

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

ADJUSTABLE ELECTRIC LIGHT SUPPORT.—E. E. WALTERS, Lehighton, Pa. The support comprises a number of tubes adapted to telescope within each other as the lamp is raised. The electric lamp is attached to the bottom of the innermost tube. The conducting wires pass up through the tubes and are coiled up on a spool at the top of the support, the ends of the wires passing down through the body of the spool to the core, whence, by frictional connection, they receive electric current from the two other conductors. The spool is rotated by a coil-spring, to take up all slack wire when the lamp is raised. Thumb nuts are employed to lock the spool and hold the lamp at any desired height.

ELECTRIC CALL.—J. SALMON, New York, N. Y. The invention is designed for use in hotels, to awaken guests at any desired time. Each room is provided with a bell, which may be so connected to a clock as to ring at any predetermined hour. A clapper, operated by the clock, makes connection with a battery, which runs a small motor, and rings a bell until the motor automatically shuts off the current.

Games.

GAME APPARATUS.—D. SMITH, Griffin Corners, N. Y. The game apparatus constitutes a miniature bowling-alley, arranged on a folding table, so that it may be conveniently employed in any room of a dwelling. The balls are thrown by a spring-actuated plunger, and return by gravity along grooves at each side of the alley.

DESIGN FOR GAME-BOARD.—F. B. HOLLISTER, Mount Morris, N. Y. The design consists of a star-shaped board divided into squares. The squares in the several corners are provided with distinguishing marks. An isolated square in the center is also provided with a distinguishing mark.

Mechanical Devices.

MUSIC-LEAF TURNER.—C. H. DASCOMB, El Paso, Tex. A base is employed which may be supported on the music-rack of an organ or piano. At its upper side the base is adapted to receive a book or sheet-music. Bars, pivoted at each end of the base, are used for clamping back the covers of the book. A series of bars are pivoted at the center of the base, and have mounted on their outer ends, the carriers, consisting of pairs of wire bows between which the sheets of music are clamped. Each carrier bar is controlled by a button, so that when a button is pressed in, the corresponding carrier is actuated, by rack and gear, to swing on its pivot and turn the page of the book, or the sheet of music which it carries.

AUTOMATIC CUT-OFF FOR MILL POWER.—B. STRITTMATTER, Carroll Township, Pa. This device is particularly adapted for connection with so-called air-motor-power windmills, and automatically cuts off the power when the grain to be ground becomes low, or nearly discharged from the hopper. A paddle is hinged to the bottom of the hopper, and is held down thereto by the weight of the grain above it. When the grain becomes low, the paddle, relieved of its weight, swings upward and, by means of a series of levers, disengages a clutch and stops the mill.

ORE CONCENTRATOR.—W. THURMOND, Hillsboro, N. M. A draft-chamber is employed, opening at one end into a suction-box having at its upper end an exhaust fan. An inclined wire screen is situated under the lid of the draft chamber, and is mounted to rock on suitable rollers. The meshes of the netting increase in coarseness toward the bottom of the screen. Beaters are used along the under surface of the screen, to assist in sifting out the ore. The material moves by gravity down the screen, the lighter particles passing through into the draft chamber and being blown over a screen plate which further sifts them out. All that remains on either the wire screen or the screen plate, is drawn into the suction box and passed over two receptacles. The heavier particles drop immediately into the first receptacle and are conveyed, by an elevator, back to the roller machine. The remainder, which enters the other receptacle, is carried out to the dump.

CLARIFIER.—L. LITTY, Donaldsonville, La. The invention is an improvement on apparatus for automatically clarifying the juice of sugar-cane, beet sugar, etc. The juice is poured, through a pipe, into a tank divided into two compartments. At the bottom of each compartment are coils of steam pipes which heat the liquid. The exhaust steam from the coils operates a motor which imparts motion to a paddle. The paddle drives the scum over to an endless conveyor which carries it over a screen, into a trough above. The screen drains out whatever liquid may have been carried up with the scum.

Tools.

MICROMETER GAGE.—J. STROMBERG, Phenix, Ariz. Ordinarily micrometer gages have to be constructed in different sizes, each with a range of one inch only. In this micrometer, by the use of extension-rods, a

single instrument may accurately measure any length desired. The extension-rods are secured by suitable means to the measuring screw. Means are also provided for adjusting the anvil, in order to insure accuracy of the gage.

SCREW DRIVER.—T. A. FARRELL, Chicago, Ill. The invention has for its primary object the provision of improved means for holding a screw firmly in engagement with a driver spindle. The holding means rotates with the driver while inserting the screw, but is capable of disengagement, in order that the driver may force the screw home into the work. A simple and effective means is employed for locking the screw holder to the driver-spindle, and for readily unlocking the same.

DRILL.—R. BINNIE, Bolivar, Pa. Two patents have been granted to Mr. Binnie for improved drills adapted for work in coal, clay, and other soft minerals. In the first invention the drill is mounted on posts. The drill rod is driven by a combined rotary and reciprocal movement, and at the same time is gradually fed forward to its work. This movement adapts it to a bit of any character, either a boring-tool or a chiseling tool. For if an ore ball or lump is struck, the boring need not be abandoned, but the chiseling tool may be applied and the work carried on as before. In the second invention, the drill is mounted on a tripod in such a way as to work against a bank of any possible disposition. Improvements are also made in the forward feeding device.

TACK OR NAIL PULLER.—E. HANNER, Ridgway, Pa. The tool consists of a body or handle portion in which is mounted the tack-puller proper. The latter consists of a lever, terminating in a head block from which the claw foot projects. The head block rests on rollers, and has trunnions which are adapted to turn in the slots in the side walls of the handle portion. These parts mutually coact to give an initial forward movement to the claw, and afford a vertical pull after the claw has passed under the head of the tack.

Miscellaneous Inventions.

LOOSE-LEAF LEDGER.—ALMON B. WELLS, 515 L Street, N. W., Washington, D. C. The invention relates to that class of blankbooks in which any leaf in the book can be removed and another substituted. The invention is an improvement in this class of devices, which is applicable to all kinds of blankbooks, and which is so constructed as to permit the leaves of the book when opened to lie flat in a convenient position for the accountant, instead of bending with an awkward curve in the middle.

CIGAR.—J. D. TYNEN, Spooner, Wis. A cigar loses much of its strength and flavor by exposure to the atmosphere. This cigar is made with two tobacco wrappers wound reversely to each other. The outer wrapper is of no value for smoking, but is of special value for hermetically sealing the cigar, and is designed to be taken off and cast away before the cigar is smoked.

BASKET.—T. J. LANGSTON, Johnston, S. C. The invention consists of a folding basket in which the body portion is supported by a frame, so that it can be extended for use, and compactly folded with the frame when not in use.

TREE SUPPORT.—T. P. BROWN, Riverside, Cal. The invention relates to means for supporting the heavy fruit-laden limbs of trees. A straight prop-pole is used, to which a number of hanger-strands are secured. Bracket-hooks are placed under the limbs and slid up the strands until the latter are taut, and then the hooks are secured by a simple clamp.

ANIMAL TIE.—J. T. HARRIS, New York, N. Y. The tie is designed particularly for horse-stalls, and aims to give the animal perfect freedom when standing up or lying down, with no danger of its becoming tangled up in the tying device. A carriage is mounted to slide on a vertical guideway at the side of the stall, and to this the halter-chain is connected.

BED.—W. D. OLNEY, Stillwater, Minn. The bed proper is capable of being folded up into a cabinet. A counterweight is employed to raise the bed. This is thrown out of operation by drawing the cot away from the cabinet. When it is desired to close the bed the cot must be shoved back into the cabinet.

MITTEN.—W. L. POLLARD, Rozetta, Ill. The mitten is especially adapted for use in husking corn. It is economically designed and constructed with no seam between the palm and thumb.

PORTABLE DARK-ROOM.—ALBERT WEINER, Liberty, N. Y. The improved portable dark-room consists of a box to which is hinged a cover provided with a pane of red or orange glass. By means of two flexible sleeves attached to the box, the operator may pass his hands therein and manipulate his plates. Suitable devices insure a constant supply of fresh air, and enable the photographer to temporarily withdraw from the main box, without danger of light striking a plate in the process of developing.

BLASTING FUSE.—N. HARRIS and J. BRAY, Russell Gulch, Col. The fuse differs from the ordinary in having branching combustible members spaced at intervals along the cord. These members when not used can be

wrapped around the main fuse. Their object is to permit the fuse to be readily ignited, and any desired length can be put between the igniting point and the detonating cap.

ROTARY FURNACE.—CHARLES GROLL, 126 Rue du Grand Chemin, Roubaix, France. The grate is formed by a series of independent bars curved in the form of an arc of a circle and arranged concentrically. These bars rest on a series of radial bars secured to a center-piece, but free to expand on the heel pieces at their outer ends. Each curved bar is provided with a narrow notch which receives a radical bar snugly therein. It is also provided with wide notches which receive the other radial bars, thus permitting free expansion. The grate is operated by a rack and gear.

PROTECTING ATTACHMENT FOR LEGS OF TROUSERS.—B. F. SALMON, Freeland, Pa. The invention is designed particularly for the use of miners and consists of a waterproof cap-piece which is sewed to the trouser-legs, and is adapted to cover the knees and close the top of the boot.

PROCESS FOR PRESERVING WOOD.—I. B. SPRAGUE, Everett, Wash. Iron nails, which have been rusted by being laid in a salt solution, are driven into the wood about two inches apart all around. Iron filings are then pressed into the wood and rusted by a salt solution. This gives the wood a hard gritty coating which preserves it and protects it against the destructive action of teredoos.

PAD LOCK.—J. J. COTTER, Bowerston, Ohio. This invention provides a lock-casing so constructed as to prevent the entrance of water, thus obviating any danger of ice forming in the lock in cold weather, which would interfere with the working parts. In the lock mechanism, an auxiliary locking-dog is provided for the tumblers, which prevents picking the lock.

CRATE.—A. VON SCHLUEMBACH, Martinsburg, Pa. The crate, which is especially adapted for carrying live fowls, may be folded when empty so as to occupy a very much reduced space, thus facilitating its transportation. A water-trough of canvas, or other waterproof fabric may be employed at one end of the crate.

SECTIONAL CULVERT.—F. A. SICKLESTEEL, Northbranch, Mich. The invention provides an improved sectional culvert designed for use on highways and railways, and is arranged to be conveniently set up without the aid of skilled labor. It consists essentially of a base, and sectional arched side pieces seated at their lower edges in the base. The upper edges of the side pieces are serrated, and have alternately-disposed bevels which interlock with each other.

CHEESE-BOX.—W. A. SIMISTER, Ingersoll, Canada. This improved cheese-box is constructed to prevent ripping or splitting of the box. It is so arranged that both heads can be removed, to allow of readily placing the cheese in the box. The heads are so locked in place that they can be conveniently removed, to allow inspection from either end, without destroying the box or injuring the cheese.

CASH-BOX.—J. J. PEETZ, Galveston, Tex. The cash-box comprises a box proper having a glass front. A chute, for receiving coins, projects through the upper portion of the box, and is curved, so as to prevent the possibility of extracting the coin. A trap door covers the end of this chute, which will open under the weight of the coin. The box is divided, by a false bottom at its center, into two compartments. The false bottom has two hinged doors, which open downward under the weight of the coins, and permit the latter to drop into a cash drawer. The box also contains a cash register, which is operated by a crank-handle at the side.

FOLDING COMMODOE STAND AND SEAT.—J. H. PRENTICE, Brooklyn, N. Y. This commode seat, which is especially designed for the use of children, may be conveniently carried from place to place in the form of a small parcel, or may be packed in a medium-sized traveling bag. It consists of but three parts, a seat, and two folding supports which are utilized as upright side members. The hole in the seat is beveled on both faces, so that it may be placed upside down upon the seat of any water-closet, to reduce the size of the opening therein.

PIPE-COLLAR.—E. J. MALLEN, New York, N. Y. This improved collar or ceiling-plate has been designed for use on steam pipes and is meant to cover openings in the ceilings or floors, through which they pass. The opening is covered by a plate which snugly fits the pipe, and is held in place by spiral springs wound around guide rods. These rods project through the plate at one end, and at the other end are secured to L-shaped arms which are fastened to the pipe by a clip.

PROCESS FOR TREATING MATERIALS TO MAKE THEM WATERPROOF.—A. H. HIPPLE, Omaha, Neb. The invention is a process for rendering asbestos waterproof. Sixty parts, by weight, of linseed oil, and twelve of sulphur are used for every one hundred parts of asbestos. The mass is then vulcanized at a temperature of 300 deg. F. for two hours.

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