

## RECENTLY PATENTED INVENTIONS.

## Agricultural Implements.

**MACHINE FOR HULLING OATS.**—S. E. FIELD, Victoria, Canada. In operation this machine receives the oats in a hopper and guides them to rollers in such manner that the rollers will nip the heads of the oats and will squeeze out the groats, the groats falling within the machine, while the hulls pass through to the outside. The oats and other grain may be hulled without going through any previous preparation or process.

**PLANTER.**—J. P. CALDWELL, Winnsboro, S. C. The present invention relates to an improvement upon a former patent granted to Mr. Caldwell in 1900. The seed-planting wheel may be used at will for planting cotton-seed or smaller seed as peas and corn, the dropping mechanism being automatically operated. The seed-dropping mechanism may be rendered inactive, so that larger or smaller seed may be planted or the seed planted at intervals, thus avoiding chopping out the rows, after the plants have grown. The machine opens a furrow, covers the seed and rolls the covering down: it distributes fertilizing material and provides agitating devices for the bulk of the seed and the fertilizing material.

**THRESHING-MACHINE.**—N. E. HEEREN, Baxter, Minn. The old form of grain-pan is improved upon in this invention, by providing such pan with means, whereby should any grain be fed forward with the chaff from the first series of chaffers such chaff containing grain will be compelled to pass over the second series of chaffers before the chaff is thrown off on the chaff heap. The auxiliary chaffers of the grain-pan are adjustable and operate with any kind of grain so as to separate it from the chaff. The fan is located below the grain-pan so that the blast of air therefrom is diverted into the pan and upward through the spaces between the chaffer-slats.

**GRASS-SEED STRIPPER.**—H. T. and W. H. McCORMICK, Winchester, Ky. This stripper is in the nature of an improvement in devices employed for stripping off grass-seed or the heads of grain. The invention gives ample room for the workman in the box and allows the use of moderate sized wheels; the shafts are attached close to the centers of the wheels, making a light draft; and, as the seedbox is rigid with the axle and is arranged to oscillate with the axle in the hub of the wheels instead of on the axle, the machine may be used on a hillside as well as on level ground.

## Electrical Improvements.

**ELECTRIC STOP-MOTION FOR KNITTING-MACHINERY.**—A. L. PATTERSON, Alameda, N. C. This device is of that class known as "electric stop-motions" for knitting-machines. It is controlled by electromagnetic mechanism and circuits which automatically stop the operation of the knitting-machine whenever the yarn breaks or too much slack occurs from a failure of the tension devices to work properly.

**COMBINED ELECTROLYTIC AND MECHANICAL INTERRUPTER.**—H. R. SMITH, Altoona, Penn. This improvement has reference to an interrupter suitable for the operation of Ruhmkorff coils and the like, and comprises both an electrolytic or Wehnelt interrupter of modified form and a mechanical interrupter connected therewith, the two interrupters mutually qualifying the effect of each other.

**PLATE FOR ELECTRIC ACCUMULATORS.**—D. TOMMASI, 7 Rue des Immeubles Industriels, Paris, France. This system of accumulator-plate is characterized: first, by the employment of strips placed in close proximity to each other in the empty spaces of the lead grid or frame of the plate, the strips serving to retain the active material and permit of the uniform distribution of the current throughout the mass; second, by the employment of a diagonal conducting-strip upon one face of the plate, the strip extending from the angle corresponding to the point of entry of the current and serving to insure a uniform distribution of the current through all parts of the plate.

## Engineering Improvements.

**STEAM-BOILER.**—M. K. VAN DER VELDE, Chicago, Ill. In the operation of this boiler, the steam is generated on the several surfaces or levels of water, and the steam generated in the bottom pan forces the water downward moving the float down and opening a valve, so that the steam may pass into the middle pan, and the steam with the steam generated in the middle pan will cause the valve to open, permitting the steam to pass into the upper space of the boiler or into the space in the top pan and thence out through the steam-pipe.

**INJECTOR.**—S. F. SIPLE. Address mail matter to Eli H. Goslin, Petersburg, Indiana. The adaptation of this injector is essentially for injecting air or other analogous gas into steam for the purpose of increasing the volume of the steam. The invention also resides in a novel combination of an injector with a source of steam and a motor driven therefrom.

## Machines and Mechanical Devices.

**HOISTING DEVICE.**—M. RATH, Two Rivers, Wis. Embodied in this invention are improvements in hoisting devices or elevators, particu-

larly adapting the apparatus to the use of builders in raising brick and other building material to the place of work, the object being to provide a hoisting device that may be readily placed in position and adjusted to height as the building progresses.

**WASHING-MACHINE.**—D. S. TYLER and L. D. TYLER, Indianapolis, Ind. The inventors' principal object is to provide means whereby to thoroughly and easily cleanse and turn the clothing during the washing operation, as well as means for securing the wringer so that the wringer can be quickly turned into and out of position for use.

**SELF-OILING JOURNAL BEARING.**—G. A. ENSIGN, Defiance, Ohio. In the present case the improvements refer to journal-boxes of the ring-oller type; and their object is to provide a new self-oiling journal-bearing which is positive in action, requiring little attention, and arranged to uniformly distribute the lubricant to all parts of the bearing and to permit employment on high-speed shafts.

**MACHINE FOR PRODUCING APERTURED DISKS.**—G. A. ENSIGN, Defiance, Ohio. This invention relates to woodworking machinery; and its object is to furnish a new and improved machine for producing apertured disks in a simple and quick manner, the disks produced being accurate in shape and the device readily worked without the use of skilled labor. For producing larger or smaller sizes of disks correspondingly-sized cutter-heads and augers are employed.

**GRAPHOPHONE - REPRODUCER.**—W. HART, Kirksville, Mo. This inventor's improvements relate to graphophones, and his object is to improve the sounds made by the reproducer, and also to provide certain adjustments for regulating the sounds reproduced. Double diaphragms are used, and the sounds produced by this device are louder, clearer and richer than those afforded by the ordinary reproducer.

**GUN BORING AND BURNISHING MACHINE.**—T. C. HUSTED, Pittsburg, Kan. The improvements in the present invention relate to machines for choke-boring a gun-barrel and burnishing the interior of the barrel, the object being to furnish a machine of simple construction to be made and sold at a low cost and that may be readily operated by any person either skilled or a novice in the art of gun making or repairing.

**FLYING-MACHINE.**—O. A. KAEHLER, Detroit, Mich. In operating this machine, the operator from his seat causes the rotation of the cranks by foot power or any other well-known motor, and thereby revolves the wings. A lifting effect is thus produced by the reaction of the air upon the wings. The operator steers by means of hand-cranks, one of the propellers at his right and the other at his left, so that he can turn either at will in either direction. These propellers drive the device forward or backward. In alighting the speed of the wings is slowed up, the machine gently descending, the buffers cushioning the force of the alighting frame.

**FRICION-COUPLING.**—A. LEIKEM, Chicago, Ill. Provided in this invention is a new and improved friction-coupling, more especially designed to couple shafts together, and arranged to positively lock the driving-shaft to the driven shaft in case the contact surfaces of the coupling members slip one on the other under a heavy load, and to insure proper friction contact of the faces in case the shafts move out of longitudinal alignment.

**STOP-MOTION MECHANISM.**—L. D. WADE, Cedartown, Ga. Mr. Wade's improvement in this invention relates to stop-motion mechanisms for weaving-machines, looms and other devices used in operating textiles. It is based upon the principle that the breaking or slackening of a thread controls an electromagnet, and thereby disconnects some part of the machinery.

**DRIER.**—J. WATERHOUSE, New York, N. Y. This invention relates to improvements in machines for drying fruits, meats, sand, and matter containing precious metals or gems, and the object is to provide a machine of this character with which moisture and light dust may be quickly and effectually separated from the material.

## Metallurgical Apparatus.

**APPARATUS FOR TREATING ORES.**—H. HIRSCHING, San Francisco, Cal. The primary object in view in this invention is to provide an improved apparatus for treating ores containing copper, zinc, nickel, silver, and gold, which apparatus can be successfully employed whether one part or all of the above mentioned metals are contained in the ore.

**GOLD-DREDGER.**—O. F. BARNES, Arcola, Ill. The usual suction-dredgers are impractical or of little use in elevating gold from a river-bed or the like, because of the great specific gravity of gold as compared with sand and gravel—that is while sand and water are lifted by the suction the gold will sink into the sand-bed too deep to be lifted by the suction. The object, therefore, is to provide means for collecting gold with the sand at a point so near the inlet of the suction-pipe that the gold will be elevated by the suction-draft.

## Vehicles and Their Accessories.

**VEHICLE-BRAKE.**—E. KEPP, Xenia, Ill. The object in view in this device is to provide a brake mechanism so arranged that it may be

set to apply the brake to a team holding back on the vehicle-tongue, to apply the brake by either pulling or back pressure on the tongue, to apply the brake by pulling strain alone, and to so place the parts that the brake cannot be set by either forward or back strain on the tongue.

## Miscellaneous.

**MEASURING INSTRUMENT.**—I. B. HAGAN, North Lamoine, Me. In this measuring instrument, the object is to provide a simple and inexpensive device that will be found useful to surveyors, engineers or others in laying out or plotting angles, measuring distances, and plotting work generally. The wide range of its measuring is shown in the capacity of the instrument to find the course or bearing and distance of two objects at sea, or to lay out rafters for building purposes.

**SLICING-KNIFE.**—W. KELLEY, Scammon, Kan. This invention relates to that class of knives provided with a plurality of blades held in parallel planes on a single handle. The object is to provide a knife adapted to cut a plurality of slices at one time and also by easy detachment of the two outer blades from the handle enable the use of a central blade for cutting bread or cake with one edge of this blade and meat or more compact substances with the opposite edge.

**MOVABLE LETTERS FOR ADVERTISING-BOARDS.**—T. KNOBLICH, 43 Pferdemarkt, Hamburg, Germany. This invention has reference to movable letters for advertising purposes, which either singly or connected, so as to form words and either in or not in connection with other immovable letters, shall be used for advertising words, for the purpose of drawing the attention of the public through either movement, to such advertisements with which they are connected.

**UNDERWAIST.**—E. H. HORWOOD, Hoboken, N. J. In this case the inventor provides a construction of undergarments in which gathers, plaits, or shirings are used, and in which a yoke is so combined with the body as to take all the strain from the gathered-in fullness, thus preventing the gathers, etc., from being drawn or wrenched from position at their edges. The yoke has integral shoulder-straps and the body has stays at the top and bottom of the gathered material, the upper stay reinforcing both the yoke and the body.

**WARDROBE-TRUNK.**—N. BARUCH, New York, N. Y. The construction invented by Mr. Baruch relates to a wardrobe-trunk admitting of general use, but particularly desirable for actors, traveling salesmen, and others who have frequent need of carrying wearing-apparel from place to place in journeying to any great extent, and who know the value of being able to dress in becoming style where little time is available for the purpose.

**TEMPORARY BINDER.**—F. B. TOWNE, Holyoke, Mass. Means are provided in this invention for increasing the capacity of a binder in storing or filing leaves or sheets. Extensible posts with adjustable ratchet members are provided, the members being attachable and detachable to allow increase or decrease in the length of the posts. The adjustable ratchet members of the posts co-operate with locking devices on a shiftable locking-slat which may be equipped with a waste leaf, and these ratchet members are formed with teeth always in position to engage with the locking devices on the slat.

**BRUSH.**—D. F. MAHER, Watsonville, Cal. While the application of this invention is mainly to a tooth-brush, it may be embodied in other brushes. The object is to provide a brush which can be readily and thoroughly cleansed by forming one of the sections movable relative to the other sections, so it can be slipped out of immediate relation with the fixed sections to facilitate the complete cleansing of the brush.

**EGG-PRESERVING COMPOUND.**—J. M. BROOKS, Clifton, Texas. Mr. Brooks is the inventor of a new composition of matter which is used for the preservation of eggs. It keeps eggs sweet and fresh for months at a very low cost. The operation of treating the eggs is very simple and can be quickly and easily done when transferring the eggs from bulk to the shipping cases.

**SHIP'S TABLE.**—W. J. PREATER, Elizabeth, N. J. In carrying out this improvement, the inventor's particular point in view is to construct a table not liable to be unfitted for use by the motion of a vessel. The top of this table always rests in a horizontal plane irrespective of the pitch, roll, or motion of the vessel, and is so arranged that the use of the table is not interfered with. The table-top may be extended or folded outward for use for a large number of persons, such changes in size being readily made by lever-connecting means.

**LINOTYPE-GALLEY.**—F. E. MILHOLLAND, Brooklyn, N. Y. In carrying out this invention the object is to construct a linotype-galley so that it may be locked up—that is to say, so that the type may be locked firmly in the galley. The inventor accomplishes this by a movable barrier arranged in the galley and having a certain novel form of locking lever and spring.

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.

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