

RECENTLY PATENTED INVENTIONS.

Engineering.

THROTTLE VALVE.—Edward Leslie, Orangeville, Ontario, Canada. This valve has a movable gate with a closed recess, and a port connecting the recess with the steam inlet, in connection with an auxiliary valve, whereby the gate will be held locked on its seat by the full boiler pressure, of which the gate is relieved at the time the operator desires to open the valve.

EQUALIZER.—Edward Leslie, Orangeville, Ontario, Canada. This device consists of a tube or casting arranged for connection with both ends of a cylinder, and having an automatic valve in a valve chamber from which an auxiliary tube leads to the main tube, so that when the throttle is closed, and the cylinder once filled with air, the air is forced backward and forward and no undue suction is brought to bear on the valve, the cylinder and steam box not being cooled off, as when a fresh supply of cool air is drawn in and forced out at every reciprocation of the piston.

PROPELLER SHAFT AND MECHANISM.—Francis W. Pool, St. Paul, Minn. This invention relates to means designed to rapidly drive a propeller shaft with but little friction, the shaft having spirally arranged grooves in opposite directions on its surface, and a sleeve thereon having fixed heads with teeth on their inner faces, while loose rings in the sleeve have teeth on their outer edge, the inner surface of the rings having lugs engaging the grooves of the shaft, and reciprocating piston rods being attached to the outer surface of the sleeve.

Electrical.

PORTABLE SIGNALING DEVICE.—Peter Pearson, New York City. This is a device embodying a bell and mechanism to operate it intermittently when electrical connection is established and broken, the apparatus being held in a box, the lid of which must be closed to complete the connection between a bell on the lid and a battery in the box, insulated wires extending from the box to any point from which signals are to be sent in open circuit, which is closed and opened at proper intervals by a transmitter of peculiar construction.

Mechanical.

SAW HANDLE.—Richard W. Clemson, Middletown, N. Y. This handle has a straight hand grip and a straight finger extending below the hand hole and body of the handle in line with the hand grip, to permit of placing the hand in various positions relative to the cutting edge of the saw, give ample room to the hand, and allow for using on small saw handles having a size bearing a proper relation to the width and length of the saw.

SAW GUIDE.—John E. Bill, Evansville, Ind. This is a guide for circular saws in which an adjusting sleeve is turned by a hand wheel, whereby the guide arms can be separately and quickly adjusted to get the exact required distance between them, the guide arms, when properly adjusted, being held parallel by a movable pin secured in place by a thumb screw.

PIPE WRENCH.—James L. Taylor, Memphis, Tenn. This is a self-adjusting wrench in which the fixed jaw has combined with it a pivoted serrated jaw controlled by a spring and adapted to slip or yield when working the wrench back, but having a firm grip when operated in the opposite direction, and being without the disadvantages of a ratchet wrench, the device being inexpensive, strong and durable, and adapted for a wide variety of work.

ROD PACKING.—Wesley H. Richmond, Cadillac, Mich. This invention covers an improvement in that class of metallic rod packings in which a beveled split ring surrounds the sectional packing rings proper, and serves to press them inward, and thus hold them in close contact with the piston rod.

CRUSHER AND PULVERIZER.—William H. Howland, Bergenfield, N. J. This is a stone and ore crusher designed to provide for the bodily adjustment of the movable jaws and of their lower edges, and to equalize the strain upon the driving shaft, the machine being adapted to crush and pulverize the material to any required degree of fineness without becoming impregnated with metallic particles torn from the surface of the operating jaws.

HYDROCARBON BURNER.—Ethan Rogers, Ballston Spa, N. Y. This is a burner more especially adapted for burning crude oil as a fuel for forges, and combined with the inclosing tube or casing is a longitudinally corrugated tubular lining open at both ends, and an oil supply pipe provided with a spreader located at the inlet end of the corrugations.

Agricultural.

STALK CUTTER.—Paul E. Erickson, Scandia, Kansas. This cutter consists of a carriage to the axle of which a gear wheel is fixed, a pair of vertically rotating intersecting cutters being mounted in a suitable frame suspended from the axle, with a lever mechanism for fixing the position of the cutter frame, and a gathering device, the machine being designed to rapidly cut the standing stalks in a field in such manner that they may be easily plowed under.

COTTON CHOPPER.—James Casey and Stephen A. Morgan, Lehigh, Indian Ter. This is a machine specially designed for chopping new cotton to a stand in a row, and has a rotating shaft carrying a fixed block, with knives arranged to slide therein and rotating therewith on the shaft, in combination with an operating lever and connections between the knives and lever for operating them from the lever, the stalks being cut nearer to or farther from the ground as desired.

FEED TROUGH.—Francis O. Reed, Paris, Texas. This invention provides a stock feeder designed to permit of the feeding of a measured quantity of food from a point remote to cattle in the barn or stable, whereby the farmer or his family may feed the cattle from the dwelling, the invention covering a novel construction of food and hay apartments, with valves

and tripping devices, in connection with one or more wire pulls leading to the house.

HOG PEN.—William McDaniel, Bear-den, Ark. This is a portable pen, simple in construction and made of light timber, with doors to slide vertically in guideways formed by cleats, whereby the pen may be readily formed into a combined pen and trap, the doors falling by gravity when the hog enters the pen.

Miscellaneous.

COIN OPERATED MACHINE.—Frederic B. Cochran, Brooklyn, N. Y. This invention provides for the construction of a music-producing mechanism having a motor combined with a coin-controlled device operative from outside the machine casing, and adapted when actuated by the deposit of a coin to start the motor and produce music.

CASH INDICATOR AND RECORDER.—Lloyd M. Mills, Grand Rapids, Mich. This is a device in which a series of radially arranged type bars are mounted to slide, in connection with a tape to be printed on thereby and an indicator, to automatically and accurately stamp numerals corresponding to the keys on the tape directly over or below each other in due numerical order to form a column of figures, the sum of which can be readily totaled.

EYEGGLASSES.—Herbert D. Martin, Philadelphia, Pa. This invention relates to the spring and nose clamps of eyeglasses, by which the lenses may be carried laterally in either direction or vertically, as desired, the invention being an improvement on a former patented invention of the same inventor.

EXERCISING MACHINE.—William E. Forest, New York City. This invention provides a machine with sheaves, cords, and weights, in which the resistance weights are guided by a strained endless cord running over the sheaves, the arrangement being such that the machine may be used for either a downward or an upward pull.

SEPARABLE BUTTON.—Charles E. Perry, Forsyth, Montana. This is a button which may be readily attached to clothing without sewing or injury thereto, and is designed to be of simple construction and capable of rapid production from sheet or cast metal.

EXERCISING MACHINE.—Daniel L. Dowd, New York City. This is a machine operated by ropes attached to rotatable pulleys, in which the desired resistance is furnished by springs attached to the pulleys, the amount of resistance being easily varied and regulated, and the machine being designed to develop all the muscles of body, arms, legs, and neck, and strengthen the chest and lungs.

REEL FASTENER FOR FISHING RODS.—John G. Landman, Brooklyn, N. Y. According to this invention the rod has a seat for retaining the reel-attaching plate, and also a spiral thread or groove, a nut on the rod being adapted to the thread or groove and to the reel plate, while a stop prevents disengagement of the nut from the spiral thread or groove next the reel plate or socket, the device being simple and inexpensive and making a quickly adjusted fastening.

BAG HOLDER AND TRUCK.—John H. Reckford, Belair, Md. In this device the bag is intended to rest between upright standards, through which pass ropes to the inner ends of which spreaders are loosely connected, to be inserted in the mouth of the bag to hold it open, the device being portable and adapted to carry bagged grain, the bag being quickly attached to and detached from the holder.

SPRING BED BOTTOM.—Joseph P. Leggett, Carthage, Mo. This is an improvement in bed bottoms in which coiled wire springs are supported upon and attached to crossed wires that form the base of the bed bottoms, stout or thick iron or inelastic wires, arranged parallel to the sides of the frame and attached to its end portions, being employed in connection therewith.

TABLE OR OTHER LEGGED ARTICLE.—William B. Pellett, Flint, Mich. This invention relates to articles having legs or posts to support them, and consists in a special knockdown construction of detachable legs, with a special construction of the corners or portions of the articles to which the legs are attached, including the means to secure the whole together.

HOLDER FOR COVERS.—Edward W. Stone, Chicago, Ill. According to this invention the vessel cover is made with a shank depending vertically from its lower side, the lower end of the shank being bent outward and upward to form a hook whereby the cover may be held horizontally on the rim of a shallow or deep vessel, and serve as a temporary shelf.

STOVE POLISH.—Stephen A. Kingsland, Middletown, Conn. This is a composition designed to be applied to a stove and left to dry and harden, without any rubbing or scrubbing whatever, and thus forming a fine enamel or polish, the composition being applicable to the stove at any time, whether the stove is cold or hot.

PAINT.—Jacob G. W. Martens, New York City. This is a paint principally intended for coating the bottoms of ships to prevent barnacles from fastening thereon, and also to prevent iron and other metals from rusting, while when applied to trees, wood and other substances, it is designed to preserve them from the elements and from insects.

NEW BOOKS AND PUBLICATIONS.

A SECRET INSTITUTION. By Clarissa Caldwell Lathrop. New York: Bryant Publishing Co. 1890. Pp. 339. Price 50 cents.

This novel treats of insane asylums somewhat in the vein of Wilkie Collins. The legal aspects of the case of lunatics receive consideration, and the whole is graphically put.

FLIRT. A story of Parisian life. By Paul Hervieu. Translated by Hugh Craig, with illustrations by Mme. Madeleine Lemaire. New York: Worthington Co. 1890. Pp. 273.

Business and Personal.

The charge for insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in next issue.

For Sale—New and second hand iron-working machinery. Prompt delivery. W. P. Davis, Rochester, N. Y. Acme engine, 1 to 5 H. P. See adv. next issue.

Presses & Dies. Ferracute Mach. Co., Bridgeton, N. J.

For steel castings of best quality, write the Buffalo Steel Foundry, Buffalo, N. Y.

Best Ice and Refrigerating Machines made by David Boyle, Chicago, Ill. 155 machines in satisfactory use.

The Improved Hydraulic Jacks, Punches, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York.

Power presses and dies. Also contractors for special machinery. T. R. & W. J. Baxendale, Rochester, N. Y.

Tight and Slack Barrel Machinery a specialty. John Greenwood & Co., Rochester, N. Y. See illus. adv., p. 13.

Screw machines, milling machines, and drill presses. The Garvin Mach. Co., Lighthouse and Canal Sts., New York.

Safety Elevators, steam and belt power; quick and smooth. The D. Frisbie Co., 112 Liberty St., New York.

Veneer machines, with latest improvements. Farrel Fdry. and Mach. Co., Ansonia, Conn. Send for circular.

The Holly Manufacturing Co., of Lockport, N. Y., will send a book of official reports of duty trials of their high duty pumping engines on application.

Guilford & Garrison, Brooklyn, N. Y., manufacture steam pumps, vacuum pumps, vacuum apparatus, air pumps, acid blowers, filter press pumps, etc.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4; Munn & Co., publishers, 361 Broadway, N. Y.

Manhattan packing is self-lubricating. It keeps the piston rods bright and smooth. Send for sample and price list to Greene, Tweed & Co., 83 Chambers St., N. Y.

Parties having inventions for sale, or wishing to have patented goods introduced or exhibited at the coming exposition, Boston, address Chas. Babson, Jr., 24 Congress St., Boston, Mass.

Gentlemen about to open a manufacturers' agency wishes to correspond with manufacturers desirous of being represented in Canada. "Security given." Address "D. W. C.," 307 Sherbourne St., Toronto, Canada.

Saw Makers Wanted—50 or more practical hammermen on circular and long saws and a few good filers and bitters can find steady employment by addressing, with name, residence and full particulars as to experience, etc., William L. Pierce, 89 Diamond St., Pittsburg, Pa.

Send for new and complete catalogue of Scientific and other Books for sale by Munn & Co., 361 Broadway, New York. Free on application.

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 person 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

August 26, 1890,

AND EACH BEARING THAT DATE.

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

Accident case, F. King.....	435,310	Fabric. See Woven fabric.	
Acoustical instruments, combined mouth and nose piece for, H. C. Demming.....	435,055	Fabrics, machine for folding and pressing the edges of, J. F. Fellows.....	435,137
Adjustable chair, J. P. Hindman.....	435,224	Feather renovator, J. H. Bruen.....	435,170
Advertising apparatus, automatic, R. Gornall.....	435,118	Feeding and justifying mech., J. A. Watson.....	435,358
Advertising card holder, S. A. Bromberg.....	435,332	Fence, L. F. Finley.....	435,234
Advertising medium, scenic, J. House.....	435,064	Fence, C. Freas.....	435,237
Air compressor, automatic, J. W. Eloheim.....	435,034	Fence machine, wire, A. Land.....	435,042
Ammonium nitrate, making, E. Carez.....	435,230	Fencing, Ward & Warren.....	434,965
Animal shears, R. Monday.....	435,044	Ferrule for canes, umbrellas, etc., S. W. Evans, Jr.....	435,215 to 435,217
Argand burner, L. J. Atwood.....	435,130	Fertilizer distributor, R. Galloway.....	435,037
Asphaltum, refining crude, E. Alexander.....	435,138	Fertilizers, preparing, C. Clifford.....	434,977
Atomizer for toilet fads, N. Wickliffe.....	435,197	File, band and confining clasp therefor, Hall & Norton.....	434,928 to 435,026
Atomizers or other devices, air forcing and compressing apparatus for, F. J. Mitchell.....	435,043	Fire escape, H. Viereck.....	435,265
Automatic lubricator, F. O. Blackwell.....	435,085	Fire escape device for live stock, I. K. Bartley.....	435,028
Axle box, C. F. Rojo.....	435,124	Fire extinguishing apparatus, E. R. & J. R. Moore.....	435,016
Bag. See Mail bag.		Fire escape, H. E. Britton.....	435,031
Bale fastener, J. M. Ford.....	435,218	Floor jack, H. E. Britton.....	435,031
Battery. See Galvanic battery.		Floor structure, tubular, P. Schumann.....	435,155
Bed bottom, spring, B. E. Leckron.....	435,211	Flush tank, automatic, E. O. Hunt.....	435,039
Bed pan, A. L. Freund.....	435,068	Fly book leaf, P. C. Hewitt.....	435,064
Bedstead slat lock, D. L. Hartsfield.....	435,178	Forging machine, electric, G. D. Burton.....	435,110
Beer coolers, buck for, F. T. Cladek.....	435,282	Forging machines, electric bar heating and feeding apparatus for, G. D. Burton.....	435,111
Bench. See Work bench.		Fork. See Fork for.....	
Bit. See Bridge bit. Calking bit.		Frame. See Door frame. Mosquito bar frame. Picture frame.	
Block. See Ceiling fuse block. Fuse block.		Fruit clipper, J. T. McMullen.....	435,240
Boiler. See Steam boiler.		Fruit gatherer, J. W. Cain.....	435,206
Boiler, J. Christensen.....	435,253	Fuel, artificial, A. Fagenstecher.....	435,076
Boiler appliance, C. D. Dodge.....	434,214	Funnel. See Funnel.....	435,068
Bolts, nut locking washer for, S. H. B. Cochrane.....	435,345	Furnace. See Glass melting furnace.	
Book, student's copy, H. C. Spencer.....	435,051	Fuse block, N. S. Possoms.....	435,102
Boot or shoe heel, C. A. Erdman.....	435,136	Gauke. See Carpenter's roll gauge. Cigarmaker's gauge. Door hanging gauge.	
Boot or shoe nailing machine, J. N. Severance.....	434,988	Gauge, C. O. Lambert.....	435,311
Bottle stopper, A. Cohenius.....	435,237	Gauge, J. C. Lamb.....	435,348
Box. See Metal box. Dust box. Locomotive and box. Mail box. Show box. Signal box.		Galvanic battery, C. J. Hubbell.....	434,346
Watch movement box.		Game, W. J. Irwin.....	435,065
Brake. See Car brake. Railway brake.		Game, A. Van Brakle.....	435,260
Brick pressing machine, Davis & Lower.....	435,171	Game apparatus, R. Hill, Jr.....	434,987
Bridge approaches, gate for swinging, G. B. Howland.....	434,992	Game apparatus, W. McCune.....	435,207
Bridges, automatic gate for swing, H. Strom.....	435,106	Garment, device for fluting, M. E. Hall.....	435,001
Bridge blind, C. M. C. Fleming.....	435,115	Gas, appa. for the man, or drum, P. W. Mackenzie.....	435,070
Bride bit, C. A. Reade.....	435,189	Gas burner, natural, O. F. Grant.....	435,299
Bride bit, O. M. Sloat.....	435,232	Gas, manf. illuminating, P. W. Mackenzie.....	435,071
Broom, J. M. Heenders.....	435,304	Gas mixer, natural, A. A. Phillips.....	434,948
Brush making machine, M. R. Bissell.....	435,396	Gas holders, means for regulating the movement of, J. W. H. Jones.....	435,187 to 435,189
Buck, minnow, T. M. Darrah.....	435,211	Gas washer, W. Morava.....	434,911
Building, portable, T. R. Carskadon.....	435,112	Gate. See Hydraulic gate.	
Burnon protector, C. R. Dadisman.....	434,975	Gate, T. A. Kearns.....	435,347
Burner. See Argand burner. Gas burner.		Gate, S. Stewart.....	435,389
Butter, shipping package for, W. H. Cadwell.....	435,204	Gate, J. E. Park.....	435,127
Cable grip, Brunwell & Doolittle.....	435,375	Gate, J. Wilmoth.....	435,233
Calking bit, W. E. Park.....	435,077	Generator. See Steam generator. Steam and hot water generator.	
Camera. See Photographic camera.		Glass melting furnace, L. Houze.....	434,981
Camera, W. R. Tobias.....	435,080	Governor, steam engine, Babbitt & Randolph.....	435,063
Can for sirup, etc., Mason & Bergman.....	435,234	Grain packer and carrier, W. H. Knapp.....	435,148
Cans, machine for making the seams of sheet metal, C. F. Beaman.....	434,908		
Candy, manufacturing, L. S. Barnett (r).....	435,107		
Cane car, sugar, A. Quasebarth.....	435,319		