

RECENTLY PATENTED INVENTIONS.

Engineering.

VARIABLE CUT-OFF.—Walter de Sanno, Corry, Pa. This is a slide valve connected by a connecting rod with an operating lever, a lever to which the rod is attached being pivoted to the side of a rocker lever and a sliding block being attached to the operating lever and provided with suitable rods by which it may be moved, thus effecting a quick valve motion and variable cut-off, with means for quickly changing the stroke.

SLIDE VALVE.—Edward Leslie, Orangeville, Ontario, Canada. This valve consists of an outer valve section formed to rest upon the valve seat, this section controlling the inlet of the motive agent, and an inner valve section having an open top, which also rests upon the valve seat and is formed with a flange that fits closely against the under side of the top of the outer valve section, this inner valve section controlling the exhaust, and the construction providing for an exceedingly rapid reciprocation of the valve.

BOILER LEVELER.—William H. and Joseph L. Freeman, Shell, Ohio. Combined with the boiler, the front axle, and a straight rack bar loosely attached thereto, is a worm gear secured to the boiler and a shaft arranged alongside of it, with other novel features, for conveniently and rapidly leveling the boilers of traction engines.

IGNITOR FOR GAS ENGINES.—John J. Pearson, New York City, and Julius Kunze, Yonkers, N. Y. Combined with the power cylinder is a water jacket valve chamber in which is seated a spring-pressed valve having an apertured stem and valve seat, another valve being fitted to the valve seat and carrying a plate and burner to heat the plate, in connection with a movable cam arranged to push forward both valves, an operating lever and governor balls.

Railway Appliances.

CAR COUPLING.—Charles G. Wheeland, Brush Creek, Iowa. This invention provides a means whereby the link may be vertically adjusted from the side of the car to couple with a drawhead of greater or less height, the coupling being made automatic when desired, and the device being capable of being reversed or turned end for end.

ELEVATED RAILROAD.—John N. Valley, Jersey City, N. J. This is a structure more especially adapted for use in timber lands for getting out logs, or in mines for transporting coal, etc., and is made with a single rail or track supported by hangers from overhead longitudinal stringers sustained by struts set on or into the ground.

Mechanical.

SAW FILER.—Chandler W. Dudley, Whiting, Iowa. This device has a supporting rod on which slides a bed plate, there being pivoted on the latter a turn table having guide standards in which slide guide rods, with other novel features, by which, when the device is set to the proper pitch or bevel, it is impossible to file at any other angle, and the labor is easily performed.

WINDMILL.—Lincoln E. Martin, Emery, South Dakota. This mill is more especially adapted for the discharge of water taken by it from a well into an adjacent float tank to maintain a water supply to buildings or farms, the mill being automatically operated for such purpose, and the entire construction being designed to be simple, strong, and efficient.

BELT SHIFTING AND BRAKE MECHANISM.—James H. Rohme, Newburg, N. Y. This is a combined mechanism to be connected with the driving wheel and flywheel of a sewing machine, to readily shift or unship the driving belt from the driving wheel while the latter is in motion and apply a regulated pressure to the flywheel to brake it.

Agricultural.

CORN PLANTER.—Byron E. Cagle, Medina, Kansas. This invention relates to corn planters in which the seed-dropping mechanism is located on the traveling wheels, the cut-off slides being automatically operated during the revolution of the wheels to drop the seed at the proper time by engaging a fixed portion of the planter frame, the operation being positive and the machine simple in construction.

REVERSIBLE PLOWSHARE.—William Heithesay, Petersburg, South Australia. In this plowshare the standard has a foot projected laterally at an angle in combination with a reversible approximately triangular share secured at its apex to the foot, the cutting edge of the share making one side of the base of the triangle, forming a double-pointed share which can be reversed when the forward point becomes blunt, when the reversed point will be automatically sharpened by the further use of the share.

HAY STACKER.—John H. Moore, Plessis, N. Y. This is a slide or chute, usually consisting of two parallel end beams, connected by a number of slightly spaced strips or planks, and adapted for attachment within a barn, whereby the hay elevated by the fork or sling may be directed to the sides of the mow or to the center.

HAY LOADER.—Adolph Lasack, Oxford Junction, Iowa. Combined with a bed and crank shafts journaled therein is a series of longitudinal rake bars, provided near their upper ends with tracks, each formed of a piece of wire bent upon itself to constitute parallel arms with prongs, with other novel features, the invention being an improvement on a former patented invention of the same inventor.

Miscellaneous.

WAGON JACK.—A. J. Oliver and R. M. Wren, Oakland, Cal. Combined with a standard having three walls stiffened by web pieces, with two rows of hook-shaped teeth projecting from its front

face in opposite pairs, is a bracket frame to which are attached sleeves adapted to slide on the standards, a forked lever, a cross bar, and two pivoted parallel links loosely connected to the ends of the fork lever, with a dog which can be made to mesh with two opposite teeth of the standard, the construction being simple, strong and efficient.

FAMILY BIBLE CABINET.—John Melville, Connelleville, Pa. This is a combined case and book holder movable vertically therein, with latches pivoted to the holder, whereby they may be turned laterally to engage the case when the holder is elevated, with other novel features, whereby such a book may be well preserved and readily adjusted for convenient examination.

FOLDING BED.—Fredrick Bennett, New York City. In this bed the bed bottom is hinged to a vertical stationary frame with rigid arms on its lower edge, in combination with intermediate sections, to which are hinged a head rail with weight levers and links, the head rail being attached to the mattress and supported loosely at its ends, the mattress being drawn taut and held from yielding when the bed bottom is wholly lowered.

WINDOW SHADE FIXTURE.—Abraham B. Dunkle, Steelton, Pa. This is an improved form of roller carrying brackets adapted to fold when not in use, combined with an independent strip to which they may be attached without resorting to the ordinary means of securing them, whereby the brackets are supported without direct attachment to the window frame, and may be readily placed in position for use.

LINIMENT.—Stephen J. Lancaster, Petrolia, Ontario, Canada. This is a new composition of matter for the treatment of sciatica, neuralgia, gout, inflammatory rheumatism, and similar diseases, the composition including a tincture in alcohol of capsicum, Prince's pine, camphor gum, and other ingredients, combined and applied in a manner specified.

TIME LOCK.—Charles F. Myers, McKinstry's Mills, Md. This is a lock for the doors of safes, vaults, etc., and specifically provides for the accidental derangement of the time mechanism by having two sets of mechanism operating in unison or independently of each other, providing for automatic unlocking when it has been accidentally allowed to run down, and in the event of the breaking of the main-spring or other operative part.

COIN-RELEASED TELEPHONE LOCK.—Harry L. Cassard, Baltimore, Md. This is a lock by which the suspension hook for the receiver is held from upward movement to complete the telephone circuit, but will be released by the aid of an inserted coin, the apparatus being especially designed for application in telephone stations where the proprietor desires to collect tolls from outside parties using the telephone.

GALVANIC BATTERIES.—Edward M. Burt, Paris, Ill. This invention provides an inexpensive and effective exciting solution for galvanic batteries, formed by dissolving the salts produced by the burning of cobs of Indian corn, the battery being prepared after a manner specified.

OXIDIZING OR DESULPHURIZING ORE.—Edwin M. Clark, Butte City, Montana. This invention provides for forcing a large supply of air into the furnace containing the ore, for which a novel form of furnace is provided, thus hastening combustion and desulphurization, instead of first roasting the ore for a longer time to consume or destroy the sulphur.

HOLDING CARBON PAPER FOR COPYING.—William H. Pardee, Antigo, Wis. This is a combined surface plate and carbon paper holder, adapted to be used by slipping it in between the leaves of a copying book, writing pad or tablet, to give a smooth writing support, and also serve as a carrier and holder of the carbon paper.

TABLET OR BOOK HOLDER.—This is a novel form of slip holder for tablets or books, patented by the same inventor, adapted to hold the back and one corner of the tablet or book within it, and designed for use as an appendage to a desk or table, or as a flexible book cover for binding purposes.

RIBBON SPOOL FOR TYPE WRITERS.—William L. Salvage, Chattanooga, Tenn. This invention provides for the quick and cleanly substitution of ribbon spools in all machines using ribbons, the spool shaft being held in place by a pivoted spring and a stop limiting its endwise movement, thus largely economizing time and facilitating the changes where a large variety of work is done.

ARTIFICIAL LIMB.—Alexander Gault, Medford, Minn. This invention relates especially to the construction of the foot and ankle, all ankle machinery and heel and toe cords being dispensed with, and means provided whereby felt may be employed in forming the foot, and the toe be held at all times in position to contact naturally with the ground.

COLLAR AND CUFF BOX.—Theodore Springmeyer, New York City. This box has a central tubular cuff receptacle, an annular collar receptacle, and a small pocket or covered well secured centrally to the cover, forming a convenient receptacle for small articles of jewelry, such as buttons, studs, etc.

SHOW AND SALE CASE.—Edwin A. Angell, Boston, Mass. The casing has opposite doors at or near its bottom, with a partition pivoted at one side of its center, whereby it is adapted to be held inclined from front to rear or from rear to front, and having also an extensible leaf, the case being designed for the use of grocers, seedsmen, etc.

FUMIGATOR.—Albert R. Bowker and James D. Millen, Winona, Minn. This is a hollow cylinder provided with a fire box and grate, with a chemical box above the fire box to sprinkle chemicals upon the fire, and a piston to force the smoke through an opening in the cylinder, the device being operated by suitable handles to fumigate a building or an animal burrow.

SAD IRON.—Christian Fox, Christiana, Pa. This is an iron in which the handle is made

detachable, the body of the iron being either hollow or solid, and the handle being reversible with respect to the ends of the body, simple catch devices facilitating the expeditious attachment or detachment of the handle.

CANDLESTICK.—George Gavin and Lawrence W. Cromer, Eureka, Nevada. Combined with a base pan are two spring wires secured, and having curved overlapping central parts at a proper distance above the base for holding the candle, forming an extremely simple and inexpensive device.

DOUBLE BAG.—Charles McCaffrey and Charles W. Biglow, New York City. This is a bag in which the outer portion is formed of textile fabric and the inner portion of paper, the inner portion being slightly larger, whereby the strain upon the inner bag will be taken up by the outer bag, the combined device being adapted for carrying ground plaster, phosphates, etc.

GATE.—James H. Slater, Hart, Mich. This is a gate especially designed for simplicity of construction and cheapness of material used, and adapted to be quickly and conveniently adjusted for height to avoid snow and ice, while its hinge connections permit it to fold flat against a fence in opposite directions, the gate being more particularly designed for guarding railroads and farm inclosures.

DRAIN FOR STALLS.—Martin Logan, New York City. Combined with the longitudinal slats of the stall floor, with suitable drains between the slats and a cross drain in the rear, are cleats in the rear of and parallel with the cross drain, with a locking bar fitting between the cleats and the slats of the stall floor, to cover the cross drain and hold the slats in position, making a simple drain that will not easily become clogged and can readily be cleaned.

FOUNTAIN FOR WATERING STOCK.—Alphonse Friedrich, Baldwin, N. Y. This is more especially designed for a poultry yard, the reservoir having a drip pipe which discharges into a main pipe laid underground in an inclined position, while branch pipes extend vertically therefrom to cups held above ground, whereby it is designed to keep the water cool and fresh in summer and prevent it from freezing in winter.

CRATE.—George T. Hall, Monrovia, Cal. This is styled the "California berry crate," and has solid ends, to the inner sides of which transverse strips are secured, and partitions secured to the strips, the partitions consisting of a rigid section and a hinged section, the latter being movable back upon the rigid section, whereby access may be had to the lower portion of the crate, while the sections cannot be removed and displaced.

SCIENTIFIC AMERICAN BUILDING EDITION.

MAY NUMBER.—(No. 55.)

TABLE OF CONTENTS.

1. Elegant plate in colors representing a tasteful cottage of moderate cost at Buffalo, N. Y. Perspective elevation, floor plans, sheet of details, etc.
2. Colored view of a residence at St. George, Staten Island, N. Y. Estimated cost \$20,000. Floor plans, perspective elevation, sheet of details, etc.
3. Stone residence, corner of St. Nicholas Place and 150th Street, New York city. S. Burrage Reed, architect.
4. New buildings at Eastgate and Bridge Streets, Chester.
5. Engravings of the residence of J. M. Johnson, Binghamton, N. Y. Perspective elevations and floor plans. Cost \$19,000 complete.
6. Perspective view of the office buildings of the Gotthard Railroad in Lucerne.
7. An English cottage. Perspective and floor plans.
8. A cottage recently erected at Binghamton, N. Y., cost complete \$8,800. Plans and perspective.
9. A residence in the Gothic style erected at New Brighton, S. I. Floor plans and perspective.
10. Excellent design of a country house recently erected at Belle Haven, Conn. Cost \$14,250. Oscar S. Teale of New York, architect. Perspective views and floor plans.
11. A double dwelling at Yonkers, N. Y., erected at a cost of \$8,000. Plans and perspective.
12. Residence of Chas. Kappes, Esq., at Stapleton Staten Island, N. Y. Cost complete \$4,000. Perspective elevation and floor plans.
13. Cottage at Greenwich, Conn., erected at a cost of \$7,250 complete. Floor plans and perspective.
14. Miscellaneous Contents: High buildings.—Bad fuses.—Imitation ebony.—Destruction of asphalt pavement by gas.—Art of building.—Improved dumb waiters, illustrated.—An improved skylight, illustrated.—Rogers miter planer, illustrated.—Dumb waiters and hand power elevators.—A fine window in the Convent of the Sacred Heart, illustrated.—Improved sash pulleys, illustrated.—A hot air and hot water heater, illustrated.—Colors for mortar.—Improved adjustable grooving head, illustrated.—An improved window screen frame, illustrated.

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Notes & Queries

HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters, or no attention will be paid thereto. This is for our information, and not for publication.
References to former articles or answers should give date of paper and page or number of question.
Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and though we endeavor to reply to all, either by letter or in this department, each must take his turn.
Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.
Scientific American Supplements referred to may be had at the office. Price 10 cents each.
Books referred to promptly supplied on receipt of price.
Minerals sent for examination should be distinctly marked or labeled.

(2259) J. W. asks how to prepare an ink for the automatic shading pen. A. Use solution of gum arabic of proper thickness colored with aniline colors. Add just enough oil of cloves to give a perceptible odor, to prevent moulding.

(2260) C. C. writes: In making bichromate batteries for running small lamps for armatures, would it make any difference if the cells were larger, say about a quart, provided we use a less number of cells? How are batteries compared with one another in strength. Is it by the area of zinc used, supposing the solutions to be both the same? I would like to have directions for making something to attach to an electric bell so that it will not ring more than five seconds when the button is being pushed, and which will release when the button is let go. About how many ohms resistance are common electric bells wound? A. It is necessary to have a number of battery cells to secure the required voltage. The strength of the current increases with the size of the plates, the pressure or voltage with the number of cells. A dash pot arrangement might do for your push button. Bell magnets run from 5 to 20 ohms resistance.

(2261) W. P. S. asks: What will take away the bad smell from the water in a cistern without making it unfit for washing purposes? A. Possibly suspending a bag full of charcoal in it may answer. A little permanganate of potash may do good. In this case, if enough is added to produce a pink color, it will stain the clothes.

(2262) F. L. M. asks: What pressure must be applied to air to raise the temperature from 50° Fah. to 100° Fah.? A. 13793 atmospheres. This is on basis of adiabatic compression, there being assumed to be no loss of heat. The rule is that the temperatures referred to the absolute zero are in proportion to the 0.2907 power of the pressures. It must be calculated by logarithms.

(2263) E. W. B. asks how to make a good shoe dressing for ladies' and children's shoes. A. See answer to query 1704, SCIENTIFIC AMERICAN, January 11, 1890.

(2264) A. J. H. asks: Is there any chemical used to make cider vinegar sour? Is it injurious? A. Unfortunately, other acids are used by unscrupulous manufacturers or dealers. We consider any such treatment an adulteration.

(2265) W. F. C. asks: 1. What salts are there which when mixed with gelatin will make it insoluble, and when acted upon by light will make it soluble? A. The reverse action, if any, takes place with most known salts. 2. Cement or glue to fasten hard rubber together, also to fasten hard rubber to wood. A. Use 20 parts shellac and 1 part gutta percha melted together. 3. Best glue for fastening cloth to brass. A. Try gum tragacanth. 4. How can I cover a detective camera with canvas such as that used on telescopic hand satchel? Would fish glue be good for cementing the canvas to the varnished wood? A. Yes.

(2266) F. A. M. asks: 1. How is vulcanite or hard rubber polished by experienced rubber workers? I have a great deal of vulcanite work to do, and would like to know the best possible way to cut and polish it. A. The method of polishing hard rubber depends on the form of the article and also upon the way in which it is moulded and vulcanized. It may be vulcanized in such a way as to require very little finish. If it is to be shaped in any way by means of a lathe, or cutters or files, it will of course require smoothing and polishing. Irregular pieces are shaped by rotary cutters and by filing, smoothed by means of sand paper or emery cloth, semi-polished by means of felt wheels and rather harsh brushes charged with ground pumice stone and water, and finally finished by the use of soft polishing brushes charged with whiting and water. Pieces turned in a lathe are smoothed with fine emery cloth with a little oil, and finished with whiting and water applied with a woolen cloth. 2. How is hard rubber manufactured? A. Hard rubber is made by intimately incorporating sulphur and coloring matter with the pure gum, pressing it into the mould, and then vulcanizing it by placing it in a suitable chamber filled with steam under pressure. For the details of the process we refer you to the literature of the subject.

(2267) M. J. F. asks if white, the same as paper, is a color. A. Subjectively speaking, white is not a color. Theoretically, it is due to a mixture of all light waves of all lengths, and, therefore, may, in that sense, be defined as a mixture of an immense number of colors.

(2268) C. S. asks how the seltzer water bottles are opened, or at least how they are filled. A. They are closed by a self-acting valve, which opens inward. The water is forced in through this valve, which retains it once it is in.

(2269) C. W. D. asks for a receipt for making liquid glue that is adhesive and tasteless to the tongue. I want to use it on labels, so after they are glued, they can be moistened with the tongue without leaving a bad taste. A. The following is said to be used on postage stamps:

- Dextrine.....2 parts.
Acetic acid.....1 "
Water.....5 "
Alcohol.....1 "

(2270) R. E. W. writes: What material will become electrified by friction? What material could be used to coat an iron or other metal surface so as to electrify it by friction? Friction to be by bristle brush. A. Give it several coats of shellac varnish, made by dissolving shellac in alcohol.

(2271) A. E. P. writes: Will you please advise me if there is any ink or combination of chemicals which will make a stain or color on paper that will disappear on being heated? I want to find if possible something which works directly opposite to the salts of cobalt, which are invisible at ordinary times, but which appear when heated. A. A dilute solution of iodine and starch will lose color on heating. Also paper colored with a solution of cupric sulphate (blue vitriol) will tend to whiten on the application of heat.

TO INVENTORS.

An experience of forty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequalled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices, which are low, in accordance with the times and our extensive facilities for conducting the business. Address MUNN & CO., office SCIENTIFIC AMERICAN, 361 Broadway, New York.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

May 27, 1890.

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Adjustable chair or stool, J. Briggs 428,664
Advertising device, R. W. Swann 429,070
Air device for indicating the condition of the H. Winterhlich 429,078
Alarm. See Burglar alarm. Low water alarm.
Album, musical, I. Von Auw 428,795
Animal trap, C. S. Shaw 428,965
Annunciator, R. P. Garsed 428,810
Anvil clamp, W. Way 428,980
Archery bow, D. M. Holmes 428,912
Axle box lid, car, W. Pennock 428,944
Axles for vehicles, machine for oiling the, C. T. Phillips 428,945

Bag. See Double bag. Paper bag.
Bake pan, I. E. Wiley 428,792
Baling press, T. Tebow 428,976
Band cutter and feeder, W. Close 429,014
Bar. See Grate bar.
Barrel, ventilating, J. F. East 429,021
Basins, device for ejecting water or other liquids from containing tanks to, J. Penney 428,943
Basins (in stationary wash stands, device for securing, J. Gaghan 429,028
Battery. See Galvanic battery.
Battery solution, galvanic, E. M. Burt 428,888
Battery zinc, preparing, J. H. Mason 428,684
Bed bottom, spring, W. Schmitt 428,687
Beds or lounges, head and shoulder rest for, W. Oxley 428,938
Bell, door, F. Sanderson 428,636
Bit. See Bridle bit.
Bit brace, L. C. Wilcox 428,964
Blackboards, composition for, C. R. Ruttkar 429,063
Block. See Pulley block.
Boiler. See Locomotive boiler.
Boiler furnace, steam, E. O. Holmes 428,609
Boiler leveler, W. H. & J. L. Freeman 428,837
Book cover for educational purposes, E. Eggleston 428,899
Bookbinder's gathering machine, H. Mattill 428,685
Bookbinding machine, A. Bredenberg 428,741
Boring bar puppet, F. W. Taylor 428,703
Bottle, hot water, A. McTernan 428,692
Box. See Letter box. Match box.
Box fastener, J. E. Mergott 428,726
Box fastener, H. S. Wright 428,932
Box staying machine, E. M. Richardson 428,952
Brace. See Bit brace.
Bracelet, A. Kienle 429,039
Brake. See Car or locomotive brake. Vehicle brake. Wagon brake.
Braking and scutching machine, A. & L. L. Bentley 428,663
Brick, building, C. Reynhold 429,061
Brick, cleaning and polishing, B. F. Fay 429,060
Bridge gate, draw, Millidge & Johnson 428,927
Bride bit, G. Brockington 428,767
Bride or halter, G. T. Duncan 428,898
Broom catch, M. Lamont 428,680
Broom head, Clyde & Welsh 428,665
Bucket, feed, A. F. Moody 428,632
Burglar alarm, L. B. Battin 429,001
Burglar alarm, Hayward & Sims 428,774
Burglar alarm, W. H. Reiff 428,693
Burner. See Gas and air burner. Oil burner. Hydrocarbon burner.
Button fastening machine, E. Noelle 429,052
Button setting machine, W. M. Gerkey 429,903
Cable grip, E. R. Guerra 428,904
Calendar, perpetual, A. G. Mastus 429,043
Calendar, perpetual, T. Stapleton 428,788
Calipers and dividers, W. H. Stuart 429,069
Cameras, roll holder for, T. H. Blair 428,797
Can. See Oil can.
Can cover, E. M. Peacock 428,760
Candlestick, Gavin & Cromer 428,673
Cant hook for loggers, L. Koster 428,724
Car coupling H. C. Buhoup 429,081
Car coupling, F. A. Fox 429,026
Car coupling, W. H. Harris 428,910
Car coupling, L. J. Kemp 428,918
Car coupling, C. McKernan 428,855
Car coupling, H. E. Moomaw 428,928
Car coupling, R. T. Morrison, Jr. 428,689
Car coupling, N. Newman 429,051
Car coupling, G. W. Powell 429,096
Car coupling, G. W. Simmons 428,610
Car coupling, W. J. Walker 429,103
Car coupling, C. G. Wheland 428,872
Car or locomotive brake, M. P. Burey 428,744
Car propelling mechanism, G. B. Siccardi 428,639
Car, stock, S. P. Tallman 428,973
Car ventilating device, H. L. Morrell 428,624
Car wheel, R. D. Apperson 428,998
Cars, etc., attachment for street, W. S. Livingston 428,923
Cars, life guard for, C. Carr 429,082
Caramel holder, P. C. West 428,765
Carbons, manufacturing, C. Heisler 428,604
Card teeth for carding fibers, apparatus for grinding, Middleton & Wilson 429,044
Carding machines, mechanism for adjusting traveling flats of, T. Knowles 428,778
Carpet beater, hand power, J. Clark 428,715
Cart, road, D. W. Corey 429,116
Cart, road, J. H. Lewis 428,921
Case. See Show and sale case.
Cash indicator and register, W. Koch 428,679
Chair. See Adjustable chair. Folding chair.
Railway chair.
Chain attachment, R. A. Breul 428,798
Chain, drive, D. J. Sheldrick 428,863
Check machine, W. Koch 428,678
Check rein attachment, A. E. Howard 428,614
Chop grader, C. Hagenmacher 428,908
Churn power, M. J. Williamson 428,987
Cigarette machine, R. Hardie 429,031
Clamp. See Anvil clamp.
Climbing apparatus, O. L. W. Johanson 428,812
Clock, electric programme, J. L. McCaskey 428,854
Clock, stop, J. H. Dates 428,717
Clocks, electric circuit closer for, H. C. Karr 428,676
Clothes drier, A. C. Etzel 429,022
Clothes drier, J. W. Fletcher 429,023
Clutch, friction, H. P. Claussen 429,085
Clutch, friction, W. N. Rumely 428,634
Coal cutting machine, P. Richards 428,951
Coffee mill operating mechanism, F. Wiswell 428,709
Coil, reactive, Lemp & Moody 428,620
Colling metal rods, device for, F. G. Tallman 428,971
Coke oven front, H. B. Riddell 428,953
Collar and cuff box, T. Springmeyer 428,866
Comb. See Curry comb.
Cooking apparatus steam, W. C. Salmon 429,099
Copy holder, Snyder & Grabe 428,700
Copying purposes, device for holding carbon paper for, W. H. Pardee 428,856
Corn popper, A. B. Olson 428,626
Cotton picker, C. R. Stephenson 428,867
Coupling. See Car coupling. Pipe coupling. Thill coupling.
Coupling for shafts or like purposes, J. O. Ellinger 428,808
Crane, hydraulic, I. W. Frank 428,749
Crate, G. T. Hall 428,840
Crate, F. B. Sites 428,842
Cultivator, A. Caldwell 428,581
Cultivator, J. Dullenty 429,020
Cultivator shovel, A. J. Kern 429,037
Cup. See Oil cup.
Current circuits, turn-off for alternating, E. Thomson 428,647
Cultivator, transformer for heavy, H. Lemp 428,638
Curry comb and brush, combined, S. W. Burke 429,010
Curtain rod support, Reubel & Taylor 428,763

Harvester platform, T. E. Lewis 428,683
Harvesting and binding machine, J. Miller 429,045
Harvesting machine, potato, J. Zimmermann 428,794
Hay loader, A. Lasack 428,844
Hay stacker, J. H. Moore 428,850
Heater. See Water heater. Watering tank beater.
Hinge, spring, G. R. Taxis 428,974
Hoisting apparatus, J. McMyler 428,691
Holder. See Caramel holder. Copy holder. Horse holder. Lamp holder. Paper holder. Photographic plate holder. Rein holder. Tablet or book holder.
Hook. See Cant hook. Snap hook. Whiffletree hook.
Hopper, overflowslop, E. W. Williams 428,986
Horse holder, J. J. McCann 428,931
Horse power sweep attachment, Lamb & Emmert 428,615
Horseshoe, G. T. Chapman 428,802
Horseshoe, J. E. Elkerton 428,594
Horseshoe nails, die for use in making, D. E. Kempster 429,036
Hose coupling band, W. Yerdon 428,660
Hub band, Rheinecker & Ferkel 428,784
Hydrant, P. White 428,707
Hydraulic motor, H. P. Christiansen 428,829
Hydrocarbon burner, Avery & Smith 428,587
Indicator. See Cash indicator. Engine indicator. Musical key indicator.
Indicator lock, J. C. Barr 428,710
Induction coil casing, E. Thomson 428,648
Inkstand, fountain, F. Guinter 428,753
Inspirator, L. Chapman 428,592
Insulator, electric, G. B. Watson 428,979
Invalids, apparatus for lifting and moving, A. Harley 428,602
Iron. See Sad iron.
Iron into steel, composition for converting malleable cast, W. J. Miles, Jr. 428,687
Ironing machine, W. A. E. Henrici 428,605
Ironing machine, shirt, C. O. White 429,076
Joint. See Metal plate joint. Railway rail joint.
Keg hooking and heading machine, T. A. Cook 428,831
Keg nail, H. E. Spilman 428,845
Knife, C. & W. Rush 428,817
Knob, W. Livingstone 428,924
Lace fastener, shoe, E. J. Mayfield 428,758
Ladder, extension, R. S. Adley 428,945
Lamp, central draught, R. L. Brewer 428,892
Lamp globe, electric, W. H. Wilson 428,989
Lamp holder, electric arc, J. Pawlowski 428,842
Lamp socket, incandescent, Thomson & Alton 428,652
Lamps, suspension hanger for electric, E. P. Morris 428,929
Lantern, signal, E. S. Piper 428,946
Laton, reversible, J. R. Forster 428,771
Lemon juice extractor, S. Prince 428,947
Letter box, H. V. Snead 428,968
Life-raft, M. Edwards 428,833
Limb, artificial, A. Gault 428,839
Lobster can, A. M. & M. S. Weston 428,983
Lock. See Indicator lock. Nut lock. Permutation lock. Telephone lock. Time lock.
Lock, C. Felton 428,718
Locomotive boiler, A. Beothy 429,001
Locomotive, electric, E. Dummer 428,668
Loom pile warp supplying mechanism, R. Foster 428,902
Low water alarm, electric, J. Morehead 428,688
Lubricant, S. Hopkins, Jr. 428,610
Lubricator. See Grease lubricator.
Magnetic device alternating current, E. Thomson 428,650
Magnetic tool, C. F. Carpenter 429,012
Mat. See Door mat.
Match box, J. B. Morgan 428,623
Mattress, H. Westphal 428,791
Measure, shoemaker's, A. S. Adler 428,875
Measuring electric currents, E. W. Rice, Jr. 428,633
Measuring mechanism, coal, C. W. Hunt 428,696
Medicine, tropical remedy, G. G. Wellington 428,582
Metal plate joint, H. W. Dressler 428,807
Metal sawing machine, I. M. Ham 428,773
Metal work, forming hollow ornamental, H. D. Bronson 428,883
Meter. See Electric meter.
Middlings purifier, W. D. Gray 428,674
Mill. See Sawmill.
Mining machine, coal, F. M. Lechner 428,977
Mining machine pick, E. A. Sperry 428,753
Moulding machine, T. E. Caddy 428,919
Mop and wringer combined, E. C. Rolls 428,696
Mop head, W. J. McDonnell 429,018
Mortising machine, M. J. Piper 429,059
Motion and overcoming dead centers, mechanism for reversing, P. B. Landgraf 428,681
Motor. See Electric motor. Hydraulic motor.
Multiple switch board system, single cord, C. E. Scribner 428,698
Musical key indicator, W. F. Donovan 428,906
Nail or tack attachment, J. C. Tilley 429,071
Nest, hen's, F. W. Bridenbecker 429,008
Nitro-cellulose, etc., manufacturing thin sheets of, E. N. Todd 428,654
Nut lock, B. E. Tilden 428,789
Nut wrench, ratchet, E. P. Justice 429,084
Oil burner, G. R. Moore 428,759
Oil can, C. E. Herman 428,775
Oil cup, pitman, R. Conrader 429,086
Oil, etc., means for effecting a uniform supply of, T. Macneil 429,042
Oil or similar liquids, apparatus for forcing, W. R. Adicks 428,874
Ordnance recoil check for, H. Schneider 428,960
Ore oxidizing or desulphurizing apparatus, E. M. Clark 428,930
Ores of copper or other metals, melting the, C. Wessell 428,659
Organ action, pneumatic, J. E. Treat 428,706
Overflow gate and liquid separator, G. A. Hyde, Jr. 428,613
Padlock, permutation, C. D. Cowzill 429,017
Pail, strainer, Shobe & Platt 428,699
Pan. See Bake pan.
Paper bag and twine holder, D. D. Nolley 428,936
Paper bag machine, A. Bredenberg 429,007
Paper box machine, P. H. Knight 428,877
Paper holder and cutter, roll, W. T. Geltz 429,029
Paper, mechanism for feeding sheets of, C. H. Heywood 428,605
Paper pulp refining engine, J. H. Horne 428,913
Pea thrasher and separator, E. E. Sanford 428,958
Peanut roaster and warmer, J. B. Bartholomew 428,879
Pelts, machine for removing water hairs from, A. Hedbavny (r.) 11,079
Pen, fountain, N. C. Stiles 428,969
Pencil safety attachment, J. C. Gores 428,752
Perambulator, U. McClintchick 428,780
Permutation lock, L. Houck 429,092
Phonogram blanks, resurfacing, O. P. Austin 429,079
Phonographs, coin-actuated attachment for, Glass & Arnold 428,750
Phonographs, coin-actuating attachment for, Glass & Arnold 428,751
Photographic plate holder, W. H. Fuller 428,809