

### RECENTLY PATENTED INVENTIONS.

#### Agricultural Implements.

**WIND-STACKER.**—W. H. McWILLIAMS, Watonga, Okla. Ter. This invention provides a wind-stacking attachment to threshing machines in which a suction fan is situated at the upper portion of the rear part of the body at a point above the conveyor belt adapted to carry up straw. The location of the fan is such that the straw will be stacked while passing through the casing in which the fan revolves, to a stacking tube, and the grain which is heavier than the straw will drop from the conveyor to a conductor and be directed to the riddles.

**CORN-HARVESTER.**—H. R. and A. W. SPAHT, of Pattonsburg, and G. SPAHT, of King City, Mo. This machine is arranged to be drawn between two adjacent rows of corn, so as to sever the cornstalks disposed upon both sides. The tendency of the stalks when severed is to pile centrally between two bows and to accumulate in groups resting upon the racks; by pulling the lever the racks are dumped. As a few stalks may be cut during the interval while the racks are being dumped, these stalks are thrown forward upon auxiliary racks. The restoration of the main racks to their normal position causes the dumping of the auxiliary racks, so that the practical effect is that the few stalks accumulated in the auxiliary racks are dumped in the main racks immediately after the main racks have dumped their load upon the ground.

#### Apparatus for Special Purposes.

**FILTER.**—W. R. POWELL, Wheeling, W. Va. This filter belongs to that class in which a natural or artificial porous block is employed as a filtering medium. Novel details of construction adapt this device for efficient service and afford a means for periodic cleansing of the filtering medium automatically and thoroughly as occasion may require.

**ORE-SAMPLER.**—S. E. BRETHERTON, Denver, Colo. In ore samplers now in use it is necessary that the ore be finely crushed, thus consuming much time and labor and making the sample too fine for blast furnace smelting. Mr. Bretherton here provides an apparatus that has not only the advantage of being adapted to take a fair sample of comparatively coarse ore as it comes from the crushers, but, due to its simplicity of construction and the facility with which it may be kept clean, it has many other decided advantages over ore samplers now in use.

**TEMPERATURE-EXCHANGING APPARATUS.**—JOSEPH DESMAROUX, 4ter Rue des Plantes, Paris, France. This improved temperature changing apparatus permits two fluids or liquids to change their temperature completely, and the apparatus is chiefly designed to bring back to the normal temperature, water which has been brought to an elevated temperature for the purpose of destroying all the germs it may contain. In reducing the temperature of the sterilized water, arrangement is made to impart this heat to water which is to be sterilized.

**DRYING-KILN.**—A. CAREY, Cairo, Ill. This invention relates to a kiln designed especially for drying veneer and like material. It comprises, broadly speaking, a number of carriers moving horizontally through the kiln and drawing the veneer in at one end and discharging it at the other, the kiln being provided with hot-air-circulating devices.

#### Electrical Apparatus.

**VOLTAGE-REGULATOR.**—T. M. PUSEY, Kennett Square, Pa. Mr. Pusey has provided an improved regulator for dynamos and generators, whereby the voltage is automatically regulated and a practically even circuit current is provided for lamps or other purposes. A balance beam on the device is so arranged, under the control of a solenoid, that when the current falls or increases it will operate a motor which throws the switch arm of a rheostat sufficiently to readjust the voltage.

**ELECTRIC LAMP.**—HENRY WARD BEECHER, Jr., Port Townsend, Wash. The object of this invention is to provide an electric incandescent lamp which will permit of the variation of the amount of light afforded. Heretofore turning-plug switches have been employed which embodied a commutator with a variable amount of resistance, more or less of which was thrown into the circuit. This invention, however, is an improvement in another class in which a lamp with two or more filaments of different sizes and radiating power is so arranged that by a mere turning of the glass globe the current may be directed to either or both filaments.

**AUTOMATIC ELECTRICAL SIGNALING APPARATUS FOR RAILWAYS.**—J. E. SPAGNOLETTI, Goldhawk Works, Goldhawk road, London, England. This invention provides an electrically operated multiple-switch, adapted to control the passage in the signal-circuits of electrical currents having the tension in use on the railway for traction purposes. The switch is permitted to move from normal position by an electro-magnetically operated switch releasing device, the circuit of said device being under the control of a train-operated circuit-closer contact. By this means the entry of a train on any section has for effect to first cause the signal at the commencement of that section to be put to danger,

and then the signal at the commencement of the preceding section to be put to safety.

#### Engineering Improvements.

**ROTARY ENGINE.**—F. A. PALLE, New York, N. Y. The engine is provided with a cylinder in which a shaft extends eccentrically. This shaft carries a piston provided in its peripheral face with cut-out portions having segmental walls on which the piston-heads fit. The piston-heads are mounted to swing in and out on the piston as the latter rotates in the cylinder, and at the same time the space between the piston and the rim of the cylinder is closed by the corresponding piston-head having connection with the block sliding on the inner face of the cylinder rim.

**DRAFT DEVICE AND SPARK-ARRESTER.**—GEORGE B. RAIT, Sheldon, Ia. The invention relates to improvements in draft devices and spark-arresters, particularly for locomotive engines, and provides an improved spark arrester by means of which the draft will be equalized through all of the boiler tubes, and the cinders be thoroughly broken up, arresting the sparks and preventing them from passing out of the smoke stack until extinguished.

#### Hardware.

**ROCK-DRILL CHUCK.**—M. McHALE, Phoenix, and J. TRAINOR, Eholt, Canada. The invention relates to chucks for rock-drills and has for its object the production of a chuck into and from which a drill may be easily and quickly removed and inserted, and which, while it possesses great simplicity of structure, holds the drill in a very firm and satisfactory manner, thus insuring a great saving over chucks commonly used, both in first cost and in the numerous repairs which become necessary when more complicated devices are used.

#### Machines and Mechanical Devices.

**MACHINE FOR FINISHING BARRELS.**—G. M. CARTER, Poplarbluff, Mo. The invention relates to a machine for chamfering, crozing and howling barrels, and for trimming the ends of a barrel preparatory for the insertion of the heads. The machine consists, in combination with a frame, of a carriage mounted thereon, and a ring arranged to turn in the carriage. The ring receives the end of a barrel, while cam-shaped dogs mounted in the ring engage the barrel and hold it firmly therein. Means are provided for turning this ring and presenting the end of the barrel against tools which perform the required work.

**EXERCISING-MACHINE.**—J. C. KORTZ and A. GANZENMULLER, New York, N. Y. This machine belongs to that class of exercisers in which elastic cords are employed in connection with handles and a support. The exerciser is so constructed that it may be used as the ordinary travelers' exerciser and it provides means whereby the exerciser may be used to good effect as a chest expander, or it may be arranged to bring into action many prominent and minor muscles which could not be benefited by machines of the ordinary type.

**VALVE MECHANISM FOR COIN-CONTROLLED GAS-VENDING MACHINES.**—W. J. STRONG, Brooklyn, N. Y. The invention relates to coin-controlled gas-vending machines, and its object is to provide a new and improved valve mechanism which is simple and durable in construction, automatic in operation and arranged to prevent tampering therewith and consequently unlawful use of gas, unless the proper coin is introduced into the coin mechanism.

**PILL-MAKING MACHINE.**—J. N. DEWS, Portsmouth, Va. By a novel and simple construction this machine is designed to cut a roll of material into the desired number of sections to provide the number of pills prescribed in any instance. The invention not only facilitates the division of the roll into equal parts, but also enables this result being secured with great accuracy.

**CALENDAR-CLOCK.**—JOHN I. PEATFIELD, Arlington, Mass. Mr. Peatfield has provided an automatic calendar which is practically perpetual, requiring no manual setting or regulating except in the winding of its motor at intervals of a year or more. It is so arranged that it may be controlled by an ordinary clock mechanism for changing the date and the day indicated every twenty-four hours; it further provides a simple mechanism for making the changes from month to month and the dates from the short months to the first day of the next month.

**MAIL-BAG CATCHER.**—C. C. McILYAR, Cambridge, Ohio. The invention relates to means for receiving and delivering mail-bags to and from cars moving on a railroad. The object of the invention is to provide a simple device for this purpose which embodies novel details of construction, rendering the same very convenient and reliable in use, and which is adapted to simultaneously receive and deliver mail-bags or pouches while the mail-car is in motion.

#### Vehicles and Their Accessories.

**AUTOMOBILE.**—S. S. CONANT, Edgerton, Ohio. The construction of this automobile is such that the stub axles of the fore wheels are rotatable horizontally around vertical axes, and also slidable vertically thereon, so that

the wheels may all be turned simultaneously, the two forward wheels turning in opposite direction to the rear ones, which thereby run in the tracks of the forward ones. The invention also includes a novel arrangement of springs for supporting the body of the vehicle.

**COUPLING FOR WAGONS.**—W. S. CHAPMAN, Kippen, Idaho. This invention is an improvement in that class of couplings between the reach and the rear hounds of the wagon, which permit adjustment of the hounds and the rear axle on the reach, the same being effected by means of a clamp, in place of the usual coupling effected by means of a pin passing through the reach, whereby the latter is weakened.

#### Miscellaneous Inventions.

**HEATING-STOVE.**—C. MATTHEWS, Columbia, Mo. This heating stove is more particularly adapted for burning wood, hay, straw or other like material. A special construction is provided, whereby not only increased heating surface is afforded, due to peculiarly-arranged smoke-flues, but also, owing to the interchangeability of parts, whenever any part is burned out, the same can be removed and replaced by any person.

**TROUSERS-FORMER.**—L. F. ANDERSON, Quincy, Ill. Mr. Anderson has invented an improved trousers-shaper, which is simple and durable in construction and adapted to be folded into a comparatively small space when not in use. The trouser-former is arranged to shape and smooth either new or bagged and wrinkled trousers.

**DEVICE FOR TEACHING ARITHMETIC.**—J. J. TERRAZAS, Mexico City, Mexico. This invention provides a simple device by the aid of which operations of adding and subtracting may be readily performed in a mechanical way, thereby lessening the mental labor and chances of errors. The appliance enables the teacher to give the pupils a concrete and readily intelligible representation of the relative value of various numbers.

**ARTIFICIAL TOOTH.**—T. STEELE, Red Bank, N. J. Mr. Steele has invented an improved artificial tooth arranged to permit convenient and secure attachment of the metallic backing to a front made of porcelain or other suitable material. The construction allows of immediate repair in case part of the tooth is broken or damaged.

**NECKTIE-FASTENER.**—J. A. CLINTON, Brooklyn, N. Y. In this invention the necktie is arranged to be secured directly upon the collar-button. The collar-button being placed in the shirt and collar, the necktie is raised in position and its fastening devices snapped over the bulb of the collar-button. To remove the necktie it needs merely to be pulled outward.

**CARRIER.**—J. G. COPMAN, Comptche, Cal. This carrier will be found useful for persons carrying wood from the woodpile to the house, for holding wood in a neat pile in the kitchen or other place, or for binding, carrying or elevating fodder, hay, straw and other light materials. The construction of the carrier is very simple and durable and the article may be cheaply manufactured.

**FURNITURE FOR FORMING PAPER-BOX PLANTS.**—J. T. CRAW, Jersey City, N. J., and F. SCHLEY, Brooklyn, N. Y. This furniture for forming paper-box blanks may be set up without the use of corner pieces and may be quickly assembled and placed in any desired position, two pieces wherever brought in contact at right angles to each other, forming a well-defined sharp corner. The invention provides a novel means for automatically forcing a blank when made and scored from engagement with the knives or score-blades.

**GUN-CLEANER.**—G. H. GARRISON, Bucoda, Wash. This gun-cleaner belongs to that class in which the wiper or cleaning-pad may be adjusted to guns of different bores. A simple means is provided for spreading the pad and for securing the pad material to the cleaner-rod. The pad is formed of layers of wire-cloth firmly pressed together so as to withstand wear.

**PRISM-GLASS FOR SKYLIGHTS.**—G. E. ANDROVETTE, Brooklyn, N. Y. Mr. Androvette has invented a novel construction and improved form of prism panel or plate and supports therefor. These supports and plates are arranged to be quickly and expeditiously connected in such manner as to insure a watertight construction.

**BARREL.**—O. P. HALLOCK, Mattituck, N. Y. This barrel is an improved receptacle for transporting vegetables and produce of various kinds. The improved barrel is composed of staves connected by flexible wire fastenings and is distinguished from other barrels of the same class by a novel construction and peculiar arrangement of parts.

**PARALLEL-RULER.**—J. STERNFELD, New York, N. Y. This drawing instrument is easily manipulated and may be readily adjusted to enable the user to draw parallel lines spaced at desired distances. The ruler is particularly adapted for section-filing, and the intervals between the lines may be quickly adjusted to suit the user.

**SWINGING GATE.**—SUPPLINA HAMILTON, Endicott, Wash. This swinging gate embodies an extremely simple construction which dispenses to a large extent with metallic parts. It may be made, erected, and repaired by any

unskilled person, thus placing it within reach of farmers of moderate means. An improved means is provided for releasing the latches previous to starting the gates on their swinging movements. The gate-swinging devices and latch-lifting devices may be simultaneously operated by a single pull of the proper cable wire.

**NOTE.**—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.

### Business and Personal Wants.

**READ THIS COLUMN CAREFULLY.**—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry.

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WATER WHEELS. Alcott & Co., Mt. Holly, N. J.

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**Inquiry No. 2965.**—For makers of sheet aluminium.

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**Inquiry No. 2966.**—For dealers in motors and generators.

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IDEAS DEVELOPED.—Designing, draughting machine work for inventors and others. Charles E. Hadley, 584 Hudson Street, New York.

**Inquiry No. 2968.**—For dealers in very thin sheet steel.

WANTED.—A partner in competing for the bonus offered by New Zealand for a new gold-saving device. P. McEntee, Montgomery, Minn.

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Manufacturers of patent articles, dies, stamping tools, light machinery. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

**Inquiry No. 2970.**—For makers of thin sheet steel.

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**Inquiry No. 2972.**—For small steam slide-valve engines 1/2 x 2 or 2 x 3 inches.

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WOODWORKING MACHINERY.—The advertiser, who has invented and designed for others a line that has brought large returns, is looking for capital against experience and know-how. None but mutually satisfactory arrangements desired or expected. Address Experience, Box 773, New York.

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