battery therein, a circuit controller in each, and mechanism adapted to operate the said circuit controllers successively, the said mechanism being grounded, in combination with two sets of receiving apparatus, each including recording mechanism, one in the metallic and one in the derived earth circuit, as and for the purpose set forth.

No. 58,711. Medicinal Compound.

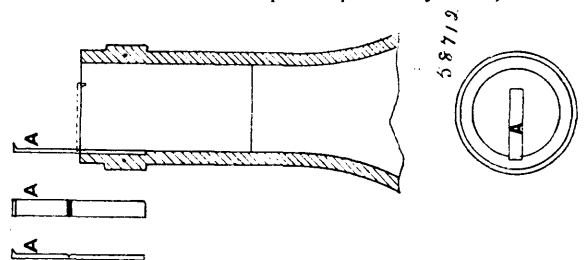
(Remèdes pour les hémorrhoides.)

Peter Schneider and Alexander Francis McKimmon, both of Vancouver, British Columbia, Canada, 17th January, 1898; 6 years. (Filed 25th October, 1897.)

Claim.—A medical compound for the cure of piles, composed of magnesia, charcoal, senna, resin and nutmeg, mixed together in the proportions as set forth and reduced to a fine powder, as and for the purposes set forth.

No. 58,712. Bottle Closure.

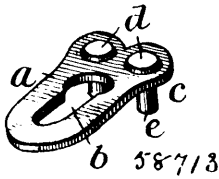
(Bouchon de bouteilles pour empêcher la fraude.)



George M. Bowser, George C. Willcocks, Charles Sigley and Edward G. Abell, all of Brisbane, Queensland, Australia, 17th January, 1898; 6 years. (Filed 6th October, 1897.)

Claim.—1st. In an improved bottle closure a metal strip such as a fixed into the neck of the bottle, as described and illustrated by drawings. 2nd. In an improved bottle closure, two lengths of wire such as B and B¹, fixed into the neck of the bottles, as described and illustrated by drawings.

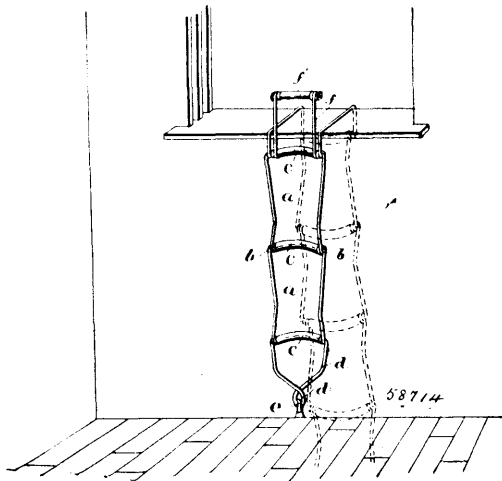
No. 58,713. Corset Eye. (*Oeil pour corsets.*)



The Warner Brothers Company, New York, State of New York, assignee of John Draher, Waterbury, Connecticut, U.S.A., 17th January, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—1st. As an article of manufacture, a corset eye consisting of a plate provided with a key-hole slot and two rivets or studs immovably secured to and projecting from the plate, and provided with shoulders upon opposite faces of the plate, substantially as described. 2nd. As a new article of manufacture, a corset eye consisting of a plate provided with a key-hole slot and two rivets or studs immovably secured to and projecting from the plate and provided with shoulders upon opposite faces of the plate, the shoulders upon face being flush with the face of the said plate substantially as described.

No. 58,714. Fire Escape Ladder. (*Echelle de sauvetage.*)

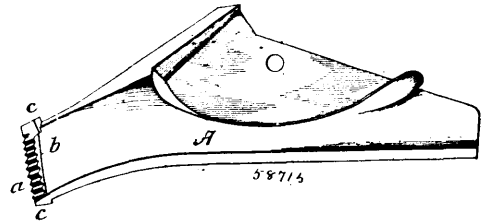


John H. Lodewick, assignee of Cora B. Lodewick, Administratrix of the estate of Marshall S. Lodewick, both of Saratoga Springs, New York, U.S.A., 17th January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. A folding fire escape ladder comprising the U-shaped wire links, the ends of the two sides of each link coiled around the extremities of the closed end of the adjacent link so as to turn thereon, each link having the enlarged curved rung at its closed end and between and separating and receiving the inward thrust of the coiled ends of the link sides of the adjacent link, said ladder formed for securing at or near a window and having a link formed for bending over a window sill, and a swinging hand hold loosely coupled to the inner portion of the ladder below the sill and arranged to swing against the sill, substantially as described. 2nd. The folding fire escape ladder comprising the plurality of pivotally joined U-shaped wire links arranged to swing on one another when folded, the ends of the sides of each link coiled around the extremities of the closed end of the next adjacent link to turn thereon, and means forming an enlarged rung at the closing end of each link between said coiled ends of the sides of the next link and by which said coiled ends are held separated and which receives the inward thrust of said coiled ends, said enlarged rungs centrally deflected or curved, for the purpose stated. 3rd. A folding fire escape ladder comprising the pivotally joined U-shaped wire links, the ends of the two sides of each link coiled loosely around the extremities of the closed end of the next adjacent link with the extremity of each coil at the inner side thereof, and a metal tube on the closed end of each link between said coiled ends of the sides of the next adjacent link and against the ends of which said coils abut, for the purpose stated, said tubes held against turning and the links formed to cause said coiled ends of the sides to press inward against the ends of the tubes, substantially as described. 4th. A fire escape made up of loosely joined wire links capable of folding one on the other, the link having a strong eye adapted for securing in a room beneath a window an intermediate link formed to bend over the window sill and opened therefrom the inner side of the sill, a tube at the inner depending end of

said link, and a hand hold or grip passed through said tube and extending upwardly therefrom with the cross piece at its free end so that in use the lower portion of the hand hold will bear against the inner edge of the sill with said cross piece arranged a distance above the sill, substantially as described.

No. 58,715. Plough Point. (*Soc de charrue.*)

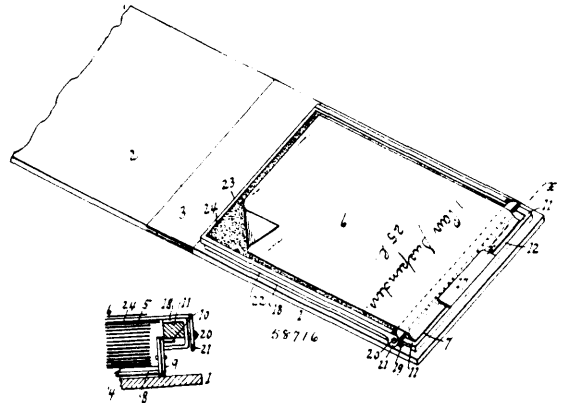


Edward L. Troup, House, Heflinger & Company, Homer L. House, Theodore M. Gehrett, and David S. Troup, all of Deshler, Ohio, U.S.A., 17th January, 1898; 6 years. (Filed 22nd December, 1897.)

Claim.—As an improved article of manufacture, a plough point provided with the teeth *a*, located upon the raised portion *b*, and upon the under face of the point, the teeth *c* extended beyond the edges of the point and of greater size than the teeth located between said teeth, substantially as and for the purpose specified.

No. 58,716. Duplicating Counter Check Book.

(*Livret à contre-épreuve en doubles.*)

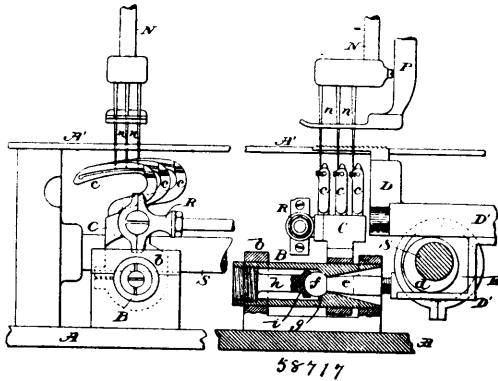


Phillip Hano, assignee of Frederick Meth Tuck, all of New York, State of New York, U.S.A., 17th January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. A pad, comprising a series of folded leaves, a support for the pad, guides located on opposite sides of the pad, and a carbon sheet carrier mounted on said guides so as to slide in and out between the sections of each leaf, said carrier being held by said guides in a plane parallel to the faces of the leaves, each of said leaves being folded into sections, and said folded leaves being superposed, substantially as described. 2nd. A pad, comprising a series of folded leaves, a support for the pad, a compression frame for the pad linked to the support, and a carbon or transfer sheet carrier made to slide on the frame, substantially as described. 3rd. A pad, comprising a series of folded leaves, a support for the pad, a compression frame for the pad linked to the support, and a carbon or transfer sheet carrier made to slide on the frame, said frame having a lip made to extend over or press upon the folded edge of the sheet, substantially as described. 4th. A pad, comprising a series of folded leaves, a support for the pad, a compression frame for the pad linked to the support, and a carbon or transfer sheet carrier made to slide on the frame, said frame having a supporting plate jointed thereto, and said plate being adapted to swing under or support the upper or writing sheet of the pad, substantially as described. 5th. A case for holding a pad of loose or unbound leaves of paper, said case comprising a support and a frame, and swinging wires connecting the support to the frame so as to leave the latter adjustable to the height or thickness of the pad, said frame being provided with a carbon carrying slide, substantially as described. 6th. A case for holding a pad of loose or unbound leaves of paper, said case comprising a support and a frame, and swinging wires connecting the support to the frame so as to leave the latter adjustable to the height or thickness of the pad, and a carbon or duplicating sheet on top of the frame and adapted to be interposed between the leaves, substantially as described. 7th. A case for holding a pad of loose or unbound leaves of paper, said case comprising a support and a frame, swinging wires made to severally

connect the various sides of the frame to the support so as to cause the frame to collapse or move evenly to the support, a pad or pile of sheets, each of said sheets having been first folded and then laid loosely one on top of the other, and a carbon sheet adapted to be interposed between the folds of each sheet, substantially as described. 8th. A case for holding a pad of loose or unbound leaves of paper, said case comprising a support and a frame, swinging wires connecting the support and the frame so as to leave the latter adjustable to the height or thickness of the pad and free to drop by its gravity onto such pad, and a carbon carrying slide mounted on top of the frame and adapted to move between the leaves, substantially as described.

No. 58,717. Sewing Machine. (Machine à coudre.)



The Union Special Sewing Machine Company, Chicago, Illinois, U.S.A., assignee of Rudolf Stocker, London, England, 17th January, 1898; 6 years. (Filed 27th October, 1897.)

Claim.—1st. In a sewing machine, the combination with a thread-carrying looper having oppositely extending journals of fixed bearings for said journals, complementary stitch-forming mechanism and mechanism for imparting to the looper a positive loop-taking movement in the arc of a circle and a positive needle-avoiding movement in a right line, whereby the drag on the needle thread is prevented, and liability of the looper striking the needle is avoided, substantially as described. 2nd. In a sewing machine, the combination with a needle of an under thread-carrying looper; trunnions-bearing in fixed supports on the machine frame, constituting the centre of motion of said looper and extending oppositely to each other and at an angle to the longitudinal axis of the looper, and means for positively operating said trunnions to give a forward and backward loop-taking and loop-leaving movement, and positive means for sliding said trunnions axially in their bearings to give the looper a needle-avoiding movement, substantially as described. 3rd. In a sewing machine, the combination with the needle and means for operating the same, of a looper, a carrier therefor, said carrier being mounted in and being free to slide and to rock in bearings, means for sliding and rocking said carrier, said sliding movement being at right angles to the length of the looper, whereby the longer loop-taking movement of the looper is given by the rocking movement of the carrier and the shorter needle-avoiding movement of the looper is given by the sliding movement of the carrier, and friction thus reduced, substantially as described. 4th. In a sewing machine, the combination with a thread-carrying needle and a feeding device having movement in a defined path, of a thread-carrying looper, the longitudinal axis of said looper being at an angle to the line of feed, means for giving to said looper four movements, viz., a positive loop-taking and positive loop-leaving movement at an angle to the line of feed, and in the direction of the longitudinal axis of the looper, and two positive needle-avoiding movements, two of said movements being in the arc of a circle and the other two being bodily movements in a right line, across the line traversed by the looper in its first movements, substantially as described. 5th. In a sewing machine, the combination with a needle, of a looper having journals arranged on opposite sides of one of its axes, fixed bearings in which said journals are mounted, and positive means for sliding and rocking said looper, substantially as described. 6th. The combination in a sewing machine of a main shaft, a relatively short shaft arranged adjacent the forward end of the main shaft and with its axis transverse to the axis of the main shaft and having pivotal bearings axially movable in fixed supports, a thread-carrying looper secured to said shaft between its bearing points, and positively operated connections between the main shaft and looper shaft, whereby said looper may be reciprocated laterally bodily, and oscillates horizontally, substantially as described. 7th. The combination in a sewing machine of a main shaft, and axially movable shaft supported in bearings on the machine frame, a reciprocating needle, an eccentric and universal joint connection between the main shaft and axially movable shaft, whereby the latter is reciprocated, a looper secured to said axially movable shaft between the bearings of said shaft and means for oscillating said shaft in its pivotal bearings, substantially as described. 8th.

The combination in a sewing machine with the driving shaft, of an axially movable shaft arranged at right angles thereto and supported in bearings on the machine frame, a looper rigidly fixed to said shaft between the pivotal points thereof, an eccentric and ball and socket connection between the driving shaft and the axially movable shaft whereby bodily movement in a right line is given said shaft and looper and means for operating said axially movable shaft, substantially as described. 9th. A sewing machine comprising a main shaft, a second shaft arranged with its axis at right angles to the axis of the main shaft and journaled in bearings on the machine frame, a looper fixed to said shaft between the bearing points, an eccentric and universal joint connection between the main shaft and the second shaft, whereby the second shaft is reciprocated and the looper moved bodily in one direction, and an independent driving connection between the main shaft and second shaft, whereby the looper is oscillated, substantially as described. 10th. A sewing machine comprising a main shaft, a hollow shaft journaled in the frame, a looper secured to said hollow shaft, an eccentric on the main shaft, and a connecting rod having on one end a ball fitting within the hollow shaft and universally jointed thereto, and complementary stitch forming mechanism, substantially as described. 11th. A sewing machine comprising a main shaft, a hollow shaft axially movable in fixed supports on the machine frame, a looper secured to said hollow shaft between the fixed supports, said hollow shaft having an inwardly tapering recess at one end, forming a shoulder, a socketed piece set within said hollow shaft and the connecting rod c having ball f on its inner end resting between the socketed pieces and the shoulders of the tapering recesses and complementary stitch forming mechanism, substantially as described. 12th. In a double chain stitch sewing machine, an actuating shaft, a laterally movable support, a looper thereon, mechanism for oscillating said looper in the direction of its length and for actuating the support and with it the looper laterally, said mechanism including a device connected with the actuating shaft and directly connected to the looper support, substantially in the line of the axis on which the looper oscillates, all substantially as described. 13th. In a double chain stitch sewing machine, an actuating shaft, a looper having oppositely extending trunnions or pivot points, means for supporting said trunnions, mechanism for actuating said looper to give it the desired movements, said mechanism including means actuated from said shaft and directly engaging the looper between its trunnions or pivot points and substantially in line therewith, all substantially as described. 14th. In a sewing machine, an actuating shaft, a support, a looper carrier on said support and a looper on said carrier, means for oscillating the looper carrier in the direction of the length of the looper and means for actuating the looper support including a device connected with the actuating shaft and arranged to apply the power for the purpose above specified directly at right angles with the axis of longitudinal oscillation of the looper and substantially in the plane of said axle, all substantially as described. 15th. In a sewing machine having a feeding mechanism moving in a defined path, a thread carrying looper having its longitudinal axis at an angle to the line of feed and means for giving said looper positive movement as follows:—a forward and backward movement in the direction of its longitudinal axis and sidewise movements bodily in a right line across the line traversed by it in its other movements, substantially as described.

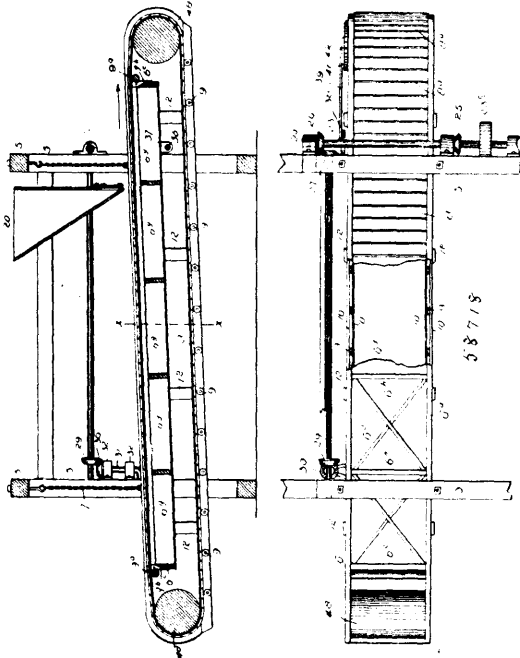
No. 58,718. Ore Concentrator and Separator.

(Concentrateur et séparateur de minerais.)

Robert E. Waugh, Eugene Waugh, and Charles S. Older, Colorado Springs, Colorado, U.S.A., 18th January, 1898; 6 years. (Filed 23rd October, 1897.)

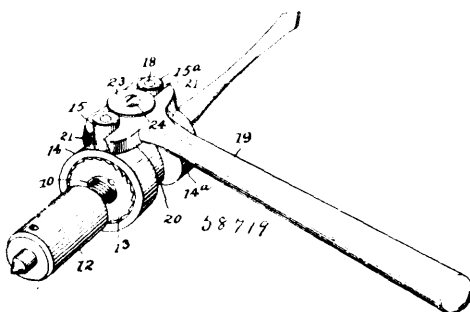
Claim.—1st. In an ore concentrator and separator, the combination of the endless apron, the end drums of rollers therefor and the frame supporting said rollers and apron, the main frame, a shaft journaled thereto and having a crank connected with the apron-frame, a gear on said crank, a gear on the apron frame and meshing the gear on the crank and connections between the gear on the apron-frame and the apron-drums or rollers whereby to drive the apron, substantially as set forth. 2nd. In an ore concentrator, the combination of a main-frame, a box-frame supported in said frame, and having an air-chamber, and an apron extended over said air-chamber and adapted to permit the passage of the air through its mechanism for moving said apron, a mechanism by which to produce air-pressure within the air-chamber and means by which the box is given a circular movement substantially as described whereby the material as it is agitated by the mechanical movement will be lightened and opened up by the air-pressure, all substantially as and for the purposes set forth. 3rd. In a dry ore separator and concentrator an apron through which air may freely circulate means by which said apron may be caused to travel, a support for said apron capable of a limited circular movement, mechanism by which to give such apron-supports a horizontal circular motion and means by which to produce an air-blast through the apron, substantially as set forth. 4th. In a dry ore separator, the combination with the apron and its support having a limited oscillatory motion of the gear carried by said support and having operative connection with the apron, the main frame, a shaft journaled to said main frame and having a crank-wrist, a gear on said wrist meshing with the gear on the apron-support and a connection between said support and the crank-wrist, substantially as set forth. 5th. An apparatus, sub-

stantially as described, comprising suitable supporting devices, an apron of fibrous material set at an incline and having its upper ore



supporting surface provided with a nap lying flat upon the surface of the fabric with its free ends toward the lower end of the apron and means by which to produce an air-blast through the apron whereby to form a trap or check-valve for the air-blast from below, substantially as set forth. 6th. The combination of the main frame, the box suspended therein and provided with apron-supporting drums and with an air-chamber, a transverse shaft journaled to said box and having at one end a gear-wheel and at its other end a crank, connections between said crank and one of the apron-supporting drums, a shaft journaled to the main-frame and having a crank-wrist, connected with the suspended box, and a gear on said crank-wrist and meshing with the gear on the transverse shaft of the suspended box, all substantially as set forth. 7th. In a dry ore concentrator, the combination of a suitable support or frame, an apron on which to support the ore to be concentrated and having a normally flat lying nap and means by which to produce an air blast through the apron, substantially as described and shown.

No. 58,719. Double Acting Tool Driver. (Moteur pour outils à double action.)

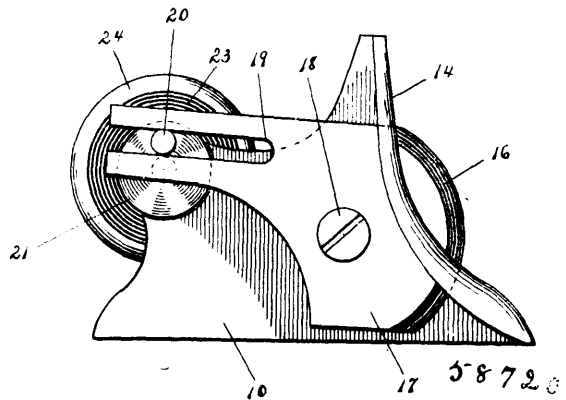


Frank Arthur Reynolds, Stephen H. Manning, both of Lewiston, Maine, and Herschel C. Parker, Brooklyn, New York, all in the U.S.A., 18th January, 1898; 6 years. (Filed 11th December, 1897.)

Claim.—1st. A device of the character described, comprising a tool spindle or shaft, ratchet wheels having the teeth thereof similarly pitched and rotating with the tool shaft or spindle, a pair of collars rotatably arranged on the shaft and provided with pawls to engage the ratchet wheels, and a lever pivoted and journaled upon the tool spindle and having a lug and slot connection with the collars so as to rotate the same, whereby a single or double-acting ratchet drill or tool driver is secured, substantially as described. 2nd. A device of the character described, comprising a tool spindle, exteriorly smooth collars rotatably arranged on the spindle and provided with lugs or projections thereon, an enclosed ratchet and pawl connection between each collar and the spindle, and a pivoted lever supported on the spindle, and engaging the lugs of the collars so as

to rotate the latter in opposite directions when oscillated on its pivot, substantially as described. 3rd. A device of the character described, comprising a tool spindle or shaft, a sleeve or casing journaled on the spindle, recessed collars rotatably arranged on the spindle, each having a lug or projection, ratchet wheels arranged in the recesses of the collars and secured to the spindle or shaft, pawls carried by the collars adapted to engage the teeth of the ratchet wheels, and a lever pivoted to the casing and having slotted ends to engage the lugs of the collars so as to rotate the latter in opposite directions when oscillated on its pivot, substantially as described. 4th. A double-acting ratchet tool driver, comprising a tool spindle or shaft, a sleeve or casing journaled on the spindle, collars rotatably arranged on the spindle, each having a lug or projection thereon, ratchet wheels on the spindle, pawls carried by the collars adapted to engage the teeth of the ratchet wheels, and a lever pivoted to the casing and slotted to engage the lugs of the collars so as to rotate the latter in opposite directions when oscillated on its pivot, substantially as described. 5th. A device of the character described, comprising a tool spindle or shaft, a sleeve or casing journaled on the spindle, recessed collars rotatably arranged on the spindle, each having a lug or projection thereon, ratchet wheels secured to the spindle and arranged in the recesses of the collars, spring-pressed pawls arranged in the lugs and adapted to engage the teeth of the ratchet wheels, means for exerting a pressure on the spindle, and a lever pivoted to the casing and having slotted ends engaging the lugs of the collars so as to rotate the latter when oscillated on its pivot, substantially as described.

No. 58,720. Ripping Device. (Appareil à refendre.)



Frank Arthur Reynolds and Stephen H. Manning, both of Lewiston, Maine, and Herschel E. Parker, Brooklyn, New York, all in the U.S.A., 18th January 1898; 6 years. (Filed 11th December, 1897.)

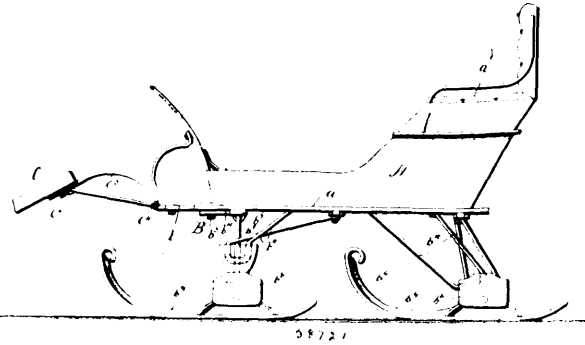
Claim.—1st. A ripping device, comprising a frame having an upright web and a vertically-slotted, laterally-spreading guard at its cutting edge, a knife pivoted to the web so as to oscillate thereon and having its cutting edge projecting through the slot of the guard, and means for imparting motion to the knife, substantially as described. 2nd. A device of the kind described, comprising a supporting frame having a vertical web provided with a curved or bevelled forward edge, and a wing or extension on one side thereof forming a continuation of the bevelled forward edge of the web and extending in an opposite direction thereto so as to provide a guard to spread the material to be cut and to protect the operator, said guard being vertically slotted at the junction of the wing and web, a knife having its cutting edge projecting through the slot in the guard, and means for operating the knife, substantially as described. 3rd. A device of the kind described, comprising a frame or support having at one edge a slotted guard, an oscillating knife fulcrumed on the support and having its edge projecting through the guard, the knife having a slotted rear end, a crank shaft journaled on the support and having its crank extending into the slot of the knife, and means for rotating the crank shaft, substantially as described.

No. 58,721. Sleigh. (Traineau.)

Onesime Isaac Bergeron and Joseph Aurius Bergeron, both of St. Gregoire, Quebec, Canada, 18th January, 1898; 6 years. (Filed 20th December, 1897.)

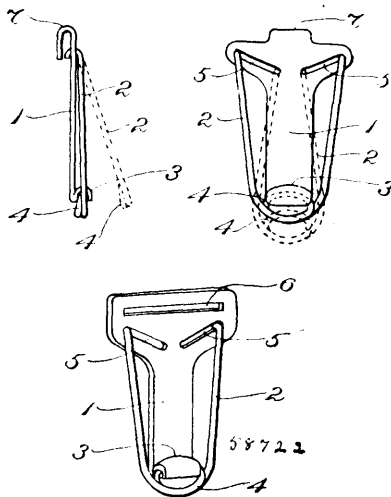
Claim.—1st. A sleigh comprising a sleigh body, a running gear connected to the sleigh body at its front, said running gear being adapted to turn the front sleigh runners at an angle to the sleigh body, and sleigh runners pivotally connected to said sleigh body. 2nd. A sleigh comprising a sleigh body, sleigh runners pivotally connected therewith, and means for turning the front sleigh runners at an angle to the sleigh body. 3rd. A sleigh comprising a sleigh body, runners connected therewith, each runner having an independent movement vertically, and said runners being arranged in series, and means for turning the front series of runners at an angle to the sleigh body. 4th. A sleigh comprising a sleigh body, runners con-

nected therewith, each runner having an independent movement vertically, and said runners being arranged in series, and means for



turning the front series of runners at an angle to the sleigh-body, said runners being at all times parallel with each other. 5th. A sleigh comprising a sleigh-body, and runners connected pivotally to said body, in series, the pivotal point of the rear series being in rear of the rear end of the lower portion of the sleigh body. 6th. A sleigh comprising a sleigh-body, runners pivotally connected to the front portion of said sleigh-body, means for turning said runners at an angle to said sleigh-body, said runners being at all times parallel with each other, and runners pivotally connected to the rear end of the sleigh-body, the pivotal point being in rear of the rear end of the lower portion of the sleigh-body. 7th. The combination with the shafts of a vehicle, having an elongated slot, and means for connecting said plate adjustably mounted in said slot, and means for connecting said plate with the running gear of the vehicle, whereby the position of the shafts, relatively to the vehicle body, can be varied. 8th. The combination with a sleigh, having runners pivotally connected therewith, arranged in series, the front series being rotatably connected to the sleigh-body, of shafts, having an elongated slot, an adjusting plate mounted in said slot, and means for connecting said adjusting plate with said rotatably mounted runners.

No. 58,722. Garment Clasp. (Agrafe de vêtement.)

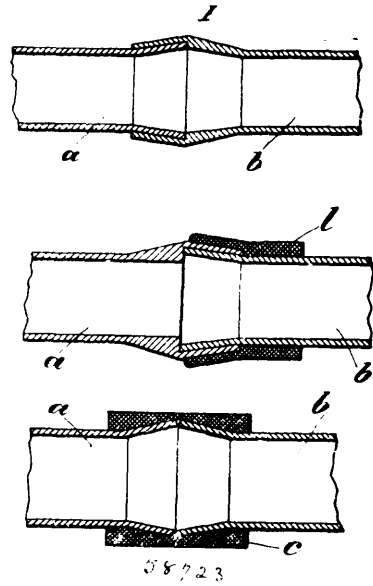


Samuel J. Simmons and William O. Simmons, both of Boston, Mass., U.S.A., 18th January, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—1st. The improved clasp comprising the body provided with oppositely inclined guides and the jaw for the fabric, and the swinging retainer to compress the fabric against the said jaw, having spring arms with the ends thereof loosely engaged with said guides, whereby by movement of the said arms toward and from each other along said guides endwise movement of the said retainer is caused. 2nd. The improved clasp comprising the body-plate provided with the oppositely inclined guides and with a jaw for engagement with the fabric, and the swinging retainer to compress the fabric against the said jaw, formed of wire coiled upon itself, substantially as described, and having the ends of its arms engaged loosely with the said guides, whereby by movement of the said arms toward and from each other along the said guides endwise movement of the said retainer is occasioned.

No. 58,723. Joining Tubular Piece.

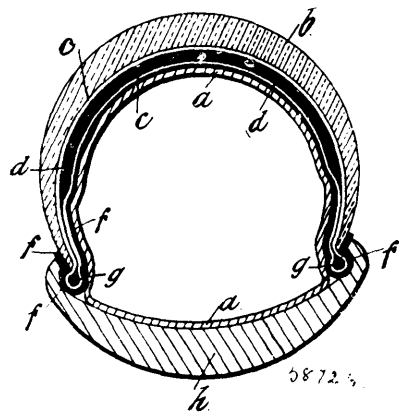
(Accouplement de tubes.)



Bruno Wesselmann, Gottingen, Prussia, 18th January, 1898; 6 years. (Filed 14th June, 1897.)

Claim.—1st. The art of joining tubes, which consists in forming one tube with an expanded opening, contracted towards the exterior, and in providing the second tube with an expanded and flaring extremity, which extremity is adapted to be placed within the opening of the first tube, and firmly held in position by friction, substantially as set forth. 2nd. A joint for tubes, which consists in forming the extremity of one tube in the shape or form of a double cone, surrounding and embracing the extremity of a second tube, which second tube is flaring or bell shaped, and a reinforcing band or ring surrounding said joint, substantially as set forth. 3rd. A joint for tubes, which consists in forming the extremity of one tube in the shape or form of a double cone, surrounding and embracing the extremity of a second tube, which second tube is flaring or bell shaped, and a reinforcing ring or plug inside of such joint, substantially as set forth. 4th. A joint for tubes, which consists in forming the extremity of one tube in the shape or form of a double cone, surrounding and embracing the extremity of a second tube, which second tube is flaring or bell shaped, and a reinforcing tubular plug within said joint, said plug being provided with pockets for the reception of solder, substantially as set forth.

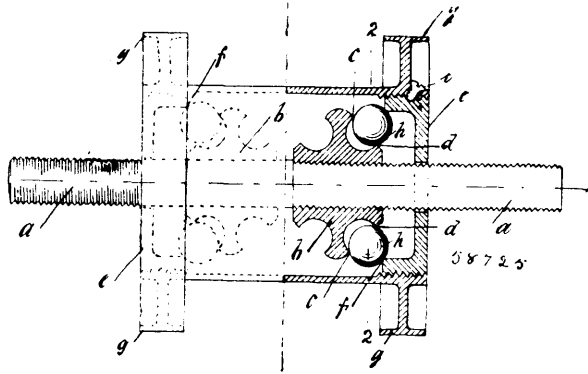
No. 58,724. Means for Preventing Puncture of Pneumatic Tires. (Moyen de prévenir les piqûres dans les bandages pneumatiques.)



Arthur John Cumming, Canterbury, New Zealand, 18th January, 1898; 6 years. (Filed 7th September, 1897.)

Claim.—The combination in a pneumatic tire of a strip of flexible puncture resisting material between two layers of fine woven wire with a layer of canvas between the inner layer of woven wire and the air tube, substantially as specified and illustrated.

No. 58,725. Hub and Bearing. (*Moyeu et coussinet.*)

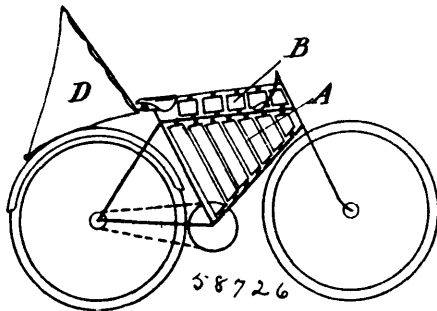


Arthur John Cuming, 71 Cathedral Square, Christ Church, New Zealand, 18th January, 1898; 6 years. (Filed 27th November, 1897.)

Claim.—1st. In combination, a wheel-axle having a cone formed with two projecting ball races, a cap having a single projecting ball race adjustable upon the axle and anti-friction balls between the cone and the cap, substantially as herein specified. 2nd. In combination, the wheel-axle *a*, cone *b*, having ball race *c*, *d*, caps *e* screwed upon said axle having ball race *i*, anti-friction balls running upon the three races *c*, *d*, *f*, substantially as specified. 3rd. The hub of a cycle-wheel having projecting T-shaped flanges, substantially as specified.

No. 58,726. Propulsion of Velocipedes.

(*Propulsion de vélocipèdes.*)



Robert Frederick Hughes, Marylebone, London, England, 18th January, 1898; 6 years. (Filed 11th October, 1897.)

Claim.—1st. For assisting in the propulsion of velocipedes, wind vanes attached by means of the bifilar attachment, in such manner as to automatically adjust themselves, substantially as shown and described. 2nd. For assisting in the propulsion of velocipedes, wind vanes attached by means of cords and clips, in such manner that the vanes can be adjusted to any suitable angle, substantially as shown and described. 3rd. For use in a velocipede, the boom *M* attached to the seat pillar, substantially as shown and described. 4th. For assisting in the propulsion of velocipedes, the use of vanes or a sail, attached between the boom *M* and the mud-guard *O*, substantially as shown and described. 5th. For assisting in the propulsion of velocipedes, the use of a fastening to which the cloak of the rider can be attached in such manner as to form a vane, substantially as shown and described. 6th. For attaching vanes to the frames of velocipedes, the method of arranging the cords, substantially as shown and described.

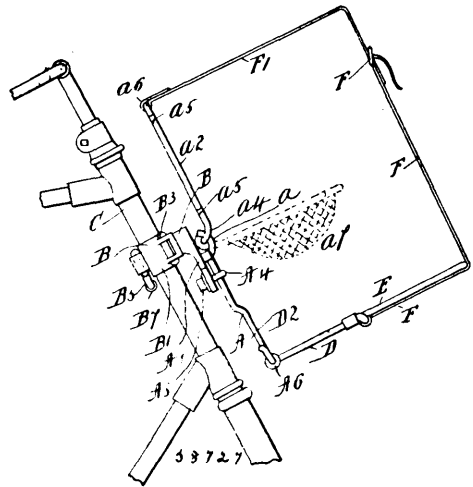
No. 58,727. Carrier for Bicycles, etc.

(*Porte paquets pour bicycles, etc.*)

William Montgomery Tegart, Yorkton, N.W.T., Canada, 18th January, 1898; 6 years. (Filed 6th December, 1897.)

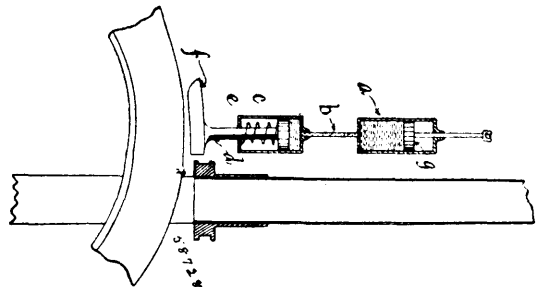
Claim.—1st. A carrier for bicycles and similar vehicles, which is adapted to be connected with the forward upright tubular head of the frame, said carrier consisting of a cross head or bar provided with a clamp which is adapted to be connected with said tubular head, rods connected with the ends of said cross head, and adjustable vertically thereon, a bottom frame hinged to, or pivotally connected with the lower ends of said rods, a sliding extension connected with said bottom frame, a supplemental frame hinged to or pivotally connected with the upper ends of said main rods, and adapted to be held in an upright, or lowered into a horizontal position, said supplemental frame being provided with a net work, which is adapted to form a basket, and said supplemental frame, and the extension of the bottom being provided with straps, sub-

stantially as shown and described. 2nd. A carrier for bicycles and similar vehicles, consisting of a cross head or bar, which is adapted



stantially as shown and described. 2nd. A carrier for bicycles and similar vehicles, consisting of a cross head or bar, which is adapted to be clamped to the forward part of the frame of the vehicle, said cross head or bar being provided at each end with main rods which are connected therewith, and to the lower end of which is hinged or pivoted a bottom frame which is adapted to be held in a forwardly directed position, or to be folded upwardly, a supplemental frame pivotally connected with the upper ends of said main rods and adapted to be held in a forwardly directed position or in an upright position, said supplemental frame being provided with a net work which is adapted to serve as a basket, and said bottom and said supplemental frame being provided with straps, substantially as shown and described. 3rd. A carrier for bicycles and similar vehicles, which is adapted to be connected with the forward part of the frame thereof, said carrier consisting of a cross head or bar, the ends of which are curved downwardly and provided with vertically adjustable rods, a bottom frame hinged to the lower ends of said vertically adjustable rods, and adapted to be held in a forwardly directed position, or to be folded into an upright position, said bottom being provided with an extension which is adjustable thereon, and a supplemental frame pivotally connected with or hinged to the upper ends of said rods, and adapted to be held in a forwardly directed position or in an upright position, and said supplemental frame and the extension of the bottom being provided with straps, substantially as shown and described. 4th. A carrier for bicycles and similar vehicles, which is adapted to be connected with the forward part of the frame thereof, said carrier consisting of a cross head or bar, the ends of which are curved downwardly and provided with vertically adjustable rods, a bottom frame hinged to the lower ends of said vertically adjustable rods, and adapted to be held in an upright position, said bottom being provided with an extension which is adjustable thereon, and a supplemental frame pivotally connected with or hinged to the upper ends of said rods, and adapted to be held in a forwardly directed position, or in an upright position, and said supplemental frame and the extension of the bottom being provided with straps, and said supplemental frame being also provided with a net work which is adapted to serve as a basket, substantially as shown and described.

No. 58,728. Brake. (*Frein.*)

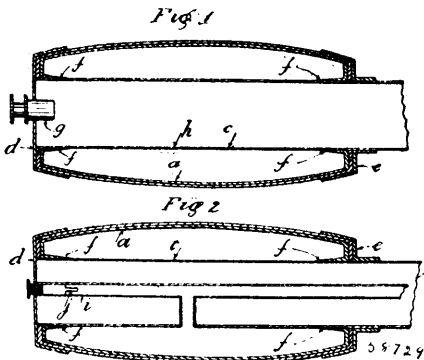


Harry Morrison, Forest Gate, Essex, England, 18th January, 1898; 6 years. (Filed 6th December, 1897.)

Claim.—1st. The combined construction and arrangement of the various parts substantially as described and illustrated herein. 2nd. In brakes, a piston carrying a brake block adapted to work in a cylinder and being controlled by a spring, said cylinder communi-

cating with a reservoir containing water or fluid through the medium of a suitable aperture or outlet, a piston or the like working in said reservoir for the purpose of enabling the water, fluid, or the like to be forced into the cylinder which carries the piston having the brake block so that the break block or surface may be caused to engage upon the wheel when required.

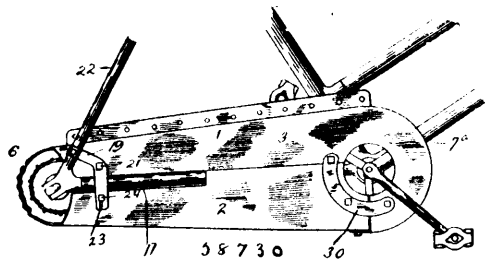
No. 58,729. Pneumatic Handle. (Poignée pneumatique.)



Harry Morrison, Forest Gate, Essex, England, 18th January, 1898 6 years. (Filed 6th December, 1897.)

Claim.—1st. The employment of a hollow handle bar with an inflatable covering, sleeve, or grip, said hollow handle bar being arranged to contain air at a suitable pressure and communicating with an inflatable covering, sleeve or grip for the purpose of providing a cushioning of air between the handle bar and said inflatable covering, sleeve or grip. 2nd. An inflatable covering, sleeve or grip having at its ends inwardly projecting feather edges for ensuring a tight joint when in position upon the handle bar, in conjunction with suitable caps or sockets. 3rd. The improved pneumatic handle constructed in accordance with this specification and illustrated in the drawings hereunto annexed.

No. 58,730. Bicycle Guard. (Défense de bicycles)



Anzle N. Heminger, Plymouth, Indiana, U.S.A., 18th January 1898; 6 years. (Filed 9th December, 1897.)

Claim.—1st. The herein described attachment for bicycles consisting of the upper and lower members designed to provide a housing for the sprocket and chain therefor, the end walls of each member being extended and provided with corrugations for engagement with each other, and means, substantially as described, for locking said sections in an adjusted position, as set forth. 2nd. The herein described adjustable guard for bicycles consisting of the upper and lower members designed to provide a housing for the sprocket-wheels and chain therefor, each member being provided with curved end extensions having corrugations and designed to overlap and engage each other, a hook formed upon the end of one of said corrugated extension and apertures designed to receive said hook formed in a contiguous part of the opposite extension, a perforated plate secured to the upper member, and means substantially as described, for anchoring said members in their operative position upon the bicycle-frame, substantially as specified and for the purpose set forth.

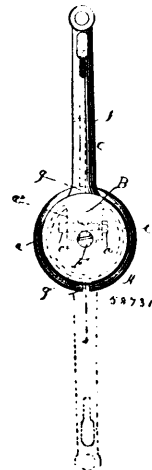
No. 58,731. Pedal Crank for Bicycles, etc.

(Bielle de pedales pour bicycles, etc.)

William J. Valentine, Fort Edward, New York, U.S.A., 18th January, 1898; 6 years. (Filed 14th December, 1897.)

Claim.—1st. In a pedal-crank for bicycles or other vehicles, the combination of the hub having an eccentrically-arranged driving-shaft secured thereto, which hub comprises a disc having two notches in the periphery thereof located diametrically opposite to each other and upon an imaginary line which exactly bisects the face of the hub and the end of its attached shaft, and an annular flange upon the face thereof, and a crank comprising a circular box, a radial

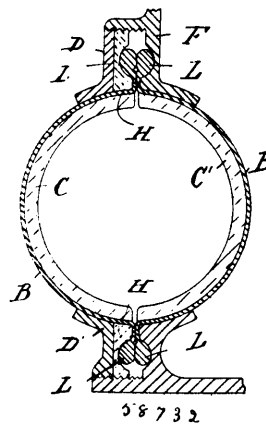
arm and a spring pressed lever led along the arm of said crank to a point opposite the pedal, and operated from the same, said box



being fitted snugly over the said annular flange and pivotally attached to the said hub at the centre thereof, and said lever being in normal engagement with one of the notches of the circular disc and being adapted to bear upon the face of said disc during the operation of adjusting the crank, substantially as shown and described. 2nd. In a pedal-crank for bicycles or other vehicles, the combination of the hub having an eccentrically-arranged driving-shaft secured thereto, which hub comprises a disc having two notches in the periphery thereof located diametrically opposite to each other upon an imaginary line which would exactly bisect the face of the hub and its attached shaft, and an annular flange upon the face thereof, with the crank which comprises a circular box and radially-projected arm having a spring-pressed lever pivotally secured in a recess thereof, and extending along the arm of crank and operated by the foot without withdrawal from the pedal, said box being snugly fitted over the flange of the hub and pivotally attached to said hub by means of a spindle and said lever adapted to bear upon the face of the hub during the process of adjustment and to engage with the notches thereof when the device is being operated, substantially as shown and described.

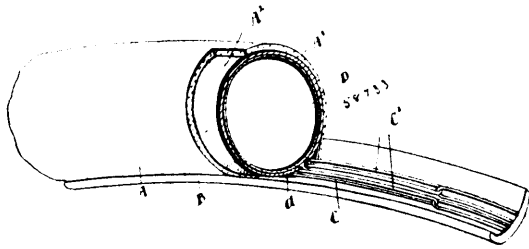
No. 58,732. Elastic or Cushioned Wheel.

(Roue élastique.)



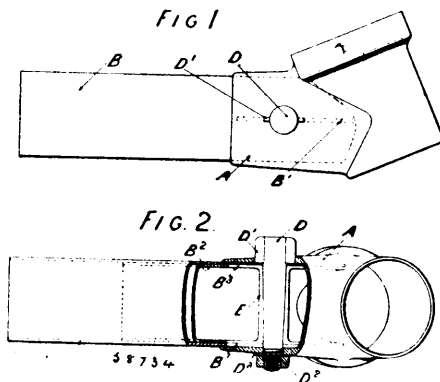
Henry Crook Bevan and William Rees James, both of Blairstown, Monmouth, England, 18th January, 1898; 6 years. (Filed 17th December, 1897.)

Claim.—1st. In an elastic wheel, the combination with a divided rim, of a pneumatic or cushion tube inserted between the hub and periphery or on the periphery of the wheel, said tube consisting of two semi-circular tubes, or of one or two separate annular bands or strips, said tubes or bands having projecting beads or enlarged edges by which they can be securely held in suitable recesses in said divided rims, or in the case of the said semi-circular tubes used on a periphery, said tubes being held in undivided rims, as herein described and set forth. 2nd. A method of inflating india-rubber pneumatic tubes, which are rendered air-tight by the compression of their enlarged edges without the usual air valve, by means of a small air syringe and needle or tube thrust temporarily between such edges, as herein described and set forth.

No. 58,733. Pneumatic Tire. (Bandage pneumatique.)

Peter Thompson McKay, Toronto, Ontario, Canada, 18th January, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—In a bicycle or other wheel, in combination the rim, the tire provided with edge loops, the air tube located within same, and the wire chains extending through each edge loop circumferentially around the rim and comprising arc-shaped links connected at right-angles, whereby the links are projected at the joints against the rim and the main body of each arc-shaped link is held flat by the pressure of the tube, as and for the purpose specified.

No. 58,734. Detachable Joints for Frames for Cycles, etc. (Joint detachable pour montures de bicycles, etc.)

Henry Belcher and Frederick Eason, both of Humber & Co., Beeston, Nottingham and Frederick Westwood, Birmingham, Warwick, all in England, 18th January, 1898; 6 years. (Filed 23rd December, 1897.)

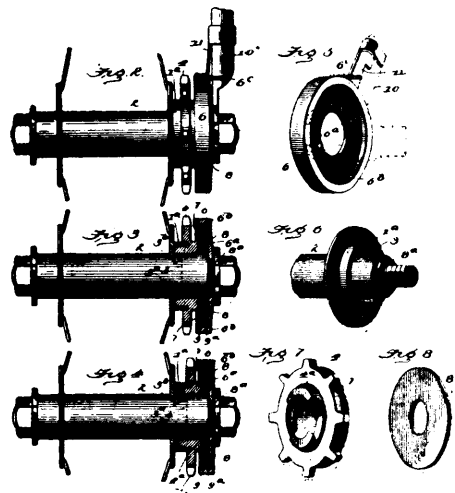
Claim.—1st. In a tubular joint, a lug, a tube, the end of which is inserted within the lug, and a plug within the end of the tube, one or more of the parts being split or slotted longitudinally, in combination with a transverse bolt or wedge adapted to force the tube and lug into close contact, substantially as and for the purpose specified. 2nd. In a tubular joint, a lug, a tube, the end of which is inserted within the lug, and a plug within the end of the tube, the tube end and plug being split longitudinally in combination with a transverse tapered bolt or wedge passing through the lug, tube and plug and adapted to expand the tube within the lug, substantially as and for the purpose specified.

No. 58,735. Brake Mechanism for Bicycles. (Frein de bicycles, etc.)

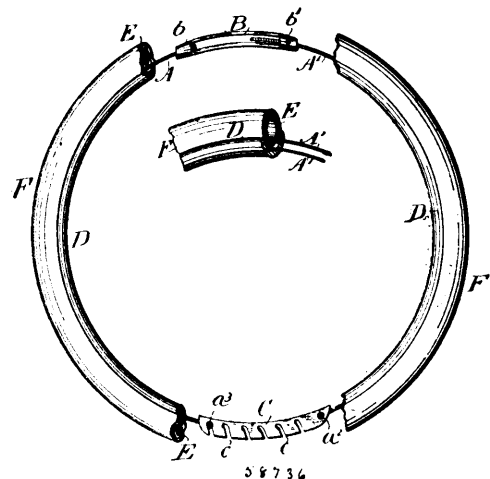
Silas Fader, Adolphus Williams and John Y. Carroll, all of Vancouver, British Columbia, Canada, 18th January, 1898; 6 years. (Filed 6th December, 1897.)

Claim.—1st. A bicycle brake mechanism of the kind described, comprising a sprocket-wheel loosely mounted on the drive-wheel hub, wedging mechanism operatively located between the sprocket-wheel and the hub, and a non-rotatable disc member interposed between the fixed disc and the sprocket-wheel adapted when the sprocket-wheel is shifted by the retarding of the drive-means to have frictional engagement with the said sprocket-wheel and the fixed disc, as set forth. 2nd. In a bicycle brake mechanism of the character stated, the combination with the drive axle hub of a sprocket-wheel having wedge clutch connections with the hub, and laterally movable on such hub, of friction disc members adapted to be operatively set by the lateral movement of the sprocket-wheel, to impart a direct retarding action on the wheel hub at one point and an indirect retarding action on such hub at another point, as specified. 3rd. In a brake mechanism as described, the combination with the drive-wheel and the driving-means, a friction disc fixedly connected to the wheel hub, a second disc mounted on the axle and connected with the driving-means, means for forcing the said second

disc toward the fixed disc and an intermediate disc-plate, loosely held on the wheel hub, and non-rotatable, and adapted to be gripped



on opposite sides by the fixed and movable disc as the drive-means is retarded, substantially as described. 4th. In a brake mechanism of the character described, the combination with the drive-wheel hub, a friction disc fixedly secured to spindle of such hub, and the sprocket-wheel laterally movable on the hub, having a friction disc member, of the disc-plate held intermediate the sprocket-wheel and the fixed disc having opposite friction faces to engage such wheel and fixed disc, means for normally forcing the said disc-plate against the sprocket-wheel and for holding it from rotating about the wheel hub as specified. 4th. In a bicycle or other similar vehicle, in combination with the driving-means, a friction disc loosely held on the drive hub and having a limited lateral movement, means to force the driving-means into engagement with said friction disc, means for normally forcing the said disc against the driving-means to hold them in an operative condition, and means for holding such disc rigid when the driving-means are moved against the said disc, substantially as shown, and for the purposes described. 5th. In a bicycle or similar vehicle, the combination of the drive-wheel hub, having clutch-teeth provided with inclines, and an annular dust-guard or rim, a sprocket-wheel having a limited rotary and lateral movement on the hub, provided with clutch-teeth to engage the hub clutches, and provided with an annular recess for the dust-rim on one face and a disc member 7 on its other face, a friction disc 8 fixedly secured to the hub spindle, the fixed plate 6, loosely held on the wheel hub, having opposite friction faces to engage the discs 7 and 8, said disc-plate having a spring support connected to the wheel frame having a tension to normally force the plate against the disc member 7, to hold the sprocket-wheel in a locked engagement, and having a stop projection to engage the wheel frame, as specified.

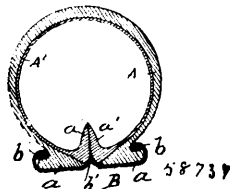
No. 58,736. Pneumatic Tires for Bicycle Wheels. (Bandage pneumatique pour roues de bicycles.)

John Smith, James William McCleary and Thomas Avery, all of Toronto, Ontario, Canada, 19th January, 1898; 6 years. (Filed 23rd December, 1897.)

Claim.—1st. In a wheel tire, the combination with the rim, the inner inflatable tube, and the sheath, of two pairs of semi-circumferential wires each member of which consists approximately of one half a convolution and a pair of such wires being secured in each edge of said sheath, means, as notched segments C, whereby circumferential adjustment of such wires may be effected, and means, as the turn-buckle B, for effecting the final tightening and retention of said sheath in position upon said innertube and rim, substantially as and for the purpose set forth.

No. 58,737. Pneumatic Tired Wheel.

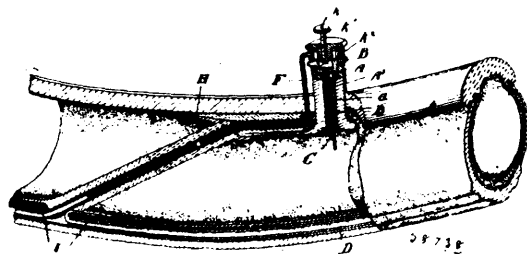
(*Roue à bandage pneumatique.*)



John Townsend French, Kenmare, County Kerry, Ireland, 19th January, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—1st. In a pneumatic tired wheel, the combination with a tubeless tire consisting of an outer or wearing part A having circumferential beads or enlargements *a a* at its edges and of an inner or lining part A' having internal circumferentially arranged radial lips *a' a'*, of a wheel rim B having inturred edges *bb* and a groove having a flat or approximately flat bottom and one or more circumferentially arranged ridges *b'*, as and for the purpose set forth. 2nd. In a pneumatic tired wheel, the combination with a tubeless tire consisting of an outer or wearing part A having circumferential beads or enlargements *a a* at its edges and of an inner or lining part A' having internal circumferentially arranged radial lips *a' a'*, of a wheel rim B having inturred edges *bb* and a groove with a convex shaped bottom forming a central ridge *b'*, as and for the purpose set forth. 3rd. In a pneumatic tired wheel, the combination of a tubeless tire consisting of an outer or wearing part A having circumferential beads or enlargements *a a* at its edges and of an inner part A' having internal circumferentially arranged radial lips *a' a'*, the two parts A and A' being vulcanized separately and subsequently made integral by cementation, and of a wheel rim B having inturred edges *bb* and a groove having a flat or approximately flat bottom and one or more circumferentially arranged ridges *b'*, as and for the purpose set forth. 4th. In a pneumatic tired wheel, the combination of a tubeless tire consisting of an outer or wearing part A having circumferential beads or enlargements *a a* at its edges and of an inner or lining part A' having internal circumferentially arranged radial lips *a' a'*, the two parts A and A' being vulcanized separately and subsequently made integral by cementation, and of a wheel rim B having inturred edges *bb* and a groove with a convex shaped bottom forming a central ridge *b'*, as and for the purpose set forth. 5th. In a pneumatic tired wheel, the combination with a tubeless tire consisting of an outer or wearing part A having circumferential beads or enlargements *a a* at its edges and of an inner or lining part A' having internal circumferentially arranged radial lips *a' a'*, of a wheel rim B having inturred edges *bb*, and of a band B having a centrally arranged circumferential ridge *b'* or its equivalent and so mounted in the wheel rim as to give its groove a flat or approximately flat bottom, as and for the purpose set forth.

No. 58,738. Air Valve. (Soupape à air.)

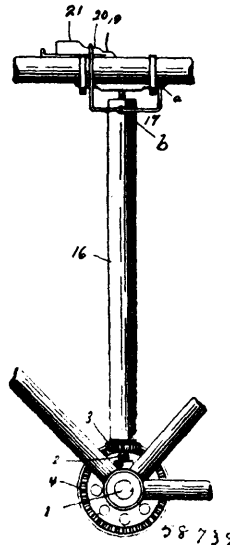


James Harry Keighly, Remigius Elmsley and William Henry Brouse, all of Toronto, Ontario, Canada, 19th January, 1898; 6 years. (Filed 10th December, 1897.)

Claim.—1st. A valve for bicycles, comprising a tube having a permanently distended portion suitably supported and connected to the exterior of the air tube and an inner portion extending through the air tube and having flat abutting sides elastically held together as

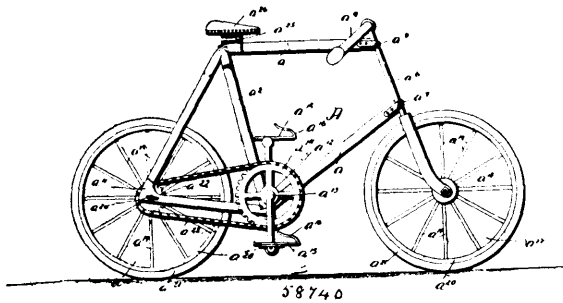
and for the purpose specified. 2nd. A valve for bicycles, comprising an outer casing and stem suitably supported to the outside of the air tube and provided with a central passage-way through the stem, an inner casing and stem extending down into the passage-way of the outer stem and provided with a central passage-way and an elastical tube having a permanently distended portion and an inner portion, the sides of which are flat and abutt each other and are elastically held together as and for the purpose specified. 3rd. A valve for bicycles, comprising an outer casing and stem suitably supported to the outside of the air tube and provided with a central passage-way through the stem, an inner casing and stem extending down into the passage-way of the outer stem and provided with a central passage-way and an elastical tube having a permanently distended portion and a flat inner portion, the sides of which are flat and abutt each other and are elastically held together, an upward extension provided with side notches, a locking collar provided with an inner groove and a tube leading therefrom to the pumping passage-way and a suitable cap with threaded stem screwed into the inner casing, so as to leave an opening at the bottom of the notches as and for the purpose specified.

No. 58,739. Bicycle. (Bicycle.)



John H. O'Brien, Nasby, South Dakota, U.S.A., 19th January, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—1st. The combination with a rotatable shaft geared to a vehicle-wheel and provided with clutch members, of a longitudinally-movable and relatively-rotatable clutch member mounted upon said shaft, and adapted to engage the clutch members of the shaft, a winding-spring connected at its ends with said rotatable clutch members, ratchet-wheels carried by said clutch members, pawls to engage said ratchet-wheels, and devices for shifting said rotatable clutch members and for retracting the pawls of one of the ratchet-wheels carried thereby. 2nd. The combination with a rotatable shaft geared to a vehicle wheel and provided with clutch members, of a hollow shaft mounted upon said shaft and provided at its ends with relatively-rotatable clutch members and ratchet-wheels, a casing surrounding said parts and provided with pawls to engage said ratchet-wheels and devices for moving said casing and the parts connected to and carried thereby and for retracting the pawls from one of said ratchet-wheels. 3rd. The combination with a rotatable shaft geared to a vehicle-wheel and provided with clutch members and a wedge, of a hollow shaft mounted upon said shaft and provided at its ends with relatively-rotatable clutch members and ratchet-wheels, a spring connected at its ends with said clutch members, a movable casing provided with pawls to engage said ratchet-wheels, one set of pawls being provided with fingers to be engaged by said wedge, and devices for shifting said casing. 4th. The combination with a rotatable shaft geared to a vehicle-wheel and provided with clutch members, of a rotatable hollow shaft mounted upon said shaft and provided at one end with a clutch member to engage one of the members of the first-mentioned shaft and with a ratchet-wheel, a clutch member and ratchet-wheel swivelled to the other end of said shaft, said clutch member being adapted to engage the other clutch member of the first-mentioned shaft, a spring connected at its opposite ends with the clutch members of the hollow shaft, a casing surrounding said parts and provided with pawls to engage said ratchet-wheels, a lever connected with said casing, and a slide having a plurality of projecting faces suited to engage said lever.

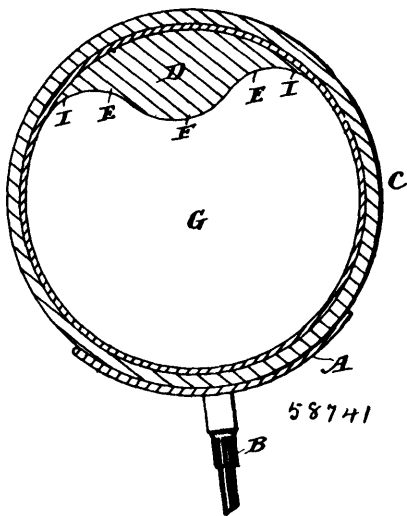
No. 58,740. Bicycle. (Bicycle.)

Napoléon Duhamel, Verchères, Quebec, Canada, 19th January, 1898; 6 years. (Filed 28th December, 1897.)

Claim.—1st. A bicycle, comprising upper and lower bars, each formed of a single piece of material, a brace secured between said upper and lower bars, a wheel mounted in the rear ends of said upper and lower bars, a fork revolvably connected to the front ends of said upper and lower bars, a wheel mounted in said fork, and means for rotating said rear wheel. 2nd. A bicycle frame, comprising upper and lower bars, each formed of a single piece of material, the rear ends of said bars being connected together, a brace secured between said upper and lower bars, and a fork pivotally connected to the front ends of said bars. 3rd. A bicycle frame, comprising upper and lower bars, each formed of a single piece of material, each bar having its rear end bifurcated, the bifurcated ends of the said bars being connected together, a brace secured between said upper and lower bars, and a fork pivotally connected to the front ends of said bars. 4th. A combined pedal and toe clip for bicycles formed of a single piece of material. 5th. A pedal for bicycles, comprising a base-plate, and a toe clip formed integrally therewith. 6th. A bicycle, comprising upper and lower bars, a brace secured between said upper and lower bars, a pedal shaft bearing mounted in the front angle formed between the lower end of said brace and the lower bar, front and rear wheels mounted to said frame, a seat adjustably mounted on said upper bar, and means secured in said bearing for rotating the rear wheel.

No. 58,741. Pneumatic Tire.

(*Bandage pneumatique pour bicycles, etc.*)



Alexander Ogden, Sydney, New South Wales, 19th January, 1898; 6 years. (Filed 18th December, 1897.)

Claim.—1st. A pneumatic tire, having a block or band as D on its internal periphery, substantially as herein described, explained and illustrated in the drawings. 2nd. In outer covers for pneumatic tires, a block or band as D on its internal periphery, substantially as herein described, explained and illustrated in the drawings.

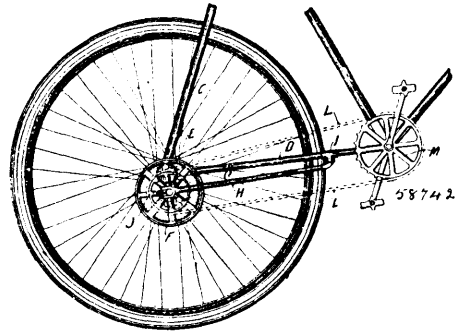
No. 58,742. Driving Gear for Cycles, etc.

(*Roue à engrenage pour bicycles, etc.*)

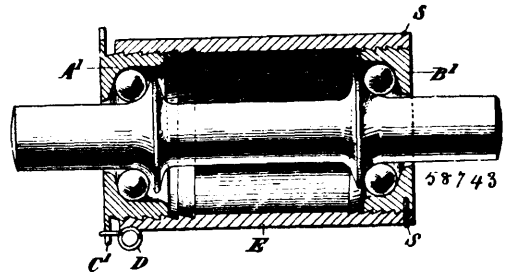
Arthur Henry Edwards, Sydney, New South Wales, 19th January, 1898; 6 years. (Filed 29th December, 1897.)

Claim.—1st. The combination with the driving wheel of a cycle, having a gear wheel as E attached to either the axle or hub, of an

internal gear wheel as F, and a sprocket wheel as J secured to the face of the said internal gear wheel, substantially as herein



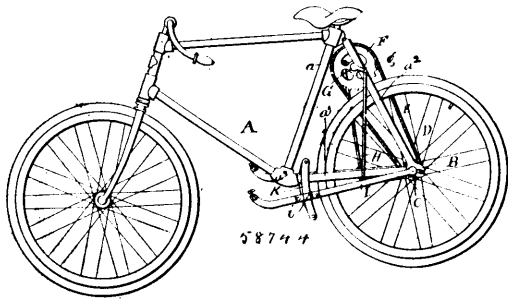
described, explained and illustrated in the drawings. 2nd. The combination and arrangement of the various parts herein described, explained and illustrated, altogether forming the new or improved driving gear for cycles and like vehicles, substantially as and for the purposes set forth.

No. 58,743. Adjustable Bearing. (Coussinet ajustable.)

John Boyd Dunlop and John Boyd Dunlop, jr., both of Hazeldene, Ailesbury Road, Dublin, Ireland, 19th January, 1898; 6 years. (Filed 29th December, 1897.)

Claim.—1st. A self-adjusting bearing, comprising an axle and a hub or casing provided with cups, cones and balls, one of the said cups or cones being screwed on to its appropriate member with a coarse reversed buttress thread with slightly inclined bearing side, the thread being either right or left hand according as it is on the right or left hand side of the bearing, substantially as and for the purpose specified. 2nd. In a self-adjusting bearing, an axle having cones thereon, in combination with a hub or casing having cups therein and suitable balls, one cup being threaded into the hub or casing with a coarse right or left hand thread according as it is located on the right or left hand side of the bearing, substantially as and for the purpose specified. 3rd. In a self-adjusting bearing, an axle having cones thereon, in combination with a hub or casing having cups therein and suitable balls, each cup being threaded, one cup being threaded into the hub or casing with a coarse right or left hand thread according as it is located on the right or left hand side of the bearing, substantially as and for the purpose specified. 4th. In a self-adjusting bearing, an axle having cones thereon, in combination with a hub or casing having cups therein and suitable balls, one cup being threaded into the hub with a coarse reversed buttress thread with slightly inclined bearing side, the thread being right or left hand according as it is located on the right or left hand side of the bearing, substantially as and for the purpose specified. 5th. In a self-adjusting bearing, an axle having cones thereon, in combination with a hub or casing having cups therein and suitable balls, one cup being threaded into the hub with a coarse reversed buttress thread with slightly inclined bearing side, and the other cup being threaded into the hub with a similar thread of finer pitch and provided with a flange to butt against the hub, the threads on the cups being right or left hand according as they are located on the right or left hand side of the bearing, substantially as and for the purpose specified. 6th. In a self-adjusting bearing, the combination of an axle, a hub or casing, cones upon the said axle, a cup with left hand coarse reversed buttress threads screwed within the left hand side of the hub or casing, a spring connected to the hub and the cup tending to tighten the same, and a cup screwed within the other end of the hub or casing, substantially as and for the purpose specified.

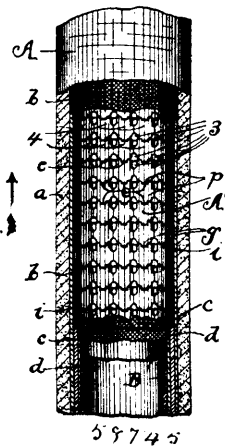
No. 58,744. Bicycle Gear. (Engrenage de bicycles.)



Darius L. Harshner, Etna Green, Indiana, U.S.A., 19th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. In a bicycle, the combination with the frame, the rear-wheel and axle supported thereon, the rear-wheel sprocket, a crank-shaft and sprocket-wheel supported between the upper ends of the seat post, and the rear bars of the frame, a chain connecting said sprocket-wheels, pedal-levers supported upon or adjacent to the ends of the rear-wheel axle to vibrate upon each side of the frame, and rods connecting the pedal-levers with the cranks of the crank-shaft, substantially as described. 2nd. In a bicycle, the combination with the frame and wheels supported thereon in the usual way, the sprocket-wheel on the rear-wheel axle, and a sprocket-wheel supported on the frame adjacent to the seat, a chain connecting said sprocket-wheels, vibratory pedal-levers on each side of the frame connected with the gear-sprocket-wheel and guide-plates on the frame for supporting the forward ends of the pedal bars, substantially as described. 3rd. In a bicycle bearing, the combination with the pedal-levers of bracket-plates, secured to the end thereof, having V-shaped bearing edges, a pedal-plate having end bearings correspondingly recessed and sloped to rest upon said V-shaped bearing, and links connecting the said bearings and the ends of the bracket-plates, substantially as described. 4th. In a bicycle, the combination with the frame of the rear-wheel and axle, the rear frame-pieces, the sprocket-wheels upon opposite ends of the rear axle, a crank-shaft supported between the upper ends of the seat post and the rear bars of the frame carrying crank-arms, sprocket-wheels of unequal size carried by said shaft, having clutches to engage with clutches of the crank-arms, a shifting bar connecting the said sprocket-wheels, and a rod for operating said bar, substantially as described.

No. 58,745. Pneumatic Tire. (Bandage pneumatic.)

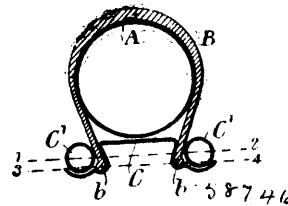


Lewis Judson Miller, Bergen, New York, U.S.A., 19th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. A pneumatic tire provided circumferentially its air-chamber and interiorly its tread surface with a flexible mail-like strip of laminated scale-like formation continuous with the portion it covers, and consisting of upper and lower stratas or rows of scales running both longitudinally and transversely parallel, the outer face-scales slightly overlapping each other in one direction and non-lapping in the other, and flexibly connected, and they respectively connected to the inner-lying scales in a manner to allow of flexibility of parts, and a flexible non-metallic backing-strip secured to and covering the inner series of plates, all combined and operating substantially as described. 2nd. A pneumatic tire provided internally its tread-portion with an annular mail-like strip comprising a series of metallic scales, an outer and an inner layer, the outer

scales being movably connected one to the other longitudinally, and the inner scales alternately disposed between the outer scales and yieldingly connected therewith, said plurally-formed mail-like strip being capable of slight expansion or contraction longitudinally, and flexible both longitudinally and transversely, the outer scales being arranged in parallel rows, and the inner scales being disposed in parallel rows located intermediately the outer or face rows, substantially as and for the purpose described. 3rd. The combination with the tread portion of the air-tube or wrapper of a pneumatic tire, of a flexible metallic strip of annular shape seated within the elastic material of the tube or wrapper, the said strip comprising double layers or laminae of conjointly-connected plates or scales disposed both longitudinally and transversely in parallel rows, the outer plates slightly overlapping each other in one direction, and the inner plates substantially covered by the outer plates, the outer or external plates being respectively provided with bent prongs or hooks at their opposite edges, like bent prongs or hooks forwardly, and perforations at their opposite extremities, the forward prongs passing into and hooking retained in the perforation of the contiguous plate, and so on through the rows of the series, the inner or backing plates having central orifices, longitudinally elongated, and side prongs or hooks of the external plates passing through the orifices aforesaid and flexibly retaining the outer and inner plates in juxtaposition, said protective strip being adapted to longitudinal play, and to curvature both longitudinally and crosswise, all arranged and operating substantially as described and for the purposes specified.

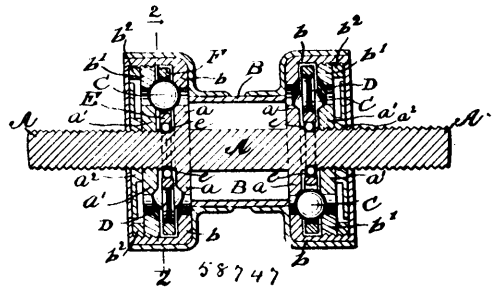
No. 58,746. Pneumatic Tire. (Bandage pneumatique.)



Richard Green, Birmingham, Warwick, England, 19th January, 1898; 6 years. (Filed 30th December, 1897.)

Claim.—1st. A pneumatic tire rim with removable tubular ring edges preferably of metal, which when screwed up form part of the rim section, together with a tire cover or tire having enlarged extensible edges, substantially as and for the purposes described and as illustrated. 2nd. In the pneumatic tires of cycle and other vehicle wheels, the improved arrangement and general combination of parts, substantially as and for the purposes described and as illustrated.

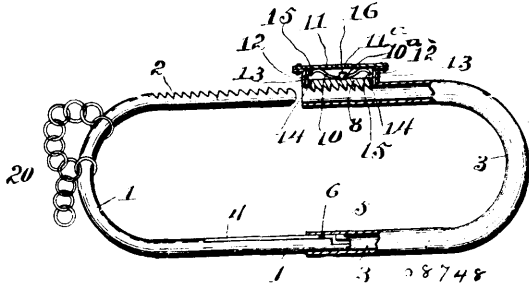
No. 58,747. Anti-Friction Bearings. (Cousinet de tourillon sans friction.)



Conrad Pender and Charles Godfried Siegmund Mueller, all of Indianapolis, Indiana, U.S.A., 19th January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. The combination, in a ball-bearing, of the axle, a surrounding hub, suitable ball-races composed of cones secured to said axle and to said hub, balls in said ball races, discs between the respective balls, and rings forming tracks for said discs. 2nd. The combination, in a ball-bearing, of the axle, the hub, ball-races formed on said axle and said hub, balls in said ball races, discs interposed between the balls, rings forming tracks for said discs, and balls interposed between the inner ring and the axle, substantially as shown and described. 3rd. The combination, in a ball-bearing, of the axle, the hub, ball-races carried thereby, balls in said ball-races, discs between said balls, rings forming tracks for said discs, and small balls seated in sockets in the parts of the structure alongside said rings, whereby frictional contact between said rings and said structure parts is prevented, substantially as shown and described. 4th. The combination, in a ball-bearing, with the balls thereof, of interposed discs carried by independent tracks, whereby frictional contact between the balls themselves is prevented, and said tracks, substantially as and for the purposes set forth.

No. 58,748. Bicycle Lock. (Serrure pour bicycles, etc.)

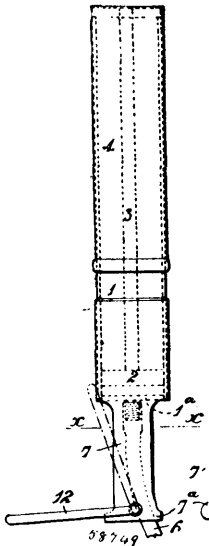


Oscar Damon, Buffalo, New York, U.S.A., 19th January, 1898; 6 years. (Filed 4th January, 1897.)

Claim.—1st. A lock comprising a sleeve open at its ends, a toothed locking plate slidably contained in one of said ends, and a shackle, the ends of which are adapted to enter the sleeve ends, one of said shackle ends having teeth to mesh with the said plate teeth, as set forth. 2nd. A lock comprising a sleeve open at its ends, a toothed plate contained in one of said ends, a spring engaging the plate, and a shackle one end of which is removably held in the other end of the sleeve, and the other shackle end having teeth to mesh with the said plate teeth, as set forth. 3rd. A lock comprising a sleeve, a toothed plate slidably contained in one end of the sleeve, a lug or projection upon the inside of the other end of the sleeve, and a shackle having teeth upon one end to mesh with the plate teeth and the other end having an L-shaped groove engaged by the said lug or projection, as set forth. 4th. In a lock, the combination with the sleeve, a casing upon one end of the sleeve, and a spring controlled toothed plate in the casing, of a shackle having teeth upon one end to mesh with said plate teeth, the other end of the shackle being slidably and revolvably held in the other end of the sleeve, as set forth. 5th. In a lock, the combination with the sleeve having flanges formed on one end, a top or cover on the flanges, and a shackle having teeth upon one end, of a plate slidably contained between said flanges and having teeth adapted to enter the sleeve in the path of the shackle teeth, and a spring between the said top and the toothed plate, as set forth. 6th. In a lock, the combination with the shackle, the sleeve, and the plate in the sleeve having a hollow screw projection, of a key having an exterior collar, a central projection to fit the inside of the said screw projection, and prongs to engage the screw-thread of said projection, as set forth.

No. 58,749. Pneumatic Tire Pump.

(Pompe pour bandages pneumatiques.)

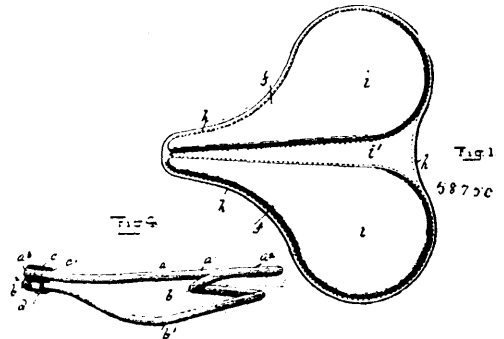


Harold Richard Goodwin, Sudbury, Middlesex, England, 19th January, 1898; 6 years. (Filed 4th January, 1898.)

Claim.—1st. A portable air-pump, having that end which will be the lower end when the pump is in use constructed with a longitudinally arranged air outlet or union, and with a fixed and rigid longitudinal extension that is adapted to rest upon the ground and to accommodate a flexible air-tube connected to said air outlet or

union, and said extension being provided at its free end with a foot-piece, substantially as herein described. 2nd. A portable air-pump, provided at its lower end with a central fixed air outlet, and with a permanently fixed and rigid extension passing beyond and to a lower extent than said outlet, and symmetrically arranged with reference thereto, and a foot piece attached to said extension, substantially as described. 3rd. A portable air-pump, provided at its lower end with a central fixed air outlet and with a longitudinal extension having a foot-piece, said extension having an opening at one side for the passage in a lateral direction of a flexible air-tube connected to said outlet, and being carried by an annular part that is permanently and rigidly fixed to said pump, substantially as herein described. 4th. A portable air-pump, provided at its lower end with an air outlet and with a tubular extension surrounding and extending beyond said outlet and slotted at one side, and a foot-piece attached to said extension. 5th. A portable air-pump, comprising a pump-barrel provided at its bottom end with an air outlet, a piston adapted to be reciprocated within said barrel, a longitudinal extension surrounding and permanently and rigidly fixed to the lower end of said pump-barrel, and having an opening at one side through which a flexible air-tube connected to said outlet can be led in a lateral direction, and a foot-piece attached to said extension, substantially as described. 6th. A portable air-pump, comprising a pump-barrel provided at its lower end with an air outlet, a piston adapted to be reciprocated within said barrel, a tube permanently and rigidly secured around the lower end of said barrel and extending beyond the lower end of the same, the lower extending portion of the tube being slotted and provided with a foot-piece, substantially as described.

No. 58,750. Velocipede saddle. (Selle de velocipèdes)

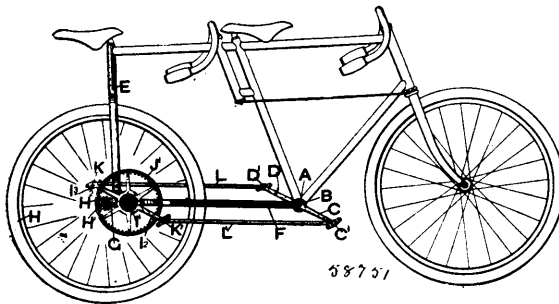


Theodore Ernest Beck, Newark, New Jersey, U.S.A., 19th January, 1898; 6 years. (Filed 3rd January, 1898.)

Claim.—1st. In a velocipede saddle, the combination with a suitable seat, of a spring, the upper portion of which has two limbs conforming to the outline of the seat and supporting the same, and the lower portion of which is bent down from the cantle for engagement by a clamp or support, and then bent upwards at the front end for attachment at the pommel to the upper portion of the spring, the spring intermediate of the upper and lower portions being bent to form one or more elastic coils. 2nd. In a velocipede saddle, a spring, the upper portion of which has two limbs conforming to the outline of the seat and supporting the same, and the lower portion of which is bent down from the cantle for engagement by a clamp or support, and then bent upwards at the front end for attachment at the pommel to the upper portion of the spring, the spring intermediate of the upper and lower portions being bent to form one or more elastic coils, combined with a flap resting on said limbs and a lower flap below said limbs secured to the first mentioned flap and enclosing the limbs. 3rd. In a velocipede saddle, the combination with a suitable seat, of a spring bent at its middle to form an eye, having an upper portion comprising two limbs bent to conform to the outline of the seat and supporting the same, and a lower portion bent down from the cantle for engagement by a clamp or support and then bent upwards at the front end to the pommel, and a clamp having a bolt passing through said eye and securing together the upper and lower portions of the spring at the pommel. 4th. In a velocipede saddle, a spring or frame comprising an upper portion for the support of a seat and a lower connecting portion for engagement by a clamp or support, and means for uniting the upper and lower portions at the pommel, whereby one may have a longitudinal movement relative to the other. 5th. In a velocipede saddle, a spring or frame, comprising an upper portion for the support of a seat and a lower connecting portion for engagement by a clamp or support, and a block connected with one of said portions of the spring, having an opening therein through which the end of the opposite portion is inserted, substantially as and for the purpose set forth. 6th. In a velocipede saddle, the combination with a suitable seat, of a spring, comprising an upper portion having two limbs conforming to the outline of the seat as a support for the same and extending forward from the cantle in the same plane as the outer portion of the limbs and between the latter

as a central or intermediate support for the seat, and then bent downward and forward to form a lower portion for engagement by a clamp or support, and means for uniting the upper and lower portions of the spring at the pommel. 7th. In a velocipede saddle, a spring, the upper portion of which serves as a support for the seat, and the lower portion of which is extended down from the cantle for engagement by a clamp or support and then extended upwards at the front end for attachment at the pommel to the upper portion of the spring, combined with a seat having a flap resting on said upper portion of the spring and a lower flap below said upper portion and the pommel end of the lower portion, said lower flap being secured to the first mentioned flap to enclose the parts of the spring contained between the same. 8th. In a velocipede saddle, the combination with a suitable seat, of a spring having an upper portion, comprising two limbs for supporting the seat and a lower portion for engagement by a clamp or support connected with said upper portion, and means for loosely uniting the upper and lower portions of the spring at the pommel to allow a turning or rocking movement of the upper limbs.

No. 58,751. Bicycle Gearing. (*Engrenage pour bicycles.*)



John F. Brady, Chicago, Illinois, U.S.A., 19th January, 1898; 6 years. (Filed 5th January, 1898.)

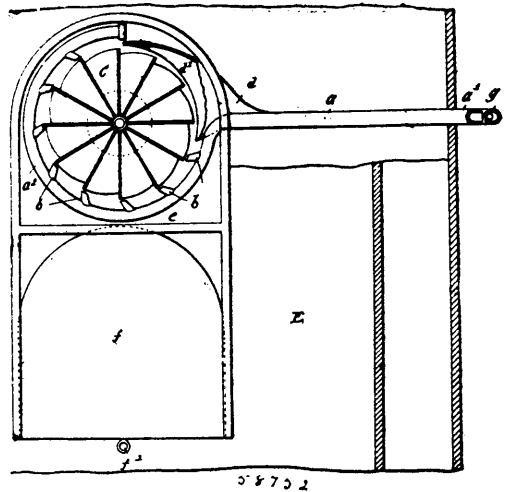
Claim.—1st. In a bicycle gearing, in combination, a rear drive wheel with a hub having a spur cog-wheel attached thereto at each end, and pivotally mounted between the sides of a divided bicycle frame, an internal cog-wheel revolvably mounted at each side, outside the said frame, each of said internal cog-wheels projecting rearwardly beyond the end of the sides of the bicycle frame, and inwardly into engagement with one of the said spur cog-wheels, in the manner, substantially as and for the purpose set forth. 2nd. In a bicycle gearing, a rear drive wheel pivotally mounted between the sides of a divided rear portion of a bicycle frame, a spur cog-wheel secured at each end of the drive wheel hub, and an internal cog-wheel mounted to revolve at each side of the rear portion of the bicycle frame, and each of said internal cog-wheels in engagement with one of the said spur cog-wheels, the ends of each side of the bicycle frame shaped to flare outwardly to a distance so that a portion thereof is disposed within the internal cog-wheels and beyond the plane of the revolution of the cogs of the engaged cog-wheels, substantially as shown and described. 3rd. In a bicycle gearing, in combination, a rear drive wheel having spur cog-wheels secured to the hub thereof, which hub is mounted between the sides of a divided bicycle frame, an internal cog-wheel revolvably mounted at each side, outside of the bicycle frame, and in engagement with the said spur cog-wheels, a crank-shaft mounted in the bicycle frame forward of the drive wheel, and a crank arm secured to each end of said shaft, and each of said arms having crank pins, which are pivotally connected with the ends of rods whose other ends are pivotally connected with crank pins connected with the said internal gears, substantially as set forth.

No. 58,752. Car Ventilator. (*Ventilateur pour chars.*)

Thomas C. Bright, Kansas, Missouri, U.S.A., 20th January, 1898; 6 years. (Filed 29th December, 1897.)

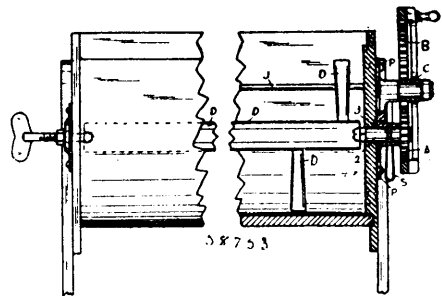
Claim.—1st. In a car ventilator, a vane wheel communicating with the interior of the car, means for discharging air against the wheel, and an outlet adjacent to the vane wheel to receive and conduct the foul air from the coach, substantially as described. 2nd. In a car ventilator, a vane wheel communicating with the interior of the coach, a sliding door arranged to cut off the opening between the wheel and the interior of the coach, a supply pipe having a funnel shaped elbow at its outer terminal, and openings for the discharge of air at its inner end, and a pipe for conducting the foul air from the coach, substantially as described. 3rd. A car ventilator, comprising a vane wheel communicating with the interior of the car, means for cutting off the point of communication between the interior of the car and the vane wheel, a supply pipe terminating in an elbow at its outer end, and a segment at its inner end, discharge nozzles communicating with the inner portion of the segment, and an exhaust pipe having an enlarged opening at its inner end and terminating in an elbow at its outer end, substantially as set forth.

4th. A car ventilator, comprising a vane wheel communicating with the interior of the coach, a supply pipe for furnishing an air blast to



revolve the vane wheel, an exhaust pipe for relieving the car of impure air, and a suction nozzle communicating with the outer terminal of the exhaust pipe, for the purpose set forth and described.

No. 58,753. Churn. (*Baratte.*)



George B. Dowsell, Hamilton, Ontario, Canada, 20th January, 1898; 6 years. (Filed 3rd January, 1898.)

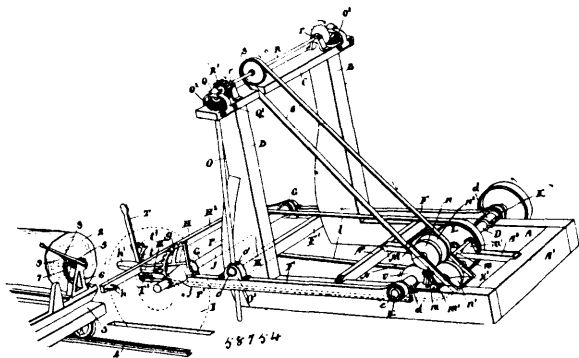
Claim.—1st. In a churn of the character described, the driving mechanism consisting of a driven pinion wheel secured to the outer end of a journal in end bearing of churn, the inner end of said journal fits into the centre of the churn dash, to revolve the same, an annular groove in said journal, a pin through the side of bearing of said journal to enter said groove, said pin forming a part of an outer spring, as means to allow the removal of the pinion with its journal, as described. 2nd. A churn of the character described having horizontal tongues inserted in the inner sides thereof, as bearings for the concave cover, and end convex recesses to conform to the concave of the cover, as end supports, said cover having upper end curved air vents, and upper central air escape tube extending above the cover, as described. 3rd. A churn having end pinion wheel connected to the centre of the dash of the churn by means of its journal, and capable of revolving the same by means of a driving internal gear wheel, an annular groove in said journal, a pin through the side of the bearing of the journal to enter said groove, an outer spring connected to said pin, as means for withdrawal, hence the removal of the pinion and journal, horizontal tongues inserted in sides of churn to support the sides of the concave cover, end convex recesses to conform to the concave of the cover, as end supports, curved air vents, and air escape tube extending above the cover, as described.

No. 58,754. Lumber Circular Saw Machine. (*Scierie.*)

Thomas Bearman, Owen Sound, Ontario, Canada, 20th January, 1898; 6 years. (Filed 24th December, 1897.)

Claim.—1st. In a lumber sawing machine, in combination, a suitable frame, a swinging frame, a saw located at the outer end thereof on the end of a suitable shaft, and means for raising and lowering the outer end of the swinging frame, as and for the purpose specified. 2nd. In a lumber sawing machine, in combination, a suitable frame, a swinging frame, a saw located at the outer end thereof on the end of a suitable shaft, means for raising and lowering the outer end of the swinging frame, a supplemental swinging frame

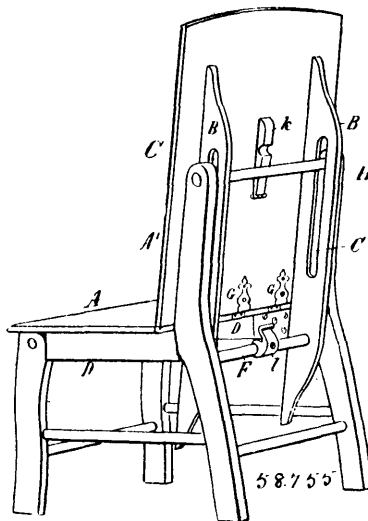
pivoted on an extension of the frame and extending on each side of the cutting edge of the saw, and means for adjusting and holding



the supplemental frame in any desired position, as and for the purpose specified. 3rd. In a lumber sawing machine, in combination, a suitable frame, a swinging frame, a saw located at the outer end thereof on the end of a suitable shaft, suitable uprights supported on the frame having suitable bearings on the side bars of the swinging frame, slots in the bearings, screw spindles screwed through the trunnions, and means for retaining the screw spindle, as and for the purpose specified. 4th. In a lumber sawing machine, in combination, a suitable frame, a swinging frame, a saw located at the outer end thereof on the end of a suitable shaft, suitable uprights supported on the frame having suitable bearings on the side bars of the swinging frame, slots in the bearings, screw spindles screwed through the trunnions, bevel pinions at the upper ends of the screw spindles, a ball and socket bearing for the upper end of the screw spindles, a countershaft provided with bevel pinions meshing with the bevel pinions at the upper end of the screw spindles, and means for driving the countershaft, as and for the purpose specified. 5th. In a lumber sawing machine, in combination, a suitable frame, a swinging frame, a saw located at the outer end thereof on the end of a suitable shaft, suitable uprights supported on the frame having suitable bearings on the side bars of the swinging frame, slots in the bearings, screw spindles screwed through the trunnions, bevel pinions at the upper ends of the screw spindles, a ball and socket bearing for the upper end of the screw spindles, a countershaft provided with bevel pinions meshing with the bevel pinions at the upper end of the screw spindles, the pulley on the countershaft, the pulley on the main shaft, the minor swinging frame having two spindles with abutting friction pulleys, a supplemental pulley on one of the spindles of the abutting friction pulleys, and a belt connecting such supplemental pulley to the pulley on the countershaft, as and for the purpose specified. 6th. In combination, a suitable frame, the main shaft having suitable bearings on the side bars of the frame, the hollow trunnions secured in the side bars concentrically outside the shaft, the swinging frame pivotally swung on the hollow trunnions, and the saw secured on the end of the shaft suitably journaled on the side bars of the swinging frame, as and for the purpose specified. 7th. The combination with the stationary frame and swinging frame, the shaft supported in suitable bearings on the end of the swinging frame, the saw secured on the end of the shaft, the hollow trunnions secured to the inside of the side bars of the swinging frame and through which the saw shaft extends, the supplemental frame having the side bars pivotally swung on the outside of the hollow trunnions through which the saw shaft extends, the end extension bar of the supplemental frame provided with jaws, the handle end of one of the side bars of the frame, the quadrant on the side bars of the swinging frame in proximity to the saw shaft, and the spring-pressed plunger co-acting therewith and operated from the handle on the end of the side bar, as and for the purpose specified. 8th. In combination, the main frame, the uprights, the screw spindle extending through the side bars of the swinging frame, the bevel pinions, the countershaft, pulley on the countershaft, the minor swinging frame provided with abutting friction pulleys journaled on the spindles, the supplemental pulley on the same spindle as one of the friction pulleys, the pulley connecting the supplemental pulley to the pulley on the countershaft, the main shaft and friction pulley thereon, the rod connected to the lower end of the swinging frame, the lever connected to the forward end of the rod in proximity to the supplemental swinging frame, and a notched quadrant on which such lever is pivoted and with which it is designed to co-act, as and for the purpose specified. 9th. In a lumber sawing machine, the combination with the saw secured on the end of the saw shaft with the outer face flush, of means for raising and lowering the saw above and below the centre of the log, as and for the purpose specified. 10th. In a lumber sawing machine, the combination with the saw secured on the end of the saw shaft with the outer face flush, of the cutters on the inside of the saw held in position by suitable collars, a grooved collar to the outside having longitudinal move-

ment on a key, a lever and pin extending into the groove on the collar for throwing the cutters laterally upon the shaft, as and for the purpose specified. 11th. The combination with the circular saw, suitably supported and driven, and means for adjusting the same above and below the centre of the log, of the carriage, the lathe points for supporting the log, the lever secured on the square end of the lathe point, and the quadrant with which the lever is designed to co-act, as and for the purpose specified. 12th. In a lumber sawing machine, the combination with the saw and shaft extending through the saw, flush with the outer surface thereof, of a hub secured to the shaft and provided with a thin flange, and means for securing the saw to the flange, as and for the purpose specified. 13th. The combination with the frame and swinging frame and saw, and means for adjusting the swinging frame, of the arc-shaped guides and bearing-blocks secured to the side bars of the swinging frame and designed to press against such guides, as and for the purpose specified.

No. 58,755. Chair-Table. (Chaise-table.)



William Murphy, St. John, New Brunswick, Canada, 20th January, 1898; 6 years. (Filed 31st December, 1897.)

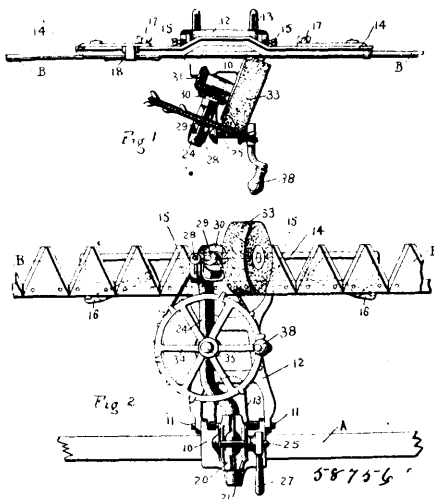
Claim.—1st. In a chair-table, the combination of chair-seat A, hinged to chair-back A' at G G G, said chair-back rigidly fastened to table rails B B B, which in turn are pivoted to chair-rails at F, and these latter to front chair-posts at E E, substantially as set forth. 2nd. In a chair-table, the combination of back chair-posts and rung H H, with the table-rails B B B by means of slots C C C, for the purpose specified. 3rd. The hooks I I, for holding down the chair-seat A. 4th. In a chair-table, the combination of the hook I secured to rung F and the hook M fastened to board A, arranged to mesh for the purpose specified. 5th. In a chair-table, the combination of the pawl K, hinged to A', substantially as and for the purpose hereinbefore set forth.

No. 58,756. Mowing Machine Sharpener. (Aiguiseur de faucheuses.)

Harding Allen, Barre, Massachusetts, U.S.A., 20th January, 1898; 6 years. (Filed 5th January, 1897.)

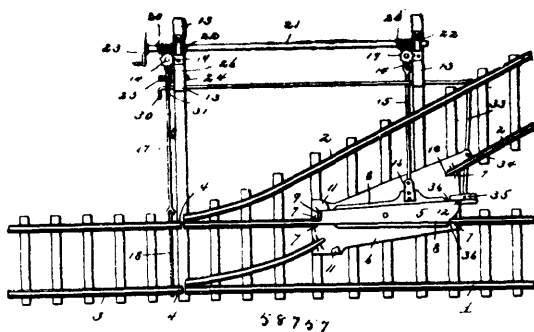
Claim.—1st. The improvements in mowing machine sharpeners, as herein described. 2nd. In a machine of the class described, the combination of a base-piece, brackets extending from said base-piece, plates journaled in said brackets, a spindle journaled in a socket between said plates whereby the spindle may be rotated or turned, or the plates may be turned in the brackets to allow the spindle to be tipped, a grinding mechanism mounted on the spindle, and a clamping device for securing the spindle in its adjusted position, substantially as described. 3rd. In a machine of the class described, the combination of a base-piece, an adjustable grinding mechanism mounted thereon, a holder for a mowing-machine knife, and means for holding said holder out of the way while the parts are being adjusted, substantially as described. 4th. In a machine of the class described, the combination of a base-piece, an adjustable grinding mechanism mounted thereon, a pivot-shaft, a bracket mounted on said pivot-shaft, a fixed stop for limiting the movement of said bracket, a frame or holder for a mowing-machine knife pivotally mounted in said bracket, and a slotted piece mounted on said pivot-shaft and having a projection for holding the mowing-machine knife holder out of the way while the parts are being adjusted, substantially as described. 5th. The combination of a base-piece, plates journaled in brackets extending from said base-piece, a spindle journaled in a socket between said plates,

a clamping-bolt, a nut threaded onto the clamping-bolt, a wrench or clamping-handle having a socket for adjustably receiving said



nut, said clamping-handle having a cam-face co-operating with a cam-face on one of the brackets, substantially as and for the purpose set forth. 6th. In a machine of the class described, the combination of a spindle, a grinding-arbor mounted in said spindle, a bushing journalled in the spindle, a driving sprocket eccentrically mounted on said bushing, and means for holding the bushing in its adjusted position, substantially as described. 7th. The combination of a base-piece, a spindle adjustably mounted in said base-piece, a grinding mechanism carried by said spindle, means for clamping said spindle in its adjusted position, a bracket pivoted on said base-piece, and a frame or holder for a mowing-machine knife pivotally mounted in said bracket, the parts being arranged so that the mowing-machine knife may be brought into engagement with the grinding mechanism, and so that the holder can be moved back and tilted for the inspection of work, substantially as described. 8th. In a machine of the class described, the combination of a base-piece, plates journalled in brackets extending from said base-piece, a spindle journalled and longitudinally movable in a socket between said plates, a grinding mechanism carried by said spindle, a clamping-bolt, a nut threaded onto the clamping-bolt, a wrench or clamping-handle having a socket for adjustably receiving said nut, a bracket mounted on said base-piece, and a frame or holder for a mowing machine knife pivotally mounted in said bracket, substantially as described.

NO. 58,757. Railway Switch. (Aiguille de chemin de fer.)

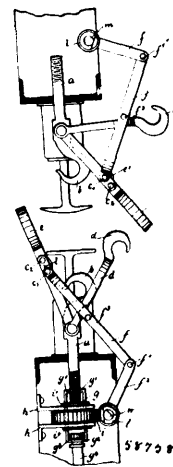


Charles D. McLean, Berlin Mills, New Hampshire, U.S.A., 20th January, 1898; 6 years. (Filed 26th November, 1897.)

Claim.—1st. In a railway switch, an oscillating frog fulcrumed intermediate its ends and arranged to have its ends brought into alignment with the main or sliding rails, substantially as described. 2nd. In a railway switch, an oscillating frog fulcrumed intermediate its ends, in combination with a bed plate upon which the frog is mounted, and stops on said bed plate for limiting the movement of the frog, substantially as described. 3rd. In a railway switch, the combination with a bed plate having oppositely arranged stops, of an oscillating frog fulcrumed intermediate its ends on the bed plate, and provided with longitudinally projecting flanges or lips adapted to engage in notches or mortises in the contiguous ends of the rails, substantially as described. 4th. In a railway switch, an oscillating frog fulcrumed intermediate its ends and provided with longitudina-

base flanges at each side and with longitudinally projecting lips at its ends, in combination with a bed plate upon which the frog is mounted, stops on said bed plate for limiting the movement of the frog, and lugs for engaging the ends of the rails, the rails being notched or mortised for engagement with the end flanges or lips of the frog, substantially as described. 5th. In a railway switch, the combination with switch rails free at one end, and an oscillating frog, of means for simultaneously moving said switch rails and frog, substantially as described. 6th. In a railway switch, the combination with switch rails free at one end, and an oscillating frog, of means for simultaneously shifting the rails and frog, and locking mechanism for holding the shifting means, substantially as described. 7th. In a railway switch, switch rails free at one end, and an oscillating frog, in combination with an operating shaft, a crank handle thereon, crank shafts geared to said operating shaft, and connections between said crank shafts and the switch rails and frog, substantially as and for the purpose described. 8th. In a railway switch, the combination with switch rails free at one end, and an oscillating frog, of a pair of crank shafts, connecting rods interposed between said crank shafts, and the switch rails and frog, gears fast on said crank shafts, a worm shaft meshing with said gears, means for operating said worm shaft, and means for locking one of said shafts against turning, substantially as described. 9th. In a railway switch, the combination with an oscillating frog, of a locking block movable into the path of said frog, and adapted to hold the same in both of its adjusted positions, and means for shifting and holding said locking block, substantially as described. 10th. In a railway switch, an oscillating frog and a bed plate upon which the frog is mounted, in combination with a locking block having a sliding connection with said bed plate and adapted to move into the path of the frog, means for shifting said locking block, and means for locking the block in its adjusted position, substantially as described. 11th. In a railway switch, the combination with an oscillating frog, of a locking block movable into the path of said frog, a lever for shifting said locking block, a rod for operating said lever, and means for locking said rod, substantially as described. 12th. In a railway switch, the combination with an oscillating frog, of a locking block movable into the path of said frog, a lever for shifting said block, a rod for operating said lever, an arm connected to said rod and having a looped end portion, and an eye-bolt for engagement with said arm and adapted to receive a suitable lock, substantially as described. 13th. In a railway switch, the combination with an oscillating frog, and means for shifting said frog, of a locking block movable into the path of said frog, a lever for shifting said block, a rod for moving said lever, an arm on said rod having a looped end, a stationary eye-bolt adapted to receive a lock for holding said arm, a crank shaft, a rigid arm on said crank shaft having a looped end for engagement with said bolt, and a shaft for operating said crank shaft, substantially as described. 14th. In a railway switch, a pair of switch rails free at one end, and an oscillating frog fulcrumed intermediate its ends, in combination with a pair of crank shafts, connecting rods between said crank shafts and the switch rails and frog, a shaft for simultaneously operating said crank shafts, a rigid arm on one of said crank shafts provided with a looped end, and a stationary eye-bolt adapted to receive the looped end of said arm and having provision for the attachment of a suitable lock, substantially as described.

No. 58,758. Railway-waggon Coupler. (Attelage de chars.)



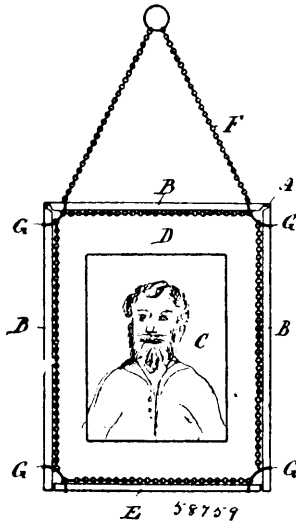
Louis Mathias Orosz, Arad, Hungary, 20th January, 1898; 6 years. (Filed 21st September, 1897.)

Claim.—1st. The construction of a railway-waggon-coupling characterized by the safety hook *d* jointed to the end of the draw-bar *a* by means of a lever connection *f*, *f*² and of a bar *f*³, having also a jointed loop *e*, further of crank handle placed upon the axle *l* fixed to

the angle iron frame of the wagon, arranged and operating substantially as and for the purpose hereinbefore described. 2nd. In a railway-wagon-coupling the combination with a joint c^2 and a joint c^1 of the arm e , for reception of the loop e and of the arm f , and a tooth c^1 of the loop e substantially in the manner and for the purpose described. 3rd. In a railway-wagon-coupling, the arrangement of a revoluble piece g serving by means of the piece g^1 as matrix for the screw threads of the bar a , by means of the endless screw k and the rectangular cavity i^2 of the tooth wheel i , substantially as and for the purpose described. 4th. In a railway-wagon-coupling of the kind described in the combination with an axle m supported in the hollow axle l movable independently from the motion of the said hollow axle and formed at its longitudinal centre in the form of an endless screw a and a crank handle provided with the cut out pieces $l^1 m^1$ arranged and operating substantially as and for the purpose described.

No. 58,759. Picture or Photograph Frame and Hanger.

(Attache et cadre pour images ou photographics.)

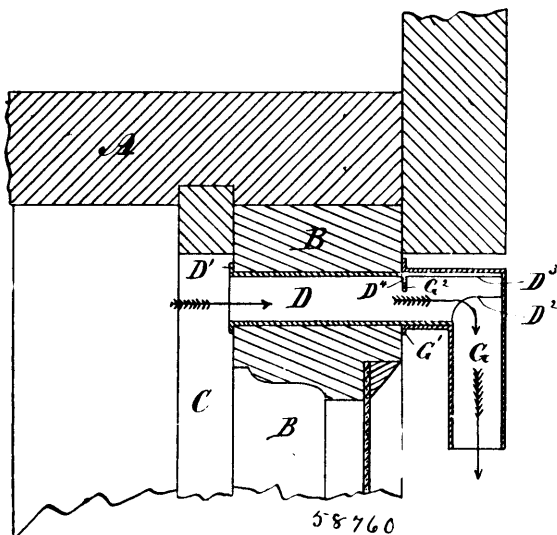


Francis C. Freeman, Newboro', Ontario, Canada, 20th January, 1898; 6 years. (Filed 29th December, 1897.)

Claim.—1st. A picture or photograph frame of bright sheet metal, made by overturning a portion of the back to form a moulding at the front on three edges, and a strip of like metal bent longitudinally to form a groove and matching the moulding and covering the unturned edge of the frame, as set forth. 2nd. A picture or photographic frame, having sections of chain, cord or wire connected by loops or rings, and holding the frame at the corners, as set forth.

No. 58,760. Window Sash Ventilator.

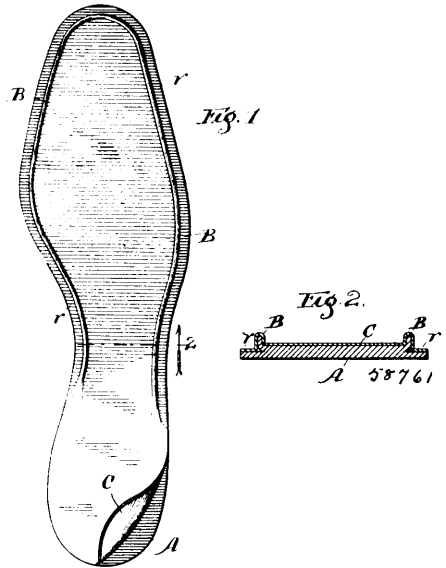
(Ventilateur de fenêtrc.)



George Jackson, Halifax, Nova Scotia, Canada, 20th January, 1898; 6 years. (Filed 31st December, 1897.)

Claim.—The combination with a window sash having a hole near the top, of a pipe section D, inserted in said hole and extending outside the sash, and having an under portion at D^2 , cut-away, said section provided with a longitudinal slot D^3 , and notch D^4 , and an elbow section G, having an internal lip or stud G^2 , locking in said notch to hold the sections together, and both telescoping, as set forth.

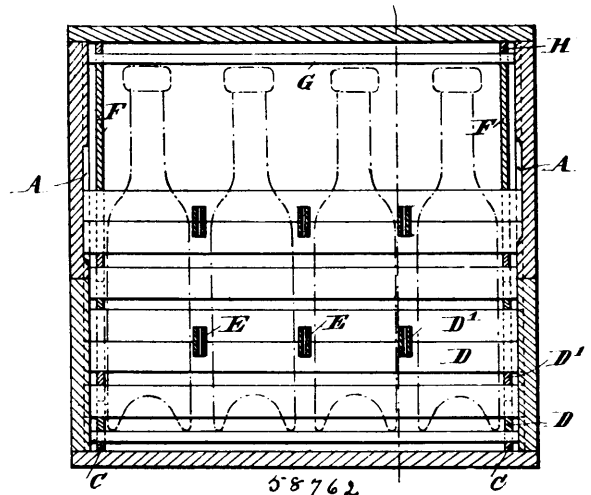
No. 58,761. Insole. (Fausse-semelles.)



Edward M. Cole, Chicago, Illinois, U.S.A., 20th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—As an improved article of manufacture, an insole comprising a body of leather, a lip and feather formed by splitting the outer edge of the body in the usual manner, and a continuous reinforcing covering secured to the central portion of the bottom of the sole, indented over the lip and terminating upon and secured to the bottom of the feather upon opposite sides of the sole, substantially as described.

No. 58,762. Packing Boxes for Bottles and Similar Vessels. (Caisse d'emballage pour bouteilles, etc.)



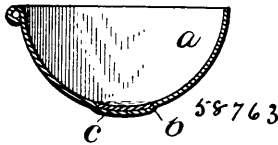
Niels Georg Sorensen, Stockholm, Sweden, 20th January, 1898; 6 years. (Filed 30th December, 1897.)

Claim.—1st. A packing box for bottles and similar fragile vessels, and for loaded projectiles and the like, consisting of a box or case provided internally with grooves A made in the sides of the box near the corners and running along the latter, in which grooves there are put down ribs or laths C, D, D^1 , F, H, crossing each other; at the corners of the box and arranged to support smaller laths E, passing between them both in a crosswise and lengthwise direction of the box and placed on edge, said laths E crossing each other without

being united at the crossing points, thus forming cells for guiding the vessels sideways, there being besides arranged or fixed laths B and G placed on the flat side at the bottom of the box and under its cover, along the rows of vessels between the laths E, all with the purpose of separating the vessels from each other and from the bottom sides and cover of the box by means of elastic laths, thus protecting the side bottles or vessels against breakage originated from blows given to the packing box, no matter from which external side. 2nd. In a packing box arranged as mentioned in claim 1, the arrangement that each of the division ribs or lath E of the cells consists of two ribs held apart by projections at their ends, for the purpose of increasing the elasticity of the walls of the cells.

No. 58,763. Eaves Trough and Down Spout.

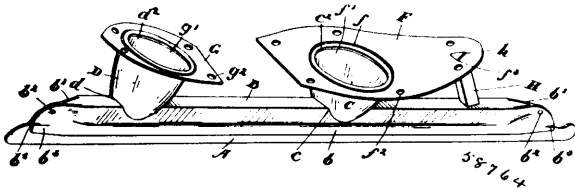
(Auge et gouttière de toits.)



Clarence J. Swink, Red Lion, Ohio, U.S.A., 20th January, 1898; 6 years. (Filed 10th December, 1897.)

Claim.—1st. An eaves-trough or gutter, having a depression in its lowest portion and a strip of non-corrosible material secured in said depression, substantially as described. 2nd. In an eaves-trough or gutter, the combination of a depression in its bottom, with a strip of zinc or other non-corrosible material secured in said depression and arranged to lap over the joints of the sections of the trough, as shown and described. 3rd. An eaves-trough or gutter, comprising a depression of the lowest point of the inner periphery thereof, a strip of non-corrosible material adapted to snugly fit in said depression and adapted to overlap the joints of the sections of the trough, substantially as described. 4th. The combination of an eaves-trough, tubing, etc., as described, with the depression in its outer periphery, a strip of non-corrosible material secured in said depression and overlapping the sections of tubing, strengthening and forming tight joints of said tubing, substantially as described.

No. 58,764. Skate. (Patin.)

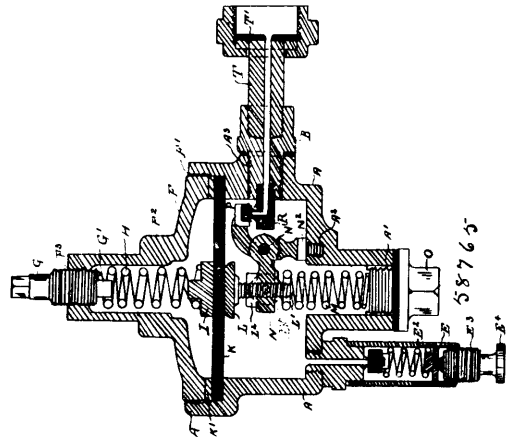


Alexander Douglas Fisher, Toronto, Ontario, Canada, 20th January, 1898; 6 years. (Filed 3rd December, 1897.)

Claim.—1st. In a skate, in combination, the blade, the triangular tubular support having the base uppermost, the apex next the blade, and the continuation of the sides soldered to the blade, and the ends of the tubular support tapered and provided with flanges formed at the bottom thereof to form shoulders against which the ends of the blades abut, as and for the purpose specified. 2nd. In a skate, in combination, the blade, the triangular tubular support having the base uppermost, the apex next the blade, and the continuation of the sides soldered to the blade, and the ends of the tubular support tapered and provided with flanges formed at the bottom thereof to form shoulders against which the top of the ends abut, the conical hollow cups provided at the bottom with dove-tailed slots fitting the triangular tubular support, and a suitably soldered connection in the interior of the cup, and the sole and heel-plates suitably secured to the top of the conical cups, as and for the purpose specified. 3rd. In a skate, in combination, the blade, the triangular tubular support suitably connected to the blade, the conical hollow cups provided at the bottom with dove-tailed slots fitting the triangular tubular support, and a suitably soldered connection in the interior of the cup, and the sole and heel-plates secured to the top of the conical cups, as and for the purpose specified. 4th. In a skate, in combination, the blade, the triangular tubular support suitably connected to the blade, the conical hollow cups provided at the bottom with dove-tailed slots fitting the triangular tubular support, the beads formed at the upper end, the plates with holes in them, the edges of which fit against the beads and the cone flanges, holding the edges of the plates around the holes to the bead, as and for the purpose specified. 5th. In a skate, in combination, the blade, the triangular tubular support secured thereto, the sole and heel-plates provided with openings in same, and the hollow cups connecting the plates around the openings to the triangular tubular support, as and for the purpose specified. 6th. In a skate, in combination, the blade, the triangular tubular support connected thereto, the sole and heel-plates, means for supporting them on the triangular tubular support, and the toe-piece provided with a bent upper end extending through

a slot in the sole-plate and having the lower end soldered to the top of the triangular tubular support, and a triangular reinforcing piece with upturned lip located within the triangular toe-piece, as and for the purpose specified. 7th. In a skate of the class described, the combination with the sole and heel-plates and sole of the shoe of the holes f^2 and g^2 in the sole and heel-plates, and the bolts 2, having flat heads, sunk in the sole of the shoe, and the shanks of the bolt passing through the sole and heel-plates, and shallow nuts on the lower ends of the bolts beneath the plates, as and for the purpose specified.

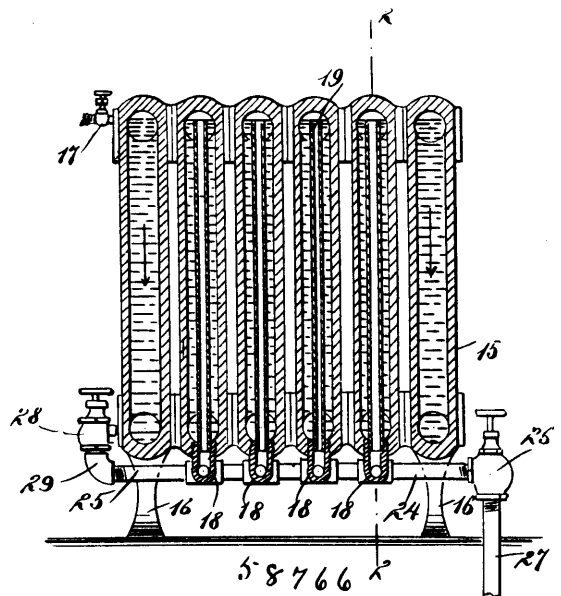
No. 58,765. Apparatus for Reducing the Pressure of Liquids and Gases. (Appareil pour réduire la pression des liquides et gaz.)



Richard Matchett, Melbourne, Victoria, Australia, 20th January, 1898; 6 years. (Filed 30th December, 1897.)

Claim.—1st. In apparatus for reducing the pressure of liquids and gases, in combination a casing as A, inlet and outlet tubes as B and C, plate as K, grippers as I and L, adjustable springs as H and M, a centred lever as N, valve as P and valve seat as R, substantially as and for the purposes set forth. 2nd. In apparatus for reducing the pressure of liquids and gasses, in combination springs as H and M, screw plugs as G and O, plate as K and centred lever as N, valve as P and valve seat as R, substantially as and for the purposes set forth. 3rd. In apparatus for reducing the pressure of liquids and gasses, in combination casing as A, springs as H and M, screw cap as F, plate as K, centred lever as N, valve as P, valve seat as R, safety valve as E and pressure gauge as D, substantially as and for the purposes set forth. 4th. In apparatus for reducing the pressure of liquids and gases, the general combination and arrangement of the several parts, substantially as and for the purposes herein described and as illustrated on the accompanying drawings.

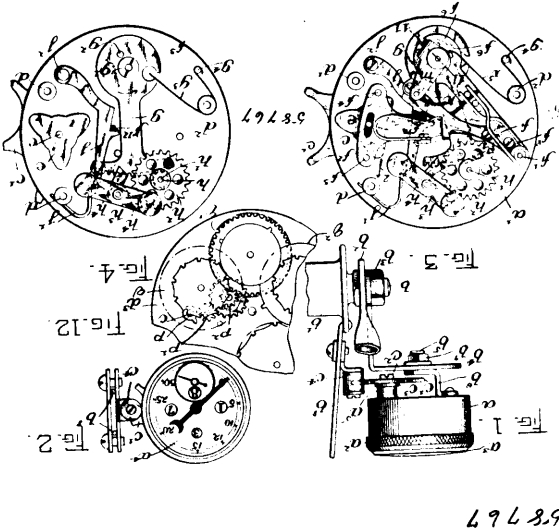
No. 58,766. Radiator. (Radiateur.)



Frederick Bason, Chicago, Illinois, U.S.A., 20th January, 1898; 6 years. (Filed 3rd January, 1898.)

Claim.—A radiator having a series of loops, communicating with each other and having an air outlet orifice at the upper portion of one loop, a series of leading pipes extending longitudinally through the rear run of a number of the loops, the leading pipes extending downwardly through the lower portions of the loops, elbows beneath the radiator with which the leading pipes respectively communicate, the elbows turning forwardly from the leading pipes, a pipe running longitudinally beneath the forward portion of the radiator, the pipe having communication with the said longitudinal pipe, the additional pipe communicating directly with the lower portion of the interior of the radiator, and a valve for said additional pipe, substantially as described.

No. 58,767. Speed Indicator. (Indicateur de vitesse.)



William Soule Scales, Everett, Massachusetts, U.S.A., 20th January, 1898; 6 years. (Filed 16th August, 1897.)

Claim.—1st. A speed indicator, comprising a device moving through a predetermined space at a predetermined rate of speed, and whose movements are affected by the rotating part the rate of speed of which is to be indicated, and mechanism for indicating the variations in the movements of the said device, substantially as set forth. 2nd. A speed indicator, comprising a device having a predetermined range of movement in a predetermined period of time, and the lengths of whose movements are varied according to the speed of the bicycle-wheel, and mechanism for indicating the length of each movement of the said device, substantially as set forth. 3rd. A speed indicator, comprising a device having a predetermined range of a movement in a predetermined period of time, and the lengths of whose movements are varied according to the speed of the bicycle-wheel, and mechanism for indicating the variations in the range of movement of the said device, substantially as set forth. 4th. A speed indicator, comprising a device having a predetermined range of movement in a predetermined period of time, and the lengths of whose movements are varied according to the speed of the bicycle-wheel, and mechanism for indicating the position of the said device at the end of each movement, substantially as set forth. 5th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, and the lengths of whose reciprocations are varied in accordance with the rate of speed at which the bicycle-wheel is travelling, and mechanism for indicating the variations in the length of reciprocations of the said device, substantially as set forth. 6th. A speed indicator, comprising a device moving through a predetermined space at a determined rate of speed, and whose movements are affected by the rotating part, the rate of speed of which is to be indicated, and intermittently acting mechanism for indicating the variations in the movements of said device, substantially as set forth. 7th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, and the lengths of whose reciprocations are varied in accordance with the rate of speed at which the bicycle-wheel is travelling, and the intermittently acting mechanism for indicating the variations in the length of the reciprocations of said device, substantially as set forth. 8th. A speed indicator, comprising a device moving through a predetermined space at a determined rate of speed, and whose movements are affected by the rotating part, the rate of speed of which is to be indicated, and mechanism actuated by the said moving part, for indicating the variations in the movements of said device, substantially as set forth. 9th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, and the lengths of whose reciprocations are varied in accordance with the rate of speed at which the bicycle wheel is rotating, and mechanism, actuated by the bicycle wheel, for indicating the variations in the length of the reciprocations of said device, substantially as set forth. 10th. A speed indicator, comprising an intermittently

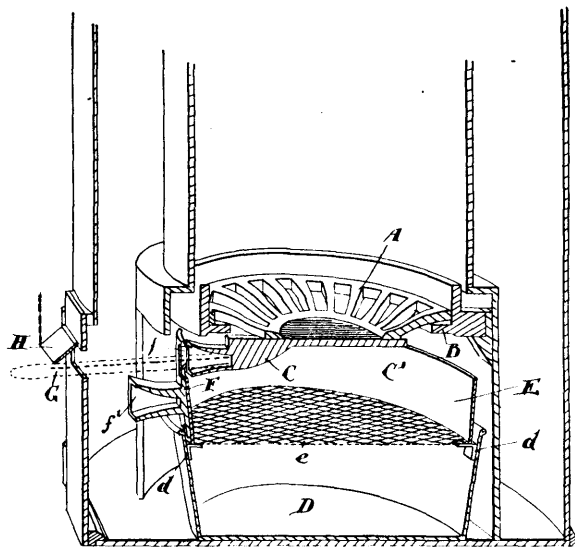
actuated device operated by the bicycle wheel, and having a predetermined movement in a predetermined period of time, the length of whose movements are varied in accordance with the rate of speed of the bicycle wheel, and mechanism for indicating the variations in the length of movement of the said device, substantially as set forth. 11th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, and the length of whose reciprocations is varied in accordance with the speed of the bicycle wheel, and mechanism for indicating the variations in the length of the reciprocations of said device, comprising a pointer, and means adjusted by said bicycle wheel and controlled by said device for moving said pointer, substantially as set forth. 12th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, and the length of whose reciprocations is varied in accordance with the speed of the bicycle wheel, and mechanism for indicating the variations in the length of the reciprocations of said device, comprising a pointer, means for moving said pointer, and means for operating the last, said means at the end of each reciprocation of said device, substantially as set forth. 13th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, and the length of whose reciprocations is varied in accordance with the speed of the bicycle wheel, and mechanism for indicating the variations in the length of the reciprocations of said device, comprising a pointer, means actuated by the bicycle-wheel for operating the last said means, at the end of each reciprocation of the device, substantially as set forth. 14th. A speed indicator consisting of a reciprocatory device, means for checking the movement of said device to cause it to move through a predetermined distance at a predetermined time, a lever operated by the bicycle wheel for moving said device once for every revolution of the bicycle wheel, and mechanism for indicating the variations in the length of the movements of said device, substantially as set forth. 15th. A speed indicator consisting of a reciprocatory device, means for checking the movement of said device to cause it to move through a predetermined distance at a predetermined time, a lever operated by the bicycle wheel for moving said device once for every revolution of the bicycle wheel, and mechanism intermittently operated by said lever for indicating the variations in the length of movements of said device, substantially as set forth. 16th. A speed indicator, comprising a device having an arbitrary movement, a rotating arbour having a top-by-step movement under the intermittent impulses of the rotating wheel whose speed is to be measured, and adapted to vary the lengths of the reciprocations of the said device in accordance with the speed of the rotation, and mechanism for indicating the variations in the length of the reciprocations of the said device, substantially as set forth. 17th. A speed indicator comprising a device reciprocating at an arbitrary rate of speed, means for indicating variations in the range of movement of the said device, and an arbour rotating with a step-by-step movement at a variable speed, and adapted to vary the range of movement of the said device, substantially as set forth. 18th. A speed indicator comprising a device reciprocating at an arbitrary rate of speed, means for indicating variations in the range of movement of the said device, a rotary cam, and a stair wheel rotating with a step-by-step movement and driving said cam, said cam being adapted to vary the range of movement of the said device, substantially as set forth. 19th. A speed indicator comprising a device reciprocating at an arbitrary rate of speed, means for indicating variations in the range of movement of the said device, and means, moving with a variable speed under the impulse of the rotating part whose speed is to be indicated, for positively actuating said device in opposite directions, substantially as set forth. 20th. A speed indicator comprising a device reciprocating at an arbitrary rate of speed, means for indicating variations in the range of movement of the said device, a cam for imparting power to said device to move it in opposite directions, and a rotary arbour for actuating said cam with a step-by-step movement, substantially as set forth. 21st. A speed indicator comprising a device reciprocating at an arbitrary rate of speed, means for indicating variations in the range of movement of the said device, a cam for imparting power to said device to move it in opposite directions, and for operating the indicating means, and an intermittently rotating arbour for imparting a step-by-step movement to said cam, substantially as set forth. 22nd. A speed indicator comprising a device adapted to reciprocate from a fixed point, means for checking said device to cause it to travel in one direction at a constant arbitrary speed, intermittently acting means for imparting power to said device to move it in opposite directions, said means being actuated by the rotating part whose speed is to be indicated, and mechanism for indicating the variations in the range of movement of the said device, substantially as set forth. 23rd. A speed indicator comprising a device reciprocating from a fixed point, an escapement mechanism for causing said device to travel in at least one direction at an arbitrary rate of speed, means for imparting power to said device, indicating mechanism and means for actuating said indicating mechanism when the said device has reached the end of its movement away from the fixed point, substantially as set forth. 24th. A speed indicator, comprising a device reciprocating from a fixed point, an escapement mechanism for causing said device to travel in at least one direction at an arbitrary rate of speed, indicating mechanism, and an intermittently actuated lever for imparting power to said device to reciprocate it and for setting the indicating mechanism at the end of the movement of said device from the fixed point, substantially as set forth. 25th. A speed

indicator, comprising a device reciprocating from a fixed point, an escapement mechanism for causing said device to travel in at least one direction at an arbitrary rate of speed, a star wheel operated by a clip on a bicycle wheel, a cam driven by said star wheel, and a lever actuated intermittently by the cam for imparting power to said device to reciprocate it and for setting the indicating mechanism, substantially as set forth. 26th. A speed indicator, comprising a device reciprocating from a fixed point, an escapement mechanism for causing said device to travel in at least one direction at an arbitrary rate of speed, a lever for moving said device in opposite directions, means for returning said device to said fixed point after each forward movement, and means for indicating the variations in the movement of said device, substantially as set forth. 27th. A speed indicator, comprising a device reciprocating from a fixed point, an escapement for causing said device to travel in at least one direction at an arbitrary rate of speed, indicating mechanism, means for setting the said indicating mechanism, a lock for said means, and a lever arranged to move said device in opposite directions and to operate the setting means and the lock, substantially as set forth. 28th. A speed indicator, comprising a reciprocatory rack, an escapement to cause said rack to move in at least one direction with a constant arbitrary speed, an indicating mechanism to indicate variations in the range of movement of said rack, means actuated by the bicycle wheel for imparting movement to said rack, and a spring connection between said means and said rack, substantially as set forth. 29th. A speed indicator, comprising a reciprocatory rack, an escapement to cause said rack to move in at least one direction with a constant arbitrary speed, an indicating mechanism to indicate variations in the range of movement of said rack, and a lever actuated by the bicycle wheel and having a yielding arm for imparting movement intermittently to said rack, substantially as set forth. 30th. A speed indicator, comprising a reciprocatory rack, an escapement to cause said rack to move in at least one direction with a constant arbitrary speed, an indicating mechanism to indicate variations in the range of movement of said rack, and a lever actuated by the bicycle wheel and having a spring held pivoted arm for imparting movement intermittently to said rack, substantially as set forth. 31st. A speed indicator, comprising a reciprocating rack, an escapement to cause said rack to move in at least one direction with a constant arbitrary speed, an indicating mechanism to indicate variations in the range of movement of said rack, means actuated by the bicycle wheel for imparting movement to said rack, and a yielding device actuated by said means for setting the indicating mechanism, substantially as set forth. 32nd. A speed indicator, comprising a reciprocatory rack, an escapement to cause said rack to move in at least one direction with a constant arbitrary speed, an indicating mechanism to indicate variations in the range of movement of said rack, a lever actuated by the bicycle wheel for imparting movement to said rack, and a spring interposed between said indicating mechanism and said lever, whereby the indicating mechanism is operated by a yielding pressure, substantially as set forth. 33rd. A speed indicator, comprising an oscillating rock lever, an escapement for causing said rock lever to travel in at least one direction at an arbitrary rate of speed, a cam actuated intermittently by the bicycle wheel, a lever reciprocated by said cam and having a spring-held arm for actuating the rock lever, an indicating mechanism, and a spring-held arm on said lever for operating the indicating mechanism, substantially as set forth. 34th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, a mechanism for indicating variations in the range of movement of the said device, and means for imparting power to said device and setting said indicating mechanism, said means including a star-wheel adapted to be engaged and turned by a clip on the bicycle-wheel, an arbor, a cam, and a lever actuated by the cam, substantially as set forth. 35th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed, a mechanism for indicating variations in the range of movement of the said device, and means for imparting power to said device and setting said indicating mechanism, said means including a star-wheel adapted to be engaged and turned by a clip on the bicycle-wheel, an arbor, a cam having half as many leaves as the star-wheel, and a lever moved in opposite directions alternately by said cam, substantially as set forth. 36th. A speed indicator, comprising a device moving in accordance with the speed of the rotating part whose speed is to be measured, and means for indicating the variations in the movement of said device, said means including a pointer, a pivoted lever moving intermittently with the said device, means for intermittently holding the lever against movement, a setting device carried by the last said lever, a rack for moving the pointer, and a pin and slot connection between the setting device and said rack, substantially as set forth. 37th. A speed indicator, comprising a device reciprocating at an arbitrary rate of speed and the range of whose movements decrease as the movements increase in rapidity, means for imparting movement to said device and actuated by the moving part whose speed is to be indicated, and indicating mechanism for indicating variations in the range of movement of the said device, said mechanism including means for increasing the degree of movement of the pointer as the rate of speed of said moving part is increased to compensate for the loss of movement of the said reciprocating device, substantially as set forth. 38th. A combined speed indicator and cyclometer, comprising mechanism for register-

ing the distance travelled, mechanism for indicating the rate of speed, and a single arbor for positively and intermittently imparting power to both of said mechanisms, substantially as set forth. 39th. A combined speed indicator and cyclometer comprising registering mechanism, indicating mechanism, a star-wheel, an arbor rotated with a step-by-step movement in one direction by said star-wheel, and imparting power positively to both of said mechanisms, substantially as set forth. 40th. A combined speed indicator and cyclometer comprising a casing divided into two compartments, a dial, mechanism located in one compartment for registering on the dial the number of miles travelled, mechanism located in the other compartment for indicating on the dial the speed of travel, a single rotary arbor extending into both compartments for positively imparting power to said mechanisms, and a star-wheel mounted on said arbor and engaged intermittently to turn the arbor with a step-by-step movement, substantially as set forth.

No. 58,768. Coal Stove and Furnace.

(Poêle et fournaise à charbon.)



James Bond, Toronto Junction, Ontario, Canada, 20th January, 1898; 6 years. (Filed 31st January, 1898.)

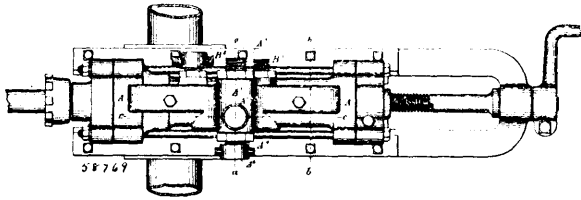
Claim.—1st. In a stove or furnace, the combination with the grate and shaking socket and enclosing casing having a door provided with a suitable opening, of an ash pan located in the casing beneath the grate, a cinder sifter supported above the same and provided with an extension bracket having an opening opposite the shaking socket of the grate designed to receive the shaking bar, as and for the purpose specified. 2nd. In a stove or furnace, the combination with the grate and shaking socket, and enclosing casing having a door provided with a suitable opening, of an ash pan located in the casing beneath the grate, a cinder sifter supported above the same and provided with an extension bracket having an opening opposite the shaking socket of the grate designed to receive the shaking bar and a supplemental socket attached to the bracket substantially opposite the opening in the casing, as and for the purpose specified. 3rd. In a stove or furnace, the combination with the grate bar and socket and enclosing casing, of an ash pan located in the casing beneath the grate, a cinder sifter supported above the same and provided with an upward extension and means for connecting the shaking bar to such upward extension and to the shaking socket, whereby both sifter and grate may be shaken together, as and for the purpose specified. 4th. In a stove or furnace, a sifter located beneath the grate, a suitable means for supporting the sifter and a socket whereby it may be shaken by the insertion of the shaking bar into the socket, as and for the purpose specified.

No. 58,769. Rock Drill, etc. (Foret de mine, etc.)

Henry Richard Hancock, Henry Lipson Hancock and Leigh George Hancock, all of Moonta Mines, South Australia, 20th January, 1898; 6 years. (Filed 20th September, 1897.)

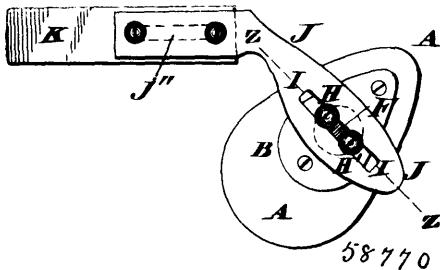
Claim.—1st. In rock drills and other like direct acting machines, a cylindrical valve, substantially as herein described. 2nd. In rock drills and other like direct acting machines, a cylindrical valve to which a rocking motion causing it to partially rotate is imparted by the action of the piston, substantially as herein described. 3rd. In rock drills and other like direct acting machines, the combination with a cylindrical valve of a valve spindle, acted upon by the machine piston, substantially as herein described. 4th. In rock drills and other like direct acting machines, a cylindrical valve into which the compressed air or steam is conducted, and through it flows alternately through one or other of the openings at the base,

into a port leading to each end of the cylinder, substantially as herein described. 5th. In rock drills and other like direct acting



machines, the combination with a cylindrical valve, of a valve chamber formed in the body of the machine, and provided with caps in such manner that the pressure of the air or steam is applied internally only to the valve, substantially as herein described. 6th. In rock drills and other like direct acting machines, the combination with a cylindrical valve operated by a valve spindle, of a slot for the same leading into the cylinder of the machine, substantially as herein described. 7th. In rock drills and other like direct acting machines, the combination with a cylindrical valve, having openings at the base corresponding with air ports leading to either end of the cylinder, of a cylinder having exhaust openings, through which the air or steam escapes at either end of the stroke of the piston, substantially as herein described. 8th. In rock drills and other like direct acting machines, the combination with a cylindrical valve operated by a valve spindle projecting into the cylinder, of a piston provided with heads actuating the valve spindle, and recessed so as to allow space for the valve spindle, substantially as herein described. 9th. In rock drills and other like direct acting machines, providing the piston cylinder with removable lining, substantially as herein described. 10th. In rock drills and other like direct acting machines, providing the piston cylinder with a removable cylindrical lining, having openings corresponding with the exhaust openings of the cylinder, and a slot for the valve spindle, together with openings corresponding with the air ports substantially as herein described, and shown at figures X, XI, XIII and XIV.

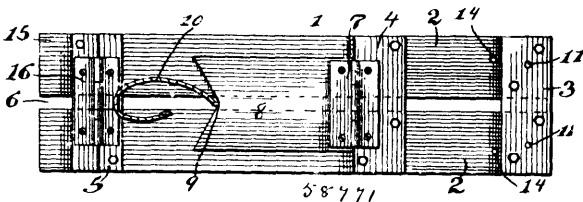
No. 58,770. Truss. (Bandage herniaire.)



Joel Upham Adams, Cincinnati, Ohio, U.S.A., 21st January, 1898; 6 years. (Filed 29th September, 1897.)

Claim.—The pad A provided with a perforated and indented plate B C D, the nut F, having threaded apertures G G', and detent E, an arm J, slotted longitudinally at I, and a pair of screws H H', that traverse said slot and engage with said apertures G G', for the purpose described.

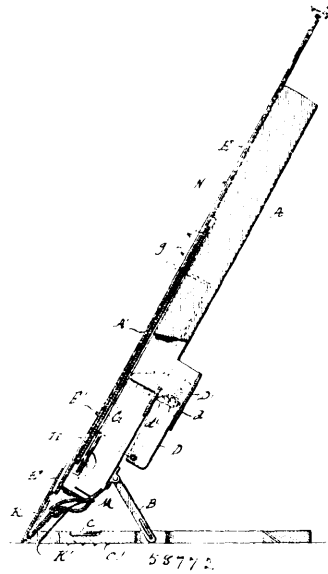
No. 58,771. Bag Holder. (Accroche-sac.)



John Eustace and John Wesley Brien, both of Essex, Ontario, Canada, 21st January, 1898; 6 years. (Filed 21st December, 1897.)

Claim.—1st. A bag or sack holder comprising a support, a supporting leg hinged thereto adapted to hold the same in an inclined position, and a bag holder carried by the upper end of the support, substantially as described. 2nd. A bag or sack holder comprising a support, a supporting leg hinged thereto adapted to hold the same in an inclined position, a bag holder adjustably vertically upon the support, and a section of the support being hinged to the body thereof at the lower end, substantially as described.

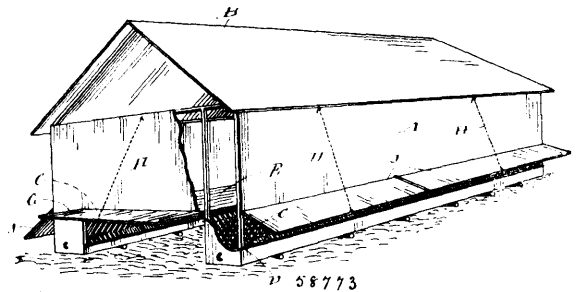
No. 58,772. Carpet Stretcher and Tacker.
(Machine pour étendre et clouer les tapis.)



George W. Ansley, Medical Lake, and Charles C. Hay, Davenport, both in Washington, U.S.A., 21st January, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—1st. In combination with the stretcher recessed as at c on its upper face, the tacker having a spur at its lower end designed to engage with the shouldered end of the said recess, and the link B pivoted at one end to the tacker, its outer end pivoted to the stretcher, substantially as shown and described. 2nd. In combination with the tacker channeled as described and containing the tack receiving receptacle and member D² for raising the tacks therefrom, the plate H, the tack feeding disc pivoted thereto, the strap G, the upturned ears g thereon, the hooked rod G', secured to said strip G, the driving rod E, the pins N and F' carried by said rod, all adapted to be operated substantially as shown and described.

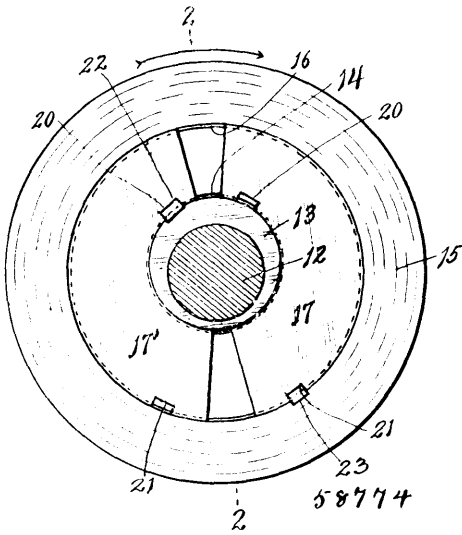
No. 58,773. Feed and Protecting Barn for Stock.
(Grange pour nourrir et protéger le bétail.)



John G. Busch, Potter Valley, California, U.S.A., 21st January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. A barn or structure, consisting of a closed roof and a floor elevated above the surface of the ground, permanent sides extending from the sides of the roof and terminating about on a plane with the floor, a rack consisting of downwardly converging bars extending along each side of the barn and extending from the floor line downwardly, the hinged or swinging sections J of the sides forming continuations of the permanent sides and closing the entrance to the racks from the outside, and means for holding the movable sections elevated to expose the racks from the outside and to form temporary roof sheds. 2nd. A barn or structure having a tight roof, sides extending downwardly to the floor, said floor being elevated above the ground to allow the entrance of animals beneath, double faced racks composed of downwardly converging bars extending along each side beneath the edges of the floor and boxes or troughs beneath the racks as shown, combined roof and side sections having journalled beams or pieces along the upper edges and hooks or supports fixed in the frame timbers of the structure for the support of said hinged timbers, wires or ropes passed into slots in the free edges of said hinged portions and cross-bars fitted to the wires or ropes whereby the hinged portion may be elevated and suspended to admit stock beneath them and form roofs for their protection while feeding.

No. 58,774. Locking Device for Shafts.
(*Clef pour arbres de couche.*)



Allan G. Mather, Milwaukee, Wisconsin, U.S.A., 21st January, 1898; 6 years. (Filed 10th January, 1898.)

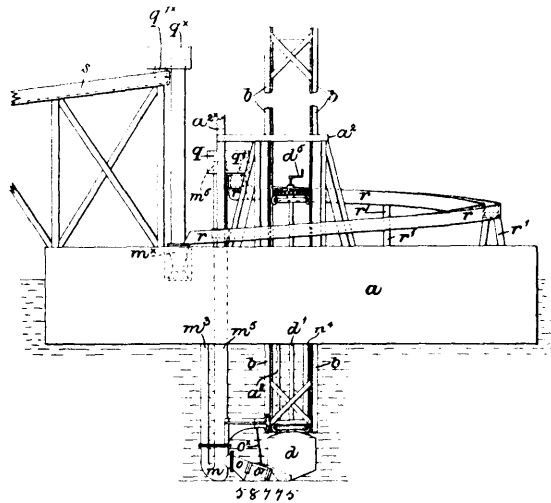
Claim.—1st. A locking device for shafts, comprising a shaft, a mechanism surrounding the said shaft and interposed reversely disposed curved segmental wedges, one of which is fastened to the shaft and another to the encircling mechanism. 2nd. A locking device for shafts, comprising a shaft provided with an eccentric annular boss, a mechanism encircling the boss, and interposed reversely disposed curved segmental wedges, one of which is keyed to the shaft and another to the shell. 3rd. A locking device for shafts, comprising a cylindrical shaft, a mechanism having a bore formed in a true circle, interposed reversely disposed curved segmental wedges, both the outer and inner surfaces formed on true circles, respectively conforming to the surface of the shaft and the bore of the encircling mechanism, and keys holding one wedge to revolution with the shaft and the other to revolution with the encircling mechanism. 4th. A locking device for shafts, comprising a shaft provided with an eccentric annular boss formed on a true circle, an annular shell or analogous device having a bore formed in a true circle, interposed reversely disposed, curved segmental wedges, both the outer and inner surfaces of which are formed on true circles respectively conforming to the surface of the eccentric boss and to the surface of the bore of the encircling device, and keys holding one wedge to revolution with the shaft and the other to revolution with the encircling device. 5th. A locking device for shafts, comprising a shaft provided with an annular eccentric boss and an annular boss medially about the eccentric boss, an annular shell or analogous device provided with an annular interior rib or projection, interposed reversely disposed, curved or segmental wedges provided with interior and exterior channels receiving said annular boss and rib, and keys holding said wedges respectively to revolution with the shaft and with the encircling device. 6th. The combination with a shaft and an encircling mechanism device, of interposed, curved or segmental wedges reversely disposed and provided with a series of holes or key seats whereby the wedges are adapted to be secured to an adjacent part adjustably revolubly, and keys adapted to secure the wedges respectively to the shaft and to the encircling device.

No. 58,775. Dredging Apparatus. (*Appareil à draguer.*)

George Poll, London, England, 21st January, 1898; 6 years. (Filed 10th January, 1898.)

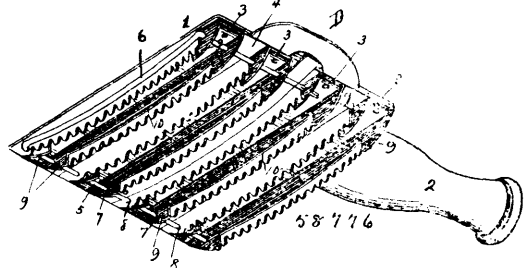
Claim.—1st. In combination, a platform, a submergeable air-tight compartment, means for maintaining such compartment with air under pressure, a nozzle supplied with high-pressure water located in said compartment for the purpose of loosening and disengaging the material operated on, and means serving to raise the material so loosened. 2nd. In combination, a platform, a submergeable air-tight compartment, means for maintaining such compartment with air under pressure, a nozzle supplied with high-pressure water located in said compartment for the purpose of loosening and disengaging the material operated on, and a submergeable hydraulic elevator. 3rd. In combination, a platform, a submergeable air-tight compartment, means for maintaining such compartment with air under pressure, a nozzle supplied with high-pressure water located in said compartment for the purpose of loosening and disengaging the material operated on, means serving to raise the material so

loosened, and means serving to connect said air-tight compartment with said raising appliance and to enclose that part of the river or



other bottom that is being operated on, and to prevent the drawing in of outside water. 4th. The combination, with a submergeable air-tight compartment, a nozzle supplied with high-pressure water located therein and a submergeable elevator, of a screen serving to guide the disengaged matter into the mouth of the elevator and to prevent the drawing in of outside water. 5th. The combination, with a submergeable air-tight compartment, a nozzle supplied with high-pressure water located therein and a submergeable elevator, of a screen, adjustable wings on said screen, and means for operating said wings serving to guide the disengaged matter into the mouth of the elevator, and to prevent the drawing in of outside water. 6th. In combination, a platform, a submergeable air-tight compartment, a hydraulic nozzle located therein, a submergeable elevator, a screen or cover connecting said submergeable compartment with said elevator, and a sluice-box located on said platform adapted to receive the raised matter, substantially as set forth.

No. 58,776. Curry Comb. (*Etrille.*)



Robert J. Lee, Oklahoma, U.S.A., 21st January, 1898; 6 years. (Filed 8th January, 1898.)

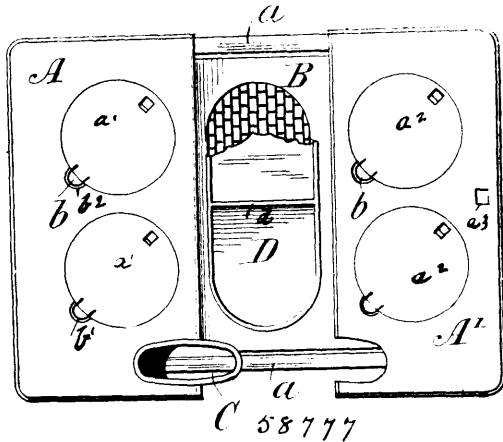
Claim.—A self-cleaning curry comb, comprising the curry comb proper, a cleaning attachment in the form of a rectangular frame pivoted to the comb and provided with a series of substantially U-shaped bars or plates, which fit between the sets of teeth of the comb and are provided with rounded edges, and with recesses whereby the remaining teeth are fully exposed, and a spring holding said cleaning attachment yieldingly against the under side of the comb, substantially as and for the purpose described.

No. 58,777. Stove. (*Poêle.*)

Albert Cheek, Toronto, Ontario Canada, 21st January, 1898; 6 years. (Filed 7th January, 1898.)

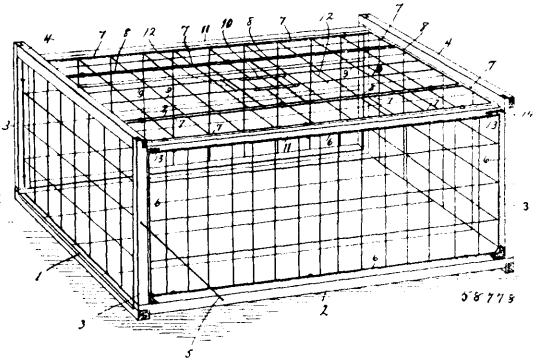
Claim.—1st. The combination with a stove or range, a sliding top-plate, whereby the fire pot may be uncovered without removing the lids or divisions, substantially as and for the purpose set forth. 2nd. In a stove or range, the combination with the fixed top-plate A and fire-pot B, of the sliding top-plate A' having ordinary holes and covers, and guide-bars and guides at the sides, substantially as and for the purpose set forth. 3rd. In combination with a stove or range, having the sliding top-plate A' adapted to uncover the fire-pot, the cooking pan or oven D, fitting over the entire fire surface, as set forth. 4th. In combination with a stove or range, having the

sliding top-plate A¹ adapted to uncover the fire-pot, the iron-heating chamber E, constructed and arranged, substantially as set forth.



5th. The stove-lid or cover herein described, having the loop, b, whereby the same may be hung up when not in use, substantially as specified.

No. 58,778. Folding Crate. (Caisse pliante.)



William A. Whitaker, Ash Grove, Missouri, U.S.A., 21st January, 1898; 6 years. (Filed 10th January, 1898.)

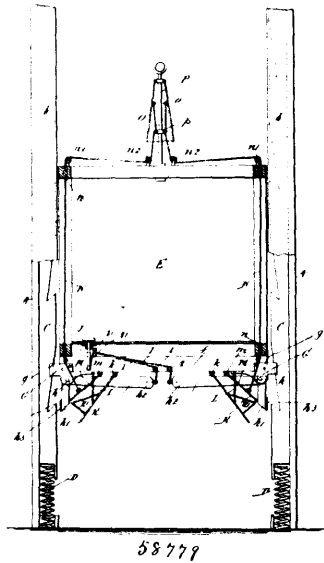
Claim.—1st. A knock down poultry coop comprising a bottom, side pieces or frames hinged to the ends thereof to fold inward, side pieces or frames hinged to the sides of the bottom, and a top made up of several sections hinged to each other and to the upper ends of the side pieces, together with devices for holding the parts extended, substantially as shown and set forth. 2nd. In a knock down poultry coop, comprising a bottom having raised sides, frames forming the ends of the coop hinged to the bottom and connected to flexible braces, together with frames forming the sides of the coop and pivoted to the bottom, and a top made up of several sections hinged to each other and to the upper ends of the side frames, the parts being held extended by hooks and eyes or equivalent means, substantially as shown and for the purpose set forth. 3rd. A knock down coop comprising a bottom, posts hinged to the ends of the bottom to fold inwardly, and connected by upper cross pieces, wire frames forming the sides of the coop hinged to the bottom, and a top made up of three sections hinged to each other and to the upper ends of the side frames together with means for holding the parts extended, and a sliding door in engagement with parallel wires carried by the intermediate sections of the top, the sliding movement of said door being limited by stops or cross wires, substantially as shown and for the purpose set forth. 4th. In a knock down poultry coop, the combination with the bottom having raised side pieces, posts pivoted to the ends of the side pieces to fold inward and connected with each other by cross pieces forming end pieces, which reinforce the other parts of the coop, wire frames providing the sides of the coop and hinged to the raised side pieces and a top made up of several sections hinged to each other and to the upper ends of the side pieces, bolts or catches for connecting the side pieces or frames to the end pieces or frames, and an opening in the top covered by a sliding door, substantially as and for the purpose set forth.

No. 58,779. Safety Mechanism. (Mécanisme de sureté.)

David Irving Prudden, Morristown, New Jersey, U.S.A., 21st January, 1897; 6 years. (Filed 18th December, 1897.)

Claim.—1st. In a safety mechanism for elevators, vertical ratchet or rack bars slidably mounted in the elevator shaft, in combin-

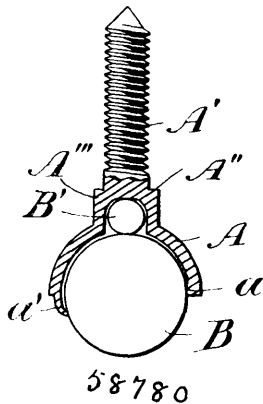
ation with the elevator car operating longitudinally with relation to the slidable rack bars and carrying catch devices for engaging



the same, substantially as and for the purpose set forth. 2nd. In a safety mechanism for elevators, vertical ratchet or rack bars slidably mounted in the elevator shaft, and springs or cushions supporting and sustaining said rack bars, in combination with the elevator car travelling longitudinally with respect to said slidable spring mounted rack bars and carrying catch devices adapted to engage the latter on the descending movement of the elevator car, substantially as and for the purpose set forth. 3rd. In an elevator mechanism comprising vertical ratchet or rack bars longitudinally arranged with respect to the travel of the elevator car and adapted to be engaged by the car, a slidable ratchet or rack bar longitudinally mounted with relation to the travel of the elevator car and sustained by a spring or cushion, substantially as and for the purpose set forth. 4th. A safety mechanism for elevators, comprising vertical ratchet or rack bars, gravity catches or dogs fulcrumed upon the elevator car, levers forming a weighted arm adapted to bear upon and operate said dogs, ropes or cables extending from said weighted arms, and foot piece or operating device connected with said ropes or cables, whereby the gravity dogs may be forced into engagement with the rack bars by simple release of the foot piece mechanism, substantially as and for the purpose set forth. 5th. A safety mechanism for elevators, comprising vertical ratchet or rack bars, dogs or catches mounted upon the elevator car and adapted to engage said rack bars, and a pivotally arranged fan mechanism adapted to be forced open by air pressure during the descent of the car at abnormal speed, said fan mechanism operating with relation to the dogs or catches to throw the same into engagement with the rack bars, substantially as and for the purpose set forth. 6th. A safety mechanism for elevators, comprising vertical ratchet or rack bars, dogs or catches pivotally suspended from the elevator car and adapted to engage said rack bars, and fan plates pivotally suspended from the car and adapted to be swung by air pressure into operative relation to said dogs or catches, whereby the latter are forced into engagement with the rack bars, substantially as and for the purpose set forth. 7th. A safety mechanism for elevators, comprising vertical ratchet or rack bars, catches or dogs pivotally suspended from the elevator car and adapted to engage said rack bars, and fan plates pivotally suspended from the car and adapted to be swung by air pressure into operative relation to said dogs or catches, whereby the latter are forced into engagement with the rack bars, substantially as and for the purpose set forth. 8th. A safety mechanism for elevators, comprising vertical rack or ratchet bars, dogs or catches mounted upon the elevator car and adapted to engage said rack bars, a parachute mechanism carried by the elevator car, and devices connecting said parachute mechanism with the dogs or catches, whereby the latter are thrown into engagement with the rack bar when the parachute opens, substantially as and for the purpose set forth. 9th. A safety mechanism for elevators, comprising vertical rack or ratchet bars, dogs or catches pivotally suspended from the elevator car, a parachute mechanism carried by the elevator car, and connecting cords or devices extending between the parachute mechanism and the pivoted dogs or catches, whereby when the parachute opens and draws upon the cords the dogs or catches are carried outwardly into engagement with said rack bars substantially as and for the purpose set forth. 10th. The combination, with an elevator car, of a parachute mechanism, safety catch

mechanism for governing the speed of operation of the car, and mechanism connecting the parachute mechanism with the safety catch mechanism, substantially as and for the purpose set forth. 11th. A safety mechanism for elevators, comprising vertical ratchet or rack bars slidably mounted and sustained by springs or cushions, pivoted dogs or catches suspended upon the elevator and adapted to project into engagement with said rack bars and automatic mechanism carried by the elevator car and governing the operation of the pivoted catches with relation to said spring sustained rack bars, substantially as and for the purpose set forth. 12th. A safety mechanism for elevators, comprising levers forming weighted arms, catch mechanism adapted to be operated by the dropping movement of said arms, a depressible foot piece mechanism arranged within the cars, and mechanism connecting said foot piece mechanism with the lever arms and operating to retain the latter up in elevated position when the foot piece is depressed whereby when the operator leaves the car and the foot piece mechanism is released the lever arms will automatically operate the catch mechanism to lock the car in position, substantially as and for the purpose set forth.

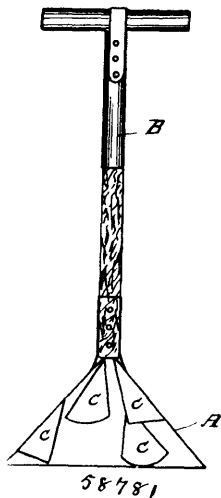
No. 58,780. Ball Bearing Castor. (Roulette de meuble.)



Christy Margaret Ann Campbell, administratrix of the estate of Colin Campbell, Ottawa, Ontario, Canada, 21st January, 1898; 6 years. (Filed 11th August, 1896.)

Claim.—In a castor, the combination of an inverted cup having a cavity adapted to receive a ball, a stem on said cup, an enlargement of said stem at its junction with the cup, a cavity in said enlargement open to the cavity of the cup and adapted to hold a small ball in said small cavity, a larger ball in the cavity of said cup, a series of vertical bearing ridges on the face of said large cavity and claws on the rim of said cup adapted to be bent in and retain said large ball, substantially as set forth.

No. 58,781. Pneumatic Washer. (Machine pneumatique à laver.)



John Henry Coxen, Johannesburg, South African Republic, 21st January, 1898, 6 years. (Filed 22nd October, 1897.)

Claim.—1st. In an apparatus for washing wool, cotton, textile fabrics and the like, an inverted vessel A with a series of smaller inverted vessels, c, c, c, therein, constructed to retain the air already

within when introduced mouth downwards into water, substantially as described and illustrated on the accompanying drawings. 2nd. An apparatus for washing wool, cotton, textile fabrics and the like, substantially as described and illustrated on the accompanying drawings.

No. 58,782. Screw Propeller. (Helice.)

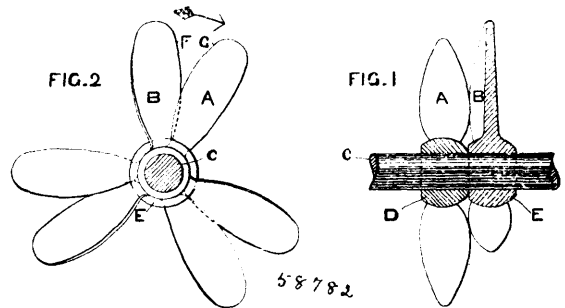
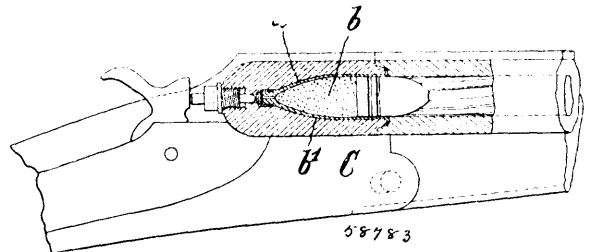


FIG. 3

Horatio Francis Smyth, London, England, 21st January, 1898; 6 years. (Filed 26th August, 1897.)

Claim.—1st. A divided propeller, having two approximately similar sets of blades upon the same shaft, the area of each blade being intermediate between that of the normal blade of a single propeller of the same number of blades as each of the divided propellers and one half of such normal area (so that the total area of the blades is substantially in excess of that of the normal single propeller), and the lower rearward edge near the boss of each propeller-blade towards the rudder being approximately in the same longitudinal plane with the lower entering edge near the boss of the forward adjacent propeller-blade looking fore and aft, each set of propeller-blades "breaking spiral" with those of another set when close together on the shaft, substantially as described. 2nd. The combination of more than two sets of propellers upon the same shaft, having the total area of their blades substantially in excess of that in a normal single propeller, but having the area of the blades of each propeller less than that of a normal single propeller, such blades being arranged as described in the first claim, substantially as set forth.

No. 58,783. Fire-Arms and Ordnance. (Arme à feu et canon.)



Artur Duffek, Vienna, Lower Austria, Austria-Hungary, 21st January, 1898; 6 years. (Filed 5th August, 1897.)

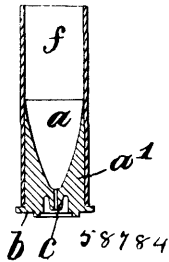
Claim.—In fire-arms and ordnance, in which cartridges are employed having a powder-charge gradually diminishing towards the ignition point, the arrangement in the breech-block A or C of the cartridge-chamber or loading chamber, said chamber, corresponding to the tapering rear part a or a' of the cartridge-case or to the powder space b of the cartridge, being provided with an ogival, conical or cylindro-ogival recess C' or projection C', in order to receive, when the breech-block is closed, the part of the cartridge-case enclosing the said powder or combustion space, or the powder charge itself, substantially as described and shown.

No. 58,784. Cartridge. (Cartouche.)

Artur Duffek, Vienna, Lower Austria, Austria-Hungary, 21st January, 1898; 6 years. (Filed 5th August, 1897.)

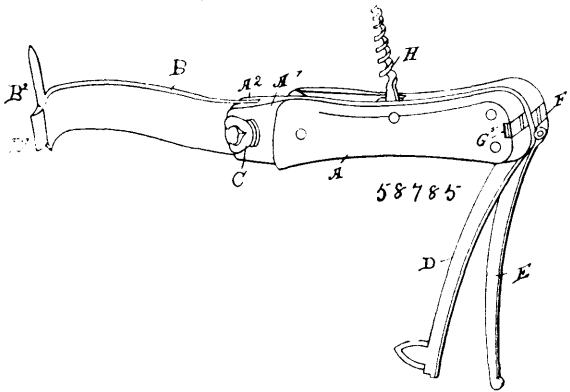
Claim.—1st. Cartridges for small firearms and ordnance of all kind as well as for blasting purposes, the powder or combustion space of which cartridges having a cross section gradually diminishing towards the bottom of the cartridge, whereby the gas pressures directed towards the lateral walls and the bottom of the cartridge are diverted to a forward direction, and thus increase the acting propelling power of the charge, substantially as described. 2nd. In cartridges having the described arrangement, the formation of the powder or combustion space a by a tapering part a', inserted in the cartridge case f hollowed out in a conical or ogival shape and provided at its apex with the ignition point c, substantially as described and shown. 3rd. In cartridges having the described arrangement,

the formation of the powder or combustion space *a* by imparting a conical or ogival shape to the rear part of the cartridge case, the



bottom of which, forming the apex of the cone or of the ogive possesses the ignition point *c*, substantially as described and shown. 4th. In cartridges having the described arrangement, the formation of the powder or combustion space *a* by a conical or ogival body *g* projecting from the bottom *b* of the cartridge case and directed with its apex towards the bottom of the projectile, the ignition point *c¹* being arranged around the base of the said body *g*, substantially as described and shown.

No. 58,785. Farrier Knife. (Couleau de maréchal.)



Francis M. McCarrea, San Juan, California, U.S.A., 21st January, 1898; 6 years. (Filed 6th September, 1897.)

Claim.—1st. A farrier's knife, comprising a handle, a blade connected with said handle and having an outer-curved end, and a spur-shaped hook projecting from the back of the blade at the curved end thereof, substantially as shown and described. 2nd. A farrier's knife, comprising a handle, a laterally-curved blade removably connected with the said handle, a scraper projecting laterally from the end of the blade, and a hook formed on the back of the blade at the outer end, substantially as shown and described. 3rd. A farrier's knife, comprising a handle, a curved blade connected with the handle, the said blade having its end curved slightly inward in the direction of the handle and then outwardly forming a laterally-projecting scraper, and a hook projecting from the back of the blade, substantially as shown and described. 4th. A farrier's knife, comprising a handle provided with a central longitudinal plate, having a forked outer end projecting beyond the front end of the handle and forming a socket for the reception of a blade, the said handle having chambers formed therein at opposite sides of the said plate, the said chambers opening at the rear end of the handle, the said handle being provided with a recess at the outer side of each chamber at the rear end of said handle, and combination-tools composed of members pivoted together and adapted to be inserted in each of said chambers, each combination-tool having one of its members provided with a flange extending at right angles from the pivot end and adapted to fit in the recess at the end of the handle, substantially as shown and described.

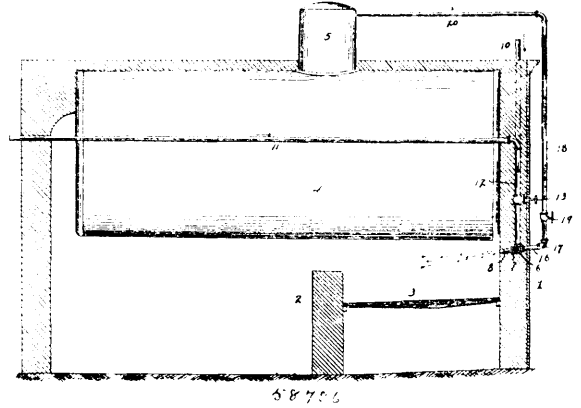
No. 58,786. Smoke-Consuming Furnace.

(Foyer fumivore.)

John Brandon and George Beal, both of Leavenworth, Kansas, U.S.A., 21st January, 1898; 6 years. (Filed 7th January, 1898.)

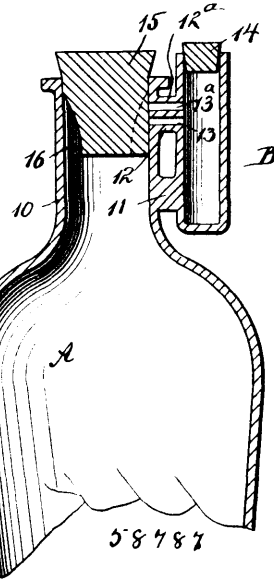
Claim.—The combination, substantially as hereinbefore described, with a furnace, of a transverse pipe set in the front wall of the furnace, consisting of a number of sections 6, and couplings 7, nozzles 8, secured to said couplings and arranged to discharge into the fire-box, a valve-controlled pipe 10 connected to each end of the said transverse pipe, and open to the entrance of outside air at their opposite ends, a pair of valve-controlled pipes 12 set in the front wall of the furnace and coupled to the transverse pipe at their lower

ends, a pair of hot-air pipes 11 resting against the boiler and having their front ends coupled to the upper ends of pipes 12 and their



rear ends open, a second transverse pipe 14 parallel with the other and arranged in front of the furnace, nozzles 16 projecting from said pipe into the couplings 7 and clear across their transverse passages, and valve controlled pipes connecting the transverse pipe 14 to the steam dome of the boiler, substantially as described.

No. 58,787. Bottle. (Bouteille.)

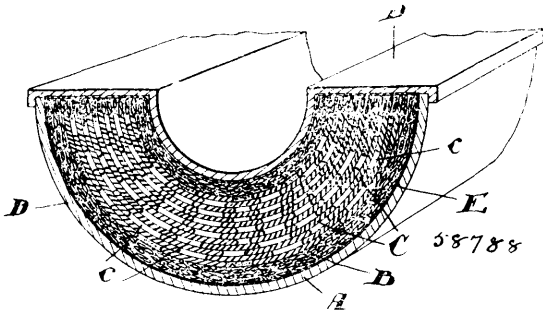


Lewis Kice Larrison, Schooleys Mountain, New Jersey, U.S.A., 21st January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. The combination with a bottle or like receptacle, of a smaller receptacle connected therewith, and means for cutting off and establishing communication between the two receptacles, substantially as described. 2nd. The combination with a bottle or a like receptacle, of a smaller receptacle connected therewith, and a valve stopper for the larger receptacle capable of opening or closing a communication between the two receptacles, substantially as described. 3rd. The combination with a bottle or like receptacle, of a smaller receptacle connected with the larger one at its neck portion, and a stopper for the larger receptacle capable of extending downward over the point of communication between the two receptacles, the said stopper having a recess in one of its faces, which recessed portion of the stopper is capable of being brought opposite the point of communication between the two receptacles to admit of the flow of the contents of one vessel into the other, for the purpose set forth. 4th. The combination with a bottle or a like receptacle, of a vial secured to the neck portion of the said bottle, a tubular connection between the neck portion of the bottle and the vial, a stopper for the vial and a stopper for the bottle, the stopper of the bottle being of sufficient length to extend across the passageway establishing communication between the two vessels, one side of the stopper for the bottle being recessed at its lower end, the recessed portion of the bottle stopper being of such dimensions that when the said recess is brought opposite the passageway between the neck of the bottle and the vial, liquid may flow from the bottle into the said vial, as and for the purpose specified.

No. 58,788. Pipe and Boiler Covering.

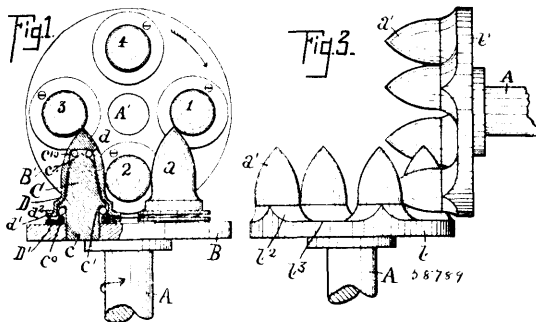
(*Couverture de tuyaux et chaudières.*)



Henry Colbeck Michell, Toronto, Ontario, Canada, 21st January, 1898; 6 years. (Filed 7th January, 1897.)

Claim.—1st. A non-conducting covering comprising a mass of mica particles and a suitable binding medium permeating the mica and maintaining it in shape and position, as and for the purpose specified. 2nd. A non-conducting covering comprising a mass of mica particles and a suitable binding medium irregularly permeating the outer portion thereof, so as to be incorporated with the outer portion of the particles and maintain the same in shape comfortable to the surface to be covered, as and for the purpose specified. 3rd. A non-conducting covering comprising concentrically arranged flakes or laminae of mica forming multitudinous hollow non-communicating interstices and a suitable binding medium permeating the outer portion of the layers and forming at the interior an irregularly formed surface whereby the cover is held together, as and for the purpose specified. 4th. A non-conducting covering comprising concentrically arranged flakes or laminae of mica forming multitudinous hollow non-communicating interstices and silicate of soda incorporated into the outer concentric flakes of mica and forming irregular mounds in the interior whereby the laminae are keyed or locked in place, as and for the purpose specified. 5th. A non-conducting covering comprising concentrically arranged flakes or laminae of mica forming multitudinous hollow non-communicating interstices and arranged with the larger flakes to the exterior and decreasing in size to the interior of the covering and a suitable binding medium permeating the outer portion of the layers and forming at the interior an irregularly formed surface whereby the cover is held together, as and for the purpose specified. 6th. A heat non-conducting covering comprising the major concentrically arranged flakes or laminae of mica forming multitudinous air spaces, the minute finer flakes at the outer and inner sides of the covering and incorporated binding material permeated by the outer flakes and extending irregularly into the inner flakes so as to hold the cover together, as and for the purpose specified. 7th. A sectional covering comprising laminae of mica, the insulating binding material at the outside and inside of the same and on the adjacent abutting edges of the covering whereby the sections of such covering are maintained in shape and fitted together, as and for the purpose specified. 8th. A method of forming a non-conducting covering for boilers and the like consisting in spreading upon suitable backings for the outer and inner portions of the covering, a composition comprising a damp or wet binding medium intermixed with mica particles, superimposing upon the outer portion, the concentric flakes or laminae of mica, placing the inner and outer portions together to enclose the central laminae and finally subjecting the whole to a suitable drying process whereby the binding medium is hardened and permeates into the mass, as and for the purpose specified.

No. 58,789. Angle Gearing. (*Engrenage anti-frottant.*)



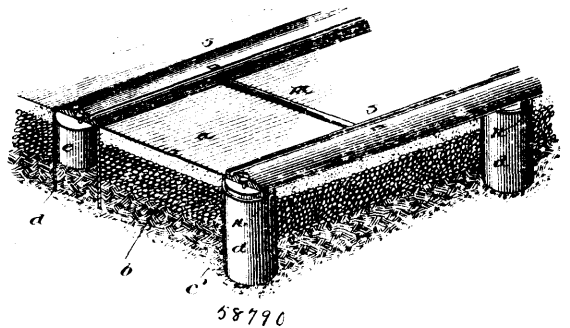
Robert W. Jamieson, Rochester, New York, U.S.A., 21st January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. In angle gearing, two series of intermeshing rotary roller-teeth, the working surface of each tooth curving inwardly

toward its axis and toward its outer end. 2nd. In angle gearing, two series of intermeshing rotary-roller teeth, each tooth having a contact surface which is substantially a sine conoid. 3rd. In angle gearing, two series of intermeshing rotary-roller-teeth, the working surface of each tooth curving inwardly toward its axis and toward its outer end, and anti-friction devices for each tooth. 4th. In angle gearing, two series of intermeshing rotary roller-teeth, the working surface of each tooth curving inwardly toward its axis and toward its outer end, each roller tooth having a closed outer end and turning upon an internal support, and anti-friction devices interposed between said roller and support. 5th. In angle gearing, a pair of revoluble members, as the plates B B', arranged at an angle with each other, each bearing a series of teeth for intermeshing with the teeth on the other plate, each tooth consisting of a central pin C, an outer shell D closed at the outer end, and revolving anti-friction devices interposed between the shell and the pin. 6th. In angle gearing, a pair of revoluble members, as the plates B B', arranged at an angle with each other, each having a series of fixed pins 6 provided with end and base ball races, and a revoluble shell fitting over said pin and provided with ball races cooperating with the ball races on the pin, and balls in said ball races. 7th. In angle gearing, the combination of a pair of revoluble members, as the plates B B', arranged at an angle with each other, each having a series of fixed pins C, each pin provided with a flange c' and a conical end c'', a conical shell D fitting over said pin and provided with a ring D' adapted to screw into the base of said shell and to form, with said flange c', a base ball race, said shell having also a surface, or angle d to form an end ball race, and balls in said ball races.

No. 58,790. Railway Track.

(*Construction de voie de chemin de fer.*)



John Pennie, Albany, New York, U.S.A., 21st January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. A railway track structure, consisting of a series of upright pipe sections, contained within corresponding recesses or cavities of the road bed, said pipe sections having at their lower ends a filling of earth or the like, and at their upper ends removable plugs, in combination with track rails resting upon the plugs and secured thereto by screw bolts passing through the plugs and through the rail bars and provided with retaining nuts, substantially as described. 2nd. A railway track structure, consisting of a series of upright pipe sections contained within corresponding recesses or cavities of the road bed, said pipe sections having at their lower ends a filling of earth or the like and at their upper ends removable plugs, in combination with track rails resting upon the plugs and secured thereto by suitable fastenings, the pipe sections being provided with lips against which the edges of the rail flanges abut, substantially as described. 3rd. A railway track structure, consisting of a series of upright pipe sections contained within corresponding recesses or cavities of the road bed, said pipe sections having at their lower ends a filling of earth or the like and at their upper ends removable plugs, in combination with track rails resting upon the plugs and secured thereto by suitable fastenings, and cross bars connecting the track rails, substantially as described. 4th. A railway track structure, consisting of a series of upright pipe sections contained within corresponding recesses or cavities of the road bed, said pipe sections having at their lower ends a filling of earth or the like and at their upper ends removable plugs, in combination with track rails resting upon the plugs and secured thereto by suitable fastenings, and cross bars connecting the track rails, said cross bars being provided at their ends with upright projections fitting within corresponding apertures of the rails. 5th. A railway track structure, consisting of a series of upright pipe sections embedded within the road bed, said pipe sections having at their lower ends a filling of earth or other more or less elastic material and having at their upper ends removable plugs resting upon the lower filling and capable of a limited vertical movement thereon, in combination with track rails resting upon the plugs and secured thereto, substantially as described.

No. 58,791. Process of Electrically Treating for Water Proofing, etc. (*Appareil pour rendre les tissus imperméables par l'électricité.*)

The Electro Waterproofing and Dye Fixing Co., New York, assignee of Gertrude L. Longueil, formerly Gertrude L. Brevoort, executrix under the last will and testament of Henry L. Brevoort deceased, Brooklyn, both in New York, U.S.A., 22nd January, 1898; 6 years. (Filed 20th April, 1897.)

Claim.—1st. The process of treating a fabric electrically, as for waterproofing, which consists in moistening the fabric with water, placing it between an anode of an oxidizable metal and a suitable cathode, and substantially in contact with the anode, passing a current of electricity through the moistened fabric, oxidizing the anode, and depositing the oxid on or in the fabric, substantially as described. 2nd. The process of treating a fabric electrically, as for waterproofing, which consists in moistening the fabric with water, placing it between and in contact with an anode of an oxidizable metal and a suitable cathode, passing a current of electricity through the moistened fabric, oxidizing the anode, and depositing the oxid on or in the fabric, substantially as described. 3rd. The process of treating a fabric electrically, as for waterproofing, which consists in moistening the fabric with water, pressing it between an anode of an oxidizable metal and a suitable cathode, passing a current of electricity through the moistened fabric, oxidizing the anode, and depositing the oxid on or in the fabric, substantially as described. 4th. The process of treating a fabric electrically as for waterproofing, which consists in moistening the fabric with an electrolyte, placing it between an anode of an oxidizable metal and a suitable cathode, and substantially in contact with the anode, passing a current of electricity through the moistened fabric, oxidizing the anode, and depositing the oxid on or in the fabric, substantially as described. 5th. The process of treating a fabric electrically, as for waterproofing, which consists in moistening the fabric with an electrolyte, placing it between and in contact with an anode of an oxidizable metal and a suitable cathode, passing a current of electricity through the moistened fabric, oxidizing the anode, and depositing the oxid on or in the fabric, substantially as described. 6th. The process of treating a fabric electrically, as for waterproofing, which consists in moistening the fabric with an electrolyte, pressing it between an anode of an oxidizable metal and a suitable cathode, passing a current of electricity through the moistened fabric, oxidizing the anode, and depositing the oxid on or in the fabric, substantially as described. 7th. The process of treating a fabric electrically, as for waterproofing, which consists in moistening the fabric with water, placing it between and in contact with an anode of an oxidizable metal and a cathode of conducting material covered with an absorbent fabric, as cotton cloth, passing a current of electricity through the fabric to be treated, oxidizing the anode, and depositing the oxid on or in the fabric, substantially as described.

No. 58,792. Art of Fixing Dyes in Fabrics.

(*Art de teindre les tissus.*)

The Electro Waterproofing and Dye-Fixing Company, New York, assignee of Gertrude L. Longueil (formerly Gertrude L. Brevoort), executrix under the last will and testament of Henry L. Brevoort, deceased, Brooklyn, both in New York, U.S.A., 22nd January, 1898; 6 years. (Filed 20th April, 1897.)

Claim.—1st. The process of fixing dyes upon fabrics, which consists in applying the natural dye in a suitable solvent to the fabric, placing the fabric between an anode of an oxidizable metal and a suitable cathode, and substantially in contact with the anode, passing a current of electricity therethrough, oxidizing the anode, and combining said oxide with the natural dye to form a lake, substantially as described. 2nd. The process of fixing natural dyes upon fabrics, which consists in applying the natural dye in a suitable solvent to the fabric, placing the fabric between and in contact with an anode of an oxidizable metal and a suitable cathode, passing a current of electricity therethrough, oxidizing the anode, and combining said oxide with the natural dye to form a lake, substantially as described. 3rd. The process of fixing natural dyes upon fabrics, which consists in applying the natural dye in a suitable solvent to the fabric, pressing the fabric between an anode of an oxidizable metal and a suitable cathode, passing a current of electricity therethrough, oxidizing the anode, and combining said oxide with the natural dye to form a lake, substantially as described.

No. 58,793. Manufacture of Impermeable Fabrics.

(*Fabrication de tissus imperméables.*)

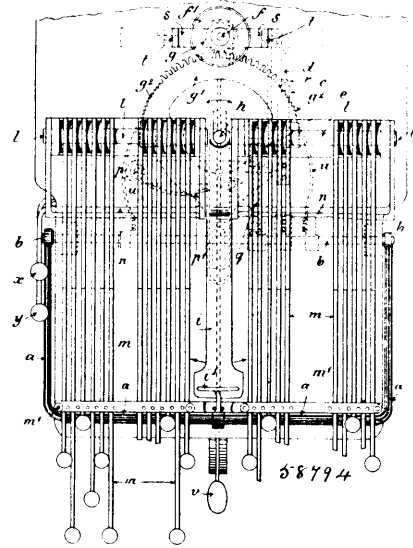
The Publishing, Advertising and Trading Syndicate, assignee of John James Mann, all of Cheapside, London, England, 22nd January, 1898; 6 years. (Filed 13th March, 1897.)

Claim.—Coating with waterproofing substances, such as liquid celluloid, the face-side of a textile fabric which has a pile upon it, obtained by means of raising carding or similar process.

No. 58,794. Typewriting Machine. (*Clavigraphie.*)

Blitz Schreibmaschine, Gesellschaft mit beschränkter Haftung, assignees of Otto Ferdinand Mayer, all of Charlottenstrasse, Berlin, Germany, 22nd January, 1898; 6 years. (Filed 28th July, 1897.)

Claim.—1st. In a typewriting machine, having a rotary type-wheel adapted to be moved against the paper, the combination with



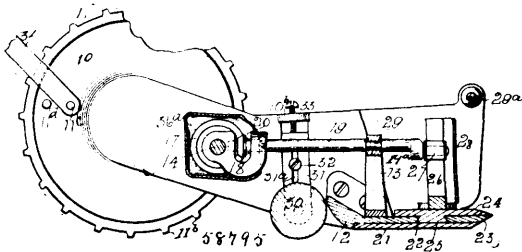
a toothed sector adapted to turn the type-wheel, of an arm extending from said sector in the direction to the keys, and arranged to abut against the operated key when the sector is turned by the latter, so as to be stopped in its further movement, and means for transmitting the further movement of the operated key to the sector and type-wheel in such manner that the latter is moved against the paper for the purpose as described. 2nd. In a typewriting machine, having a rotary type-wheel adapted to be moved against the paper, the combination with a toothed sector adapted to turn the type-wheel, of an arm extending from said sector below the keys in the directions to the front ends of the latter, and arranged to abut the depressed key when the sector is turned by said key, so that the further movement of both said arm and the sector is stopped, and means for transmitting the further movement of the operated key to the sector and type-wheel in such manner that the latter is moved against the paper, for the purpose described. 3rd. In a typewriting machine, having a rotary type-wheel adapted to be moved against the paper, the combination with a toothed sector adapted to turn the type-wheel, of an arm extending from said sector in the direction to the front ends of the keys, a double armed lever having one arm arranged to support the keys and having the other arm arranged to operate the sector, the arm of the sector having a projection extending near to the keys and adapted to abut against the operated key after the type-wheel has been adjusted by the latter, and means for transmitting the further movement of the operated key to the sector and type-wheel in such a manner that the latter is moved against the paper, for the purpose as described. 4th. In a typewriting machine of the kind aforeclaimed, the combination with the type-wheel, of a carrier *s* for the same revolvably arranged on a fixed spindle *t* and adapted to be retained on the downward movement of the depressed key by means of an adjustable stop device *o o* until a spring *e* has reached its full pressure, which spring then with its full energy swings the type-wheel carrier on its axis and thus causes an energetic impression of the adjusted type, substantially as described. 5th. In a typewriting machine of the kind as hereinbefore described, the arrangement whereby the gearing *g g'* serving for adjusting the type-wheel *f* is secured in its position after the adjustment has taken place by a spring pawl *u* operated by the movement of the key engaging in suitable ratchet teeth *g²* of a toothed segment *g¹*, until the impression of the adjusted type has taken place, substantially as described.

No. 58,795. Lawn Mower. (*Faucheuse.*)

Robert Cameron, Vancouver, British Columbia, Canada, and George Henry St. Denis, Medford, Massachusetts, U.S.A., 22nd January, 1898; 6 years. (Filed 4th January, 1898.)

Claim.—1st. In a lawn mower, having a frame 10 and annularly internal toothed drive-wheels 11 suitably mounted thereon, and a shaft 14 having pinions on either ends engaging the internal teeth in the same, and a bevel-wheel 17 rigidly fixed about the centre of the said shaft, a yoke 18 pivotally fixed on the shaft 14 in proximity to the bevelled wheel 17, a shaft 19 passing through an opening in the opposite end of the said yoke at right angles to the shaft 14, and the end of the shaft 19 resting in a recess in the pivoted end of the said yoke on the opposite side of an opening therein, a small bevel-spur 20 secured on the shaft 19 and lying in said opening in the yoke, the said spur meshing with the bevel-gear 17, whereby

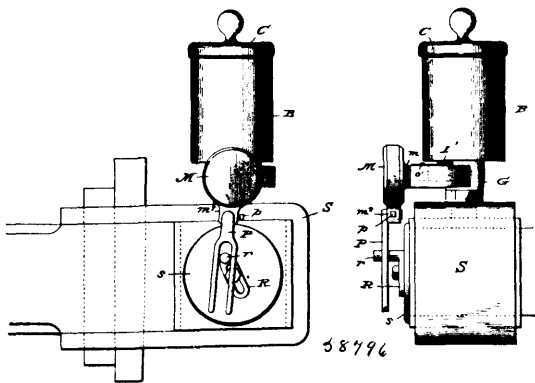
rapid motion will be imparted to the shaft 19, as set forth. 2nd. In a lawn mower, having a frame 10 with drive-wheels mounted



thereon and a shaft and gear mechanism connecting the said wheels, a horizontal cross-frame 12 connecting the two opposite sides of the frame 10 together, a pillar 13 secured on the said cross-frame, a journal-box on the top of the said pillar and arranged to receive and support a shaft 19, a plate 21 secured to the under side of the cross-frame, a cutter-blade 23 rigidly secured to the forward edge of the plate 21, the upper side of the said plate 23 being on a level plane with the top of the front side of the cross-frame 12, a dovetailed recess or slideway 22 between the cross-frame 12 and the plate 23, an oscillating cutter-blade 24 lying on the parts 23 and 12, and having a depending rib or portion 25 to fit and slide within the opening 22, an upright 26 rigidly secured upon the movable cutter-blade 24, a slot or guideway within said upright, a collar or box 27 pivoted on the crank end of the shaft 19, and means for imparting rapid motion to said crank-shaft 19, whereby the cutter-blade will be oscillated, as set forth. 3rd. In a lawn mower, having the oscillatory knives or clippers and a roller for raising and for lowering the same, the said roller arranged in adjustable brackets 31 arranged in recesses 10° of the main frame, slots 31^a in said brackets, and set-screws 32 arranged in the said slots, and other set-screws 33 engaging the tops of the said brackets, whereby the said roller may be raised or lowered. 4th. In a lawn mower, having an oscillatory cutter, an upright 26 rigidly fixed thereto, a slot or guideway arranged in such upright, a crank pivotally fixed in a collar 27 slidably arranged in the upright, and a covering 28 over the face of the slot or slideway, as and for the purposes set forth. 5th. In a lawn mower, with the ordinary drive-wheels and having an oscillatory cutter and crank-shaft mechanism for operating the same, a shaft 14 journaled in ball bearings in a frame 10, said balls working in a V-track, means for imparting movement to the shaft 14, and a transmitting gear arranged about its centre, a covering 36 and 36^a for such shaft and the transmitting-gear, to prevent grass and rubbish from coming in contact with the same, as set forth. 6th. In a lawn mower, having an oscillatory cutter arranged to slide in close proximity to a like cutter rigidly secured to a frame 10, vertical side-plates 29 secured to the opposite sides of said frame, a rod or bar 29^a rigidly connecting the two opposite vertical side-plates together, as set forth.

threaded rod which depends into the cup, a disc or piston in engagement with the threaded rod, and gearing mechanism for rotating the casing, substantially as shown and for the purpose set forth. 2nd. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto, a threaded rod carried by the casing and located within the cup, a disc or piston having a threaded aperture in engagement with the threaded rod, and mechanism for rotating the casing, substantially as shown and for the purpose set forth. 3rd. In a dope-cup or automatic lubricator, the combination with the cup and rotatable casing, of a rod carried by the rotatable casing and located within the cup, said rod being threaded for the greater part of its length and provided at its lower end with a reduced portion and head or stop, together with a disc or piston having a threaded aperture in engagement with the threaded portion of the rod, substantially as shown and for the purpose set forth. 4th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto, a removable cover placed in locked engagement with the casing, a threaded rod secured to the cover to depend within the cup, a disc or piston mounted upon the threaded portion of the rod and in frictional engagement with the cup, together with mechanism for rotating the casing, substantially as shown and for the purpose set forth. 5th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto and provided at its upper open end with angular slots, a cover having studs which engage said slots, a threaded rod secured to the cover to depend within the cup, and a disc or piston mounted upon the threaded portion of the rod, together with mechanism for rotating the casing, substantially as shown and for the purpose set forth. 6th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto, a cover removably attached to the upper end of the casing and having a central recess, a threaded rod let into said recess and secured therein by a transverse pin, said rod depending into the cup, and a disc or piston mounted on the threaded portion of the rod, substantially as shown and described. 7th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto and carrying a threaded rod upon which is mounted a disc or piston located within the cup, said casing having gear-teeth, a shaft geared to the rotatable casing substantially as shown, a disc mounted on said shaft, and a casing inclosing the disc and provided with wedge-shaped recesses containing rollers which engage the periphery of the disc, together with means for oscillating the casing, substantially as shown and for the purpose set forth. 8th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto and carrying means for forcing the dope or lubricant out of the cup through a feed-opening therein, said casing having gear-teeth, a shaft geared to the rotatable casing substantially as shown, a disc mounted on said shaft, and friction-clutch mechanism in engagement with said disc and operated from a suitable power, substantially as described. 9th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or grease, of a casing rotatable with respect thereto and carrying means for forcing the dope or lubricant out of the cup through a feed-opening therein, said casing having gear-teeth, a shaft geared to the rotatable casing substantially as shown, a disc keyed upon the shaft, together with a casing enclosing the disc and provided with wedge-shaped recesses adjoining said disc, rollers mounted in the recesses to contact with the periphery of the disc, and springs forcing the rollers toward the smaller end of the recesses, the casing being oscillated from a driven shaft, substantially as set forth. 10th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto and carrying means for forcing the dope or lubricant out of the cup through a feed-opening therein, said casing having gear-teeth, a shaft geared to the rotatable casing substantially as shown, and a friction-clutch rotating the shaft, said friction-clutch having a depending arm, together with a cam on a rotary shaft, for oscillating said arm, substantially as set forth. 11th. In a dope-cup or automatic lubricator, the combination with the cup which contains the dope or lubricant, of a casing rotatable with respect thereto and carrying means substantially as shown for forcing the dope or lubricant out of a feed-opening therein, said casing having gear-teeth, a shaft having a worm, a worm-wheel in mesh with said worm and carrying a pinion in mesh with the gear-teeth of the rotatable casing, together with a pawl and ratchet in engagement with the shaft, and a friction-clutch mounted on the shaft, said friction-clutch having an arm which is oscillated from a rotary shaft, for the purpose set forth. 12th. In a dope-cup or automatic lubricator, the combination of a cup having a shank secured to a suitable support, a rotatable casing enclosing the cup and bearing on the shank, said casing having gear-teeth and a removable cover carrying a threaded rod on which is mounted a disc or piston located within the cup, a frame G secured to an intermediate portion of the shank, a shaft mounted in the frame and geared to the casing through the intervention of a worm-wheel and pinion, a pawl in engagement with ratchet-teeth on the shaft, together with a friction-clutch on the shaft and provided with an arm oscillated from a suitable power, substantially as shown and described.

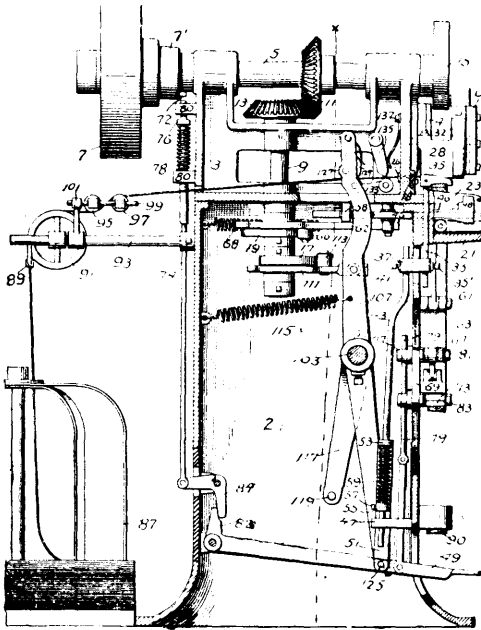
No. 58,796. Lubricator. (Graisseur.)



Mark E. Stover and John Wm. Hall, both of Saginaw, Michigan, U.S.A., 22nd January, 1898; 6 years. (Filed 31st December, 1897.)

Claim.—1st. In a dope-cup or automatic lubricator, the combination with a cup which contains the dope or lubricant, of a casing rotatable with respect thereto and provided with a depending flange having gear-teeth, a cover secured to the casing and having a

No. 58,797. Machine for Sizing Barrel Hoops and Securing the Ends thereof. (Machine pour batourner les cerceaux et en assujétir les bouts.)



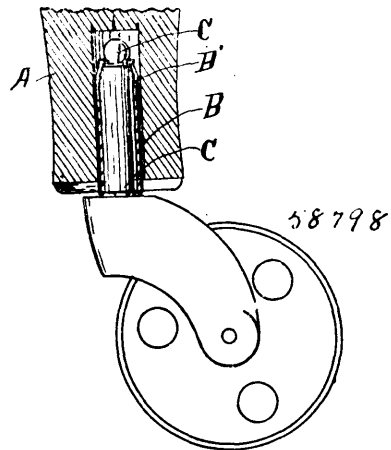
Charles E. Cottrell, assignee of Clarence C. White, both of Minneapolis, Minnesota, U.S.A., 22nd January, 1898; 6 years. (Filed 29th December, 1897.)

Claim.—1st. The combination, with means for expanding the hoop and clamping its overlapped ends, of means for feeding the wire, means for forming bends in the ends of the wire, a cutter for severing a suitable length of wire, means for bending the wire around the overlapped ends of the hoop, and means for embedding the bent end of the wire in the hoop, for the purpose set forth. 2nd. The combination, with means for clamping the overlapped ends of the hoop, of a wire feed, a cutter for severing a suitable length of wire, means for forming bends in the ends of the wire, means for bending the severed length of wire about the overlapped ends of the hoop, and means for embedding the bent ends of the wire in the hoop, for the purpose set forth. 3rd. The combination, with means for clamping the overlapped ends of a hoop, of a suitable wire feed, a three-part plunger, means for operating said plunger to sever a length of wire, form bends in its ends and bend it over the edges of the hoop, clincher bars, and means for operating the said bars to embed the bent ends of the wire in the hoop, for the purpose set forth. 4th. The combination, with the anvil for supporting the overlapped ends of the hoop, and the clamp for holding said ends, of the three-part plunger, the wire-holder extending beneath the central and intermediate parts of the plunger, and means for operating the parts of said plunger in succession to sever a length of wire and form it into a staple around the overlapped ends of the hoop, and means for withdrawing said wire-holder when said plunger descends to form said staple, for the purpose set forth. 5th. The combination, with means for holding the hoop, of the wire feed, the plunger for forming bends in the ends of the wire and bending the same around the hoop, the reciprocating clincher bars for embedding the bent ends of the wire in the hoop, and the means for operating said plunger and clincher bars, for the purpose set forth. 6th. The combination, with the reciprocating plunger formed in three parts and having the wire-receiving groove in its lower end, of the swinging wire-holder adapted to extend beneath the central and intermediate parts of the plunger, the spring engaging said wire-holder, means for operating the parts of said plunger in succession, and means for withdrawing said wire-holder, for the purpose specified. 7th. The combination, with the reciprocating plunger consisting of the outer part 8, the intermediate part 12 and the central part 10, each of said parts being formed with a wire-receiving groove in its lower end, means for operating the parts of said plunger in succession, and the swinging wire-holder 28 provided with the lip 30 adapted to extend beneath the parts 10 and 12 of the plunger, and the spring 20 engaging said wire-holder, for the purpose set forth. 8th. The combination, with the wire-holder having the lip 30, of the plunger, said plunger consisting of the parts 8, 10 and 12, each provided in its lower end with the groove 16, the part 8 being provided with the recesses 40 and the part 12 with the recesses 42, said wire-holder being arranged with its lip in position to extend beneath the parts 10 and 12 of the plunger, and means for operating the parts of said plunger in succession, for the purpose set forth. 9th. The combination, with

means for holding the hoop and means for feeding the staple and bending it around said hoop, of the reciprocating clincher bars 46 provided with the inclines 52 and rolls 31, upon which said clincher bars rest, and means for operating said clincher bars, for the purpose set forth. 10th. The combination, with the two-part anvil 23, provided with the plate 44 arranged between the two parts of said anvil, of the reciprocating clincher bars arranged to reciprocate upon opposite sides of plate 44, for the purpose set forth. 11th. The combination, with the two-part anvil 23, of the hoop-clamp 35 arranged over said anvil, means for forming a staple, forming bends in its ends and bending said staple around the hoop, and the reciprocating clincher bars for embedding the ends of the staples in the hoop, for the purpose set forth. 12th. The combination, with means for sizing and clamping a hoop, a treadle for operating said sizing and clamping means, a staple-forming and applying mechanism, and means connected with said treadle for putting said staple-forming and applying mechanism in operation after said hoop is sized and clamped.

No. 58,798. Caster Case.

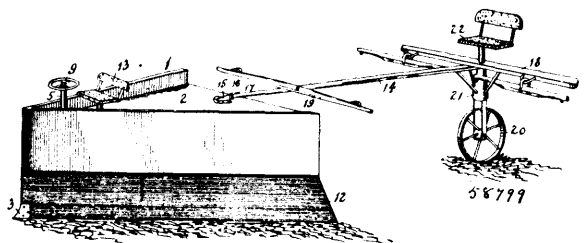
(*Emboiture pour roulettes à meubles.*)



Lemi Bradley Denton and Azlena Youell, both of Grand Rapids, Michigan, U.S.A., 22nd January, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—In a case for furniture casters, a solid body extending up for a distance from the track plate, the upper end contracted or made smaller and slotted down to the line of contraction so that it can be made to spring apart, and the end left open so that the bulbous head of a caster pintle may be forced through and supported by resting upon the end of the case, substantially as and for the purpose set forth.

No. 58,799. Snow Plough. (Charrue à neige.)

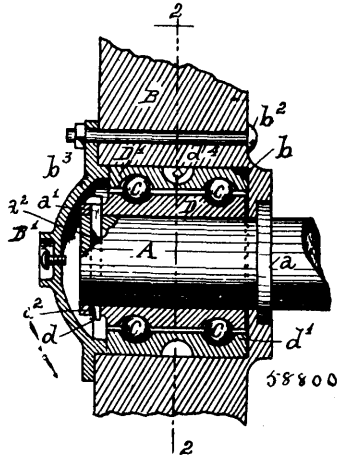


Elwyn P. White and Thomas Smith, both of Southampton, New York, U.S.A., 22nd January, 1898; 6 years. (Filed 13th December, 1897.)

Claim.—1st. In a snow plough, the combination with the plough having supporting-wheels mounted therein, the forward supporting-wheel being connected to a shaft provided with a hand wheel located above a platform near the upper end of the plough, sockets rigidly secured to the platform, and hooks also secured to the platform in the rear of the sockets, a draught appliance comprising poles or shafts which are passed through the hooks and into engagement with the sockets, a removable pin for holding the poles or shafts into such engagement, and a cross-bar attached to the rear part of the pole or shaft, a caster-wheel supporting the cross-bar and a drivers' seat mounted thereon, the parts being constructed and arranged, substantially as shown and for the purpose set forth. 2nd. In an apparatus of the character described, the combination of a snow plough having supporting-wheels mounted therein, a vertical shaft supporting the forward-wheel and having a hand-wheel at its

upper end, the said plough being provided with a platform near its upper end, sockets and hooks rigidly secured to the platform, a pole or poles forming part of the draught appliance and having a cross-bar secured near its rear end, single or doubletrees connected to the cross-bar, and supporting-wheel or wheels braced to the cross-bar and pole, a drivers' seat mounted upon the cross-bar, and a cross-bar located at the forward part of the draught appliance to provide for connecting the hold-back chains thereto, substantially as shown and for the purpose set forth.

No. 58,800. Ball Bearing. (Coussinet à roulettes.)

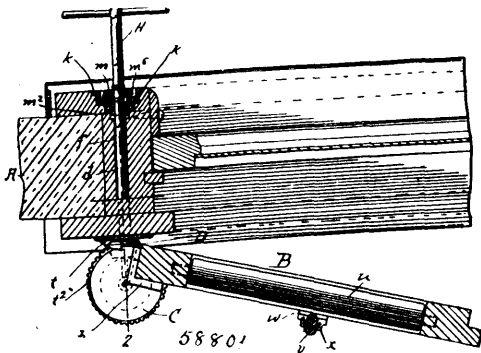


Wesley H. Fonda, Amherst, Nova Scotia, Canada, 22nd January, 1898; 6 years. (Filed 26th October, 1897.)

Claim.—1st. In a ball-bearing, the combination of an axle, a circumferentially channeled sleeve detachably connected with and adjustable on said axle, in such manner that the different parts of the surface of said sleeve may be successively subjected to the severest wear, a wheel having a central bore and revoluble around said axle, an internally channeled shell fitting in the bore of said wheel and changeable therein, so as to successively subject different parts of the bearing surfaces of the channels in said shell to the severest wear of the balls, a detachable cap retaining said shell in said wheel, and balls fitting in ways formed by the juxtaposition of the channels in said shell and said sleeve, as set forth. 2nd. In a ball bearing, the combination of an axle provided with a collar, a circumferentially channeled sleeve detachably connected with said axle, said sleeve and the collar on said axle respectively serving to limit the outward longitudinal movement and the inward longitudinal movement of said wheel on said axle, a wheel revoluble around said axle, and having a central bore, also having an internal flange between said sleeve and the collar on said axle, an internally channeled shell fitting in the bore of said wheel, balls fitting in transversely elliptical ways formed by the juxtaposition of the channels in said sleeve and said shell, and a cap connected with said wheel and bearing against and securing said shell in the bore of said wheel, as set forth.

No. 58,801. Shutter Worker.

(Appareil à fermer les volets de fenêtres.)

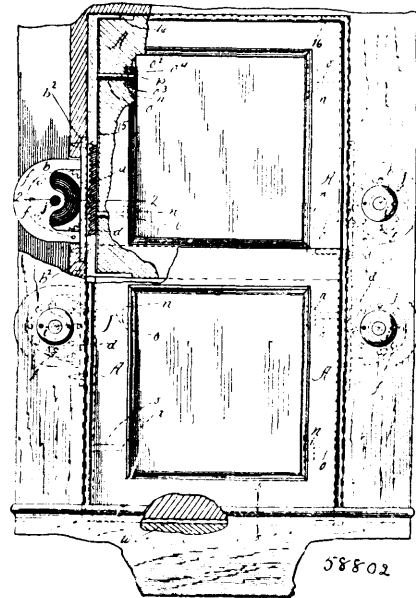


James Wesley Cole, Northampton, Mass., U.S.A., 24th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—In a shutter worker and lock, the combination with the casing and blind, the gear C, and the pinion B, with the arbor d, projected from a hole therefor in the window casing, the annular bushing G, secured within the inner face of the casing and provided

with the tubular hub i inwardly extended at one side of its axis, which hub has the cross-kerf j intersecting its axial bore, the disc m, having the marginal notches m⁵ and the hub m² in which the pinion-arbor has a non-rotatable engagement, the spindle o rotatable within said hollow tube i having the radial stud o² to play in, and to be limited by the opposite base portions of the said cross-kerf j, and provided outwardly with the handle knob o³ and having the recessed portion o⁴ next to the notched rim of the said desk, substantially as and for the purpose set forth.

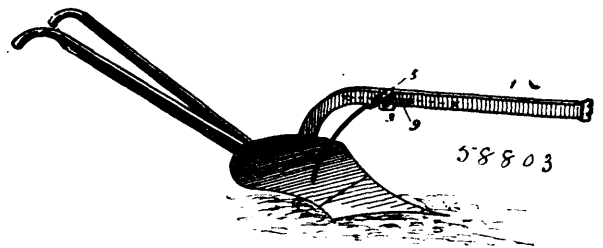
No. 58,802. Sash Locking Device. (Arrête-croisée.)



James Wesley Cole, Northampton, Massachusetts, U.S.A., 24th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. The combination with the window-casing and the sash having a rack bar along its edge, of a gear-wheel rotatably mounted within the casing, and meshing into the rack-bar, and having a series of ratchet-teeth and a hollow hub, a pawl carrying bar having a spring pressure to normally maintain its pawl in engagement with the ratcheted gear, and rod playing within the window casing and said hollow hub which has a bearing against the pawl carrying bar, substantially as described. 2nd. The combination with the rack provided sash and the window-casing having the rack-engaging gear-wheel which is ratcheted, of a pawl carrying member, a rod mounted in the window-casing and having a sliding movement to force the pawl carrier for the disengagement of the pawl from the ratcheted gear, and means for temporarily holding said rod in its inwardly-thrust position for correspondingly temporarily leaving the gear wheel free to be rotated in either direction, substantially as described. 3rd. The combination with the rack for the sash, of the gear for the casing having the ratchet-teeth, the pawl carrying bar h and pawl g, the trust rod provided with the stud m, and the face-plate i, through which the extremity of the rod protrudes and which overlies a recess x, which is in a portion of the window-casing and to which said plate is secured, and having the niche in its inner face, substantially as and for the purposes set forth.

No. 58,803. Plough. (Charrue.)

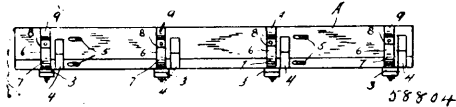


Michael H. Daubs, Albin, Illinois, U.S.A., 24th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. In a plough attachment the combination with a frame with opposite slotted heads having rollers mounted therein, a spring actuating bar adjustable engaging said rollers and a resilient arm carried by one end of said bar which curves down

wardly over an adjacent portion of the plough-shaft, substantially as described. 2nd. In a plough attachment of the character set forth the combination with a plough-beam of a frame having opposite heads with slots formed therein, antifriction rollers located in said slots, a spring actuated bar movably mounted between said rollers, a collar or washer engaging one of said heads, and a yielding arm connected to one end of said bar, and extending downwardly over the adjacent portion of the plough-shaft, said arm having a coil in the body thereof, substantially as described.

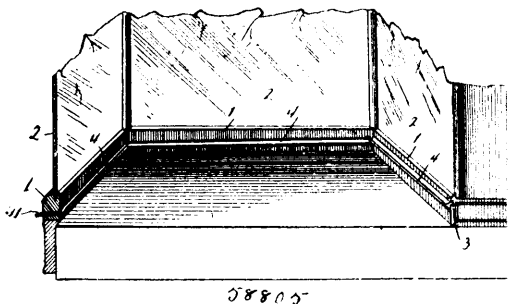
No. 58,804. Combination Wagon. (Wagon.)



Benjamin F. Kent, Franklin, Oregon, U.S.A., 24th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. In a wagon, the combination with a wagon-body and cross-bars, of bracing-irons, having inclined outer portions connected to the cross-bars and extending up to and connected to the side-boards of the wagon-body, thence extending over the side-boards and down the inner face thereof. 2nd. In a wagon, the combination with a wagon-body and cross-bars, of bracing-irons, having inwardly-bent feet connected to the ends of the cross-bars, and rebent inclined portions extending upward and connected to the side-boards of the wagon, said bracing irons extending up over the edge of the side-boards and down the inner face thereof. 3rd. In a wagon, the combination with a wagon-body provided with supports having downwardly-inclined upper faces, of rack-boards connected to the wagon-body and provided with arms having inclined faces which abut on the inclined faces of the supports. 4th. In a wagon, the combination with a wagon-body provided with supports at its sides, said supports having upper downwardly-inclined faces, and eyes connected to the side-boards of the wagon, of rack-boards having arms provided with inner inclined faces adapted to abut on the inclined faces of the supports, said arms being provided with journals which are received in the eyes.

No. 58,805. Drip Trough. (Auge d'égoût.)



John W. Merry, Mount Ayr, Indiana, U.S.A., 24th January, 1898; 6 years. (Filed 7th January, 1898.)

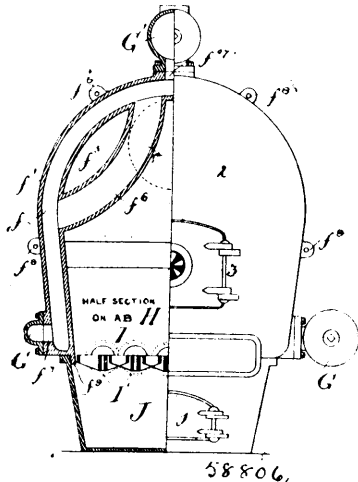
Claim.—1st. The combination with a grooved window sash, of a drip-trough, comprising a gutter and a diverging portion, the latter of which is designed to be attached to the face of the sash and the other to be maintained in engagement with the groove in said sash by spring-tension. 2nd. The combination with a grooved window-sash, of a drip-trough formed of spring metal and bent upon itself longitudinally, to form a gutter and a diverging portion, the latter designed to be attached to the window-sash and the former to enter the groove and to be retained therein by spring-tension. 3rd. The combination with a grooved window-sash, of a drip-trough, comprising a gutter and a diverging portion, the latter of which is designed to be attached to the face of the sash and the other to be maintained in engagement with the said groove in the sash by spring-tension, and means of relieving the drip-trough of the liquid collected thereby.

No. 58,806. Heating Furnace. (Fournaise.)

David W. Robb, Amherst, Nova Scotia, Canada, 24th January, 1898; 6 years. (Filed 8th January, 1898.)

Claim.—1st. A heating furnace composed of a series of upright tubular sections having the contour of a horse-shoe and having their flat sides joined to one another, the inner walls of the tubes projecting and rounding inwardly from the edges, the sides of the crown arch provided with segment-shaped circulating tubes and some of the sections modified to form the ends of the furnace firebridge and deflector and set upon a base part of which forms the ashpan and is provided with a grate, substantially as set forth. 2nd. In a heating furnace, the combination of a series of upright tubular sections hav-

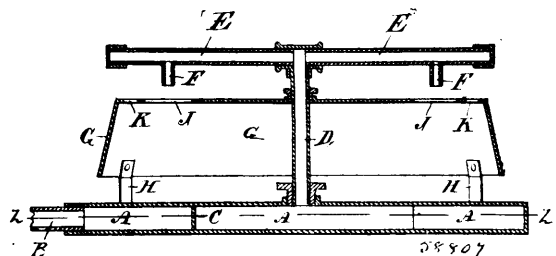
ing the contour of a horse-shoe the inner walls of the tubes projecting and rounding inwardly from the edges, the sides of the crown



arch provided with segment shaped circulating tubes, a special front section of the same general character but without circulating tubes and having boxed enclosing spaces fire door and boxed hearth plate extending across the front of the grate, a special fire bridge section having circulating tubes and boxed fire bridge, a special section at the rear of the fire-bridge section having the tubular boxing continued across the lower ends and having the circulating tubes replaced by a boxed deflector, a rear section having boxed rear enclosing spaces with smoke flue and soot holes and the tubular boxing continued across its lower ends, an ashpan forming part of the base and supporting the sections and a grate in said ashpan, substantially as set forth. 3rd. In a heating furnace, the combination of a series of upright tubular sections having the contour of a horse-shoe and the tube being D shaped in cross-sections with the flat face turned outwards and having the flat face continued to project beyond the tubular space to form rims one of which is rabbeted to form joints, and said sections provided with segmental circulating tubes in the crown and with nozzles at the lower ends and the top of the crown, a special section at the rear of the grate having the same general features but provided with boxed fire-bridge, a special section at the rear of said fire-bridge-section having its tubular construction continued across the lower end and having the circulating tubes replaced by a boxed deflecting plate, a special rear section having its tubular construction continued across the lower ends and having boxed enclosing spaces around the smoke flue and soot flue, a special front section with fire door and boxed enclosing spaces and hearth plate, headers secured to the nozzles at each side and at the crown, an ashbox with door forming a base and supporting said sections and a grate in said ashbox, substantially as set forth. 4th. In a section of a heating furnace, the combination of a tube resembling the shape of a horse-shoe in contour the inner wall of the tube resembling the elongated bottom of the letter U, in cross-section, a square edged rim at one edge of said wall projecting at a right angle to the plane of said section and a similar but rabbeted rim at the opposite edge, bolting lugs on said rims and a segmental circulating tube in each side of the crown, substantially as set forth. 5th. In a section of a heating furnace, the combination of a tube resembling the shape of a horse-shoe in contour and D shaped in cross section having its flat side outwards, a rim at each side of the tube projecting in line with the flat side, a rabbet in one of said rims, bolting lugs on said rims, segmental circulating tubes in the sides of the crown and nozzles at the lower ends and at the top of the crown for the attachment of headers, substantially as set forth.

No. 58,807. Stove-Heating Oil-Burner.

(Brûleur d'huile pour poêles.)



George McLaughlin, Ottawa, Ontario, Canada, 24th January, 1898; 6 years. (Filed 7th January, 1898.)

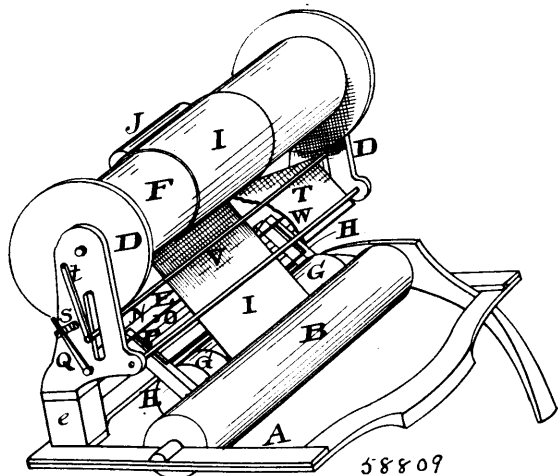
Claim.—1st. In combination with the gas-pipe E, having jets F, perforated hood G, and gas-generating chamber A, the U-shaped wall C, as set forth. 2nd. The U-shaped wall C, in the interior of the gas-generating chamber A, as set forth.

No. 58,808. Electric Battery. (Batterie électrique.)

Arthur R. Adams, London Bridge, Surrey, England, 24th January, 1898; 6 years. (Filed 11th March, 1897.)

Claim.—1st. In an exciting fluid for electric batteries made up with crude salts in place of finished products, the combination with a chromium salt in solution treated by sulphuric acid, of a solution of nitric acid or a nitrate and mercury or a salt of mercury, substantially as described. 2nd. An exciting fluid for electric batteries, composed of aqueous solutions of chromate of potash with sulphuric acid and of sodium nitrate, together with a solution of mercury in either nitric acid or sulphuric acid, substantially as and in about the proportions described. 3rd. An exciting fluid for electric batteries, composed of aqueous solutions of chromate of potash with sulphuric acid and of metallic zinc, with nitrate acid, together with mercury nitrate or metallic mercuries, substantially as and in about the proportions described. 4th. An exciting fluid for electric batteries, composed of an aqueous solution of sodium nitrate, together with an aqueous solution of chromate of mercury with sulphuric acid, substantially as and in about the proportions described. 5th. An exciting fluid for electric batteries, composed of aqueous solutions of perchloride of mercury, of potassium nitrate and of chromate of soda, the latter with sulphuric acid, substantially as and in about the proportions described.

No. 58,809. Feeding Attachment for Typewriting Machines. (Appareil alimentateur pour clavigraphes.)



George L. Bawdon, Cleveland, Ohio, U.S.A., 24th January, 1898; 6 years. (Filed 6th September, 1897.)

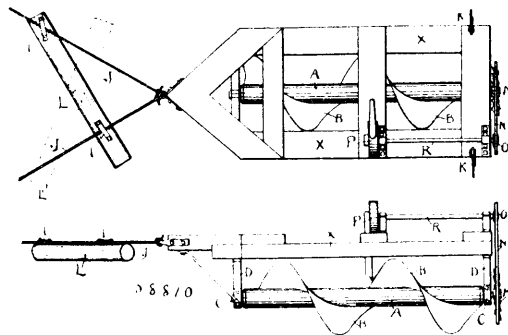
Claim.—1st. The combination of rollers F, G, ribbon I, having its ends attached, respectively, to said rollers, the roller G deriving motion from the platen roller F, the device adapted for delivering paper held within the coils of said ribbon to the platen roller, substantially as described. 2nd. The combination, with the frame H and roller G, of the rod N, having frame P bearing on said frame H, lever Q and latch-spring S, adapted for releasing the pressure of roller G against the platen roller B, substantially as and for the purpose set forth.

No. 58,810. Current Motor. (Moteur à courant.)

Christopher H. Olson, Tacoma, Washington, U.S.A., 24th January, 1898; 6 years. (Filed 9th September, 1897.)

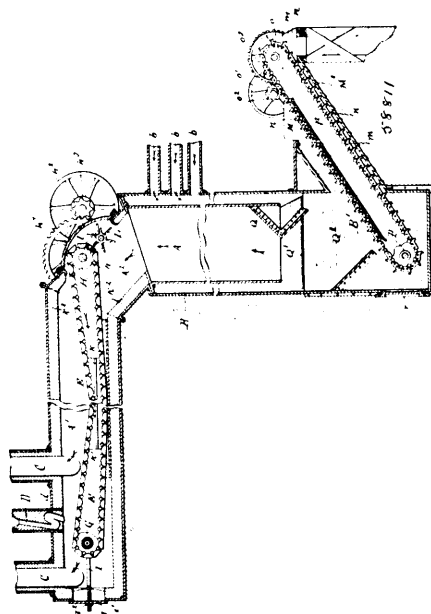
Claim.—1st. In a current motor, the combination with a shaft adapted to stand parallel with the current, of a blade or fin set spirally around the shaft, each point of the spiral formed by the outer edge of the blade being one space to the side of the point in same radial plane on the inner edge of the blade, substantially as and for the purpose described. 2nd. In a current motor, the combination with a shaft adapted to stand parallel with the current, of a blade or fin set spirally around the shaft, said blade being formed so that no points of its inner and outer edges that are in the same radial plane will be in a plane perpendicular with the axis of the shaft, substantially as and for the purpose described. 3rd. In a current motor, the combination with a floating structure under which is a shaft about which is fixed a spiral blade set at an angle to engage the water and secure the force of the current, of a sprocket wheel having flat spokes set to the same angle of inclination as the spiral blade for adding power to the motor shaft, as described and shown.

4th. In a current motor, the combination with a raft or floating structure, of front and side guys, a floating log anchored to the front



guy at an angle with the stream, suitable arms for suspending the motor shaft, and the motor shaft having a spiral blade securely fixed to its surface, said blade having its outer edge inclined against the current of the stream, all substantially as shown and described and for the purposes set forth. 5th. In a current motor, the combination of a multiple of shafts, said shafts each provided with one or more spiral blades fixed at an angle of the inclination that will engage the water and utilize the force of the current for power transmitting purposes as described and shown. 6th. In a current motor, the combination with an anchored frame, of a motor shaft whose ends are pivoted on suitable bearings, said motor shaft having one or more spiral blades, each spiral blade being so constructed that no points of the inner and outer edges of the blade and that are in the same radial plane, will be in a plane perpendicular with the axis of the shaft, substantially as shown and for the purposes specified. 7th. In a current motor, the combination with a tubular motor shaft, of turned end bearings fitted thereto by means of right and left screws as described, said shaft being provided with a spiral blade, which has its outer edge inclined forward against the current, said blade being constructed in sections as described, substantially as shown and described and for the purposes set forth.

No. 58,811. Hot Blast Apparatus. (Haut-fourneau.)

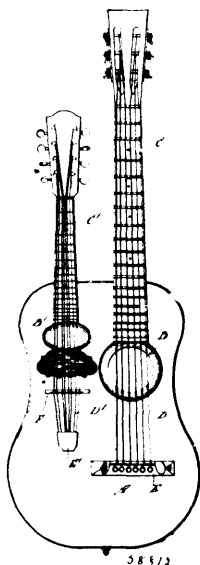


Oliver S. Garretson, Buffalo, New York, U.S.A., 24th January, 1898; 6 years. (Filed 26th August 1897.)

Claim.—1st. The combination with a blast conduit having an inlet for the cold air at one end and an outlet for the heated air at the opposite end, of an endless slag conveyer arranged lengthwise within the same, said conduit entirely closing said conveyer, a device for supplying the fluid slag to the conveyer arranged near the outlet of the blast conduit, and means whereby the congealed slag is discharged at the inlet of the blast conduit, substantially as set forth. 2nd. In a hot blast apparatus, the combination with a blast conduit having an inlet for the cold air and an outlet for the heated air, of a slag conveyer arranged within said conduit, and a trapped supply pipe whereby the molten slag is supplied to said conveyer,

substantially as set forth. 3rd. In a hot blast apparatus, the combination with a blast conduit having an inlet for the cold air and an outlet for the heated air, of a slag conveyer arranged within said conduit, and a trapped slag discharge connected with said conduit, substantially as set forth. 4th. In a hot blast apparatus, the combination with a blast conduit having an inlet for the cold air and an outlet for the heated air, of a slag conveyer arranged within said conduit, a trapped pipe whereby the molten slag is supplied to said conveyer and a trapped slag discharge connected with said conduit, substantially as set forth. 5th. In a hot blast apparatus, the combination with a blast conduit containing an ascending inlet portion and a horizontal main portion having an outlet for the heated air, of a slag conveyer arranged within said main portion and having its delivery end arranged over said inlet portion and its slag supply pipe arranged near said air outlet, substantially as set forth. 6th. The combination with a blast conduit having an ascending inlet portion and a horizontal main portion provided with an outlet for the heated air, and a slag conveyer arranged within said main portion and having its delivery end arranged over said inlet portion, of a descending air inlet pipe surrounding the ascending inlet portion and communicating with the lower end thereof, and a blast pipe delivering the blast to the upper portion of said descending inlet pipe, substantially as set forth. 6th. In a hot blast apparatus, the combination with a blast conduit provided with an inlet for the cold air and an outlet for the heated air, of a slag conveyer arranged within said conduit, a receiving chamber for the congealed slag arranged below the delivery end of said conveyer, an ascending discharge conduit connected with said chamber and forming a water trap therewith, and an elevator whereby the congealed slag is removed from said chamber, substantially as set forth. 8th. In a hot blast apparatus, the combination with a blast conduit composed of an ascending inlet portion and a horizontal main portion having an outlet for the heated air, of a slag conveyer arranged within said main portion with its delivery end over said inlet portion, a receiving chamber for the congealed slag arranged at the lower end of said inlet portion, an ascending discharge conduit connected with said chamber and forming a water trap therewith, and a slag elevator arranged in said chamber and discharge conduit, substantially as set forth. 9th. The combination with a blast conduit having an inlet for the cold air and an outlet for the heated air at opposite ends, of an endless slag conveyer arranged within said conduit and provided with buckets which receive the molten slag, and a rotating clearer arranged at the delivery end of the conveyer and facing the descending portion thereof, substantially as set forth.

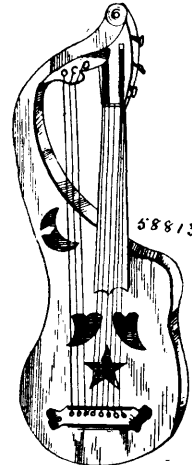
No. 58,812. Musical Instrument.
(*Instrument de musique.*)



Herman Carlson Levin, New York, State of New York, U.S.A., 24th January, 1898; 6 years. (Filed 12th May, 1897.)

Claim.—1st. The combination of the body, two necks of different length and two sets of strings, substantially as described. 2nd. The combination of the body having tail-pieces at each side of its longitudinal axis, said tail-pieces being out of alignment transversely of the body, necks extending from the body, and strings extending from the tail-pieces to necks, substantially as described. 3rd. The combination of the body having openings at each side of its longitudinal axis, said openings being out of alignment transversely of the instrument, necks secured to the body, and strings extending from the body, the necks over said tail-pieces, substantially as described.

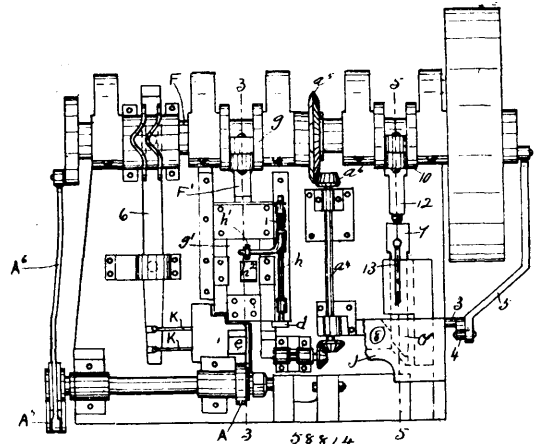
No. 58,813. Musical Instrument.
(*Instrument de musique.*)



Chris Knutsen, Port Townsend, Washington, U.S.A., 24th January, 1898; 6 years. (Filed 22nd July, 1897.)

Claim.—A guitar consisting of a hollow body having an outwardly, upwardly and inwardly curved hollow arm connected at its upper end to the fret-arm of the instrument, substantially as set forth.

No. 58,814. Spike Machine. (*Machine à chevilles*)



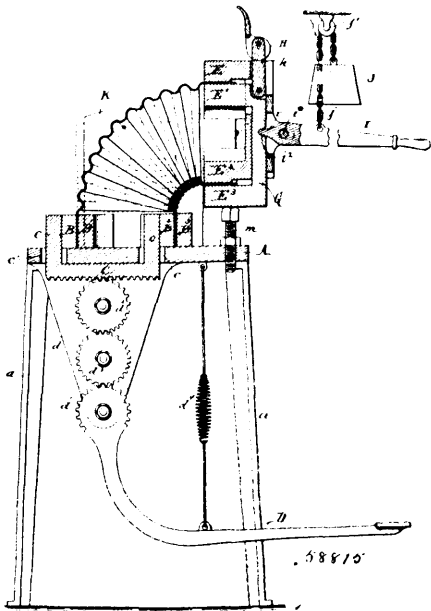
George Barr, Chicago, Illinois, U.S.A., 24th January, 1898; years. (Filed 9th November, 1897.)

Claim.—1st. In a spike machine, the combination with the intermittently revolving pointing dies, and revolving feed rollers, of the stationary female die having a suitable groove in its upper surface the end of which farthest from said feed rollers is countersunk, and having the upper surface on the side of said groove over which the spike is discharged inclined from the edge farthest from said feed rollers to the parallel edge nearest thereto, a reciprocal gripping die, a reciprocal heading die, and vertically reciprocal and horizontally and transversely reciprocal bars for ejecting the finished spike from the dies, as and for the purpose set forth. 2nd. In a spike machine, the combination with the intermittently revolving pointing dies and revolving feed rollers, of the stationary female die having a suitable groove in its upper surface, the end of which farthest from said feed rollers is countersunk and the upper surface of which on the side over which the spike is discharged being inclined from the parallel edge farthest from said feed rollers to the parallel edge nearest the same, and the outer side edge of said inclined surface rounded, a stop gauge, a vertically reciprocal gripping die, a longitudinally reciprocal heading die, a vertically reciprocal lifting bar for ejecting the spike from the groove of the female die, and horizontally and transversely reciprocal push bars one of which moves in a plane slightly lower than the other, as set forth. 3rd. A spike machine of the character described consisting of revolving pointing dies and revolving feed rollers, a stationary female die, a stop gauge and reciprocal die and operating mechanism as described, in combination with a stock gauge consisting of levers and push bars operated by cams, a lever to operate push bars, lever to stop the blank and a reciprocal heading die to form head of spike, the grip-

ping die operated by a crank, and a system of wedges, as herein set forth. 4th. A machine of the character described having a stock gauge consisting of levers pivoted to stand as set forth, said stock gauge to stop the blank at proper distance to form head and operated by second cam on main shaft by suitable mechanism and the gripping wedge system, as herein set forth.

No. 58,815. Pipe Elbow Bending Machine.

(Machine pour courber les coudes de tuyaux.)



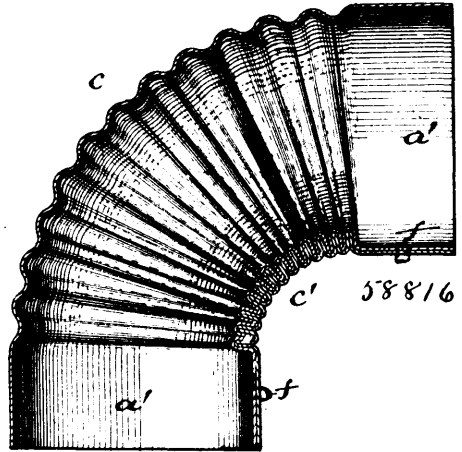
William Arthur Kemp, Toronto, Ontario, Canada, 24th January, 1898; 6 years. (Filed 24th September, 1897.)

Claim.—1st. A machine for bending a pipe into an elbow, provided with a stationary clamping device which is adapted to securely grasp one end of the pipe and a movable clamping device which is adapted to be securely attached to the opposite end of the pipe, and which is capable of swinging laterally with reference to the other clamping device, substantially as set forth. 2nd. In a machine for bending a pipe into an elbow, the combination with a stationary clamping device adapted to securely grasp one end of the pipe, and a movable clamping device adapted to grasp the opposite end of the pipe and to swing laterally with reference to the other clamping device, of retaining plates adapted to bear against the sides of the pipe and arranged parallel with the plane in which the movable clamping device swings, substantially as set forth. 3rd. In a machine for bending a pipe into an elbow, the combination with a laterally swinging clamp adapted to grasp the upper end of the pipe, of a stationary clamping device composed of two pairs of jaws adapted to engage with opposite sides of the lower end of the pipe, each pair consisting of a movable jaw and a fixed jaw, substantially as set forth. 4th. In a machine for bending a pipe into an elbow, the combination with a laterally swinging clamping device adapted to grasp the upper end of the pipe, of a stationary clamping device composed of two pairs of jaws adapted to engage against opposite sides of the lower end of the pipe, each pair consisting of a fixed and a movable jaw, a gear rack connecting the movable jaws, and a gear wheel meshing with the gear rack, substantially as set forth. 5th. In a machine for bending a pipe into an elbow, the combination with a stationary clamping device adapted to grasp one end of the pipe, of a laterally swinging clamping device consisting of two pairs of jaws adapted to grasp opposite sides of the opposite end of the pipe, substantially as set forth. 6th. In a machine for bending a pipe into an elbow, the combination with a stationary clamping device adapted to grasp one end of the pipe, of a laterally swinging clamping device, consisting of two pairs of jaws adapted to grasp opposite sides of the opposite end pipe, and bars connecting the inner jaw of each pair with the outer jaw of the other pair, substantially as set forth. 7th. In a machine for bending a pipe into an elbow, the combination with a stationary clamping device adapted to grasp one end of the pipe, of a laterally swinging clamp, consisting of two pairs of jaws adapted to grasp opposite sides of the opposite end of the pipe, bars connecting the inner jaw of each pair with the outer jaw of the other pair, and a tightening cam bearing against one bar and connected with the other bar, substantially as set forth. 8th. In a machine for bending a pipe into an elbow, the combination with a stationary clamping device adapted to grasp one end of the pipe, of a laterally swinging clamping device, consisting of two pairs of jaws adapted to grasp opposite sides of the opposite end of the pipe, bars connecting the inner jaw of each pair with the outer jaw of the other pair, and a lever pivoted on one of said bars and

provided with a tooth engaging with a notch in the other bar, substantially as set forth. 9th. In a machine for bending a pipe into an elbow, the combination with a stationary clamping device adapted to grasp one end of the pipe, and a laterally swinging clamping device adapted to grasp the opposite end of the pipe, of a stop which limits the lateral movement of the swinging clamping device, substantially as set forth. 10th. In a machine for bending a pipe into an elbow, the combination with a stationary clamping device adapted to grasp one end of the pipe, and a laterally swinging clamping device adapted to grasp the opposite end of the pipe, of a fixed retaining plate and a laterally movable retaining plate adapted to bear against opposite sides of the pipe, substantially as set forth.

No. 58,816. Pipe Elbows and Method of Making Same.

(Coule de tuyaux et méthode de fabrication.)

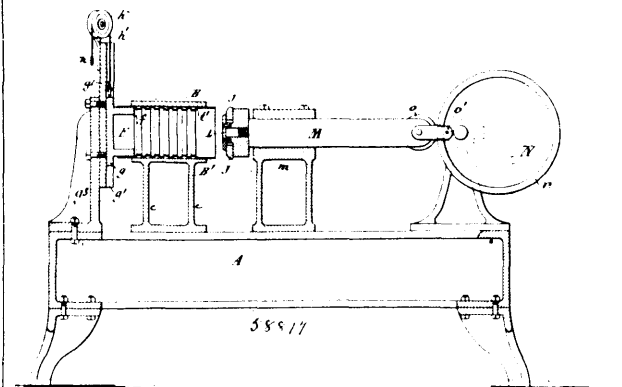


William Arthur Kemp, Toronto, Ontario, Canada, 24th January, 1898; 6 years. (Filed 24th September, 1897.)

Claim.—1st. A pipe elbow formed of a sheet of metal which is corrugated transversely and bent into tubular form, so that the corrugations extend circumferentially around the pipe, compressed lengthwise in its corrugated portion and finally bent into elbow form with the compressed corrugations spread or distended on the outer side of the elbow, substantially as set forth. 2nd. A sheet metal elbow having corrugations which are compressed on the inner or throat side of the elbow and distended or spread on the outer side thereof and which has the longitudinal edge portions of the sheet lapped on the inner or throat side of the elbow and clamped together by the compressed corrugations, substantially as set forth. 3rd. The herein described method of making a pipe elbow consisting of corrugating a sheet of metal transversely, bending the corrugated sheet into a pipe so that the corrugations extend circumferentially around the pipe, compressing the corrugations, and finally bending the pipe into an elbow, substantially as set forth.

No. 58,817. Corrugated Pipe Compressing Machine.

(Machine à presser les coudes de tuyaux ridés.)



William Arthur Kemp, Toronto, Ontario, Canada, 24th January, 1898; 6 years. (Filed 24th September, 1897.)

Claim.—1st. A machine for compressing the circumferential corrugations of sheet metal pipes provided with two compressing jaws which enter opposite ends of the pipe and bear against the outermost corrugations thereof and compress the corrugated portions of

the pipe between them, substantially as set forth. 2nd. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination of a stationary abutment which enters one end of the pipe and bears against the adjacent corrugation, and a movable plunger which enters the opposite end of the pipe and bears against the adjacent corrugation, substantially as set forth. 3rd. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination with an abutment and a plunger adapted to engage with opposite ends of the corrugated portion of the pipe and holding jaws which enclose the corrugated portion of the pipe, substantially as set forth. 4th. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination with an abutment and a plunger adapted to engage with opposite ends of the corrugated portion of the pipe, of pivoted holding jaws which enclose the corrugated portion of the pipe and a hand lever pivoted to one jaw and provided with a roller which engages with the other jaw, substantially as set forth. 5th. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination with jaws for holding the central portion of the pipe, a plunger engaging with one end of the pipe, and a vertically movable abutment engaging with the other end of the pipe, substantially as set forth. 6th. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination with jaws for holding the central portion of the pipe, of a plunger engaging with one end of the pipe, an abutment engaging with the other end of the pipe, a vertically movable slide supporting the abutment, and a lifting cord passing around a roller and connected with its opposite end to a treadle, substantially as set forth. 7th. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination with a pipe holding device, of a plunger adapted to engage with the end portion of the pipe, and guides arranged on the plunger and adapted to direct the pipe over the plunger, substantially as set forth. 8th. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination with a pipe holding device, of a cylindrical plunger adapted to enter the end portion of the pipe, and laterally movable guides arranged on the plunger and provided on the outer edge of their front sides with inclined faces, substantially as set forth. 9th. In a machine for compressing the circumferential corrugations of sheet metal pipes, the combination with a pipe holding device, of a cylindrical plunger adapted to enter the end portion of the pipe, of segmental guide blocks capable of moving radially on the front side of the plunger and provided on the front sides of their outer ends with inclined faces, springs interposed between the plunger and the guide blocks, pins arranged on the plunger and engaging with slots in the guide blocks, and a retaining disc secured to the plunger and bearing against the front sides of the guide blocks, substantially as set forth.

No. 58,818. Manufacture of Explosive Compounds.

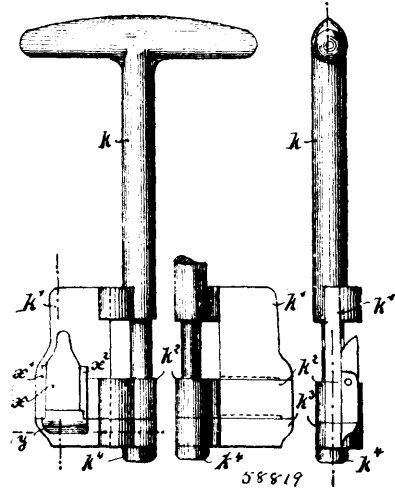
(Fabrication d'explosif.)

Arthur von Stubenrauch, Rastall (Baden), Germany, 24th January, 1898; 6 years. (Filed 15th July, 1897.)

Claim.—1st. In and for the manufacture of explosive compounds, the preparation of dry pulverulent carbonaceous material by treating coke, charcoal or the like, with liquid desulphurated tar, paraffine or other bituminous matter neutralized with carbonate of lime, carbonate of magnesia, or other suitable neutralizing salt, and then drying and pulverizing, substantially as described. 2nd. In the manufacture of explosive compounds, the use in combination with chlorate or perchlorate of potassium, of dry pulverulent carbonaceous material formed by treating coke, charcoal or the like, with liquid desulphurated tar, paraffine or other bituminous matter neutralized with carbonate of lime, carbonate of magnesia, or other suitable neutralizing salt, and then drying and pulverizing, the ingredients being in the proportions substantially as described. 3rd. In the manufacture of explosive compounds, the use in combination with chlorate or perchlorate of potassium, of dry pulverulent carbonaceous material, said carbonaceous material containing a large amount of bituminous constituents, such as the retort residues from the distillation of petroleum oils or shale or bituminous minerals free from sulphur, sulphide of antimony, phosphorus, oxide of iron or manganese, and neutralized with carbonate of lime, carbonate of magnesia or other suitable neutralizing salt, the ingredients being in the proportions substantially as described. 4th. In and for the manufacture of explosive compounds, in which chlorate or perchlorate of potassium and carbonaceous material are employed, treating the chlorate or perchlorate of potassium in a state of fine powder with a dilute alcoholic or other solution of shellac or of other resin, or with desulphurated and neutralized tar, and then drying the same, substantially as and for the purpose specified. 5th. An explosive compound, consisting of the combination with chlorate or perchlorate of potassium, of dry pulverulent carbonaceous material, said carbonaceous material containing a large amount of bituminous constituents, such as the retort residues from the dis-

stillation of petroleum oils or shale or bituminous minerals free from sulphur, sulphide of antimony, phosphorus, oxide of iron or manganese, and neutralized with carbonate of lime, carbonate of magnesia, or other suitable neutralizing salt, the ingredients being in the proportions substantially as described.

No. 58,819. Cylinder Lock. (Serrure.)

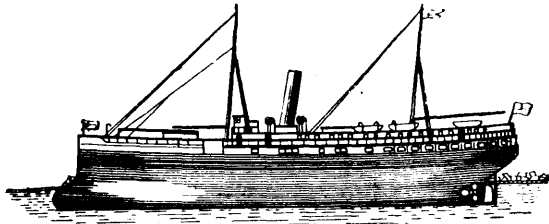


Emerich von Marsovszky, Arena st., 58, Budapest, Hungary, 24th January, 1898; 6 years. (Filed 6th December, 1897.)

Claim.—1st. In a lock the combination of a key, having separable bit consisting of a series of sections, means for locking said sections together, a series of superposed cylinders in said lock and means in connection with the same for disengaging the bit sections when the lock is opened and re-locked, the same when the lock is closed, door fastening means, being attached to one of said lock-cylinders, substantially as described. 2nd. In a lock the combination of a cylindrical housing, having a base-plate and having therein a series of superposed cylinders and a bolt fast on one of said cylinders, a key, having a composite bit, one section of which is fast, the key shaft and bit sections pivotally mounted on said key shaft, means concealed within said bit for locking the sections together and means in connection with lock cylinders for unlocking said bit-sections and for releasing the bolt-cylinder after said sections have been disengaged and for relocking said sections before the key has left the lock, substantially as described. 3rd. In a lock, the combination of a cylindrical housing, having a base-plate, a bolt cylinder mounted on said base-plate, and superposed bit-operating cylinders, revolvable mounted in said casing, a key, having separable bit, comprising a fixed section fast on the key shaft and other sections pivotally attached thereto, and longitudinally moveable thereon, means for locking said section together and means in connection with the lock cylinder for unlocking said sections and for moving the same, with the exception of the fixed section, longitudinally on the shaft when the key forced into the lock and turned therein, and means in connection with the base-plate of the lock housing for releasing the bolt cylinder when the key has been turned home, and means for relocking the bit sections together when the key has been withdrawn from the lock, substantially as described. 4th. The combination of a locking, having cylindrical housing and the base-plate fixed therein, a bolt cylinder and superposed lock cylinders, revolvably mounted on said base-plate and means for locking said bolt cylinder to said base-plate, a key having separable bit, one section of which is fast on said key shaft and two sections of which are revolvably mounted thereon, a latch pivotally mounted to the middle bit section, and having formed at its end a series of fingers, a housing on the lower section to conceal said fingers and means for locking said three sections together, a series of sliding tumblers mounted in the lower locking cylinder and means in connection with the upper locking cylinder, for tripping said latch, means in connection with the bolt cylinder for disengaging the lower bit-section and operating the fingers of the same against said tumblers to permit movement of said upper cylinder on said lower cylinder, an orifice in said lower cylinder for the passage therethrough of the fixed key-bit, means for locking the fixed section of the bit and the revolvable section thereunder, a series of bolts mounted in the base-plate and springs to press same upwardly a series of sliding bolts, to operate said detent bolts and a series of depressions in the underside of the fixed section, to engage said sliding bolts and depress same, when the key has been forced into the lock and the bit sections of the same have been detached, and means for re-locking the bit sections, when the key is withdrawn from the lock, substantially as described. 5th. The

combination of a cylindrical lock-casing having a base-plate and a bolt cylinder and superposed lock-cylinders mounted therein a series of bolts, spring-mounted in said base-plate, to engage said bolt cylinder, a key having a separable bit comprising three sections, one of which is fixed to the key shaft and two of which are revoluble and longitudinally moveable thereon, means in connection with said fixed bit, to depress the detent-bolts of the base-plate a series of sliding bolts, mounted in the lower section of said bit, a series of spring-pressed bolts mounted in the intermediate section, and a spring-pressed bolt, to connect said upper and intermediate section, when the three sections are interlocked, a series of sliding tumblers mounted in the intermediate lock cylinder and adapted to couple same to the upper lock-cylinder, a latch pivoted to the intermediate key section and having fingers to operate said tumblers, means in connection with the upper lock-cylinder to trip said latch, means in connection with the bolt cylinder to unlock the lower bit-section, and means in connection therewith to release the lock bolt between the upper and intermediate bit-section after said latch has been tripped, and means for re-locking the key before the same is withdrawn from the lock, substantially as described. 6th. The combination of a lock, having a bolt-cylinder and superposed lock-cylinders and a key, having separable bit as specified, and means in connection with said lock and key-bit for unlocking said bit-section and releasing the bolt cylinder as described, a key-hole cover, mounted on said lock and means for sealing said cover so that said seal can only be broken by inserting the key into the lock and turning the uppermost lock cylinder, substantially as described. 7th. The combination of a lock, having a bolt cylinder and superposed lock cylinder and a key, having separable bit as specified and means in connection with said lock and key-bit for unlocking said bit-section and releasing the bolt cylinder as described a key hole cover mounted on said lock, a hook formed on said lock, casing at one side of said key hole and adapted to receive a strip of flexible material, an orifice through said housing, at the opposite side the key hole a pin adapted to be inserted through said flexible strip into said orifice, and having lateral recess in its shaft a spring bolt, mounted in the upper lock cylinder and adapted to engage said recess and means for disengaging said spring bolt, when said upper lock-cylinder is turned, substantially as described.

No. 58,820. Ice Breaking Steam Vessel.
(*Vaisseau à briser la glace.*)

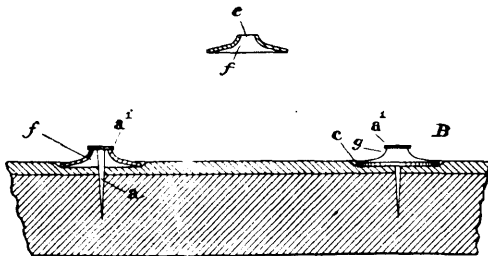


58820

Byron Bonaparte Inman, Duluth, Minnesota, U.S.A., 24th January, 1898; 6 years. (Filed 16th November, 1897.)

Claim.—1st. An ice-breaking boat, the prow of which is projected or enlarged forward and on both sides below the water-line so that it approximates an oval form in front elevation, whereby with the progress of the vessel the ice is forced upward from beneath and turned over upon the solid ice, out of the channel. 2nd. A propeller vessel made with a ram-nose projected under water and swelling rounded or bulb-like in front, while sharper and smaller back of such bulb with plough-mouldboard-like curves to shoulders B, wider than the vessel amidships, adapted to lift and break the ice from below and to turn the sheets over to the sides out of the way, substantially as set forth.

No. 58,821. Combined Carpet-Tack and Disc.
(*Machine à chasser la broquette.*)

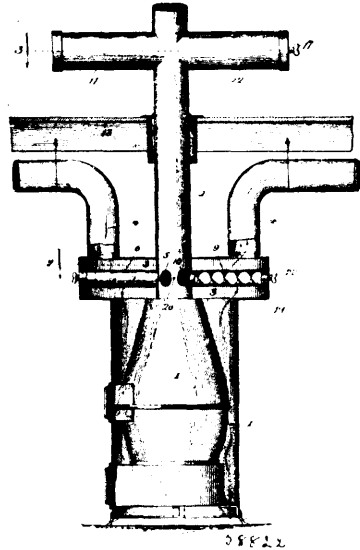


58821

Christian Gottlob Triesler, Robert Charles Burns and Charles Sylvester Burns, all of Baltimore, Maryland, U.S.A., 25th January, 1898; 6 years. (Filed 11th January, 1898.)

Claim.—1st. The herein-described carpet-holder and tack-releaser, consisting of a disc having a rim-edge to bear on the carpet, a raised central tack-head seat, and a tack-hole through said raised centre. 2nd. A disc having a surface to bear on the carpet, a raised centre on its upper side, a hole through said raised centre, and a cavity on its lower side, in combination with a tack passed down through said hole with its head seated on said raised centre and the edge of the head projecting laterally therefrom.

No. 58,822. Heating Device. (*Appareil de chauffage.*)



58822

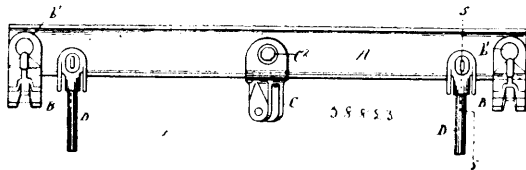
Albert Elmendorf, Everett H. Rexford and Joseph L. Dodd, all of Chicago, Illinois, U.S.A., 25th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. In a heating device, the combination of a smoke pipe or the like, a branch pipe communicating therewith but closed at its outer end, and means for spirally conducting the heated gases and the like to the outer end of the branch pipe and thence back again in a spiral path. 2nd. In a heating device, the combination of a smoke pipe or the like, a branch pipe communicating therewith at one end but closed at the other end, and a spiral form or partition within such branch pipe whereby heated gases, etc., from the smoke pipe pass along one side of the spiral partition to the end of the branch pipe and thence along the reverse side back to the smoke pipe. 3rd. In a heating device, the combination of a chamber or drum communicating at one end with a source of heat and closed at its other end, and a rotatable spiral diaphragm within such chamber or drum, whereby heated gases, etc., from the source of heat will pass along one side of the spiral diaphragm and will then pass in a reverse direction along the reverse side of such diaphragm. 4th. In a heating device, the combination of a smoke pipe or the like, a branch pipe communicating therewith at one end and closed at its other end, and a spiral form of partition within such branch pipe and extending toward the closed end thereof, but leaving a space or chamber thereat whereby heated gases, etc., from the smoke-pipe will pass along one side of the partition into the end chamber of the branch pipe and thence backward along the reverse side to the smoke-pipe, such partition being both rotatable and removable. 5th. In a heating device, the combination, with a smoke-pipe or the like, of a cylindrical chamber communicating with said pipe at one end but closed at the other end, and a spiral diaphragm arranged therein and extending nearly to the end, but leaving a small space or chamber whereby a spiral path is provided to the end chamber and back again. 6th. In a heating device, the combination, with a smoke-pipe or the like, of a cylinder communicating with said pipe but closed at one end, and a removable spiral diaphragm arranged therein, said cylinder having an end removable with the diaphragm. 7th. In a heating device, the combination, with a smoke-pipe or the like, of a cylinder forming a branch of such pipe but closed at its outer end, and a spiral diaphragm of the same size as the cylinder, and forming a spiral path to the outer end of the cylinder and back again. 8th. In a heating device, the combination, with a smoke-pipe or the like of a cylinder forming a branch of such pipe, a spiral diaphragm therein of the same size as the cylinder and forming a chamber at the closed end thereof, and means for closing the direct passage through the smoke-pipe and deflecting it into the cylinder. 9th. In a heating device, the combination of a heat flue or pipe, a branch pipe therefrom closed at its outer end, and a removable spiral diaphragm in the branch pipe and extending across the heat flue, the diaphragm in one position permitting a direct draught but in another position

causing an indirect draught through the branch pipe. 10th. In a heating device, the combination, with a smoke flue or the like, of a branch pipe leading therefrom and closed at its outer end, a spiral diaphragm in such branch pipe and a damper in the flue for interrupting the direct draught and deflecting the heat, smoke, etc., through the branch pipe. 11th. In a heating device, the combination, with a smoke flue or the like, of a plurality of branch pipes extending therefrom, a spiral diaphragm in each branch pipe and a damper in the flue, the damper in one position permitting a direct draught and in another position deflecting the heat, smoke, etc., into the several branch pipes and causing the same to travel to the farther end of the branch pipes and thence back to the flue and above the damper. 12th. In a heating device, the combination with a smoke flue or the like, of a plurality of branch pipes or heating drums communicating with such flue at their inner ends, removable caps at their outer ends, a removable, rotatable spiral diaphragm in each of said branch pipes, and a damper in the smoke flue for closing the direct draft and causing an indirect draft through the branch pipes or heating drums. 13th. In a heating device, the combination with a smoke flue or the like, of a plurality of branch pipes or heating drums communicating with such flue at their inner ends, a casing surrounding such pipes to form a hot air chamber, the outer closed ends of the pipes extending through the casing, a rotatable spiral diaphragm in each of said branch pipes, but not extending to the outer end of the pipes, but having a chamber or space thereat, a handle extraneous of the closed end of each pipe and casing and connected to each diaphragm for rotating it, and a damper in the smoke flue closing the direct draft and causing an indirect draft through the branch pipes. 14th. In a heating device, the combination with a smoke flue or the like, of a plurality of branch pipes extending therefrom, a spiral diaphragm in each branch pipe, a damper in the flue for closing the direct draught and causing an indirect draught through the branch pipes, two oppositely extending branch pipes or radiating drums connected with the flue above the damper and closed at their outer ends, and a rotatable spiral diaphragm extending through both radiating drums and across the flue passage, the last named diaphragm in one position closing such direct draught and causing a draught only through the radiating drums. 15th. In a heating device, the combination with a smoke flue or the like, a plurality of radially extending branch pipes leading therefrom but closed at their outer ends, a removable spiral diaphragm located in each branch pipe but leaving a small space or chamber at the outer end of each branch pipe, and a damper in the flue for deflecting the heat, smoke, etc., into the branch pipes and causing it to circulate spirally to the end chamber and thence back to the flue above the damper, the outer ends of each branch pipe being removable with the diaphragm.

No. 58,823. Brake-Beam for Railway Cars.

(*Sommier de frein.*)



The Monarch Brake-Beam Co., assignee of Thomas H. Simpson and Philip T. Handiges, all of Detroit, Michigan, U.S.A., 25th January, 1898; 6 years. (Filed 10th January, 1898.)

Claim.—1st. The combination with a brake-beam body, of a brake-head, said head formed with marginal strengthening ribs, substantially as set forth. 2nd. The combination with a brake-beam body, of fulcrum jaws formed of a single integral piece, and having an open T-shaped slot to engage said body, substantially as set forth. 3rd. The combination with a brake-beam body, of fulcrum jaws formed in a single integral piece with an open slot or recess to engage said body, said jaws formed with strengthening braces on their outer surfaces, said braces corod out on their inner surfaces, substantially as set forth. 4th. The combination with a brake-beam body, of a guide pin, and a clip to engage the pin with the body, the inner end of said pin formed with a slot or recess to engage the marginal edge of said body, substantially as set forth. 5th. A brake-head formed with marginal strengthening ribs, and with an orifice extending longitudinally of the brake-head, for the purpose set forth.

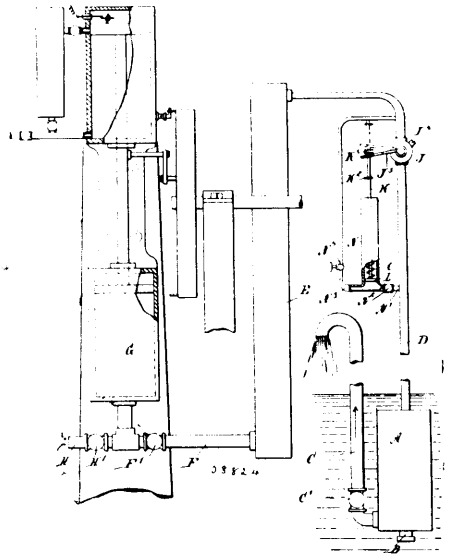
No. 58,824. Apparatus for Raising Liquids.

(*Appareil pour soulever les liquides.*)

Ralph W. Elliott and James D. Darby, both of Brentwood, California, U.S.A., 25th January, 1898; 6 years. (Filed 10th January, 1898.)

Claim. 1st. An apparatus for raising liquids, comprising a vessel submerged in the liquid to be raised, and having a suction valve and a valved discharge pipe, an air pipe connecting the said vessel with a compressed air supply, a valve in the said air pipe, a device controlled by the pressure of air in the said pipe and controlling the

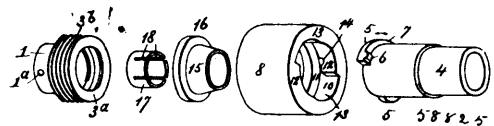
said valve in the air pipe, the said device comprising a cylinder connected with the air pipe above and below the said valve, a



spring-pressed piston on the said cylinder, and a piston rod having collars adapted to alternately engage an arm on the said valve, substantially as shown and described. 2nd. An apparatus for raising liquids, provided with a valve in the compressed air supply pipe, a device for automatically controlling the said valve and comprising a cylinder having valved connections with the said pipe above and below the said valve, a piston in the said cylinder, collars held on the piston rod of the said piston, and an arm adapted to be engaged alternately by the said collars, to turn the said valve and open and close the pipe, and to connect the lower end thereof with the outer air, substantially as shown and described.

No. 58,825. Springless Hose and Nozzle Coupler.

(*Joint de lance et boyaux.*)



Gustaf Alfred Anderson, John Adrian Davenport, jr., both of Ottawa, Ontario, Canada, Robert Yarnell Flinn and Anton Bernhard Olsen, both of Walla Walla, Washington, U.S.A., 25th January, 1898; 6 years. (Filed 2nd August, 1897.)

Claim. 1st. A hose coupling, comprising a coupling-nut having its passage screw-threaded at one end, an annular flange projecting inwardly, and shoulders projecting inwardly also from the opposite end of the coupling-nut, and having their inner faces inclined or cam-shaped and provided with cavities, of length to form diametrically opposite recesses or cavities, and of width to leave a space between them and the adjacent side of the annular flange, in combination with a pipe-section having a flared end fitting between said segmental shoulders, and having cam-faced lugs interposed between the same and the annular flange of the coupling-nut, and provided with teeth or offsets projecting from their cam-faces and engaging the cavities of said shoulders, a second pipe-section, enlarged at one end and externally screw-threaded to engage the threads of the coupling-nut, and provided also at said end with an inwardly projecting flange, a packing-ring of elastic material and of frustum-shape in cross-section fitting snugly within the annular flange of the coupling-nut, and bearing at one end with a yielding pressure against the first-named coupling-section and into the flared end of the same, and at its opposite end against the last-named coupling-section, and a slotted metallic bushing of spring-metal fitting within the packing-ring and the first-named coupling-section, all arranged substantially as and for the purpose set forth. 2nd. A hose-coupling, comprising a coupling-nut having an inwardly projecting annular flange, internal screw-threads at one side of said flange, shoulders projecting inwardly at the opposite side of said flange, in combination with a section having a screw-threaded portion engaging said internal threads, a second section rotatably fitting between the inwardly projecting shoulders at the opposite end of the coupling-nut and provided with external lugs or ears fitting between said shoulders and the inwardly projecting annular flange, and a ring

fitting within said annular flange and the adjacent end of said section provided with the said ears or lugs, so as to break the joint between said section and the coupling-nut, and provided with an external annular flange interposed between the annular flange of the coupling-nut and the adjacent end of the screw-threaded coupling-section, substantially as set forth. 3rd. A hose-coupling, comprising a coupling-nut 8 having its passage screw-threaded at one end, an annular flange 11 projecting inwardly from said coupling-nut about midway its length, shoulders 12 projecting inwardly from said coupling-nut at the opposite end from that occupied by the internal threads, and of length to form diametrically opposing recesses or cavities 13, and of width to leave a space between them and the adjacent side of the annular flange 11, and a stop-lug 8^a interrupting or occupying the space between said annular flange 11 and one of said shoulders 12, in combination with a pipe-section 4 fitting rotatably between said segmental shoulders 12, and having lugs or ears 5 engaging the space between said shoulders 12 and the annular flange 11 of the coupling-nut, one of which lugs or ears engages the stop-lug, a second pipe-section 1, having external screw-threads engaging the internal threads of the coupling-nut, a ring or band 15 of flexible material fitting snugly within the annular flange 11 of the coupling-nut and projecting into the adjacent end of the first-mentioned pipe-section, and provided with an external annular flange 16 which is tightly clamped between the annular flange 11 of the coupling-nut and the adjacent end of the screw-threaded pipe-section, substantially as set forth. 4th. A hose-coupling, comprising a coupling-nut 8 having its passage screw-threaded at one end, an annular flange 11 projecting inwardly from said coupling-nut about midway its length, shoulders 12 projecting inwardly from said coupling-nut at the opposite end from that occupied by the internal threads, and of length to form diametrically opposing recesses or cavities 13, and of width to leave a space between them and the adjacent side of the annular flange 11, and a stop-lug 8^a interrupting or occupying the space between said annular flange 11 and one of said shoulders 12, in combination with a pipe-section 4 fitting rotatably between said segmental shoulders 12, and having lugs or ears 5 engaging the space between said shoulders 12 and the annular flange 11 of the coupling-nut, one of which lugs or ears engages the stop-lug 8^a, a second pipe-section 1, having external screw-threads engaging the internal threads of the coupling-nut, a ring or band 15 of flexible material fitting snugly within the annular flange 11 of the coupling-nut and projecting into the adjacent end of the first-mentioned pipe-section, and provided with an external annular flange 16 which is clamped between said annular flange 11 of the coupling-nut and the adjacent end of the screw-threaded pipe-section, and a spring-actuated dog or pawl 19 having an arm or tooth projecting through an opening in the coupling-nut adjacent to and in the path of the lug or ear 5 engaging said stop-lug, so as to prevent, in conjunction with said stop-lug, the rotatable movement of the coupling-nut and said pipe-section provided with said lug or ear, substantially as set forth. 5th. A hose-coupling, comprising a coupling-nut 8 having its passage screw-threaded at one end, an annular flange 11 projecting inwardly from said coupling-nut about midway its length, shoulders 12 projecting inwardly from said coupling-nut at the opposite end from that occupied by the internal threads, and of length to form diametrically opposing recesses or cavities 13, and of width to leave a space between them and the adjacent side of the annular flange 11, and a stop-lug 8^a interrupting or occupying the space between said annular flange 11 and one of the said shoulders 12, in combination with a pipe-section 4 fitting rotatably between said segmental shoulders 12 and having lugs or ears 5 engaging the space between said shoulders and the annular flange 11 of the coupling-nut, one of which lugs or ears engages the stop-lug 8^a, a second pipe-section 1, having external screw-threads engaging the internal threads of the coupling-nut, a ring or band 15 of flexible material fitting snugly within the annular flange 11 of the coupling-nut and projecting into the adjacent end of the first-mentioned pipe-section 4, and provided with an external annular flange which is clamped between the annular flange 11 of the coupling-nut and the adjacent end of the screw-threaded pipe-section 1, and a spring-actuated dog or pawl 19 having an arm or tooth projecting through an opening in the coupling-nut adjacent to and in the path of the lug or ear 12 engaging said stop-lug 8^a so as to prevent, in conjunction with said stop-lug, the rotatable movement of the coupling-nut and the pipe-section provided with said lugs or ears, and a packing-ring 10 of flexible material interposed between the annular flange 11 of the coupling-nut and the opposing end of the pipe-section provided with said lugs or ears, substantially as described.

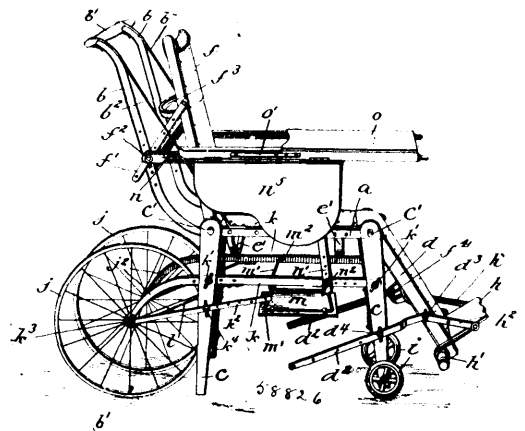
No. 58,826. Invalid Chair.

(Chaise d'invalid.)

Jesse Armour Crandall, Frank Eddy Caldwell and Calvin Edwards Hull, all of Brooklyn, New York, U.S.A., 25th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. In an invalid chair, the combination of a seat-frame and supporting-legs, a back-rest and handles, removable wheels attached to the front legs, a pair of arms projecting rearward from the rear legs, and a pair of removable wheels removably supported on said arms, as and for the purposes set forth. 2nd. In an invalid chair, the combination of a seat-frame and supporting-legs, a leg-rest, a back-rest, operating handles, wheels carried by the front legs

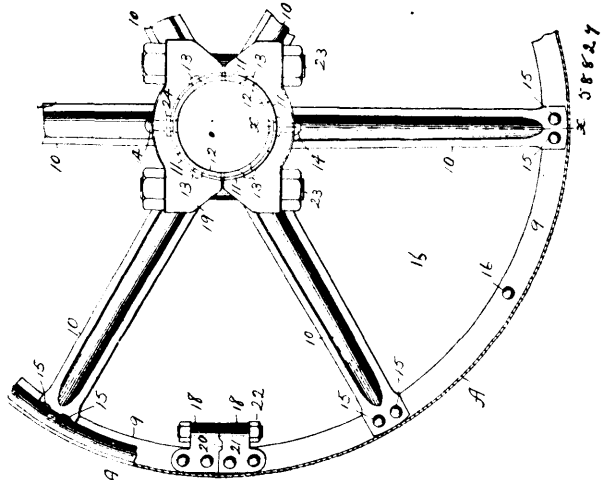
and removable therefrom, and bars connecting the legs on each side and extending rearward and downward, and a pair of removable



wheels supported on the ends of the extensions, substantially as described. 3rd. In an invalid chair, the combination of a seat-frame and legs pivoted thereto, a leg-rest swung from the seat-frame and adapted to be raised to a position approximately level therewith, a pair of handles attached to the frame, and a back-frame swung from the seat-frame and adjustably connected to the handles, and a fabric stretched over the back frame, seat-frame and leg-rest, substantially as described. 4th. In a convertible invalid chair, the combination of a seat-frame, legs secured thereto, a leg-rest swung from the front edge of the seat-frame and carrying an adjustable foot-rest at its free end, adjustable bars h^2 and d^2 connecting the foot-rest to the leg-rest and the leg-rest to the supporting-legs, a back-rest pivoted to the rear end of the seat-frame, a pair of handles projecting upward from the rear end of the seat-frame, between which the back-rest may be adjusted, adjustable arms f^1 connecting the back-rest adjustably to the handles, substantially as and for the purposes set forth. 5th. In a convertible invalid chair, the combination of a seat-frame and supporting-legs, an adjustable leg rest, a pair of handle-bars projecting up rearward from the seat-frame, a swinging back-rest carried by the seat-frame and adapted to swing back between said handles, adjustable devices connecting the back-rest to the handles, and removable arm-pieces carried by said seat-frame, substantially as described. 6th. The combination of a seat-frame and legs pivoted thereto, and an adjustable back-rest, an adjustable leg-rest, rods d^2 connecting the leg-rest to the front legs and projecting rearward therefrom, said rods being connected detachably and adjustably to the legs, side-bars k connecting the legs on each side and extending rearward and downward, said slide bars and rods d^2 serving as supporting legs when the chair is converted into a low-down cot, substantially as described.

No. 58,827. Sheet Metal Pulley.

(Poulie en feuille de métal.)

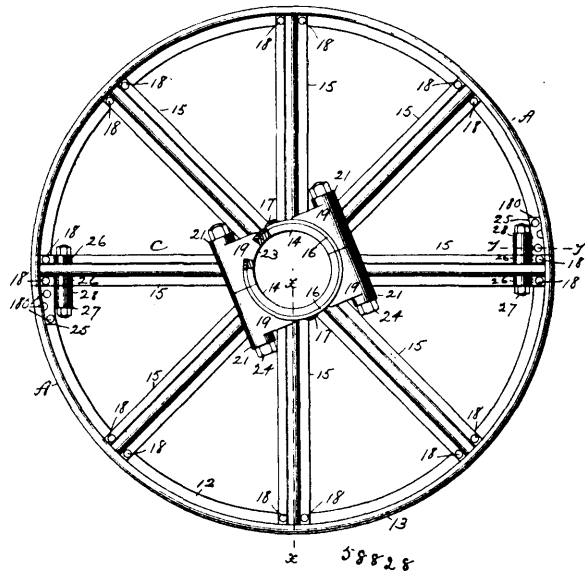


The American Pulley Company, Philadelphia, Pennsylvania, U.S.A. 25th January, 1898; 6 years. (Filed 7th January, 1898.)

Claim.—1st. A pulley, having a divided hub, a sheet-metal rim having the rolled-over edges and the inwardly-turned flanges, sepa-

rate spoke arms projecting from said hub and having their outer ends mechanically secured to said flanges, dowel-pins in said rolled-over edges, rim-built lugs secured to and projecting inside of said inwardly-turned flanges, and opposing tongues and recesses in the abutting edges of said rim-bolt lugs, substantially as described and for the purpose specified. 2nd. A pulley, having a divided hub, spoke-arms and rim, and also having rim-bolt lugs extending radially inward from the said rim with registering tongues and recesses in the meeting radial edges of said rim-bolt lugs, substantially as described and for the purpose specified. 3rd. A transversely-divided or two-part pulley, having permanently secured hub-shells, the hub-clamps formed of sheet-metal doubled upon itself by two bends near the middle in the form of a flattened U in end view, and of a length to span the end of the hub, the metal sides of said clamps being separated to let the clamp-bolts pass between them, while the metal connecting said sides is perforated and serves as a bolt seat, substantially as described and for the purpose specified. 4th. A transversely-divided pulley, having permanently secured hub-shells and having hub-clamps that span the ends of the hub, and means for yieldingly attaching said clamps to said hub-shells to prevent accidental displacement during transportation, but permitting them to yield and prevent throwing the pulley out of true in tightening up, substantially as described and for the purpose specified.

No. 58,828. Pulley. (Poulie.)



The American Pulley Co., assignee of Thomas Corscaden, both of Philadelphia, Pennsylvania, U.S.A., 25th January, 1898; 6 years. (Filed 7th January, 1898.)

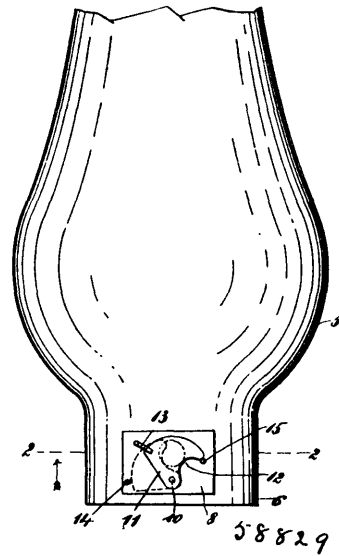
Claim.—1st. A pulley having a circumferentially-divided rim with flattened face for a flat belt, the parts of which rim meet in an inwardly projecting flange in the inside of said rim, and in a circumferential groove on the outer side of said rim a hub and a series of separate spoke-arms radiating from said hub and having their outer ends lapped upon and secured to the said inwardly-projecting flange of the two-part rim, substantially as described and for the purpose specified. 2nd. A divided pulley, having at one end of each half of the rim a spoke with a transverse bolt-socket 26, and at the other end of each half-rim the rim-bolt lug 28, which registers with said bolt-socket, substantially as described and for the purpose specified. 3rd. A divided pulley, the hub of which is provided with bolt-lugs, the main body of said lugs being U-shaped in cross-section, while the outer end of each lug is provided with a short tubular portion 21, substantially as described and for the purpose specified. 4th. A pulley having a transversely-divided and internally-flanged rim, and rim-bolt lugs with the sockets of said lugs inside of said rim and with portions of each lug embracing opposite sides of the central rib or flange to which said rim-bolt lugs are secured, substantially as described and for the purpose specified. 5th. In a sheet-metal pulley, a circumferentially divided internally-flanged rim, in combination with spokes whose hub-terminals 16 encircle hub-shells 14 and are secured thereto, substantially as described.

No. 58,829. Lamp Chimney. (Cheminée de lampes.)

George John Winkler and Paul Rensch, both of Dunellen, New Jersey, U.S.A., 25th January, 1898; 6 years. (Filed 2nd September, 1897.)

Claim.—1st. A lamp chimney, the base of which is provided with an opening, and a pivoted plate which is adapted to close said opening, substantially as shown and described. 2nd. A lamp chimney,

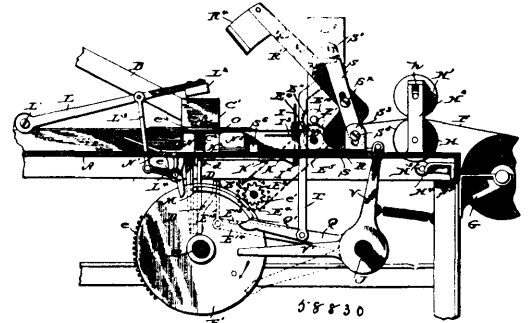
the base of which is provided with a flattened or raised portion in which is formed a central opening, said chimney being also provided



with an opening which corresponds therewith, and a plate which is pivotally connected with said flattened raised portion, and which is adapted to close said opening, and means for limiting the movement of said plate, and for securing the same in position to close said opening, substantially as shown and described.

No. 58,830. Machine for Wrapping Soap Cakes, etc.

(Machine pour envelopper les tablettes de savon.)



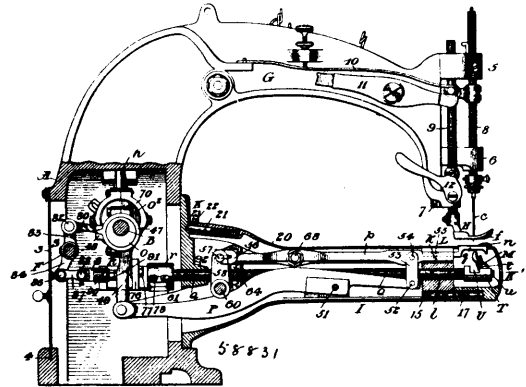
The Felmlee & Long Manufacturing Company, assignee of John H. Felmlee, both of Pittsburg, Pennsylvania, U.S.A., 25th January, 1898; 6 years. (Filed 2nd September, 1897.)

Claim.—1st. A machine for wrapping bars of soap, consisting of a table, a carriage having a bottomless receptacle for receiving the soap, means for feeding the carriage forward, and wrapping arms designed to wrap the folds about the cake, as set forth. 2nd. A machine for wrapping soap-bars, consisting of a carriage mounted on a suitable table, a bottomless receptacle forming a part of the said carriage, adapted to receive and hold the cake of soap therein while it is being conveyed to the wrapping machine. 3rd. A machine for wrapping bars of soap, consisting of the table with the carriage mounted thereon, means for operating the carriage, a bottomless receptacle, forming a part of the carriage, designed to hold the cake of soap, combined with spring flaps for holding the soap as the carriage is moved forward to the position where the cake is to be wrapped, substantially as set forth. 4th. In a machine for wrapping bars of soap, the combination with the table, the carriage mounted thereon, means for operating the carriage, a bottomless receptacle, forming a part of the carriage, designed to receive the soap, spring flaps in the said receptacle, having their free ends turned slightly inward, one of the said flaps being designed to engage against the portion of the table, to allow the cake to fall to the bottom of the carriage, and means for operating the carriage. 5th. In a soap wrapping machine, the combination with the carriage as described, having the soap receiving receptacle, means for operating the carriage whereby the soap is delivered to the position to receive the wrapper, and means for ejecting the cake from the carriage receptacle, substantially as set forth. 6th. In a soap wrapping machine, the combination with the carriage as described, means for operating the same at a predetermined moment, of a plunger

adapted to eject the cake from the receptacle in the carriage and drop the same on the wrapping paper provided to receive the same, substantially as set forth. 7th. In a machine for wrapping bars of soap, the combination with the carriage with the receptacle for receiving the soap, means for feeding the cake forward, of a lever pivoted to the framework of the machine, carrying a plunger at one end adapted to eject the cake through the bottom of the said receptacle, and means for operating the said plunger at a predetermined moment, substantially as shown and described. 8th. A machine for wrapping bars of soap, comprising the combination with the carriage and receptacle and means for operating the same at a predetermined moment, of the operating shaft and wheel keyed thereto, a lug on the side of the said wheel, a plunger-lever and plunger on the end thereof, an angle-lever and link connection with the said lever, the free end of the said angle-lever being disposed in the path of a lug on the wheel, whereby as the said wheel makes a revolution the plunger is depressed over the cake of soap and ejects the same, substantially as set forth. 9th. A machine for wrapping bars of soap, comprising in combination with the carriage having an integral arm on the under side thereof, an angle lever pivoted to a bracket on the under side of the table and loosely pivoted to said arm, of the operating shaft and wheel thereon, having a lug on the inner face of the said wheel, of a trip lever mounted on a shaft and having a lug which is designed to engage with a lug on the face of the said wheel, and a link connecting the said trip lever with the angle lever, whereby as the said wheel makes a revolution, the carriage is driven forward, substantially as described. 10. A machine for wrapping bars of soap, having in combination with the carriage and means for feeding the same forward as described, a cutting knife pivoted at one end to a standard on the framework, a pivoted lever secured to the table of the machine, the free end of which lever is disposed in the path of the carriage arm, designed to trip the lever as the carriage is brought forward, and a cable connecting the said lever with the cutting knife, and the paper passing beneath the said knife adapted to be cut thereby, substantially as set forth. 11th. In combination with the table of the machine, the standards mounted thereon, the cutting knife pivoted at one end to one of the said standards, and means for operating the said knife, the operating shaft and segment geared wheel keyed thereto, the feed rollers having geared connection, an operating shaft having a geared wheel adapted to mesh with the segment teeth of the said operating wheel at each revolution of the same, and sprocket chain connection between one of the said feeding rollers and the geared wheel which meshes with the segment teeth, whereby a roll of paper is fed between the feed rollers and severed by the knife in each revolution of the main operating shaft, substantially as shown and described. 12th. A machine for wrapping bars of soap, comprising in combination with the table and feed rollers and means for operating the same, the cutting knife and printing roller mounted on a standard of the said table, and a pressure roller between which and the printing roller the paper is designed to pass before reaching the feed rollers, substantially as set forth. 13th. In a machine for wrapping bars of soap, the combination with the carriage adapted to receive the soap and carry it forward, means for operating the carriage and plunger for ejecting the bar of soap, of the main operating shaft and wheel keyed thereto, of the folding blades pivoted to the table, lugs carried on the carriage adapted to trip the said blades on the pivotal points as the carriage is moved backward and forward, substantially as shown and described. 14th. In combination with the carriage mounted on the table and means for operating the same, the folding blades pivoted to the table and provided with elongated slots which are angular in shape, and lugs secured to the carriage adapted to travel in the said slots, the said blades arranged so they will rock on their pivotal points, one in advance of the other, for the purpose set forth. 15th. In a machine for wrapping bars of soap, the combination with the carriage and flat horizontally disposed folding blades pivoted to the table, each of the said blades having elongated and angular slots, lugs carried by the carriage and designed to travel in said slots, the angular portion in one of the said slots being shorter than the other, for the purpose of causing the blades to rock on their pivotal points one in advance of the other, whereby the upper flaps of the wrapping paper may be folded in turn, as set forth. 16th. In a machine for wrapping bars of soap, the combination with the carriage adapted to convey the soap forward and deposit the same between the ends of troughs on the table of the machine, under which cake a wrapping paper has been previously disposed between the ends of the troughs, the horizontally disposed folding blades pivoted to the table of the machine, the free ends of the said blades being adapted to fold over the upwardly extended flaps of the wrapping paper as the carriage returns to its starting position, substantially as set forth. 17th. In a machine for wrapping bars of soap, the combination with the wrapping blades described, the end folding members, the loosely journaled lever Q, the operating shaft and wheel keyed thereto, a cam on the outer face of the said wheel, adapted to strike against the end of the said lever Q as the operating shaft makes a revolution, of the levers S⁴ to the forward ends of which are connected the said end wrapping members, the rear ends of the said levers S⁴ having apertured ears, of the links pivoted at their upper ends to standards on the table, their other ends loosely pivoted to the ears on the said rods S⁴, of the folding levers R¹ pivoted to the said standards and the links connecting the levers Q with the said levers R¹, whereby

as the operating shaft makes a revolution, the end and top folding members are brought forward against the wrapping paper and causes the same to be pressed against the ends of the bars, the edge folding members being actuated slightly in advance of the said levers R¹, substantially as shown and described. 18th. In a wrapping mechanism, the combination with the operating shaft, the wheel keyed thereto, the cam integral with the outer face thereof, a lug carried at one end of the said cam, of the lever Q loosely mounted on a shaft J, the free end of the said lever being disposed in the path of the said cam, of the standards and angle levers R pivoted thereto the folding flaps R⁴ adjustably held to the said angle levers R¹, of the edge folding members S⁵, the levers S⁴ carrying said members S⁵, the ears on said levers and the links S⁵ pivoted to the standards and having their lower ends loosely pivoted to the said ears, and loosely pivoted near their centres to the levers R¹, of the link T connecting the levers Q and R, and the apertured guide lugs S⁶ mounted on the table and through which the said levers S⁴ are given a lateral as well as a longitudinal movement as they are driven against the flaps of the wrapping paper which are folded over the ends of the bars, substantially as shown and described. 19th. In a machine for wrapping bars of soap, the combination with the folding members as described, the operating shaft and wheel keyed thereto, the armed member V¹, the lug M on the said wheel, which is adapted to strike against the lever V¹ at each revolution of the said wheel, of the arm V and the plunger U pivoted to its upper end, the said plunger being adapted to push the partially folded cake into the end of a receiving trough, substantially as shown and described. 20th. In combination with the table of a soap bar wrapping machine, the trough N having a slot N¹ therein against the end of which trough the bar of soap partially folded, is adapted to bear, and the plunger adapted to force the bar into the trough and fold the edge adjacent to the end of the said trough, the lower flap adapted to pass into the said slots N¹, and to be folded against the ends of the cake as the cakes in succession are forced into the said trough, substantially as shown and described.

No. 58,831. Sewing Machine. (Machine à coudre.)



The Union Special Sewing Machine Co., Chicago, assignee of Lorenz Muther, Oak Park, and Elias Calvin Holland, Austin, all in Illinois, U.S.A., 25th January, 1898; 6 years. (Filed 27th October, 1897.)

Claim.—1st. A sewing machine comprising a casing or bed plate, feeding mechanism moving in a defined path longitudinally of the said bed plate or casing, a looper support within said casing, a thread carrying looper on said looper support arranged with its longitudinal axis at an angle to the line of feed, and means for giving said looper movements as follows: a forward and backward movement in the direction of its length and sidewise movements bodily in a right line across the line traversed by it in its other movements, substantially as described. 2nd. A sewing machine comprising a main shaft, a second shaft, a thread carrying looper secured on said second shaft, and connections between the main shaft and said second shaft for positively oscillating the looper in the direction of its length and transversely of its supporting shaft, and for positively reciprocating said looper bodily laterally in line with the longitudinal axis of the second shaft, the connections for securing the positive movements being independent of each other, substantially as described. 3rd. A sewing machine, comprising a driving shaft, a pivoted transverse frame as R oscillated thereby, a looper carrier on said frame, a looper on said carrier arranged with its longitudinal axis transverse to the axis of the carrier, an enclosing casing for the looper and its carrier, and devices for actuating said looper, and a feeding device working longitudinally of said casing, substantially as described. 4th. A sewing machine, comprising a driving shaft, a looper carrying frame and looper thereon, said carrying frame having a vibratory movement on its axis in the direction of the length of the looper and a bodily movement transverse to the longitudinal axis of the looper and mechanism for vibrating said looper carrying frame on its axis and for giving it its transverse movement, said mechanism including a device operated from the driving shaft, and positively applied to the looper carrying frame, substantially

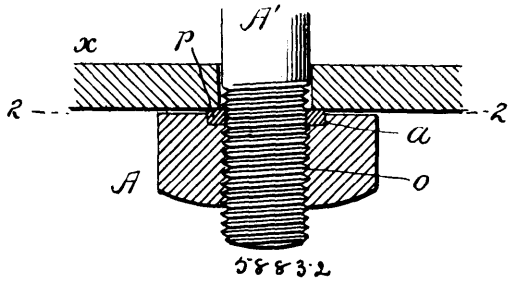
in the line of the axis on which it vibrates to give the longitudinal movement to the looper, an enclosing casing for the looper carrying frame and a feeding device working longitudinally thereof and parallel with the axis of the looper carrying frame, substantially as described. 5th. A sewing machine comprising a main shaft, a second shaft, a thread carrying looper secured on said second shaft, with eccentric and universal joint connections between the looper carrying shaft and the main shaft for positively reciprocating the looper laterally bodily to avoid the needles and for positively oscillating it in the direction of its length to catch the needle loops, the connections for securing the positive movements being independent of each other, substantially as described. 6th. A sewing machine having suitable stitch forming mechanism and a cylindrical casing said stitch forming mechanism comprising a transverse main shaft, a looper within said cylindrical casing, a mechanism for operating said looper, comprising a shaft extending lengthwise of and within the casing to one end of which the looper is operatively connected, a ball eccentric connection between the main shaft and the looper shaft for oscillating the latter, and an independent connection between the main shaft and looper shaft for reciprocating the latter, substantially as described. 7th. A sewing machine comprising a rear standard, the main transverse shaft passing through the standard, the take up mechanism carried on the outer end of said shaft outside of said standard, the supplemental casing enclosing said take up mechanism, the bed plate or casing, the feeding and looper mechanism extending within the bed plate or casing, and connections between the main shaft and the feeding and looper mechanisms whereby the latter are operated, substantially as described. 8th. In a sewing machine, the main shaft, the feeding and looper mechanisms arranged at right angles thereto, a casing or bed plate within which said feeding and looper mechanisms are contained, said looper mechanism including a thread carrying device having limited movement in the direction of its length and transversely of the casing, a take up mechanism on the main shaft for taking up the slack in the thread, a stop device for preventing the feed of fresh thread during the operation of the take up, and a pull off device to pull from the supply a limited quantity of thread, substantially as described. 9th. In combination with the standard, a main shaft supported thereby, a bed plate supported by said standard and an independent supplemental casing secured to the standard and into which the main shaft projects, the thread controlling mechanism arranged on the main shaft within said supplemental casing, and comprising a rotary take up device, an intermittent stop device and a pull off, substantially as described. 10th. A sewing machine, comprising a main frame and a cylindrical casing forming the bed plate and supported by said main frame, a supplemental casing in which the thread enters, and a tube extending between the supplemental casing and the cylindrical casing for guiding the thread from one to the other, substantially as described. 11th. In a sewing machine, the combination with the main shaft, a looper supporting shaft, a casing enclosing said looper supporting shaft, a thread carrying needle, a feeding device having movement in the direction of the length of said casing and in a plane parallel with the longitudinal axis of the looper supporting shaft, a thread carrying looper on said looper supporting shaft, arranged with its longitudinal axis at an angle to the line of feed, and means for giving said looper four movements, namely, a positive loop taking and loop leaving movement at an angle to the line of feed and two positive needle avoiding movements, two of said movements being in the arc of a circle and the other two being bodily movements in a right line across the line traversed by the looper in its first mentioned movements, substantially as described. 12th. In a sewing machine, comprising a suitable standard and a bed plate or casing, a supplemental casing attached to the standard, a take up located within said supplemental casing, a cover therefor, and means for holding said cover in an open or closed position, substantially as described. 13th. A sewing machine, comprising a casing or bed plate, a reciprocating needle, a feed device having a defined path of reciprocation, a thread carrying looper having a limited movement in the casing or bed plate and transversely to the line of feed, and a thread controlling mechanism for said under thread, comprising a rotating double cam take up and a pull off, substantially as described. 14th. A sewing machine, comprising a bed plate or casing and a feeding mechanism working longitudinally thereof, a main shaft, a plurality of vertically reciprocating thread carrying eye-pointed needles, a single under thread carrying looper having a limited reciprocating movement transversely of the feed and co-operating with the needles to form stitches, and a thread controlling device for said under thread, comprising a double cam take up on the main shaft and a pull off also arranged on said shaft, substantially as described. 15th. A sewing machine comprising a main shaft, a rotary take up, a sleeve or hub arranged on the main shaft adjacent its bearing and provided with an annular groove between the take up and said bearing, substantially as described. 16th. A sewing machine, comprising a main shaft, a feeding mechanism comprising a pivoted bar trough shaped on its upper surface, a looper shaft resting in said trough, and a feed dog carrying bar connected to the pivoted bar, said pivoted bar, looper shaft and feed dog carrying bar being arranged in practically the same vertical plane but in different horizontal planes, and operatively connected at their rear ends with the main shaft, substantially as described. 17th. In a sewing machine, the hollow standard, the main shaft therein, the eccentrics on said shafts, the cylindrical, bed plate outside the standard, but supported thereby, the pivoted bar arranged

in the bed plate and having a downwardly dropped rear part extending into the standard and connected with one of the eccentrics, the looper shaft arranged within the bed plate, but extending at its rear end into the standard and connected to an eccentric on the main shaft, a feed dog carrying bar arranged within the bed plate and connected at one end with the pivoted bar, a rocking crank frame to which the feed dog carrying bar is connected at its inner end, said rocking crank frame having a rearward extension connected with an eccentric on the main shaft, substantially as described. 18th. A sewing machine comprising a cylindrical casing, a vertically oscillating bar pivoted to said casing and having at its outer end two upwardly extending links, a feed dog carrying bar pivoted to said links, connections between the rear end of said pivoted bar and the feed dog carrying bar and the main shaft respectively, and a looper shaft arranged above the pivot bar and below the feed dog carrying bar and passing between the vertical links, whereby the parts may be packed within a small space, substantially as described. 19th. A sewing machine, comprising a cylindrical casing and feeding mechanism including a rocking crank having upwardly extending arms 58, a feed dog carrying bar connected at one end with said upwardly extending arms, with suitable means for raising and lowering said feed dog carrying bar, and a looper shaft arranged in a plane below the feed dog carrying bar and passing between the vertical arms 58, and connections between said rocking crank and the main shaft and the looper shaft and the main shaft, substantially as described. 20th. A sewing machine comprising a driving shaft, a ball eccentric thereon, a strap or collar embracing the same, a looper shaft, a universal joint connection between the strap or collar and the looper shaft, a rocking crank, and a universal joint connection between said rocking crank and the strap or collar, and operative connections between the rocking crank and the looper shaft, substantially as described. 21st. A sewing machine, comprising a driving shaft, a ball eccentric thereon, a strap or collar embracing the same, a looper shaft, a universal joint connection between the strap or collar and the looper shaft, a rocking crank, a link secured thereto, a universal joint connection between the link and the strap or collar, and operative connections between the rocking crank and the looper shaft, substantially as described. 22nd. A sewing machine, comprising a driving shaft, a ball eccentric thereon, a strap or collar embracing the same, a looper shaft, a ball and crank connection between the strap or collar and the looper shaft, a rocking crank, a link secured at one end to said crank, a lug on said strap or collar, and a ball joint connection between the opposite end of said link and said lug, and operative connections between the rocking crank and the looper shaft, substantially as described. 23rd. A sewing machine, comprising a driving shaft, a looper shaft at right angles thereto, a rocking crank journaled on an axis parallel with the main shaft and having an upwardly extending arm provided with a stud, and an eccentric and universal joint connection between the main shaft and the looper shaft and between the main shaft and said crank, and operative connections between the rocking crank and the looper shaft, substantially as described. 24th. A sewing machine, comprising a driving shaft, a looper shaft at right angles thereto, a rock shaft parallel with the main shaft, a crank sleeved on said rock shaft and having an upwardly extended arm provided with a stud and an eccentric and universal joint connection between the main shaft and the looper shaft and between the main shaft and said crank, and means connecting the rock shaft with the looper shaft, substantially as described. 25th. A sewing machine, comprising a main shaft, a looper shaft, a looper secured thereto, a rock shaft parallel with the main shaft, a crank on the rock shaft, connections between the crank and the main shaft and between the crank and the looper shaft for reciprocating the latter backward and forward to enable the looper to avoid the needles, and the additional connections between the main shaft and the looper shaft whereby the latter is oscillated, substantially as described. 26th. In combination with the main shaft, the looper shaft, and intermediate operative connections between the main shaft and looper shaft for oscillating the latter, said connections including an eccentric on the main shaft, a downwardly projecting connecting rod having a socket on its lower end, a crank as R having a lug with an opening for the reception of a stud, said stud having a ball fitting the socket in the end of the connecting rod, said crank having a split sleeve within which the end of the looper shaft is clamped, substantially as described. 27th. In combination with the main shaft, a rock shaft parallel therewith, a crank on said rock shaft operated by the main shaft, a looper supporting shaft having a sliding and oscillating movement and a pivotal connection between the crank and the looper shaft for reciprocating the latter, and means for rocking the looper shaft, substantially as described. 28th. In combination with the main shaft, the rocking crank oscillated thereby, the links pivoted to the lower end of said crank, a looper shaft, an eye bolt connected thereto, said links being pivoted to the eye bolt, whereby a forward and backward reciprocation may be given the looper shaft, and means for rocking the looper shaft, substantially as described. 29th. In combination with the main shaft and looper shaft, the rocking crank, the crank R to which the looper shaft is secured, said crank having a lug 90, an eye bolt secured to said lug, and links pivoted at one end to the eye bolt and at the other end to the rocking crank, and means for rocking the looper shaft, substantially as described. 30th. In combination with the main shaft and looper shaft, intermediate operative connections between the two

for reciprocating the latter, comprising a connection rod as 80, a rock shaft having a crank secured thereon, to one end of which the rod 80 is pivoted, links pivoted to the lower end of said crank, an eye bolt to which the other end of the links are pivoted, and a crank as R to one end of which the eye bolt is secured, and to the other end of which the looper shaft is secured, and means for rocking the looper shaft, substantially as described. 31st. In combination with the main shaft and looper shaft, the crank R having the split sleeve 7, within which the end of the looper shaft is clamped, the lug 76 and lug or bearing 90, with operative connection between the lug 76 and the main shaft for oscillating the crank R, and connections between the lug or bearing 90 and the main shaft for reciprocating said crank, substantially as described. 32nd. A sewing machine, comprising a main shaft, a looper shaft arranged with its axis at right angles to the axis of the main shaft, said main shaft being provided with an eccentric and a downwardly projecting connecting rod, a crank having a sleeve at one end of which the looper shaft is clamped, and a ball and stud connection between said crank and the connecting rod, substantially as described. 33rd. A sewing machine comprising a main shaft, a looper shaft arranged with its axis at right angles to the axis of the main shaft, said main shaft being provided with an eccentric and a downwardly projecting connecting rod, a crank to which the looper shaft is clamped, a ball joint connection between said crank and the connection rod, a rock shaft as F, a crank fixed thereon, with connections between the same and the main shaft, and an additional pivotal connection between said crank and the crank to which the looper shaft is secured, substantially as described. 34th. A sewing machine comprising a main shaft, a cylindrical casing forming the bed plate of the machine, a single shaft extending lengthwise of and within the casing, its axis being at right angles to the axis of the main shaft and having bearings in said casing, a looper secured to said shaft within the casing and independent positive connections between said shaft and the main shaft whereby the former is both oscillated and reciprocated, the oscillating movement being the loop taking movement in the direction of the length of the looper, and the reciprocating movement being the lateral bodily movement to avoid the needles, substantially as described. 35th. A sewing machine, comprising a main shaft, a cylindrical casing forming the bed plate of the machine arranged transversely to the main shaft, a feeding mechanism having movement in the direction of the length of said cylindrical casing, a shaft arranged lengthwise of and within said casing having a longitudinal movement lengthwise of said casing, with connections between said shaft and the main shaft for imparting to the looper shaft said movement, a looper secured to said shaft and arranged with its longitudinal axis transverse to the axis of its supporting shaft, with means for oscillating said looper shaft whereby the looper has movement back and forth across the line of feed, as well as sidewise parallel with the movement of the feed, substantially as described. 36th. A sewing machine, comprising stitch forming mechanism, including a vertically reciprocating needle, a looper shaft having on its outer end a head, a looper secured on the said head, and a cut out portion in said head adjacent the looper and between the same and the end of the shaft to allow of proper clearance for the needles, substantially as described. 37th. A sewing machine comprising a rear standard, a main shaft supported therein, a bed plate attached to the rear standard, a shaft supported in said bed plate and carrying a looper, but extending into the rear standard, said looper being supported on said shaft with its longitudinal axis at right angles to the axis of the shaft, and independent sets of universal joint connections located within the rear standard and connecting the main shaft with the rear of said looper shaft, whereby said looper shaft, by said connections respectively, is reciprocated longitudinally of the bed plate to give said looper its needle avoiding movement, and oscillated on its longitudinal axis to give said looper its loop taking movement, substantially as described. 38th. A sewing machine, comprising a main shaft, a looper shaft, a looper secured thereon with its longitudinal axis at right angles to the axis of the shaft, connections between the main shaft and the looper shaft for oscillating the latter to enable the looper to take the needle loops, and connections between the main shaft and the looper shaft for reciprocating the latter to give the looper its needle avoiding movement, said connections including a rocking crank and a universal joint connection between said rocking crank and the looper shaft, substantially as described. 39th. A sewing machine, comprising a main shaft, a looper shaft, a crank to which the latter is secured at its rear end, connections between said crank and the main shaft for oscillating the looper shaft, and connections between said main shaft and the looper shaft for reciprocating the latter, including a rocking crank driven from the main shaft, and a link and pivotal eye-bolt connection between said rocking crank and the crank to which the looper shaft is attached, substantially as described. 40th. A sewing machine, comprising a main shaft, a single shaft provided with a thread carrying looper on one end, a double crank frame to which the looper shaft is attached, and intermediate means between said crank and the main shaft, comprising two independent sets of connections whereby reciprocatory and oscillatory motions are given the looper shaft, the former being a needle avoiding movement and the latter a loop taking movement, substantially as described. 41st. A sewing machine, comprising a shaft, a looper secured

thereto, said looper shaft extending continuously throughout the bed plate of the machine and supported in bearings therein, a main shaft, an eccentric and universal joint connection intermediate the main shaft and the rear end of the looper shaft for giving oscillatory movement to said looper shaft, and an eccentric connection between the main shaft and the rear of the looper shaft for giving reciprocatory movement thereto, both of said sets of connections being in rear of the bed plate of the machine, substantially as described. 42nd. In a sewing machine, the hollow standard, the main shaft supported thereby, the cylindrical bed plate attached thereto, the rod 51 within the same, the bar P pivoted thereto having a depressed rear end extending into the standard and formed with a trough-shaped upper surface 50, the feed dog carrying bar hinged at one end to the bar P and at its rear end secured to the rocking crank 59, the rod 60 to which said crank is secured, said rod being supported in the cylindrical bed plate, said crank 59 having a rearward extension passing into the standard, a shaft Q having bearings in each end of the cylindrical casing and fitting in the trough 50, and lying between the bar P and the feed dog carrying bar and extending into the standard, with connections between the main shaft and the feeding and looper mechanisms, substantially as described. 43rd. A sewing machine having a cylindrical casing forming the bed plate, provided with a rear vertical plate having a slot therein, a removable top plate for the casing provided with a spring bolt adapted to fit the slot in the said rear plate of the casing, substantially as described. 44th. In a sewing machine, the combination with stitch forming mechanism for making two continuous rows of parallel stitching of a work plate having in front of the stitch forming mechanism two vertically projecting ribs forming between them a groove or guide of width sufficient to receive the downwardly projecting edges of the fabric to be sewed, and a presser foot having a keel arranged in a plane between the sides of said groove and adapted to bear in the groove formed by the line of division of the fabric, and press the latter in the guide groove between the ribs, substantially as described. 45th. A sewing machine comprising mechanism for making parallel rows of stitches, a throat plate provided with needle openings, a tongue extending rearwardly of said openings, and also having vertically projecting ribs in advance of said openings forming between them a guide or groove for the edges of the fabric, and a presser foot having a keel arranged in a plane to enter said guide or groove and press the fabric therein, substantially as described. 46th. A sewing machine, comprising a plurality of vertically reciprocating needles, a throat plate and a presser foot, one of said elements being provided with vertically projecting ribs forming between them a groove or guide of width sufficient to receive the raw edges of two pieces of fabric, and the other of said elements having a keel or fin adapted to bear in the groove formed by the line of division of the fabrics and press the latter in the guide groove between the ribs, said throat plate being provided with a suitable tongue in rear of the fin and guiding slot, and complementary stitch forming mechanism including a device for laying a thread across the raw edges of the fabric, substantially as described. 47th. A sewing machine, comprising a rear standard, a supplemental casing secured thereto having a hinged cover, a cylindrical casing secured to the rear standard, and having a removable top plate and a removable end cap, substantially as described. 48th. A sewing machine, comprising a cylindrical casing formed with a practically solid front wall, said wall being provided with openings 15, 16, a cap provided with pins adapted to fit said openings, whereby side movement of the cap is prevented, and a spring attached at one end to the casing and adapted to engage the cap, whereby said cap is secured in position on the cylinder, substantially as described. 49th. A sewing machine comprising a rear hollow standard, within which certain of the operating parts are supported, and having a rear opening for access to said parts, a door adapted to cover said opening, a pivotal screw upon which said door is hinged, and a spring washer between the head of the screw and the surface of the door, with means for holding the door at its free end whereby rattling of the same is prevented, substantially as described. 50th. A looper mechanism for sewing machines consisting of an actuating shaft and a looper carrying shaft, arranged at a right angle to each other, and two independent sets of connections between the actuating shaft and one end of the looper shaft for imparting to the latter positive rocking movements and positive right line movements respectively, one set of these movements being in a direction transverse to the other, substantially as described. 51st. In a sewing machine, a main shaft, a looper shaft at right angles thereto, a cylindrical casing in which the looper shaft extends, feeding mechanism extending within and reciprocating longitudinally of the casing, a looper operatively connected to the looper shaft, and means for operating said looper shaft whereby the looper will be given a loop taking movement transversely of the feed movement and a needle avoiding movement longitudinally of the casing, substantially as described. 52nd. A sewing machine comprising stitch forming mechanism, the standard, the main shaft supported thereby, the supplemental casing secured to the standard and into which the main shaft projects, a bed plate, a take-up mechanism on the main shaft, a guiding tube extending between the supplemental casing and the bed plate for conducting the thread from the take-up into said bed plate, and a guiding lug attached to the end of the casing adjacent to the looper of the stitch forming mechanism, substantially as described.

No. 58,832. Nut Lock. (Arrête-écrou.)



Albert Davis Smith, Philadelphia, Paul Hamilton Markley, Hatboro, both in Pennsylvania, and Albert Watson Markley, New York, State of New York, all in the U.S.A., 25th January, 1898; 6 years. (Filed 20th November, 1897.)

Claim.—1st. A nut lock comprising a screw-threaded nut and bolt, a guiding channel provided in the inner face of said nut, and prongs adapted to said channel and to cut through the threads of said bolt for locking the nut in position upon the bolt, substantially as described. 2nd. A nut consisting of a screwthreaded bolt and nut having threaded orifice adapted to the threads of the bolt, a guiding groove provided in the inner face of the said nut through the length or breadth of the same, and staple having prongs adapted to said groove and to pass into and through the same when the nut is in position upon the bolt and to cut through the screw-threads of the bolt, for locking the nut in position upon the bolt, substantially as described. 3rd. A nut lock consisting of a screwthreaded bolt, and a nut having a threaded orifice adapted to the threads of the bolt, a channel in the face of the nut, and a staple having prongs adapted to said channel and to mutilate or cut the threads of the bolt, the staple acting also as a spring tending to force the nut toward the outer end of the bolt, substantially as described. 4th. A nut lock consisting of a screwthreaded bolt, and nut having threaded orifice adapted to the threads of the bolt, a shallow channel provided in the inner face of said nut, and a staple having prongs adapted to said channel of greater thickness than the depth of the channel, said prongs adapted in said channel, when the nut is in position upon the bolt, to cut their way respectively through the threads of the bolt on opposite sides, for locking the nut in position upon the bolt, there being an opening in said staple for effecting its withdrawal from position, substantially as described. 5th. A nut lock comprising a screwthreaded bolt and nut having threaded orifice adapted to the threads of the bolt, a channel *a*, provided in the inner face of the nut through its length or breadth, and staple *p*, having sharpened prongs *p*¹, adapted to said channel *a*, and to cut through the threads on the bolt when the nut is in position upon the bolt, with protruding ends adapted to be turned up toward or against one of the faces of the nut when the staple is in the locked position, substantially as described. 6th. A nut lock comprising a screwthreaded nut having a threaded orifice adapted to the threads of the bolt, a channel in the inner face of the nut at the circumference of the threaded opening, a locking prong adapted to be forced into said channel and to cut or mutilate the threads of the bolt, and an auxiliary cutting tooth carried by said prong and adapted to bite into the threads of the bolt, substantially as described. 7th. A nut lock comprising a screwthreaded nut having a threaded orifice, a channel formed in the inner face of the nut at the circumference of the threaded opening, a locking staple adapted to such channel and arranged to cut or mutilate the outer edges of the threads of the bolt, and an auxiliary cutter carried by the locking staple and adapted to be forced into the threads of the bolt, substantially as described.

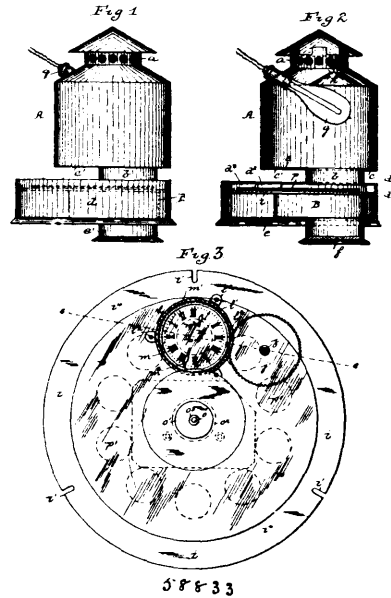
No. 58,833. Illuminated-Sign Apparatus.

(Appareil d'enseigne enluminé.)

Herbert A. Hulet, Shaftsbury, Vermont, assignee of John Upton Barr, jr., Pittsburgh, Pennsylvania, both in the U.S.A., 25th January, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—1st. An illuminated-sign apparatus, comprising a lens and a source of light, a clock-dial, means for indicating the time, mechanism carrying a picture or pictures, and means for operating the time-indicating apparatus and picture-carrying mechanism, substantially as described. 2nd. An illuminated-sign apparatus, comprising a lens and a source of light, a picture or pictures, a transparent clock-dial and hands, and mechanism connected to said picture or pictures and clock-hands whereby the picture or pictures and time indicated by the clock dial and hands are displayed upon a surface at the same time, substantially as described. 3rd. An illuminated-sign apparatus, comprising a lens and a source of light, a transparent clock-dial, means for indicating the time, mechanism for carrying a picture or pictures, and means for operating said time-indicating apparatus and picture-carrying

mechanism, the entire apparatus being contained in a box or case, substantially as described. 5th. An illuminated-sign apparatus,

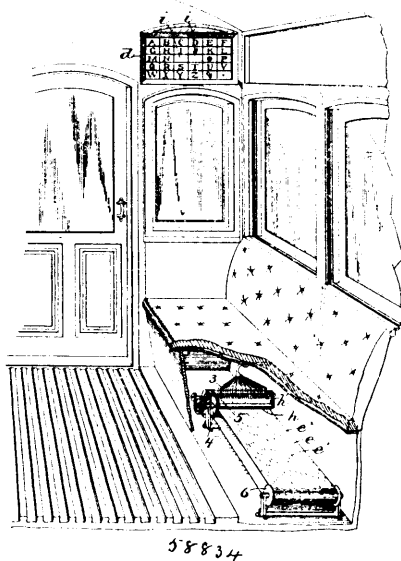


comprising a box or case containing a lens and a source of light, a set of pictures within said box or case, a transparent clock-dial between the pictures and the lens, a minute and hour hand carried on separate parts, and mechanism connected to said pictures and parts carrying the minute and hour hands whereby the pictures and time indicated on the clock-dial by the minute and hour hands are automatically displayed upon a surface, substantially as described. 6th. An illuminated-sign apparatus, comprising a lens and a source of light, a clock-dial, means for indicating the time, mechanism carrying a picture or pictures, means for operating the time-indicating apparatus, and means for operating the picture-carrying mechanism, operatively connected to the apparatus for working the time-indicating mechanism, substantially as described. 7th. An illuminated-sign apparatus, comprising a lens and a source of light, a clock-dial, means for indicating the time, mechanism for carrying a picture or pictures, clockwork mechanism for operating said time-indicating apparatus, and clockwork mechanism for operating said picture-carrying mechanism, substantially as described. 8th. An illuminated-sign apparatus, comprising a lens and a source of light, a clock-dial, means for indicating the time, mechanism for carrying a picture or pictures, clockwork mechanism for operating said time-indicating mechanism, and clockwork mechanism for operating said picture-carrying mechanism operatively connected to said first-named clockwork mechanism, substantially as described. 9th. In illuminated-sign apparatus, the combination with a box or case containing a lens and a source of light, of a set of pictures within said box or case, a clock-dial, clock hands mounted on separate parts, clockwork mechanism for operating the clock hands, clockwork mechanism connected to the pictures, and mechanism connected to said first clockwork, mechanism for operating the second clockwork, mechanism to automatically change or shift the pictures, substantially as described. 10th. In illuminated-sign apparatus, the combination with a box or case containing a lens and a source of light, of a set of pictures within said box or case, a clock-dial, clock hands mounted on separate parts, clockwork mechanism for operating the clock hands, clockwork mechanism connected to the pictures, a ratchet-wheel on said first clockwork mechanism, a spring-lever having a pawl thereon engaging with said ratchet-wheel, a shaft connected to said spring-lever, and a lever connected to said shaft at one end and having its opposite end engaging with a pin on a gear-wheel mounted on a shaft in the second clockwork mechanism to automatically change or shift the pictures, substantially as described. 11th. In illuminated-sign apparatus, the combination with a box or case containing a lens and the source of light, of a plate or body portion secured within the box or case, a transparent clock-dial secured within said body portion, a transparent plate having the hour-hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged case having the minute-hand secured thereto, clockwork mechanism secured to said body portion, and gear-faces around said transparent plate and loose ring adapted to engage with gear-wheels on a shaft in the clockwork mechanism, substantially as described. 12th. In illuminated-sign apparatus, the combination with a box or case containing a lens and the source of light, of a plate or body portion secured within the box or case, a transparent clock-dial secured within an opening in the body portion, a transparent plate having the hour-hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged

case having the minute-hand secured thereto, clockwork mechanism secured to said body portion at one side thereof, gear-faces around the transparent plate and loose ring adapted to engage with gear-wheels on a shaft in the clockwork mechanism, a disc carrying a set of pictures secured on a shaft located within the body portion, clockwork mechanism connected to said shaft, and mechanism connected to said first clockwork mechanism for operating the second clockwork mechanism to automatically change or shift the pictures, substantially as described. 13th. In illuminated-sign apparatus, comprising a lens and the source of light, a transparent clock-dial, a transparent plate having the hour-hand secured thereto, a loose ring having the minute-hand secured thereto, and mechanism for operating said transparent plate and loose ring, substantially as described. 14th. An illuminated-sign apparatus, comprising a lens and a source of light, a transparent clock-dial, a transparent plate having the hour-hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged case, and mechanism for operating said transparent plate and loose ring, substantially as described. 15th. An illuminated-sign apparatus, comprising a lens and a source of light, a transparent clock-dial, a transparent plate having the hour-hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged case, and gear-faces around said transparent plate and loose ring adapted to engage with gear-wheels on a shaft in the clockwork mechanism, substantially as described.

No. 58,834. Advertising Apparatus.

(Appareil de publicité.)

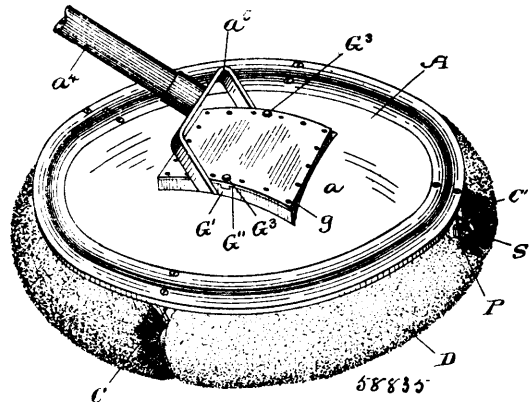


Frederic Leavitt Milliken, Milton, assignee of Willard Herbert Gilman, Boston, both in Massachusetts, U.S.A., 25th January, 1898; 6 years. (Filed 23rd September, 1897.)

Claim.—1st. An apparatus of the character specified, comprising a series of incandescent electric lamps, a corresponding series of branch circuits, each including one of the lamps, casing enclosing said lamps and provided with light-outlets representing letters or other symbols, a sheet or strip having provisions for automatically breaking and closing said circuits in accordance with a predetermined programme, and means for moving said sheet. 2nd. An apparatus of the character specified, comprising a series of incandescent electric lamps, a corresponding series of branch circuits, each including one of the lamps, and each having separable terminals which are normally in contact with each other, a perforated sheet or strip of insulating material interposed between said terminals, and means for moving said sheet, substantially as specified. 3rd. An apparatus of the character specified, comprising a series of incandescent electric lamps, a corresponding series of branch circuits, each including one of the lamps, an elongated terminal included in all the circuits, a series of individual terminals, each included in one of the circuits and adapted to normally make contact with the elongated terminal, a perforated sheet or strip of insulating material interposed between the elongated terminal and the series of individual terminals, and means for moving said sheet, the perforations in the sheet permitting contact between the individual terminals and the elongated terminal and the closing of the circuits through the lamps in accordance with the arrangement of the perforations. 4th. An apparatus of the character specified, comprising a series or group of electric lamps, a series of branch

circuits including said lamps, a series of cells or casings enclosing the lamps, and each provided at its outer end with a light-emitting outlet, the outlets of the different cells differing in design, a frame enclosing the series of outlets, and automatic means for breaking and closing said circuits. 5th. An apparatus of the character specified, comprising a series or group of electric lamps, a series of branch circuits including said lamps, a series of cells or casings enclosing the lamps and each provided at its outer end with a light-emitting outlet, the outlets of the different cells differing in design, a frame enclosing the series of outlets, a translucent covering extending across said outlets and enclosed by the frame, and automatic means for breaking and closing said circuits. 6th. An apparatus of the character specified, comprising a series of incandescent electric lamps, casings therefor having light-outlets representing letters of the alphabet, and additional lamp and a casing therefor having a light-outlet differing in shape from the other light-outlets and adapted to serve as a space-indicator, a series of branch circuits including said lamps, a sheet or strip having provisions for closing the circuit through any desired number of the lamps having letter-shaped light-outlets, and additional provisions for closing the circuits through the lamp having the space-indicating light-outlet, and means for moving said strip.

No. 58,835. Carpet Sweeper. (Balayeuse de tapis.)

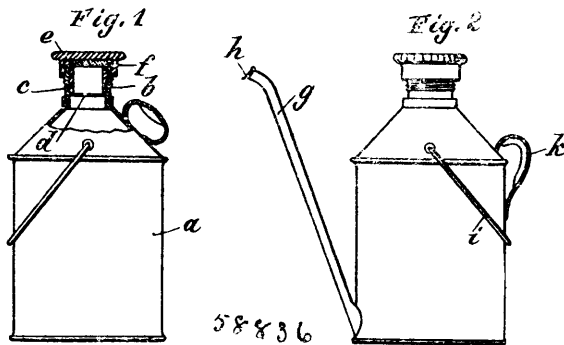


Frank Pierce Keesee, Toronto, Ontario, Canada, 25th January, 1898; 6 years. (Filed 10th January, 1898.)

Claim.—1st. A carpet sweeper, consisting of a frame, a centrally located dust collector, and a centripetally revolving brush or brushes surrounding the dust collector, substantially as specified. 2nd. A carpet sweeper, consisting of a frame, a centrally located dust collector, a centripetally revolving brush or brushes surrounding the dust collector, and means for propelling the sweeper and revolving the brush, substantially as specified. 3rd. A carpet sweeper, consisting of a frame, a centrally located dust collector, a centripetally revolving brush surrounding the dust collector, a flexible shaft for the brush bearings in which is mounted the said shaft, propelling wheels for the sweeper, and means for imparting motion to the propelling wheels to the flexible shaft, substantially as specified. 4th. A carpet sweeper, consisting of a frame, a dust collector centrally located in the frame, a centripetally revolving brush surrounding the dust collector, propelling wheels and adjustable bearings for the propelling wheels, and means for imparting motion from the propelling wheels to the brush, substantially as specified. 5th. In a carpet sweeper, a frame, a dust collector consisting of a band suspended from the main frame of the carpet sweeper, a flexible apron connected to the edge of the band depending below the brushes, and a sectional bottom hinged to the band, substantially as specified. 6th. A carpet sweeper consisting of a main frame, a supplemental frame centrally located in the underside of the main frame having an open bottom, vertically adjustable bearings carried by the supplemental frame, adjusting screws carried by the supplemental frame for adjusting the bearings, an axle journaled on the bearings, propelling wheels rigidly mounted on the axle ratchet, discs loosely mounted on the axle and set in opposite directions, spring actuated dogs carried by the propelling wheels, sprocket teeth formed on the ratchet discs, a dust collector surrounding the supplemental frame, consisting of a band having an upwardly extending flange, a rubber apron depending from the band, arms connected to the band and supplemental frame, a bottom hinged to the said arms having an opening registering with the open bottom of the supplemental frame, bearings suspended from the main frame, a flexible shaft mounted in the bearings, a brush woven on a band or ribbon and wound spirally on the flexible shaft, sprocket teeth carried by the flexible shaft and sprocket chains passing around the sprocket teeth of the ratchet discs and flexible shaft, substantially as specified. 7th. In a carpet sweeper, a brush consisting of a flexible core, a ribbon wound on the flexible core, and bristles secured to the ribbon to form a continuous annular brush, substantially as specified. 8th. In a carpet sweeper, a dust collector consisting of a frame, a centrally located ring suspended

from the frame having its outer face bevelled, an apron depending from the lower edge of the bevelled face, a sectional bottom hinged to the ring, substantially as specified. 9th. In a carpet sweeper a dust collector consisting of a frame, a centrally located ring suspended from the frame having its outer face bevelled, an apron depending from the lower edge of the bevelled face, a sectional bottom hinged to the ring, and springs connected to the bottom sections and to the frame, to normally hold them closed, substantially as specified. 10th. In a carpet sweeper a dust collector consisting of a frame, a centrally located ring suspended from the frame having its outer edge bevelled, an apron depending from the lower edge of the bevelled face, a sectional bottom hinged to the ring, and a band depending from the underside of the frame, having its edge opposed to the top edge of the ring, substantially as specified. 11th. In a carpet sweeper a brush driving mechanism consisting of a frame, a supplemental frame suspended from the said frame having an open bottom, vertically adjustable bearings mounted in the supplemental frame, an axle journaled in the bearings, propelling wheels mounted on the axle, ratchet discs interposed between the propelling wheels, adapted to work in opposite directions and driven from the propelling wheels, a flexible shaft journaled in suitable bearings suspended from the frame, and sprocket chains passing around the discs and flexible shaft, substantially as specified.

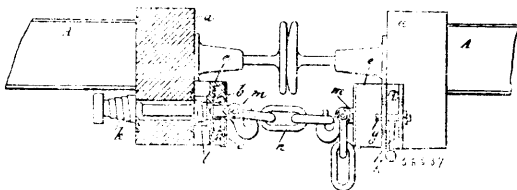
No. 58,836. Non-Explosive Filling Can.
(Bilon.)



Heymann Hirsch, Chemnitz, Saxony, Germany, 25th January, 1898; 6 years. (Filed 12th January, 1898.)

Claim.—A non-explosive safety can characterized by a filling aperture *b* capable of being hermetically closed, and provided with an insertion *c d* of wire gauze, and a pouring pipe or spout *g* which begins at a short distance above the bottom of the can and has an automatically closing flap *h*, substantially as described and shown.

No. 58,837. Coupler for Railway Vehicles.
(Atelage de chars.)



Paul Buttner and Friedrich Pall, both of Berlin, Germany, 25th January, 1898; 6 years. (Filed 12th January, 1898.)

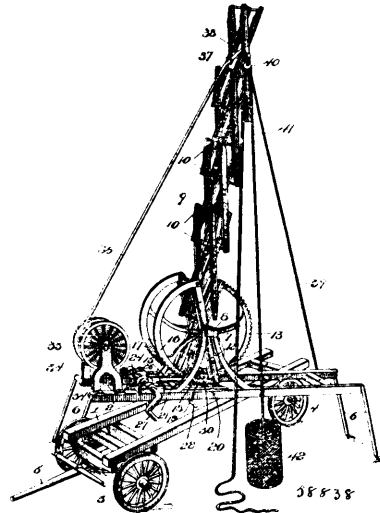
Claim.—A railway car coupling comprising in combination with the draw hook *m*, a box *c*, a slide *b* movable laterally therein and consisting of parts hinged together, said slide carrying said draw hook, and flaps *f* hinged to the box, with catches *g* for fastening same, whereby on unfastening and lifting the flaps, the draw hooks may be drawn laterally to the side of the car, substantially as set forth.

No. 58,838. Fire Escape. (Appareil de sauvetage.)

Carl Ferdinand Ekman, Marshalltown, Iowa, U.S.A., 25th January, 1898; 6 years. (Filed 12th January, 1898.)

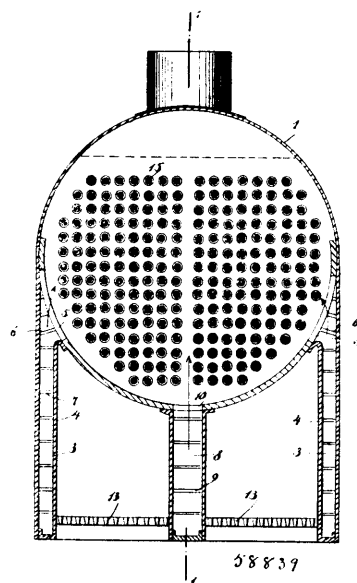
Claim.—1st. In an extension-ladder or hose-pipe tower, the combination of two opposite series of jointed levers, the two series being connected so as to form a lazy-tongs, locking means applied directly to one set of levers, actuating mechanism having direct and positive connection with the other set of levers for extending and folding the lazy-tongs, a locking device for connecting the two set of levers after the lazy-tongs have been extended to the proper distance, and means for releasing the lazy-tongs, whereby the actuating mechanism used for extending and folding the structure can be employed for leaning the ladder or tower in the required direction, substantially as set forth. 2nd. In an extension-ladder or hose-

tower the combination of two opposite series of jointed levers, the two series being connected so as to form a lazy-tongs, a toothed



segment firmly attached to one set of levers, a locking device to engage with the said toothed segment to secure it in a fixed position, a second toothed segment firmly attached to the opposite set of levers, actuating mechanism for moving the second toothed segment for extending and folding the lazy-tongs, and a locking means for securing the two sets of levers after the lazy-tongs have been extended to the required distance, whereby the two sets of levers are secured in locked relation and the ladder, or tower, capable of being leaned in either direction by the same mechanism employed for extending and folding the same, substantially as set forth. 3rd. In combination, a lazy-tongs structure mounted upon a bar, or shaft, toothed segments firmly attached to one set of levers, locking-pawls adapted to engage with the said toothed segments, a shaft having eccentrics to engage with the pawls and operate the same, a second toothed segment attached to the opposite levers, locking-bars for connecting the two sets of levers after the structure has been properly extended, a shaft having a worm-gear to engage with the said second toothed segment, and actuating mechanism therefor, the parts being combined so that the same mechanism employed for extending and folding the structure is used for leaning the same, substantially as described.

No. 58,839. Steam Boiler. (Chaudière à vapeur.)



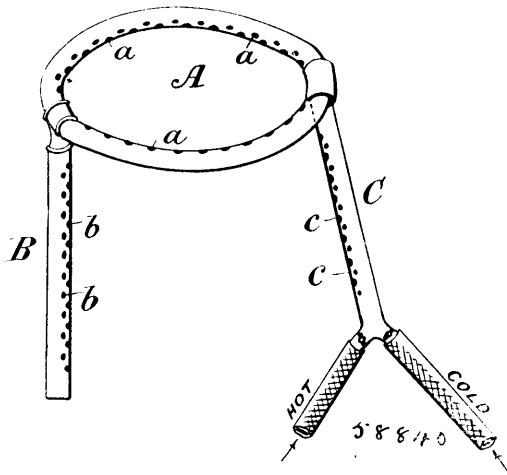
Melvin de Puy, Buffalo, New York, U.S.A., 26th January, 1898; 6 years. (Filed 12th January, 1898.)

Claim.—1st. A steam boiler, comprising a shell, side water legs communicating at the top with the interior of the shell through trans-

verse slots through the shell, and a centre water leg also communicating with the interior of the shell, the several water legs extending the whole length of the boiler shell, and the centre water leg having a width substantially equal to the combined width of the side legs, substantially as specified. 2nd. A steam boiler, comprising a shell, side water legs having communication therewith, and stay rods extended between the outer walls of the side legs and the lower portion of the shell, substantially as specified. 3rd. A steam boiler, comprising a shell, side water legs having communication therewith, the lower portion of the shell being of thicker metal than the upper portion, and stay rods extended between the outer wall of the side and the lower legs section of the shell, substantially as specified. 4th. A steam boiler, comprising a shell, side water legs communicating with the interior of the shell, stay rods connecting the opposite walls of the side water legs, a centre water leg, and stay rods connecting the opposite walls thereof, substantially as specified.

No. 58,840. Shower-Bath.

(Appareil de douche.)



W. H. Callaghan, Toronto, Ontario, Canada, 26th January, 1898; 6 years. (Filed 13th January, 1898.)

Claim.—1st. A shower-bath apparatus, comprising water-tap connections and a perforated head or ring adapted to be passed over the head and to rest upon the shoulders of the bather, said head or ring having a rigid perforated extension from the rear part thereof adapted to direct the streams towards the back of the user, substantially as and for the purpose set forth. 2nd. A shower-bath apparatus, comprising water-tap connections, a perforated head or ring adapted to be passed over the head and to rest upon the shoulders of the bather, said head or ring having a perforated pipe in communication also with said water-tap connections, and arranged to adapt itself to the size and form and to distribute the streams of water across the front of the body of the bather, substantially as set forth. 3rd. A shower-bath apparatus, comprising flexible water-tap connections, a perforated head or ring adapted to be passed over the head and to rest upon the shoulders of the bather, a rigid perforated extension from the rear part of said head or ring adapted to maintain same in place and to direct the streams of water towards the back, and an adjustable perforated pipe in direct connection with the water supply and with the head or ring, and arranged to adapt itself to the size and form and to distribute the streams of water across the front of the bather's body, all combined and arranged, substantially as set forth.

No. 58,841. Bicycle Sunshade. (Garde-soleil pour bicycles)

Catherine Minerva Speer, Port Gibson, Mississippi, U.S.A., 26th January, 1898; 6 years. (Filed 10th January, 1898.)

Claim.—1st. In a bicycle-sunshade, a belt adapted to fit the waist of the wearer, supports extending outward radially therefrom, and in the plane of the belt to the front and rear thereof, upwardly bent portions upon said supports, and a canopy-top held thereon. 2nd. In a bicycle-sunshade, a belt adapted to fit the waist of the wearer, supports extending outward radially therefrom, and in the plane of the belt to the front and rear thereof, whereby supports extending upward therefrom may be held clear of the body, upwardly bent portions upon said supports having a forked upper end whereby the line of vision in front of the wearer is kept clear, said upright supports being extended over, and diverging outward from,

the wearer, a pair of ribs running longitudinally of said supports and adapted to fall down by the force of gravity when said device



is worn, and fabric connecting these ribs, substantially as and for the purpose described.

No. 58,842. Jar Closure. (Fermeture de jarres.)

Fig. 1.

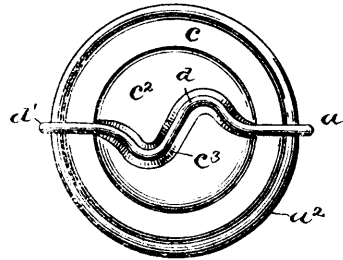
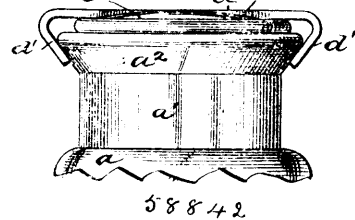


Fig. 2.



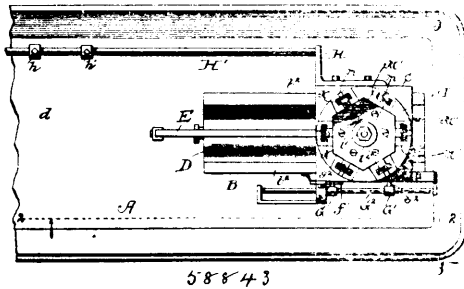
John Schies, Anderson, Indiana, U.S.A., 26th January, 1898; 6 years. (Filed 12th January, 1898.)

Claim.—1st. A jar closure, consisting of a cover having a serpentine groove in its upper face and extending crosswise of the same, and a clamp formed of a spring wire having a serpentine main or body portion to rest in the groove of the cover and provided with downwardly and inwardly inclined ends to engage the jar, whereby the clamp can yield longitudinally to permit it to be sprung upon a jar over the cover thereof, and when in position will be effectually prevented from being accidentally displaced, substantially as described. 2nd. A jar closure, consisting in a cap having on its top face a convex mound, the face of which is a regular curve running gradually into the plane outer portions of the top face of the cap, the mound having a serpentine groove formed therein, and the lower wall of said groove being level with the said plane outer portions of the top face of the cap, and a clamp consisting in a bar having a serpentine intermediate portion capable of lying snugly within the groove in the mound, and the ends of said bar being turned downward and inward to engage with the jar. 3rd. In a jar closure, the combination with a jar having an outwardly flaring mouth and a seat or ledge on the inner surface of its mouth, of a cover adapted to rest on said seat, and having a serpentine groove

in the upper surface, and a spring wire having a serpentine main or middle portion resting in the groove of the cover, and provided with downwardly and inwardly inclined ends engaging the outwardly flared mouth of the jar, substantially as herein shown and described. 4th. In a jar closure, a lid-securing clamp consisting of a rod or wire having a cross-bar bent to give the same a longitudinal spring, and having at its ends arms inclined inward and downward and adapted to co-operate with the flared mouth of the jar, substantially as described. 5th. In a jar closure, a lid-securing clamp consisting of a rod or wire having a cross-bar provided centrally with the transverse bent portions or wings lying in the same plane as the ends of the cross-bar, such ends being out of alignment, and the end arms inclined inward and downward, substantially as described.

No. 58,843. Bolt Cutting Machine.

(Machine pour couper les boulons.)

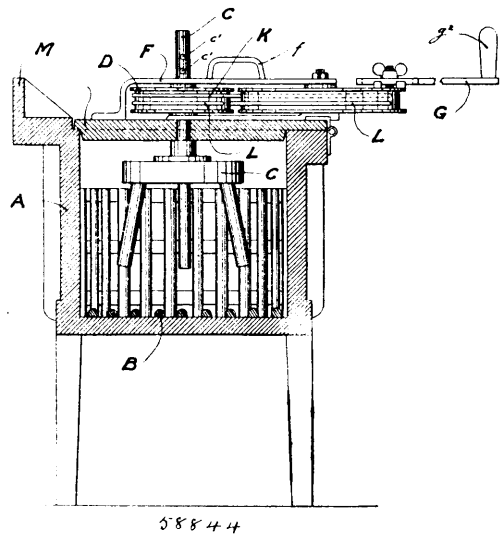


Henry A. Fergusson, Jersey, New Jersey, U.S.A., 26th January, 1898; 6 years. (Filed 29th September, 1897.)

Claim.—1st. The combination of a revolving turret or bolt-carrier, having a series of devices for carrying the bolts, a reciprocating carriage, fluid pressure operating mechanism for actuating the carriage, a rod mounted on the carriage and carrying devices for opening and closing the dies, devices carried by the carriage for controlling the operation of the fluid-pressure mechanism to reciprocate the carriage, and mechanism actuated by the reciprocation of the carriage to turn the turret. 2nd. The combination of the sliding carriage, the revolving turret or bolt-carrier mounted thereon, the pins projecting from the turret for revolving it, the dog engaging the pins at each reciprocation of the carriage to turn the turret, a cylinder, a piston, connections between the piston and the carriage, a valve for controlling the admission of fluid to the opposite ends of the cylinder, devices carried by the carriage for operating the valve, and devices also carried by the carriage for opening and closing the dies. 3rd. The combination of the reciprocating carriage, the revolving turret mounted thereon, a series of downwardly-projecting pins connected with the turret, a locking-bolt, a latch-lever for operating it, an adjustable tripping-block for operating the latch-lever, and a dog carried by the adjustable block adapted to act on the pins to turn the turret. 4th. The combination of the reciprocating carriage, the revolving turret carried thereby, a bolt for locking the turret to the carriage, a latch-lever for operating the bolt, downwardly-projecting pins connected with the turret, an adjustable tripping block acting on the latch-lever, a dog carried thereby acting on the pins, a cylinder, its piston, connections between the piston and the carriage, a valve for controlling the admission of fluid to the cylinder, and adjustable stops carried by the carriage for controlling the movement of the valve. 5th. The combination of a reciprocating and revolving turret or bolt-carrier, fluid-pressure

mechanism for reciprocating the turret, adjustable stops moved correspondingly with the turret to control the operation of the fluid-pressure mechanism, means for turning the turret and locking it, and an adjustable block and dog for controlling the operation of the turret revolving and locking devices. 6th. A bolt-carrier or turret having a series of recesses in its periphery, and an adjustable annular plate secured to its periphery and provided with a series of slots or recesses of different widths. 7th. A bolt-carrier or turret provided with recesses for the heads of the bolts, springs pressing against the heads of the bolts to hold them in position and receive end thrust, and an annular plate having a series of slots or recesses of different widths adjustably secured to the periphery of the cylinder. 8th. The combination of the reciprocating carriage, means for actuating it, a revolving turret or bolt-carrier pivotally connected with the carriage and having a series of downwardly-projecting pins, a bolt for locking the carriage and turret together, a latch-lever for operating the bolt, an adjustable tripping-block having a flange adapted to engage with the latch-lever, and a pivoted spring-pressed dog mounted on the block and adapted to engage with the pins to revolve the turret.

No. 58,844. Washing Machine. (Machine à laver.)



Amedée Houle, Montreal, Quebec, Canada, 26th January, 1898; 6 years. (Filed 13th January, 1898.)

Claim.—1st. In a washing machine a vertically adjustable agitator, substantially as described and for the purposes set forth. 2nd. In a washing machine, a working mechanism composed of two pulleys D and H secured in a frame F, cross belts K and L, adjustable lever G, frame F and handle f, substantially as described and for the purposes set forth. 3rd. In a washing machine, an upright piece M to secure a wringer thereto, substantially as described and for the purposes set forth.

TRADE-MARKS

Registered during the month of January, 1898, at the Department of Agriculture--
Copyright and Trade-Mark Branch.

6303. AUSTIN ADAMS, New York, N. Y., U.S.A. General Trade Mark, 5th January, 1898.
6304. CHARLES ALBERT GRIFFITH, Toronto, Ont. Cut and Plug Tobacco, 5th January, 1898.
6305. ASHLEY COOPER CORNELL, Brantford, Ont. Canned Fish, 7th January, 1898.
6306. E. N. CUSSON & COMPANY, Montreal, Que. Cigars, 7th January, 1898.
6307. }
6308. } THE WALDORF-ASTORIA SEGAR COMPANY, New York, N.Y., U.
6309. } S. A. Segars, 7th January, 1898.
6310. ALLEN & HANBURY'S, LIMITED, Plough Court, Lombard Street, London, England. Pharmaceutical preparations of all kinds, Surgical instruments, Foods for infants and invalids, Infants feeding bottles, Jujubes and lozenges whether medicated or otherwise, Toilet articles, Preparations for the teeth and hair and perfumed soap, 8th January, 1898.
6311. }
6312. } ALLEN & HANBURY'S, LIMITED, Plough Court, Lombard Street, London,
6313. } England. Pharmaceutical preparations, especially those of malt, 8th January, 1898.
6314. ALLEN & HANBURY'S, LIMITED, Plough Court, Lombard Street, London, England. Pharmaceutical preparations of all kinds, Surgical instruments, Foods for infants and invalids, Jujubes and lozenges whether medicated or otherwise, Toilet articles, Preparations for the teeth and hair and perfumed soap, 8th January, 1898.
6315. GASTON BRIGALANT, Barentin, France. Goods manufactured from artificial leather, 8th January, 1898.
6316. THE MARITIME PURE FOOD COMPANY, LIMITED, Woodstock, N.B. Fruit and vegetables, 10th January, 1898.
6317. ALONZO WILSON SPOONER, Port Hope, Ont. Antifriction metal, 10th January, 1898.
6318. HENRY WADE, Kingston, Ont. Pills, 11th January, 1898.
6319. AUSTIN ADAMS, New York, N. Y., U.S.A. General Trade Mark, 11th January, 1898.
6320. THE BASLE CHEMICAL WORKS BINDS CHEDLER, DR. ROBERT BINDS CHEDLER, Basle, Switzerland. Chemical Productions, 12th January, 1898.
6321. Vereinigte Chininfabriken ZIMMER & COMPANY, Gesellschaft mit beschränkter Haftung, Frankfort-on-the-main, Germany. Pharmaceutical Products, 12th January, 1898.
6322. JOHN HENRY McMECHAN, London, Ont. Soap, 13th January, 1898.
6323. SOLARINE COMPANY, Chicago, Illinois, U.S.A. Metal Polish, 13th January, 1898.
6324. NOAH WENGER and AARON WENGER, Ayton, Ont., trading as N. WENGER & BROS. Flour, 15th January, 1898.
6325. WILLIAM PRETTY & SON, Ipswich, Suffolk, England. Corsets, 17th January, 1898.
6326. WILLIAM PRETTY & SON, Ipswich, Suffolk, England. General Trade Mark, 17th January, 1898.
6327. THE GOLDSMITHS STOCK COMPANY OF CANADA, LIMITED, Toronto, Ont. Rolled Plate and Filled Gold Jewellery, 19th January, 1898.
6328. ST. LAWRENCE STARCH COMPANY, LIMITED, Port Credit, Ont. Feed, 19th January, 1898.
6329. JOHN WATTERSON, Montreal, Que. Portland Cement, 19th January, 1898.
6330. THE JOLIETTE TOBACCO COMPANY, Joliette, Que. Cut and Plug Tobacco, 19th January, 1898.

6331. THE MANHATTAN MEDICINE COMPANY, New York, N.Y., U.S.A. A patent medicine, 19th January, 1898.
6332. GEHR. MÜLLER & COMPANY, Renscheid, Prussia, Germany. Razors, Pocket knives, Table knives and carvers, Butcher knives, Scissors and shears, Tools and skates, 19th January, 1898.
6333. LAW, YOUNG & COMPANY, Montreal, Que. Brandy, 20th January, 1898.
6334. FRANK W. MERRILL, Brantford, Ont. Medicine, 20th January, 1898.
6335. THE FARBENFABRIKEN vormals FRIEDRICH BAYER & COMPANY, Elberfeld, Prussia, Germany. Dye stuffs, 20th January, 1898.
- 6336 } THE FARBENFABRIKEN vormals FRIEDRICH BAYER & COMPANY, Elberfeld, Prussia, Germany. Pharmaceutical Preparations, 20th January, 1898.
6337 }
6338 }
6339 }
6340. SUTER HARTMANN and RAHTJEN'S COMPOSITION COMPANY, LIMITED, London, England. Paints of all descriptions, including compositions for ships' bottoms, 21st January, 1898.
6341. DAVID W. HODGSON, Mitchell, Ont. An oil and ointment, 22nd January, 1898.
6342. BRADLEY SALT COMPANY, Warsaw and New York, N.Y., U.S.A. Salt, 24th January, 1898.
6343. ARTHUR C. LEONARD, Windsor, Ont. Perfume, Perfumed Waters and Sachet Powder for Toilet use, 24th January, 1898.
6344. JOHN GALT, Winnipeg, Man. Tea, Coffee, Spices or Baking Powder, 24th January, 1898.
6345. F. HISCOX COMPANY, New York, N.Y., U.S.A. Hair Dressings, 24th January, 1898.
- 6346 } THE CHURCH AND DWIGHT COMPANY, New York, N.Y., U.S.A. Powder for Baking purposes, such as Baking Powders and Baking Sodas, 26th January, 1898.
6347 }
6348. THE WALKERVILLE BREWING COMPANY, LIMITED, Walkerville, Ont. Ale, Stout and Porter, 27th January, 1898.
6349. THE JOLIETTE TOBACCO COMPANY, LIMITED, Joliette, Que. Cut and Plug Tobacco, 27th January, 1898.
6350. WILLIAM TONK & BROTHER, New York, N.Y., U.S.A. Strings for Musical Instruments and S-ringed Musical Instruments, 27th January, 1898.
6351. THE TORONTO RADIATOR MANUFACTURING COMPANY, LIMITED, Toronto, Ont. Radiators, 28th January, 1898.
6352. THE MASON AND RISCH PIANO COMPANY, LIMITED, Toronto, Ont. Pianos, 29th January, 1898.
6353. LOUIS GILLIER, Montreal, Que. Produits naturels de Pin et de Sapin parfumés sous toutes les formes, 29 janvier, 1898.
6354. COME ALFRED DUGAS, Montréal, Qué. Un Onguent pour Guérir les Cancers, les Clous, les Ulcères, les Panaris, les Hemorrhoides, le Rife, les Rhumatismes, les Abces, les Ecouelles, les Dartres, les Demangeaisons, etc., 31 janvier, 1898.

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9688. JÉSUS RÉGNANT PAR MARIE. (Livre.) M. l'abbé F. H. Lavallée, Sherbrooke, Qué., 7 janvier, 1898.
9689. THE IDEAL LIFE. By Henry Drummond. With Memorial Sketches by Ian Maclaren and W. Robertson Nicoll. Hodder & Stoughton, London, England, 7th January, 1898.
9690. THE LAW OF LEGISLATIVE POWER IN CANADA. By A. H. F. Lefroy, M.A., Toronto, Ont., 7th January, 1898.
9691. ORAL LESSONS IN FRENCH FOR JUNIOR CLASSES. Teachers' Manual. (Part V.) By H. H. Curtis, Montreal, Qué., 7th January, 1898.
9692. GRAFTON'S EXERCISES IN ARITHMETIC. No. 3. F. E. Grafton & Sons, Montreal, Qué., 7th January, 1898.
9693. GRAFTON'S GRADED ARITHMETIC. BOOK IV. By E. W. Arthy. F. E. Grafton & Sons, Montreal, Qué., 7th January, 1898.
9694. SPECIAL \$12.00 CARBONETTE TICKET." Herbert Edward Simpson, Toronto, Ont., 7th January, 1898.
9695. FACTS ABOUT THE POWER TRACK CLEANER AND DIGGER. F. H. Date, Manager of the Power Track Cleaner Co., Toronto, Ont., 8th January, 1898.
9696. ORAL LESSONS IN FRENCH FOR JUNIOR CLASSES. (PART V.) By H. H. Curtis, Montreal, Qué., 8th January, 1898.
9697. THE CIRCUIT GUIDE—SPRING ASSIZES, 1898. By George Allan Kingston, Toronto, Ont., 10th January, 1898.
9698. CANADA, AN ENCYCLOPEDIA OF THE COUNTRY. Edited by J. Castell Hopkins. Illustrated, Volume I. The Bradley-Garretson Company (Ltd.), Toronto, Ont., 10th January, 1898.
9699. INDEX TO THE RAILWAY ACT OF CANADA AND AMENDMENTS. By Walter Vaughan. R. R. Cromarty, Toronto, Ont., 10th January, 1898.
9700. STEPS IN THE PHONIC SYSTEM. A Manual for the Use of Primary Teachers. By Anne E. Cullen and Christina C. Niven. The Copp, Clark Co. (Ltd.), Toronto, Ont., 10th January, 1898.
9701. THE MERCHANTS' EXCHANGE BOOK. (Issued by the Canadian Merchants Exchange Company.) Frederick James Read, Chatham, Ont., 12th January, 1898.
9702. THE DELINEATOR. (A Journal of Fashion, Culture and Fine Arts.) February, 1898. The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th January, 1898.
9703. THE GLASS OF FASHION UP TO DATE. (February, 1898.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th January, 1898.
9704. METROPOLITAN FASHIONS. (February, 1898.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th January, 1898.
9705. OFFICIAL TELEPHONE DIRECTORY, WINNIPEG AND SELKIRK, MANITOBA, (DECEMBER, 1897.) The Bell Telephone Company of Canada (Ltd.), Montreal, Qué., 12th January, 1898.
9706. HUGHES' RENEWAL INTEREST TABLES AT 6 AND 7 PER CENT PER ANNUM. Charles M. C. Hughes, Montreal, Qué., 13th January, 1898.
9707. SABRE THRUSTS AT FREE THOUGHT; OR, A DEFENCE OF DIVINE INSPIRATION. By Rev. W. W. Walker, Wm. Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 15th January, 1898.
9708. THE PROVINCE MAP OF THE KLONDYKE." Second Edition. The Province Publishing Company (Ltd.), Victoria, B.C., 19th January, 1898.
9709. BREAK THE NEWS TO MOTHER. Words and Music by Chas. K. Harris. Arranged by Joseph Clauder. Whaley, Royce & Co., Toronto, Ont., 21st January, 1898.

9710. REVUE CANADIENNE, janvier 1898. Alphonse Leclaire, Montréal, Qué., 21 janvier 1898.
9711. ALLEN'S RULE SCALE FOR SCHOOLS, (Mathematical scale.) Thomas C. Allen, Halifax, N.S., 24th January, 1898.
9712. MOONLIGHT VIEW OF RED MOUNTAIN, AT ROSSLAND, BRITISH COLUMBIA. (Photo.) G. M. Eddie, Rossland, B.C., 25th January, 1898.
9713. MOONLIGHT VIEW OF SPOKANE MOUNTAIN, AT ROSSLAND, BRITISH COLUMBIA. (Photo.) G. M. Eddie, Rossland, B.C., 25th January, 1898.
9714. THE SCIENCE OF GENERATION. (Book.) Clara Hodgins, London, Ont., 26th January, 1898.
9715. A TABLE SHOWING NUMBER OF DAYS FROM END OF ANY MONTH TO END OF ANY MONTH. H. P. Dunbar Evans, Owen Sound, Ont., 26th January, 1898.
9716. M. DE LA COLOMBIÈRE. Orateur Historique d'un Sermon Célèbre prononcé à Notre-Dame de Québec le 5 novembre 1690, à l'occasion de la levée du Siège de cette ville, et répété le 25 octobre 1711, à la nouvelle du désastre de la flotte anglaise sur les récifs de l'Île-aux-Œufs, etc., etc. Par Ernest Myrand. Cadieux et Derome, Montréal, Qué., 27 janvier, 1898.
9717. RAPHAEL'S RANCH. (Temporary Copyright.) Story published in "The Globe," Toronto. Louis Pendleton, Toronto, Ont., 29th January 1898.
9718. THE POCKET DIRECTORY FOR THE COUNTY OF SIMCOE, 1898 Samuel Wesley, Barrie, Ont., 29th January, 1898.
9719. THE CANADIAN LAW LIST, 1898. Edited by H. R. Hardy. H. Cartwright, Toronto, Ont., 31st January, 1898.
9720. ON THE BANKS OF THE WABASH FAR AWAY. (Song and Chorus: Words and Music by Paul Dresser. Howley, Haviland & Co. New York, N.Y. U.S.A., 31st January, 1898.