

## RECENTLY PATENTED INVENTIONS.

## Agricultural Implements.

**BAND-CUTTER FOR SELF-FEEDERS.**—CORNELIUS R. VOTH, Lehigh, Kans. The band-cutters are so arranged that the self-feeder of a threshing-machine is enabled to tear the bundles without danger of choking the machine or the cylinder. The knives or cutting teeth cannot warp at any time. The cutters are in the form of knife-carrying disks arranged in co-acting pairs, the disks of a pair being driven at different speeds. With headed grain, the slow-speeded disks are run faster than ordinarily, so as not to cut the grain too much, and in order to feed it rapidly. The speed of the band-cutters, as well as their height, can be regulated.

**FERTILIZER-DISTRIBUTER.**—JOHN A. LARSON, Hayfield, Minn. The fertilizer-distributor consists of a vehicle having a body-portion, toward the rear end of which the fertilizer is moved. At the rear end, the fertilizer is discharged by an ejector, a horizontal cross-formed rotary spreader being used for the purpose of distributing the fertilizer. By this apparatus the fertilizer is cast to a great distance at each side.

**POTATO-GATHERER.**—AUGUST H. W. EIKMEIER, Manning, Iowa. The purpose of this invention is to provide a device for gathering potatoes. The action is such that the potatoes are raked from loose dirt in a hill and directed to a receptacle having means for discharging any dirt that may enter. The device is light and durable.

## Mechanical Devices.

**PADDLE-WHEEL.**—HENRY S. KLINE, McKeesport, Pa. The paddle-wheel is to be used at the stern or at the side of a vessel and is caused to assume a vertical position upon leaving the water, thus releasing the great weight of water usually carried upward by the ordinary fixed paddles, and therefore using the whole effective power of the wheel in propelling the vessel.

**BANDING-ROLLING MACHINE.**—WILLIAM D. KILBOURN, Pueblo, Colo. In bandage-rolling machines it was hitherto necessary to remove the adjustable head in order to rove the bandage between the guide-bars. It is the purpose of this invention so to arrange the guide-bars that the material can be readily placed between them without removing the adjustable head.

**VENDING-MACHINE.**—MILBERT F. PRICE, Iowa City, Iowa. This apparatus is especially adapted for selling collar-buttons. The collar-buttons are mounted on a strip, and mechanism is provided for cutting the strips of material into separate lengths to deliver the collar-buttons individually. The invention can be used in connection with coin-controlled operating devices.

**VENDING APPARATUS.**—MILBERT F. PRICE, Iowa City, Iowa. Like the foregoing machine, this apparatus is designed to sell collar-buttons by means of coin-controlled mechanism. A tape or ribbon, to which the buttons are removably attached, is fed progressively. Devices are provided for automatically detaching the buttons from the tape and separately delivering them to the purchaser.

**CIGAR-WRAPPER CUTTING MACHINE.**—WILLIAM S. GLEIM, Lancaster, Pa. This improved machine is of a class wherein exhaustion of air is produced below a cutter, shaped on its edge like the margin of a properly cut cigar-wrapper. The wrapper material is held by air pressure over the hollow cutter or die. A swinging-lever carrying one or more rollers is also provided, which lever is passed over the cutting die after a leaf of wrapper material is placed over the die. Thus the die is made to cut the wrapper. The improvements greatly facilitate the proper operation of the machine.

## Special Tools and Implements.

**POLISH-ROD GRIP.**—LEROY E. and ERWIN JORDAN, Bolivar, N. Y. To raise or lower valves in oil and gas wells a special implement called a polish-rod grip is used. This invention is an improved polish-rod grip, which can be used while the pumping machinery is in operation, and therefore with a great saving in time and labor. The device dispenses with the rope and derrick ordinarily used when it is required to pull out the valves. The grip is also of service in place of the two-bolt clamp heretofore used, which must be threaded by hand.

**STRAIGHT-EDGE AND CLAMP FOR PAPER-HANGERS' USE.**—FRANK W. GRUNDEN, Emlenton, Pa. The invention is a means for holding wall-paper or window-shades in position for trimming their side-edges straight and of a desired width. The means comprise a novel, simple device adapted to clamp one or more sheets of paper and cut a straight edge readily adjustable to give a wide or narrow margin. This margin is to be trimmed from the paper. The device can be adjusted for guiding a trimming-knife to cut a sloping edge on a sheet of paper.

**SAW-SHARPENING DEVICE.**—IRA L. BULSON, Jacksonville, Fla. This device embodies a means for deepening the cut or changing the pitch of the saw-teeth. An arching section is provided at its ends with longitudinal slots. Oppositely-disposed members are located in the slots for engaging the ends of a file, and ad-

justable longitudinally in the slot for the purpose of governing the depth of cut. Clamping mechanism holds the oppositely-disposed members.

## Apparatus for Special Purposes.

**APPARATUS FOR TREATING LEG DEFECTS.**—WENDELIN EMGE, Hohentengen, Württemberg, Germany. The apparatus is designed for the treatment of broken bones. The proper position is given to the injured member so that local defects can be treated without altering the position. Absolute rest is insured for the injured limb. The apparatus is mainly designed to prevent the bending of injured bones, which so frequently happens in fractures. Hence the injured limb is not shortened or deformed.

**STERILIZER.**—JOSEPH SCHOETTL and CHRISTIAN JAEGER, Brooklyn, New York city. This apparatus sterilizes by means of superheated steam. A boiler is used, from the upper portion of which a pipe passes downward and away from the boiler. A three-way cock controls the pipe and also controls a communication between the pipe and the lower portion of the boiler.

**CARBURETER.**—BENJAMIN A. GUY, Paris, France. The processes hitherto known for producing the constant mixture of air and the vapor of volatile liquids have all the disadvantages of providing a mixture that varies according to the temperature, discharge of gas, and duration of the process. The present invention overcomes these difficulties in carbureters. The hydrocarbon is not placed in the apparatus itself in the usual manner; but in its stead water is used, which is less corroding. The composition of gas can be determined at will. The employment of a hydrocarbon reservoir of special construction is unnecessary. An ordinary gasoline vessel of any shape can serve as a reservoir. This obviates the necessity of any manipulation of the hydrocarbon.

**ATTACHMENT FOR ORE-SAMPLING MACHINES.**—ALBERT C. CALKINS, Los Angeles, Cal. In a former invention of Mr. Calkins a peculiar construction was provided, comprising an arrangement of buckets with radial partitions and gears for rotating them in opposite directions. A hopper and agitator was used to feed the material. The present invention comprises a simple attachment to be combined with these elements, whereby the agitation of the hopper can be controlled independently of the rotation of the buckets, which was not the case in the former invention.

## Vehicles and Their Accessories.

**CAR-SEAT.**—LOUIS JANSON, Brooklyn, New York city. The frame of a car-seat is provided with spring-supported shaping plates consisting of two or more sections having sliding connection. When a cover is stretched over the frame and the seat sustains a weight, the tension is equally distributed over the entire upper face of the seat. When the weight is removed the cover is automatically and smoothly stretched throughout its length, the cover sustaining but little of the tension due to the weight.

**TIRE.**—WILLIAM J. WITTMANN, Rochester, N. Y. Mr. Wittmann has devised a new and improved single-tube tire, which is simple and durable in construction, puncture-proof, and sufficiently elastic to insure convenient and easy riding, without undue jolting or jarring. An annular stay extends outwardly and radially from the surface of the tube. Side pieces fit opposite sides of the stay and the adjacent parallel portion of the tube.

**WHEEL-WRENCH.**—LEVI BLUNK, 1232 North Market Street, Louisville, Ky. The wrench is an improved means for removing the nut on the end of the spindle. An improved construction is provided, whereby the nut can be removed by turning the wheel backwardly, the wrench having means for engagement with the spokes, so that the turning of the wheel will operate the wrench in both applying and removing the nut.

**WAGON-BRAKE.**—JOHN F. STONE, SR., Dixie, Ind. This improved vehicle-brake is simply and easily operated and can be applied to the brake-bars now in use. An arrangement with springs is provided, which operates to throw the brake-shoes a considerable distance from the brake-wheels.

## Railway Contrivances.

**CROSSING-GATE.**—WILLIAM E. JENKINS and JOHN D. SMITH, Goldsboro, N. C. The invention is a gate for railway-crossings; and the object is to provide a gate with an actuating mechanism of simple construction, not liable to get out of order and adapted to be controlled by a train passing over a track. The services of a man are dispensed with.

**CROSS-TIE.**—FREDERICK W. DUNNELL, Springfield, Mass. Waste material is utilized, such as leather scraps and worn-out footwear, in the manufacture of railroad cross-ties. It is claimed for the improved cross-tie that it is moderate in cost, durable, and sufficiently elastic to afford efficient service.

## Miscellaneous Inventions.

**PORTABLE TABLE.**—JOHN M. FLEMISTER, Vigan, Luzon, Philippine Islands. The table is adapted for use as a mess-table in armies, for outings, and similar purposes. The several

parts of the table can be folded or rolled together in a comparatively small space for packing and transportation. When set up for use the table is rigid and strong, yet light.

**CARTRIDGE FOR GUNS.**—DR. WILLIAM F. COLE, Provident Building, Waco, Tex. In guns of the Mauser and Krag-Jorgensen type it is necessary so to construct the cartridge proper and to provide the gun reach with guides to insure the presentation of the projectile for insertion so that jamming will be prevented. Dr. Cole has invented an improvement in guns embodying guides of this character, and the present invention relates to a cartridge adapted for use therewith. The cartridge has its reduced end twisted and formed as an ellipse in cross-section and its flanged head provided with flat sides.

**ADJUSTABLE SCREEN.**—EDWARD C. LINCK, St. Louis, Mo. The screen is of the kind that can be adjusted to fit windows of varying width. The frame sections are formed of sheet metal, to render them substantial, and can be readily manufactured by ordinary sheet metal forming and cutting tools. The frames, moreover, are far more durable than those of wood.

**SAD-IRON.**—KARL A. KAISER, Long Island City, Queens, New York city. The invention is a gas-heated sad-iron. The construction is such that a uniform heating of the base of the sad-iron is secured, and overheating the point of the iron prevented.

**STRING-FASTENER FOR MUSICAL INSTRUMENTS.**—GEORGE HOLT, Dixfield, Me. The invention provides a device by which a supplementary string, as the E-string of a violin, can be held in readiness for immediate use in case the original string should break.

**EDUCATIONAL MEDIUM.**—HELEN B. FROELICH, Manhattan, New York city. The object of the invention is to provide an improvement in educational devices whereby words, as they appear in books, charts, and the like, appeal strikingly to the eye of the pupil to facilitate and simplify the study of words. Two or more colors are used to define each syllable in a word, as many colors being selected as there are syllables in a word and as many distinct colors employed as there are unaccented syllables in a word. Black is the preferable color for the unaccented syllables.

**PROCESS OF MAKING PAPER PULP.**—THOMAS C. X. A. BERGETT, Paris, France. This improved process consists essentially in starting fermentation through the combined influence of an alternating current and the heat developed by it in its passage through the substance, and then finally allowing the fermentation to terminate spontaneously, without the further application of an electric current. If necessary, the fermentation is facilitated by a medium varying according to the nature of the substance under treatment.

**DETECTOR DEVICE FOR BOTTLES, JARS OR CANS.**—EDWIN J. BROWN, Oneida, N. Y. Mr. Brown has devised a means for preventing the refilling of glass bottles and the like. Ordinarily such devices are part of bottles, jars, and cans, and require some change in shape in the can, or render the receptacle unfit for use again. The present invention is entirely independent of the bottle or jar.

**FILE OR DRAWER LOCK.**—DEAN A. BECKWITH, Manhattan, New York city. This lock is arranged securely to lock all the files or drawers in a casing at the same time, or to unlock all the files or drawers for their convenient removal at once to give access to their contents. A U-shaped lock-bar is hung on pivots and arranged to receive in its channel upward catches on the removable files or shelves. Mechanism is provided for swinging the lock-bar on its pivots.

**NON-REFILLABLE BOTTLE.**—PETER LESCH, Manhattan, New York city. In carrying out the invention, a novel arrangement of valve devices and auxiliary parts, together with an improved float in the form of a buoyant bulb, is employed. The bulb closes the valve against the inflowing liquor, should the bottle be inverted and the air exhausted in the effort to refill the bottle. The bottle-neck and its closure devices are given a form to defeat an attempt to dislodge the closure devices by means of a wire or the like.

**POCKET PARTITION FOR BOXES.**—LEON HIRSCHFELD, Manhattan, New York city. The pocket partition for boxes is intended to contain chocolate drops. The partition is constructed in a number of sections having guides upon which they slide. Each section is independent of the other and has independent movement whereby the sections can be so arranged that when in given positions with respect to each other they will form a series of pockets, each adapted to contain a piece of confectionery. Each piece is separately contained in a pocket, and one piece is prevented from touching another.

**FOOT-WARMER.**—FRANK H. GOTSCHKE, San Francisco, Cal. The foot-warmer comprises a frame in which a roller covered with a rubbing material, such as flannel, fur or hair, is mounted. A foot-rest is connected with the frame, and gearing is provided to impart an oscillating motion to the roller. The feet are placed upon the foot-rest so as to touch the rubbing material. Upon oscillating the roller the sole of the foot is thoroughly rubbed, and a certain amount of static electricity is generated to impart warmth to the foot.

**TOY.**—ART H. KILPATRICK, Little Rock, Ark. This toy is a doll having a head provided

in its under side with a seat for the finger, so that the head can be manipulated by the forefinger of the hand. The second finger and the thumb can be operated within a drapery suspended from the head to represent a dress, in such a manner as to present the appearance of arms. By reason of this illusory effect, the doll can be made apparently to wipe its face, scratch its head, and perform other like actions.

**CALENDAR-WATCHCASE.**—JOHN M. BIGGS, Glasgow, Ky. A special case construction is provided for use as a calendar, which construction includes movable sections that can be set to indicate the month, the days in the month, and the weekday of any day in the month.

**DOUBLE-PILE FABRIC.**—HOVCEP SARAFIAN, Titusville, Pa. The invention relates to textile fabrics, such as oriental rugs. In this new rug the pile stands up straight, having no tendency to lie down, as in an ordinary oriental rug. The fabric can be readily and quickly woven without the aid of skilled labor and without the waste of any material.

## Designs.

**PUZZLE-BOARD.**—ALEXANDER J. GUTTMAN and JACOB R. ARMS, Manhattan, New York city. The design consists of a pan-shaped receptacle having a handle with a buffalo's head in relief, the receptacle having in its bottom a central depression and ribs radiating from the depression. The puzzle-board is evidently a Pan-American souvenir.

**REIN-HOLDER.**—JAMES A. WATTERSON, Aredale, Iowa. The leading features of the design consist of shanks, loops and a bar, all co-acting to hold the reins.

**WASHBOARD.**—WILLIAM W. JARRETT, Maysville, Alabama. The leading features of the design consist of a front concavity for the washboard. The feet at the bottom of this concave board incline rearwardly and downwardly. The box-receptacle at the top is open at the front, and has a back inclined upwardly and rearwardly.

**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.

## NEW BOOKS, ETC.

**THE ORGANIZATION AND MANAGEMENT OF A BUSINESS CORPORATION WITH ESPECIALLY REFERENCE TO THE LAWS OF NEW YORK, NEW JERSEY, DELAWARE, AND WEST VIRGINIA.** By Thomas Comyngham. New York: The Ronald Press. 1900. 8vo. Pp. 203.

The present volume treats of the methods whereby interests and forces in themselves widely divergent are brought together and combined in one easily handled, marvelously effective legal entity—a corporation. It shows the ready adaptability of its methods for smaller business enterprises. The book clearly outlines the preliminary procedure and shows how its advantages can best be utilized and its dangers avoided. The arrangement permits of a ready understanding of the subject.

**HAND-BOOK OF PRACTICAL HYGIENE.** By D. H. Bergey, A.M., M.D. Easton, Pa.: The Chemical Publishing Company. 1899. 12mo. Pp. 164. Price \$1.50.

The lack of a convenient hand-book for the guidance of students in the sanitary analysis of air, water, soil, and the principal food materials and in testing the ventilation of buildings is the author's apology for the preparation of this little work. The subject is explained in a very lucid manner to enable the students to grasp the principles as well as the processes of analysis. The book deals with meteorology, analysis of air, analysis of water, soil, the sanitary analysis of food, and ventilating and heating are touched upon.

**A PRIMER OF POLITICAL ECONOMY.** By S. T. Wood. New York: The Macmillan Company. London: Macmillan & Co., Ltd. 1901. Pp. 149.

Mr. Wood has written a delightful little book on the first principles of political economy, and has presented the subject so attractively that he must surely interest the novice for whom his book is intended. The book is a continuous story of what the purchase of a pair of shoes entails, and how that purchase typifies the action of economic laws.

**ANNUAL AND ANALYTICAL CYCLOPEDIA OF PRACTICAL MEDICINE.** By Charles E. de M. Sajous, M.D. Philadelphia, Pa.: F. A. Davis Company. 1901. Vol. VI. 8vo. Pp. 1,043.

Dr. Sajous is to be congratulated upon the completion of the sixth volume of his Annual and Cyclopaedia. It is an exhaustive work, and the references to medical literature are very full. Some of the most eminent surgeons and physicians in the world are contributors to the sixth volume, which is the last of the first series. The general index is very full.

**UEBER STEREOSKOPISCHE LUPEN UND BRILLEN.** Von Dr. Emil Berger, Sonder-Abdruck aus der Zeitschrift für Psychologie und Physiologie der Sinnesorgane. Herausgegeben von H. Ebbinghaus und A. König. Bd. 25. Leipzig: 1901. Johann Ambrosius Barth. Pp. 77.