

RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

BINDER ATTACHMENT.—WILLIAM M. CLARK, Boscobel, and ALBERT M. DAVIS, Madison, Wis. This invention relates to a binder-breastplate which is mounted to move in unison with the needle. As the needle embraces the gavel and crowds it toward the trip-arm the breastplate moves down toward the arm and assists the needle in the work of compressing the gavel, thereby relieving the needle of much of the work which it was hitherto called upon to perform.

CUTTER-BAR.—ALONZO F. BENN, Ridgway, Penn.—The cutter-bar is constructed so that the knives are quickly and conveniently removed and replaced, and so that when the knives are in position in the bar they are readily locked in place. By means of the locking mechanism, the knives can be adjusted; and any slack caused by wear on the abutting edges of the knives is automatically taken up.

Vehicle Accessories.

AXLE-BOX WASHER.—DR. JAMES W. BRYANT, Crewe, Va. The invention is an improvement in washers and boxes for vehicle-wheels, in which a metal ball-bearing spring washer is used in place of the ordinary flat leather or metal washer. The objects of the improvement are to prevent friction and the consequent wear of the several parts, thus rendering the vehicle more lasting; to reduce the draft of the vehicle; and to prevent the disagreeable clicking sound heard in all vehicle-wheels after slight use, due to wear of the parts.

Engineering Improvements.

AUTOMATIC BOILER-FEEDER.—HENRY J. DAVIS, PLAYFAIR G. AULT and JAMES H. WIDEMAN, Birmingham, Ala. These inventors have devised an improvement upon boiler-feeders for which they have received U. S. Letters Patent. These patents cover certain constructions, combinations, and arrangements of steam and water inlet and outlet valves, and floats and connected mechanism for actuating such valves, the whole being so arranged in connection with a tank as to recharge a boiler automatically whenever the water level therein is lowered below a certain predetermined point of safety. The inventors have devised improvements in the construction and arrangements of valves and connected mechanism, with a water-tank, and a preliminary water-heater and steam-condenser whereby practical advantages of considerable importance are secured.

STEAM-ENGINE.—ROBERT H. BOTTS, Richmond, Cal. Mr. Botts has devised a very light and simple form of steam-engine designed primarily to be used on an airship of which he is the inventor. The steam-engine comprises a crank-shaft with which the cylinder is directly connected. A non-reciprocating piston with valves is arranged in the cylinder and connected with hollow piston-rods, forming induction and exhaust pipes. Right angular connections for the pipes are provided. Stationary stuffing-boxes form axes of oscillation.

Metallurgical Apparatus.

GUIDE FOR STAMP-MILLS.—EDMUND MAJOR, Denver, Colo. The guide consists of front and back clamping plates, and a tie-rod or bolt having an enlarged or swaged portion intermediate of its ends to engage one of the clamping-plates and hold it in position independently of the other plate. One end of the tie-rods serves to hold the other clamping-plate. Should one of the bolts break, the other will hold the parts in place until repairs can be made. The swaged portions on the bolts cause the back plates to be held in position independently of the front plates, and owing to the peculiar construction of these parts they are all held with the utmost security.

CORONET-ROLLS.—ALBERT C. CALKINS, Los Angeles, Cal. In the assay-laboratory considerable difficulty has been experienced in inserting the bullion button between the rolls. The present invention is in the nature of a simple, compact, and powerful little machine designed to insure the positive feed of any bullion button inserted between the rollers. The machine is conveniently manipulated and quickly rolls the bullion button into foil or strips of the desired thickness.

AMALGAMATOR.—HUGH M. SMITH and RALPH SAILEY, Libby, Mont. The object of the invention is to provide a shaking amalgamating-pan of simple construction, so arranged that the pan can be easily removed from its supporting frame, but held perfectly solid when in place. The pan is supporting a skeleton frame. A bolster is secured to the frame and mounted to slide on the lower portion of the table. A bolster for the upper frame is also provided, consisting of removable sections. Slide-bars are attached to the bolsters and move in boxings on the table. The bolsters are connected with a crank-shaft. A lateral reciprocating motion is imparted from the crank-shaft. In operation the machine will be placed in position in lieu of the stationary plates now used in stamp-mills and receive the slime or crushed ore from the battery constantly. The table or pan, as it reciprocates, causes the gold to amalgamate faster and more thoroughly than any stationary pan.

Mechanical Devices.

SPEED-CHANGING MECHANISM.—DEFI-

ANCE MACHINE WORKS, Defiance, Ohio. Mr. George A. Ensign, well known for his numerous inventions in woodworking machinery, has devised an improved speed-changing mechanism for axle-shaping machines. The mechanism is arranged automatically to change the speed of a carriage or other movable part of a machine traveling in one direction and to stop the carriage or movable art whenever it reaches the end of its stroke. The mechanism consists of a shaft carrying loose pulleys and driven pulleys. A double friction-clutch is mounted to slide on and turn with the shaft and is adapted to be thrown in mesh with any of the pulleys. The double clutch is operated by a shifting-lever connected with a sliding-block. A second sliding-block has spring connection with the first-named sliding-block. The blocks can be moved in opposite directions. Locking dogs are provided for engaging and locking the blocks in an outermost position, which dogs can be successively thrown out of engagement with the blocks whenever desired.

GLUING OR PASTING MACHINE.—FREDERICK W. BROWN, Berlin, N. H. This improved glueing and pasting machine is designed especially for securing a burlap lining on a sheet of wrapping paper and coating the latter with an adhesive substance to secure the article formed upon the ends and edges of paper rolls, especially large newspaper rolls, to protect the edges of the rolls from damage during transportation, loading, and general handling.

SAWMILL-CARRIAGE GEAR.—ELWIN S. BERRY, Putnamville, Vt. Ordinarily the carriage is drawn back in the same line in which it was advanced, thereby warping the log against the saw. By means of the present invention, however, when the carriage is to be jigged or returned to the starting point, it is first moved sidewise slightly, so as to clear the log from the saw, whereupon the return movement is effected.

Tools and Implements.

REPAIR-LINK.—FLETCHER G. ASBILL, Ridgespring, S. C. The invention relates to links provided for the repair of broken trace-chains or other chains. The object is to provide a very simply repair-link, which is light, strong, easily applicable to a broken chain. The device is especially applicable as a lap ring, or in lieu of a lap-ring such as is used ordinarily to connect a singletree and clevis to plow-beams.

DOUBLE-ACTION SAW-SET.—DUANE M. ROBERTS and JOSEPH H. MARA, Marlow, Ind. Ty. In every saw, either all of the teeth or certain alternate teeth must be bent outward from the imaginary plane passing through the saw-blade. This operation is necessary both in new saws and in those in which through use in sawing the teeth have been closed or partially closed by the pressure of the material sawn. The device forming the subject of this invention is especially designed for the purpose of bending the teeth to the proper angle and likewise to prevent buckling of the saw. The punches used in this device each act as an anvil for the other, so that the pressure of either punch has practically no effect except that of bending a tooth. The curved guideway provided prevents undue motion of the saw-blade and also assists in preventing the saw from coupling.

Miscellaneous Inventions.

SURGICAL DEVICE.—HENRY W. POST, Fultonville, N. Y. The invention is an obstetrical device comprising a strap adapted to slide on the end board of a bedstead, and slide-plates mounted to move toward and from each other on the strap. Loops have swinging connection with the plates; and hand-grips are mounted on the loops.

AIR-VALVE FOR WATER-COCKS.—WILLIAM PAUL, Savannah, Ga. The invention provides in connection with a water-cock an air-inlet controlling-valve held normally in closed position by water pressure, but automatically opening upon opening the drain-cock to permit the entrance of air, so as to cause a thorough draining of the pipe in freezing weather.

SURGICAL INSTRUMENT CASE.—MAX W. BECTON, Manhattan, New York city. The case is arranged to carry hypodermic syringes and accessories. An instrument-carrier having suitable sockets or clamps is hinged to the case, the connection being such that the carrier will be borne flat in one section of the case, and can be readily turned over into the opposing section. The carrier-case may be there rendered aseptic, and the carrier raised from the case, affording ready access to the contents.

FRUIT-BASKET.—HENRY C. FINLEY, Oklahoma, Oklahoma Ty. This light and cheap pasteboard substitute for the wooden grape basket in ordinary use consists of a body and bottom secured together. A handle is provided with tongues which pass down upon the outer side of the body and also upon the inner side. The pasteboard body and bottom of the basket are rendered water-proof by the application of some suitable composition. The construction provides a basket well adapted for its purpose, which basket is much lighter and can be constructed at much less cost than the ordinary wooden baskets.

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.

MUNN & CO.

- Marine Iron Works. Chicago. Catalogue free.
- Inquiry No. 1575.**—For the manufacturer of the Home Sharpener, an emery wheel attachable to any sewing machine.
- For logging engines. J. S. Mundy, Newark, N. J.
- Inquiry No. 1576.**—For manufacturers of electric automobile trucks or wagons for carrying not less than 3,000 pounds.
- TURBINES.**—Lefel & Co. Springfield, Ohio, U. S. A.
- Inquiry No. 1577.**—For machines for making butcher skewers.
- "U. S." Metal Polish. Indianapolis. Samples free.
- Inquiry No. 1578.**—For machinery for separating materials in refuse and afterward grinding and mixing after which it is pressed into balls, bricks, etc.
- WATER WHEELS.** Alcott & Co., Mt. Holly, N. J.
- Inquiry No. 1579.**—For manufacturers of electric belts.
- Gasoline Lamps and Systems. Turner Brass Works, Chicago.
- Inquiry No. 1580.**—For manufacturers of nickel or nickel alloy tubes for gas engines.
- Foot presses and dies. Amer. Hdw. Mfg. Co., Ottawa, Ill.
- Inquiry No. 1581.**—For a suction pump for cleaning cisterns without drawing out all the water.
- Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.
- Inquiry No. 1582.**—For manufacturers of gas engines from 1-16 to 1-2 horse power.
- Machine chain of all kinds. A. H. Bliss & Co. North Attleboro, Mass.
- Inquiry No. 1583.**—For manufacturers of small dynamos to run 12 to 15 incandescent lights.
- Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.
- Inquiry No. 1584.**—For manufacturers of small steam siren whistles.
- For Sheet Brass Stamping and small Castings, writ Badger Brass Mfg. Co., Kenosha, Wis.
- Inquiry No. 1585.**—For manufacturers or dealers in household novelties.
- Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.
- Inquiry No. 1586.**—For dealers in children's musical or toy novelties.
- Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.
- Inquiry No. 1587.**—For turbine water wheels.
- Machinery designed and constructed. Gear cutting. The Garvin Machine Co., 149 Varick, cor. Spring Sts., N. Y.
- Inquiry No. 1588.**—For parties dealing in No. 8 steel rails 30 feet long.
- New Book, Electric Gas Lighting. 50c. Send for full descriptive circulars, free. Spon & Chamberlain, 12 Cortlandt Street, New York, U. S. A.
- Inquiry No. 1589.**—For machinery for making clothes pins.
- Manufacturers of patent articles, stamping dies, tools, light machinery. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.
- Inquiry No. 1590.**—For machinery for making butcher skewers.
- Designers and builders of automatic and special machines of all kinds. Inventions perfected. The W. A. Wilson Machine Company, Rochester, N. Y.
- Inquiry No. 1591.**—For manufacturers of machinery for cutting, splitting and bundling wood.
- The celebrated "Hornsey-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.
- Inquiry No. 1592.**—For machinery for making round hardwood handles, etc., for palls, tubs, etc.
- MECHANICAL SUPERINTENDENT WANTED.**—Familiar with the manufacture of firearms on a large scale, possessing executive and mechanical ability. Address, stating age, experience and references, A. Box 2123 General Post Office, New York.
- Inquiry No. 1593.**—For manufacturers or dealers in machinery for making paper boxes.
- WANTED.—A competent and energetic draughtsman, about 33 to 35 years, up in modern methods, to take charge of small machine shop. Good pay to right man. One familiar with bleaching and dyeing machinery preferred. Address, giving full information and wages expected, B. B., No. 32 Kent St., Somerville, Mass.
- Inquiry No. 1594.**—For the address of the manufacturers of the "Hat Mirror and Hat mark," also "Duke's Scissor Thimble."
- FOR SALE.—Three bias cutting machines especially built and suitable for cutting velveteens and other fabrics on the bias. Each machine cuts a 4 yard length at a stroke; has self-sharpening knives and adjustable automatic feed; is perfectly balanced, requiring but little power to operate. All are in perfect condition; equipped with fast and loose driving pulleys, feed tables, etc. Can be operated at the rate of from 45 to 60 cuts per minute. Address E. H. B., Box 175, New York.
- Inquiry No. 1595.**—For manufacturers of furniture woodworking machinery.
- The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4. Munn & Co., publishers, 311 Broadway, N. Y.
- Inquiry No. 1596.**—For shaping machinery used in making electric light telephone lighters, railway cross arms and borers for same.
- 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. 1597.**—For machinery for making insulating pins.
- Inquiry No. 1598.**—For dealers in figured wood for veneering purposes.
- Inquiry No. 1599.**—For launch hulls of steel 13 to 30 feet long to be driven by gasoline motor.
- Inquiry No. 1600.**—For manufacturers of paper tubes for cigarette making.
- Inquiry No. 1601.**—For address of manufacturers of machinery for the separation and preparation of American asphalt, both sand and rock.
- Inquiry No. 1602.**—For parties to manufacture a portable bootblacking device consisting of tricycle and stand combined.
- Inquiry No. 1603.**—For manufacturers of an electrical apparatus for filtering water.
- Inquiry No. 1604.**—For castings for kerosene engines to run an automobile.

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AND EACH BEARING THAT DATE.

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