

## RECENTLY PATENTED INVENTIONS.

## Pertaining to Apparel.

**HOOK AND EYE.**—C. S. LICHTENSTEIN, New York, N. Y. The more particular purpose of the invention is to improve the construction of both the hook and the eye for the purpose of improving the locking connection therebetween, so as to render the hook and eye rigid relatively to each other when in position on a garment.

## Electrical Devices.

**AUTOMATIC TEMPERATURE-INDICATOR.**—W. E. CAMPBELL, Chester, S. C. The invention relates to devices for automatically indicating a predetermined temperature. It provides a temperature indicating device whose operating parts consist of metal and which is not subject to the danger of breakage like the thermostats which have the common glass tube filled with mercury.

**KNOCKDOWN ARMATURE.**—E. W. PRESBRY, New York, N. Y. This armature is mounted in a field core within permanent magnets, and gives a high potential current of unusually steady character with a low number of revolutions. It is in no danger of burning out its coil at high speed, and consequently it needs no governing or protecting device. Its capacity can be changed by the removal of the single screw and substitution of another coil of any size of wire.

## Of Interest to Farmers.

**CULTIVATOR.**—N. TRIPP, Grand Rapids, Mich. This cultivator pulverizes the soil and whips the dirt from the roots of weeds, etc. The drum has spring digging teeth which incline oppositely to the revolution of the drum, whereby they will be lifted rapidly from the ground on reaching a vertical position. The motor for driving the drum is carried on a wheel-supported bed, and the drum is journaled in a frame which is pivoted at its front to move vertically relatively to the bed when raising the cultivator above, and lowering it to the ground.

**RIDDLE FOR ROOT-EXTRACTORS.**—B. G. PATTERSON, Addington, Okla. The invention is especially adapted for use in machines for extraction of Johnson grass, which propagates by means of seed roots, which make a very rapid growth forming a mat in the soil so that it becomes impossible to cultivate any crop therein.

**HYGROMETER FOR INCUBATORS.**—G. H. LEE, Omaha, Neb. More particularly the invention relates to hygrometers known as "wet bulb" hygrometers, and it provides means for holding the evaporating fluid around the bulb. The invention also resides in the scale of the barometer which especially adapts it for use in an incubator.

**STRAW AND MANURE SPREADER.**—W. G. DETWILER and J. E. FIREBAUGH, St. John, Kan. The principal objects here are to provide a mechanism for distributing the materials being handled, by power applied through the carrying wheels of the vehicles; to provide means for feeding the material being handled, to the distributing members; and to provide an operating construction free in operation.

## Of General Interest.

**MAIL-BOX AND LETTER-CARRIER'S POUCH.**—L. VIEZZI, Jersey City, N. J. The box and the pouch are adapted to be connected with each other at their closed bottoms, which latter are then capable of opening into the pouch, to allow the contents of the box to drop into the pouch, the latter on being disconnected from the mail box causing an automatic closing and locking of the bottoms of the box and pouch.

**LOCKING DEVICE FOR UMBRELLAS AND THE LIKE.**—W. L. SPERRING and G. R. PRIDE, Jacksonville, Fla. Means provide for locking the runner sleeve and attached stretcher rods of an umbrella or parasol in closed adjustment on the umbrella stick, the means embodying a locking slide bar and a permutation lock mounted on the stick, comprising a plurality of cup-shaped rings having indicating characters thereon, the rings by adjustment controlling the sliding movement of the slide bar for locking or releasing the runner sleeve.

**AUTOMATIC PIANO.**—H. MEYER, New York, N. Y. The aim of this inventor is to provide a new and improved automatic piano having a simple and effective connection between the pneumatic and the keys for playing the piano automatically and for allowing playing the keys by hand.

**REMOVABLE CALK.**—G. S. MEYER, Newburgh, N. Y. The principal object of the present invention is to connect the calks which extend transversely of the under side of the shoe more firmly to the outer member which encircles the hoof, and to provide for the relative movement of the opposite halves of both the inner and outer connecting members.

**REMOVABLE CALK FOR HORSESHOES.**—G. S. MEYER, Newburgh, N. Y. The object of the present invention is to provide means for effectively holding the calks in engagement with the shoe without the necessity for a separate member extending along the inner edge of the shoe, as is employed in Mr. Meyer's prior constructions.

**HORSESHOE CALK.**—G. S. MEYER, Newburgh, N. Y. In the present patent the object of the inventor is to simplify the calk and

reduce the cost of manufacture by forming not only the calk but the part for securing the same in place, all out of a single piece of sheet metal bent to the desired form.

**REMOVABLE HORSESHOE-CALK.**—G. S. MEYER, Newburgh, N. Y. This invention has reference to improvements in removable horseshoe calks, and more particularly to a special form of construction whereby the calks are held in place in respect to the shoe, but all danger of the calk-bearing members being torn off by interference is avoided.

**PILE-PROTECTOR.**—C. N. HUBBARD, Kamela, Ore. In this case the invention has for its purpose the provision of a suitable device for automatically applying the preservative along the length of the pile by the aid of the rise and fall of the water level, thus in tide water giving the pile four applications of the solutions daily.

**ORE WASHER AND CONCENTRATOR.**—A. DIEU, Medellin, Colombia. The apparatus comprises two troughs or basins one above the other, the upper one being spring supported and having an outlet for the concentrates at the center of the bottom through which the concentrates are delivered to a second trough with a quantity of water added and retreated. The bottom outlet for the first basin is automatically regulated by the weight of the material in the upper trough.

**COMBINATION CENTER-SQUARE.**—P. H. ALLISON, Torrington, Conn. In this instance the improvement refers to measuring instruments, and the object is to provide a new and improved combination center square, more especially designed for accurately determining the center of round work, for laying out angles and for use as a T-square, depth gage and scale.

**DOOR CHECK AND CLOSER.**—O. ANSCHÜTZ, 115 Schanzstrasse, Hamburg, Germany. The invention pertains to liquid door checks and closers, and the object is to provide means whereby the beginning, middle, and end speed of the door can be regulated. When the door is opened a piston is moved by rotary movement of a crank plate, which is turned by means of the usual lever arm on the free end of a spindle, and the spiral spring is thereby wound up.

**VALVE.**—W. I. BELL, Jersey City, N. J. This valve has a stationary valve seat and a valve member resting against the same, this member being revoluble step by step always in the same direction so as to leave the parts alternately open and closed; one movement of the valve opening all of the parts and the next successive movement of the valve closing them, the next opening them again, and the next closing them again.

## Hardware.

**LOCK AND FASTENER.**—J. ROBERTSON, Perth, Ontario, Canada. The lock includes novel locking devices, and a unique controlling means for the locking devices including a bar which is arranged to slide in the lock and extends into the knobs. The sliding bar is accessible to a person grasping either knob so as to be shifted to prevent turning of the knobs in opening the door. Provision is made for disposing the parts of the locking devices to convert the lock into a night latch.

**LOCK.**—A. LEONARD, Ashland, Wis. The lock is such as used on doors, windows, drawers, etc. The aim is to produce a lock which can be operated without a key. It is specifically a combination lock, and in its construction it comprises a number of pins or plungers, which must be placed in a certain position before the lock can be opened.

**FASTENER.**—K. GREEN, Yazoo City, Miss. The improvement relates to fasteners, and more particularly to such as are adapted to be used with traces or the like, and each of which consists of a hook having spring controlled locking means for engaging the nose thereof and movable in a plurality of directions.

**THREAD-CUTTING DIE.**—L. CASTRACANE, New York, N. Y. More particularly the improvement relates to that type of die in which each die proper is provided with a plurality of cutting faces, whereby the die may be adjusted to different positions to present different faces, and be used in cutting the threads on screws or bolts of different diameter.

**DRAWER-PULL.**—C. B. ADAMS, New Orleans, La. The invention is an improvement in bolts designed for use on drawer pulls and the like although it is capable of use in other cases where bolts are put through wood or other elastic material. The bolt is adaptable to different thicknesses of board within wide limits without affecting the finish at both the inner and outer faces of the board to which the bolt may be applied.

## Heating and Lighting.

**MINER'S LAMP.**—A. M. VAN LIEW, Houghton, Mich. The object here is to provide a light-weight miner's lamp, which is compact in form, which is adapted to burn wax or the like as an illuminant, in which the combustion of the wax or other substance is complete, and which thus obviates the production of smoke and other noxious gases.

**GAS-SCRUBBING APPARATUS.**—J. J. NIX, Los Angeles, Cal. The gas is cooled and passes into a scrubber and through compartments to

wash the gas. A water seal for a pipe retards the gas on its travel to the retort and the duct, and is thus fixed, and a uniform temperature avoids local, intense and destructive heat. Successive sprays of water in the scrubber washes the gas and the latter passes by way of a pipe to the holder or to the engine or other machine.

## Household Utilities.

**DRAIN-VALVE.**—H. M. KIRBY, Wilmington, Del. The object here is to produce a valve having means for normally holding the valve wide open, the valve having such a construction as will enable the valve to be locked by a simple movement, in its closed position. The valve is especially adapted for use in connection with bath tubs, wash bowls and the like.

**DISPENSING-RECEPTACLE.**—K. C. JORLING, Memphis, Tenn. More particularly this improvement relates to a receptacle for tooth powder, which has means for dispensing the powder at will from the container, and which is provided with a chamber adapted to receive the end of the tooth brush so that the powder can be dispensed directly upon the bristles.

**BOOK-REST.**—D. DUFF, New York, N. Y. The invention provides a rest for use on tables, desks and other supports. It is simple and durable in construction, cheap to manufacture, attractive in appearance, and arranged to permit convenient and quick extension or contraction according to the books to be accommodated at the time, and to securely hold the books in position.

## Machines and Mechanical Devices.

**DESICCATING AND PULVERIZING APPARATUS.**—V. W. MASON, JR., and G. I. ROACHELL, New York, N. Y. The invention is designed especially for pulverizing the solid constituents of milk in converting milk into a powder or flour. The primary object is to take the pasty substance and convert it into a powder by a single operation, instead of first drying the material and then pulverizing it.

**ADDING AND NUMBER-LISTING MACHINE.**—B. HOSKINS, Seattle, Wash. This machine may be operated to add columns of figures, and will print a list of items added, and also the totals of the different columns. Such machines are used extensively in banks, counting houses, and similar institutions. The invention constitutes an improvement on the machine formerly patented by Mr. Hoskins.

**BELT-TIGHTENER.**—G. L. WALLACE, Bridgeport, Conn., and R. Dow, Mansfield, Ohio. The tightener is designed more especially for use on polishing, buffing and like machines, having the driving belt arranged within the column or hollow stand of the machine, the arrangement being such that the tightening pulley is located within the column and the actuating and setting device for the pulley is arranged outside of the column convenient to the operator, to enable him to tighten the belt more or less.

**DRIVING MECHANISM.**—N. SMELANSKY, New York, N. Y. In its preferred form the invention consists, in combination with a driving shaft, of a pulley journaled on the shaft having an extended hub portion, opposed bevel gears, one journaled on the shaft, the other on the hub portion of the pulley, an idle bevel gear intermeshing with opposed bevel gears, and clutches for respectively connecting the gears to parts on which they are journaled, and the pulley to the shaft.

**STAMP-MILL.**—O. C. PURKEYPILE, Ashland, Ore. The object of the inventor is to provide means for driving the stamps or hammers in such a way that they will rotate as they strike, in this way producing a desirable grinding action which brings about a very fine reduction and uniform grinding of the ore treated.

**UNIVERSAL JOINT.**—D. CORCORAN, Yonkers, N. Y. The joint consists of a disk having a semi-circular flange on each of its sides, the planes of the flanges being substantially at right angles to the disk and to each other, and two shafts in one of the terminals of each of which there is a semicircular slot, each of the flanges being disposed in one of the slots, there being curved slots on each flange and a pin disposed on each of the shafts through the slots respectively.

**ELEVATOR.**—D. CORCORAN, Yonkers, N. Y. The cage has a conical disk with spiral threads on its face, there being a series of studs in the elevator shaft on which are disposed rollers respectively, the threads meshing with the latter. The disk is secured to a shaft on the cage connected by a universal joint to a horizontal shaft having a driving pulley, an idler pulley being disposed thereover. A pulley is at the top and bottom of the shaft, a motor coupled to the latter and the former journaled in a box. The box lowers when the cage reaches predetermined elevations, and means provide for raising or lowering the cage independently of outside power.

**THREAD AND TAPE HOLDER.**—G. W. WEISS, New York, N. Y. The invention provides an attachment which may be secured to the sewing machine table or top, or any other table or factory table space, and which will serve for support of a plurality of spools of thread and a plurality of rolls of tape, ribbon, seam-binding, or other similar material, which it is desired to sew to the article or garment,

and these spools and rolls are locked against displacement so that the employee cannot misplace or intentionally carry away a partly-used spool or roll.

## Prime Movers and Their Accessories.

**ADJUSTABLE CRANK FOR INTERNAL-COMBUSTION ENGINES.**—C. J. GORRI, Tuckahoe, N. Y. In the present patent the object of the inventor is to provide an adjustable crank for an internal combustion engine, whereby the length of the stroke of the piston in the cylinder can be changed to vary the degree of compression of the charge.

## Railways and Their Accessories.

**DOOR.**—C. W. WHITMAN, Watervliet, N. Y. This improvement in doors is especially designed to be used in connection with street railway cars, and has for its purpose to automatically register the number of passengers entering, and which will permit of the exit without operating the registering mechanism. The movements of the motorman on the platform will not be more restricted than when the usual type of door is employed.

**LOG AND LUMBER CAR.**—M. M. RUSSELL, Eau Claire, Wis. This inventor has devised and put in successful practical use an improvement comprising a novel stake socket attached to bunks formed of parallel bars, preferably of railroad rails, and provided with a double chain attachment adapted to hold a stake firmly, and safely for the operator.

## Pertaining to Recreation.

**AMUSEMENT DEVICE.**—B. HESS, New York, N. Y. Generally speaking, the invention consists in a series of sinuous undulating tracks connected to an undulating surface, and which are adapted to receive a carriage which travels thereon, the carriage being adapted to carry an occupant whose feet rest on suitable supporting rollers which travel on the undulating surface.

**SELF-SPINNING TOP.**—O. E. FREAR, Albany, N. Y. The object of the inventor is to produce a top having means whereby the top may be set to spinning without using the ordinary means for this purpose. The device comprises a holder for the top, having a resilient member which is adapted to be engaged by the top, and which may be twisted so that in releasing the top it will exert a spinning force.

## Pertaining to Vehicles.

**END-GATE FOR WAGONS.**—B. M. WILHITE, Gordon, Neb. The feature here consists in the employment of angle iron reinforcing bands. The bands are in pairs, and bent so as to fit closely upon the exterior surface of the end gate plate and the wings thereon. Three pairs of angle iron bands are provided and fixed in place upon the end gate and wings by rivets or bolts, one pair being located at the lower edge of the end gate and its wings, another at their upper edges, and the third pair midway between the other pairs.

**SLEIGH-KNEE.**—H. WESLE and H. WESLE, Medford, Wis. An object here is to provide means for movably attaching the clamp to the sleigh knee proper. Another is to improve the means of fastening the sleigh knee to the runner. It is an improvement on the construction shown in a former patent granted to Messrs. Wesle.

**WIND-SHIELD.**—J. H. SPRAGUE, Norwalk, Ohio. This invention relates to improvements in wind shields for use on vehicles, and more particularly to that type of shield which is formed of a lower stationary section and an upper movable section. It involves an improved form of supporting means for holding the two sections in any desired position in respect to each other.

**SPEED-INDICATOR.**—C. KNOFF, New York, N. Y. An object of the invention is to provide tension means for controlling the movements of the ball governor, said means including two separate springs, one end of the springs operating while the indicator is rotated at slow speed, while both springs come into play when speed increases beyond a predetermined limit, and in connection with the springs means are provided for adjusting the tension of the springs at will.

**SLEIGH-RUNNER FOR VEHICLE-WHEELS.**—J. KARSSSEN, Holland, Mich. This invention refers to runners adapted to be detachably fastened to the wheels of a vehicle. It is an improvement on a former patent granted to Mr. Karssen. The improvement which it designs to make is to render the attachment of the runner to the wheel adjustable, so as to fit wheels of various diameters and having various numbers of spokes.

**LEAF-SPRING.**—W. J. HARRISON, West Derby, Vt. The spring is particularly adapted to motor vehicles, and is designed to arrest the rebound which the conventional spring ordinarily gives when the vehicle is in motion. This is accomplished by providing the vehicle frame with spring hangers and a spring contractable in length under the weight of the load, having its opposite ends connected to the hangers.

**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.