

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.

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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.

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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.

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August 26, 1890,

AND EACH BEARING THAT DATE.

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