

## RECENTLY PATENTED INVENTIONS.

## Agricultural Implements.

**MOWER ATTACHMENT.**—WILLIAM A. SANDER, Jackson, Mo. The inventor has provided a divide-bar or arm detachably connected with the outer shoe and slide of the machine, and made to extend upward and forward. The purpose of this bar or arm is to divide hay, clover, or other grasses, and especially tangled grass and stock peas, the divide-bar serving to guide the material to be cut down to the cutting surface of the sickle, thereby making a smooth, clean swath.

## Engineering Improvements.

**STEAM-GENERATING EXPLOSION-ENGINE.**—LOUIS RENAULT, Place de Laborde 14, Paris, France. The inventions consist of an auto-generating apparatus, for gases or steam; that is to say, an apparatus by means of which it is possible, without the use of either a compressor or a burner, to obtain a mixture of heated gases from the cylinder of an explosion-motor and of steam produced by utilizing the heat obtained on the one hand from the wall of the cylinder, and on the other hand from the heated gases which escape therefrom. A portion of these gases is made to circulate in contact with the free surface of the mass of water to be vaporized. The mixture is intended to be employed in a motor, steam turbine of any kind, or other apparatus in place of steam generated in the ordinary manner.

## Mechanical Devices.

**FRICITION-CLUTCH.**—ANTON LEIKEM, Chicago, Ill. The clutch has a driven part; a pulley to be driven and provided with friction faces and notches; and friction-blocks on the driven part, engaging the face. An operating device moves the friction-blocks in or out of engagement with the friction-face. A locking device controlled by the operating device is arranged positively to lock the pulley to the driven part when the blocks slip on the face. Thus the pulley is positively locked to the driven part should the friction-blocks slip under a heavy load.

**CAN FORMING AND SOLDERING MACHINE.**—WILLIAM RUBIN, Omaha, Neb. The purpose of this invention is to provide means for forming the bodies of tin cans and for soldering the side seams. To this end the apparatus comprises a number of continuously-moving carriers, which shape the blank tin to form the can or box, and which form a lap seam. This seam is carried through a solder-bath without interrupting the movement of the carrier. Thus the seam is closed. After the solder has been allowed to set the can is automatically withdrawn.

**BARB-WIRE REEL AND CARRIER.**—CHARLES J., JOHN P. and HENRY M. THOMAN, Riverside, Iowa. This new and improved machine for reeling, unreeling and stretching barb-wire, check-row wire and the like, is lightly and durably constructed, and carries the wire bobbin on a drum or reel which is operated by simple mechanism. The machine comprises essentially a wheel-supported frame; a shaft for the reel; a bearing for one end of the shaft having a hinged connection with the frame; a bearing for the opposite end of the shaft open at its upper portion, and a drive-shaft. A gear connects the drive-shaft and the reel-shaft. A brake controls the movement of the drive-shaft when the wire unreels too easily.

**MACHINE FOR ROLLING LEATHER.**—WILLIAM W. WHITING, Newberry, Pa. The machine rolls leather for the purpose of rendering it of uniform density and of giving it smoothness. The machine is simple in construction, readily adjustable to different thicknesses of leather and is provided with an arrangement for securing an automatic leveling of the pressure-exerting surface in accordance with inequalities of the material.

**STREET-SWEEPER.**—JOAQUIN JENSE, Buenos Ayres, Argentina. The invention provides a sweeper carrying a propelling engine and means for sprinkling the streets and gathering the sweepings into a receptacle, so that the machine may be termed an "automobile combined street-sweeper, sprinkler, and dirt-cart." A conveyer is arranged to gather the sweepings and to carry them to the dirt-receptacle. The conveyer consists of blocks having projections overhanging toward the delivery end of the conveyer. Links or side-plates are pivoted to the blocks to form a chain, and have cross plates to support the sweepings. The conveyer is actuated by the motor of the vehicle.

**POWER-TRANSMITTING DEVICE.**—FERDINAND CLEMENS, JR., Delta, Iowa. This device is especially designed for operating pumps, saws, washing machines, churns, or other machines or devices. The device comprises a driven wheel having a scalloped periphery. Each lever or sets of levers and links carries an anti-friction roller traveling on the peripheral surface of the wheel, the links being connected with the levers. Sets of actuating-levers are connected with the machinery to be driven, and are engaged by the links. A counterbalancing device is provided for one of the levers.

**POWER MECHANISM.**—FERDINAND CLEMENS, JR., Delta, Iowa. In this power mechanism a walking-beam is employed to which an arm is secured, connected with a link. A lever is pivoted to the link. A wheel has friction-rollers successively engaging the free end of

the lever. A bumper-block on a bumper limits the return stroke of the working parts. Like the invention previously described, this power mechanism is designed to actuate pumps, churns, washing-machines and the like, and is arranged to give a large number of strokes for one full turn of the sweep or crank-arm.

## Vehicles and Their Accessories.

**DUMPING-WAGON.**—ERNST MÜLLER, Bronx, New York city.—This invention is a dumping-wagon which has been constructed with certain novel features tending to improve the manner of framing the bed of the wagon and of mounting the dumping-body. The bed comprises longitudinally-extending side-beams. Under the bed a front axle is mounted. Brackets are attached to the rear portions of the side-beams and extend forward. In the brackets a rear axle is carried. Between the brackets a shaft extends rigidly, on which a tube is mounted to turn. The dumping-body bears on the side-beams, and is mounted on the tube. The weight of the body is evenly distributed throughout the various parts of the wagon, so that great loads can be carried without danger.

**TRUCK.**—JOHN J. MOULE, Stockton, Cal. The truck is mounted on five central transversely-aligned rollers, and is provided at either end with swinging propelling devices. Upon rocking the forward end of the truck frame downward, the forward propelling device, by engaging with the ground, will act to aid the truck in its upward and onward movement. While this forward end is being rocked upward the rear end will be moved downward, so that its propelling device may move into operative engagement with the ground. The propellers act as levers.

**VEHICLE-AXLE.**—JOHN P. COUNCIL, JR., Waukegan, N. C. The axle-spindle devised by Mr. Council has a simple means for the supply of lubricant and for causing the oil to move by gravity to the outer side of the spindle and distribute itself evenly. A simple means is likewise provided for removing dirt or grit which may enter around the inner end of the spindle. The axle will be introduced by the White Patent Axle and Hub Company, of Wilmington, N. C.

## Railway Contrivances.

**CAR-LOADER.**—SAMUEL E. KURTZ, Sac City, Iowa. This invention relates to improvements in devices for loading grain into cars. The loader comprises a platform over which an endless chain moves. Scraper-blades are attached to the chain and have notches at the under edge for the reception of a longitudinal guide-strip. The loader is suspended diagonally from the ceiling of a car, with its receiving end projected through the doorway. The grain is delivered from an elevator through a flexible chute which delivers the material between side pieces connected with the sides of the loader. The material falling from the conveyer will first drop into the car near the doorway. Then, as the grain is stacked up at each side, the car fills gradually toward the other end. The loader is thereupon placed in the opposite end of the car, which is similarly loaded. The loader has a capacity of about 2,000 bushels per hour if operated by hand, and about 4,000 bushels per hour if operated by an engine.

## Miscellaneous Inventions.

**NECKTIE-HOLDER.**—ISAAC STEINAU, Manhattan, New York city. The necktie-holder is to be applied to the back of a collar, so as to straddle the back collar-button. The holder is held in position by frictional engagement with the collar. The band of a necktie placed in contact with the outer face of the fastener is held against lateral and vertical movement.

**DEVICE FOR USE IN EXTRACTING ASHES.**—ERNEST C. COLE, 3218 Western Avenue, Chicago, Ill. The device comprises a canopy or shield for application to the mouth or entrance of the ashpit of the stove, and fits over the vessel placed to receive the ashes so as to prevent the dust from escaping into the room.

**FASTENERS FOR DOORS OR WINDOW SCREENS.**—JOSEPH W. LYONS, 270 Block I, Pueblo, Colo. The invention is an improvement in doors and window screens, and provides means for securing the doors and screens in place in such a manner as to retain them firmly in position and to prevent their warping. The frame of the screen has an open longitudinal groove or recess in which a shaft is fitted, provided with catches and with an operating lever. A spring operates upon the lever to actuate the shaft. Plates have slots for the lever and catches, and are fitted thereover and over the groove or recess and secured to the frame.

**HEATER FOR BEDS AND FEET.**—EDWIN T. KEENER, Delaware, Ohio. The inventor has devised a novel form of heater adapted to be secured to the footboard of a bedstead or the sides, or both. The heating device consists of a drum with a depending hood, into which the heat from a lamp or other heating means passes. The device is so constructed that no danger is incurred.

**FASTENING FOR FIXTURES.**—JOHN KRODER, 31 Union Square North, Manhattan, New York city. Mr. Kroder has invented a fixture for the many curtain-poles which he has devised, and for other fixtures as well. By means of this new and improved fastener the

head or tip is securely held in position on the rod in a very simple manner without the use of solder rivets, or similar means.

**TROUSERS-STRETCHER.**—WALTER H. SHINDLER, West New Brighton, N. Y. The inventor has devised a stretcher which will press, crease, and stretch trousers, and hold them for any length of time extended. The device is so constructed that it may be suspended from a support or lie upon a support, and that it may be compactly folded when not in use.

**DOOR-CHECK.**—GEORGE STUBBS, Perth, Western Australia. The door-check comprises a check-bolt carried by a spring-pressed rod at one end. A lever is pivoted to the other end of the rod, and is capable of sliding on its fulcrum. Means are provided for holding the lever in locked position when the check-bolt is withdrawn against the tension of the spring of the rod. The operator can immediately bring the check into action to hold the door in an open position and to permit its being moved into an inactive position when it is desired to open or close the door.

**FASTENER.**—RALPH APPLEBOM and JOE SIDENBTEL, Dallas, Texas. The fastener will hold almost any article in position, from a scarf or tie to a portière or trunk. The inventor, however, employs his device especially in connection with neckties and bows.

**OIL-BURNER.**—CASPAR BLUMER, Manhattan, New York city. The burner uses crude petroleum as fuel without danger of explosion, either at the burner itself or at the supply pipes leading to the burner. One of the novel features of the device is to be found in the construction whereby the level of the fluid in the reservoir which supplies the burner and its connecting-pipes, or the top of the reservoir itself, is below the fire-line of the burner, although the reservoir may be remote from the boiler.

**HAT AND COAT HANGER.**—FRANK MAREK, Jr., Summit, N. J. By using a single piece of wire, bent to form hooks, the inventor has provided a very simple and economical support which has considerable rigidity.

**ARTIFICIAL HAND.**—ALBERT C. MUELLER, Wausau, Wis. In this artificial hand the thumb and fingers are operated by means of a screw, arranged to be turned upon the rotation of the forearm. Springs are employed to return the fingers to their normal or open positions.

**KEYBOARD-COVER FOR TYPEWRITING-MACHINES.**—CLARA P. SEIPPEL, Chicago, Ill. The invention provides a cover for the keyboards of typewriting machines, especially adapted for use in the teaching of "touch" typewriting, or the manipulation of the keyboard while it is concealed. The keyboard-cover is not an obstruction; for the machine can be operated with perfect freedom. The cover is composed of any suitable fabric, and is supported on a spring-frame attached to the machine.

**MOLDING FRAME OR BOX.**—LEON TILLET, Virgine-Aux-Bois (Ardennes), France. Molding frames or boxes are usually joined together by means of fixed pins. The construction is costly and inefficient. To permit the more precise joining of the boxes, the inventor molds on each part of the box or frame, projections and recesses of variable form and dimensions, corresponding to the parts of the box. These projections and recesses being formed when molding, the parts are always identically the same both as to dimensions and positions.

**PROCESS OF MAKING LUBRICANTS.**—MILLARD S. HUDNALL, Wichita Falls, Tex. The process consists in adding signal-oil to slaked lime, until the lime emulsifies, then adding black oil, heating the mixture, and finally pouring into it a hot soap solution. The lubricant is of great efficiency for cooling hot boxes, journals, and other parts of machinery, and for preventing the heating of such parts.

**CASING-ELEVATOR.**—JAMES J. DAVIN, Washington, Pa. The ordinary casing elevator consists of a collar made of two sections hinged together, a bail attached to the hinged side, and a bail attached to the opposite or free side, with which a locking-link is connected, and is designed to drop into a notch. When the casing hook is adjusted a lost motion takes place. As the hoisting-engine is started the lost motion is taken up and a horizontal swaying is started. During the swaying motion the front bail causes a different center for the strain to be found, and one side of the casing-collar bears all the strain or pulls off the casing. These dangers and difficulties are overcome by Mr. Davin by so constructing the parts that the bail cannot become locked in its outer position; but the swaying motion is permitted to continue until stopped by gravity.

## Designs.

**PRINTING-FILM.**—BENJAMIN DAY, West Hoboken, N. J. The printing-film which forms the subject of this design has been previously patented by Mr. Day in another form. The printing-film, in the present instance, has a particular irregular arrangement of dots. In certain portions these dots are closer together than in others, so as to present a grading effect or shading. The film is to be used in photography for producing certain effects.

**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.

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Marine Iron Works, Chicago. Catalogue free.

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**Inquiry No. 415.**—For metal checks for checking baggage.

"U. S." Metal Polish. Indianapolis. Samples free.

**Inquiry No. 416.**—For manufacturers of brass head nails of a fancy design like a rosette or fleur-de-lis.

Motor Vehicles, Duryea Power Co., Reading, Penn.

**Inquiry No. 417.**—For small novelties for itinerant vendors.

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

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Yankee Notions. Waterbury Button Co., Waterbury, Ct.

**Inquiry No. 419.**—For the manufacturer of the "Pearson" lifting jack.

La Porte Watch School, La Porte Ind. Catalogue free.

**Inquiry No. 420.**—For parties to make brass machine screws and nuts with hollow core, in quantities.

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**Inquiry No. 421.**—For a lathe for making broom handles.

Machine chain of all kinds. A. H. Bliss & Co. North Attleboro, Mass.

**Inquiry No. 422.**—For manufacturers of brick machines.

Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.

**Inquiry No. 423.**—For manufacturers of rubber and metal hair pins.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

**Inquiry No. 424.**—For water motors suitable for driving a 4-inch lathe with ordinary house service pipe.

Our number 4 Catalogue of Automobile parts, write us, Standard Welding Co., Cleveland Ohio.

**Inquiry No. 425.**—For manufacturers of inside Venetian blinds and "ladder tapes" necessary for their manufacture, and also for pulleys for these blinds.

Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.

**Inquiry No. 426.**—For manufacturers of the common, spring friction clutch, as applied to transom openers, etc.

SA WMILLS.—Variable friction feed. Send for Catalogue B. Geo. S. Comstock, Mechanicsburg, Pa.

**Inquiry No. 427.**—For a refrigerating machine connected to an electric current, causing the cooling process to be carried on automatically, to be stopped and started by a switch.

Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.

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Gear Cutting of every description accurately done. The Garvin Machine Co., Spring and Varick Sts., N. Y.

**Inquiry No. 429.**—For manufacturers of Washita oilstones, farriers' whetstones, bones in boxes, scythe rubstones and grindstones, troughs and fittings.

Rester Electric Mfg Co's. Self-fluxing solder saves labor, strong non-corrosive joints, without acid, Chicago, Ill.

**Inquiry No. 430.**—For the present address of the Frost Lock Fencing Co. or the Frost Wire Fencing Co.

Marble dust for sale. W. A. Heaphy, Lee Mass.

**Inquiry No. 431.**—For small balls for ball-bearings made of glass or porcelain.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.

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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.

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Sheet Metal Novelties, Articles and Stampings of all sizes. Tools and dies manufactured on contract. Address Standard Stamping Co. Cor. 7th & Hudson Sts., Buffalo, N. Y. U. S. A.

**Inquiry No. 435.**—For information concerning the Hornsby-Akroyd gas or gasoline engine.

Wanted.—Skilled artist in mechanical art work. No one need apply who has not a knowledge of mechanics coupled with artistic ability and experience. Address Artist, P. O. Box 773, New York.

**Inquiry No. 436.**—For manufacturers of brass camera trimmings.

A Novelty—Neat, Ingenious and Practical.—Nickel-plated pocket implement useful in eighteen distinct ways; postpaid on receipt of 75 cents in U. S. stamps. Emil Schleusner, Bonn, Germany.

**Inquiry No. 437.**—For manufacturers of small gasoline engines about one-sixth b. h. p., also punchings for small dynamos.

Government Relics—guns, swords, revolvers, saddles, cannons, etc. from Government Auction are now being sold at ridiculously low prices. Send for illustrated lists. Francis Bannerman, 579 Broadway, N. Y.

**Inquiry No. 438.**—For manufacturers of gasoline generators for heating and lighting purposes.

A Winton motor carriage, model 1899, for sale. Price, \$500 f. o. b. cars Syracuse. This machine is in good running order, and was run less than 500 miles. Address, William Schmidt, 339 East Genesee St., Syracuse, N. Y.

**Inquiry No. 439.**—For manufacturers of perforated films for making moving pictures, also manufacturers of machines for taking moving pictures.

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

**Inquiry No. 440.**—For manufacturers of tin can machines.

