

**RECENTLY PATENTED INVENTIONS.**

**Agricultural Implements.**

**CORN-SHOCK LOADER FOR VEHICLES.**—WILLIAM A. TEA, decd., MARY J. TEA, Admr., Bellevue, Ohio. The invention is a corn-shock loader of the type in which the shocks of corn are raised bodily from the ground and dumped into a wagon. A pair of wheels are temporarily secured to a wagon; and upon the wheels a rocking frame is pivotally mounted. The frame can be rigidly connected with the wheels so as to be rocked by their rotation. Disconnection of the frame and wheels can be automatically effected.

**Engineering Improvements.**

**VALVE-MOTION.**—GEORGE M. SCHWEND, 2516 Avenue D, Birmingham, Ala. The invention consists in providing the cylinder-heads of a steam-engine with co-acting exhaust-valves which are alternately opened and closed by the piston through the medium of connecting-rods. The exhaust-valves control the exhaust-passages. A jacket or casing communicates with the exhaust-passages and wholly or partially surrounds the steam-cylinder. An exhaust opening leads to the outer air or to a condenser. It follows from this construction that the action of the valves is more effective than usual.

**Electrical Apparatus.**

**SHADE-SUPPORT.**—ERNEST A. LIVET, 28 Bush Lane, Cannon Street, London, England. The inventor has sought to provide means for directly and detachably connecting to the bulb of an electric incandescent lamp a useful or ornamental article or one serving both an ornamental or useful purpose, such as a shade, transparency or reflector. The invention is more particularly designed to enable a light reflecting and diffusing shade or globe, constituted by a spirally-coiled rod of glass, to be secured to the lower portion of an electric incandescent lamp-bulb in such manner that the place of fastening is concealed and the light of the lamp in no way obscured.

**MEDICAL ELECTRODE.**—GEORGE G. MARSHALL, Wallingford, Vt. The invention is a new and improved electrode especially designed for the use of physicians in treating diseases of the stomach. The electrode is of simple and durable construction, but aims to permit convenient cleaning, and shaped to be readily swallowed by a patient.

**Mechanical Devices.**

**VEGETABLE OR MEAT CUTTER.**—FREDERICK BARR, Manhattan, New York city. The shell or body of this device is constructed in upper and lower separable sections, so that the interior mechanism can be laid bare at any time whenever it is desired to clean the working parts. A clamp of novel construction is employed, which holds the sections together in a liquid-tight manner.

**WRENCH.**—ROBERT J. COSSEBOOM, Leadville, Col. The wrench is of the fixed-jaw and sliding-jaw type. Novel details of construction have been devised which adapt the wrench for quick adjustment and permit its parts to have a wide gripping range. The device is particularly well adapted to grip and turn pipes and bolt bodies in small spaces.

**SAFETY SUSPENDING APPARATUS FOR ELEVATORS.**—ROBINSON HAINSWORTH, 21 Victoria Street, Hull, England. Mr. Hainsworth has invented an improved safety-catch gear for mine and lift cages, skips, and the like, whereby to prevent the cage from falling in case of an accident. The safety-gear is so designed that when the tension of the rope ceases to retain the gear out of action the safety catches will be caused to bind against the guides with a grip so powerful that any appreciable fall of the cage is prevented, the cage being securely supported at whatever height it may happen to be when the breakage occurs.

**WASHING-MACHINE.**—GEN. OGDON GUITAR, Columbia, Mo. The invention is an improvement in that class of washing-machines adapted both for laundries and domestic use. A perforated rotary drum is adapted to rotate within a cylindrical casing, the clothes or other fabrics being alternately immersed in and raised out of suds-water at each rotation of the drum.

**REVERSING PULLEY MECHANISM.**—JOSEPH DARLING, Chicora, and CHARLES C. ELLENBERGER, Jr., Peachville, Pa. The object of the invention is to provide, in connection with a shaft which may be operated continuously in one direction, a pulley operated by the movement of the shaft, and caused to turn in the same direction as the shaft or in a reverse direction. The mechanism for effecting the reversal of the pulley may operate as a clutch to permit the engine to run freely in starting.

**Metallurgical Apparatus.**

**ORE-BREAKER.**—ALBERT C. CALKINS, Los Angeles, Cal. This invention is a simple ore-breaker and crusher arranged to be turned by hand, and especially applicable to the uses of assayers. The device is of the type in which a stationary and vibratory jaw are arranged in angular relation to each other, so as to form a tapering throat between, the vibratory jaw being oscillated by a pair of

toggle arms connected by a pitman with a rotating crankshaft. The present invention comprehends means for conveniently and quickly cleaning the machine, for adjusting it to the graduation of the product, and for taking up the wear.

**Technological Advances.**

**GLASS-FINISHING MACHINE.**—LANCING T. ZIMMERLY and HENRY KNIERIEM, 195 Mechanic Street, Cumberland, Md. The invention is an improvement in finishing the edges of such articles as tumblers, stem-glasses, and other ware which, when pressed or blown are rough and uneven. One of the essential features of the invention is the provision of a glory-hole by means of a retort-vaporizer, whose tube is extended along and constitutes one side of the glory-hole and receives the full heat of the retort. The tube is curved on the arc traveled by the tumblers, so that it will be heated from end to end in such manner as to secure the desired vaporization of the fuel.

**PAINT-OIL AND PROCESS OF MAKING THE SAME.**—JOHN F. KREBS, Colorado Springs, Col. Marine oil, acetic acid, white copperas, and litharge are mixed together. Manganese dioxide is dissolved in benzine by the aid of heat. The solution thus formed, together with sugar of lead, is added to the ingredients first mentioned. The entire mixture is stirred and allowed to stand, whereupon linseed oil, turpentine and chlorid of lime are added.

**TEMPERING-BATH.**—JAMES E. LAWRENCE, West Shefford, Quebec, Canada. The object of the invention is to provide a new and improved bath for hardening steel or other metallic articles, especially such as dies, tools and the like. Superimposed liquids are used, one of which is capable of buoyantly supporting the article to be hardened. By employing a bath composed of two liquids, one of which is of greater specific gravity than the article to be hardened, the article is rendered self-adjusting as to its position, relatively to the hardening liquids employed.

**APPARATUS FOR CALCINING PLASTER.**—AMBROSE LAWRENCE, Acme, Tex. Provision is made for keeping clean the inner surface of a revoluble drum, for ventilating the drum during the calcining operation by carrying off the vapor arising from the plaster, and for easily removing the material after completion of the cooking operation. The several parts of the apparatus are arranged to secure strength and stability to the shell of the revoluble drum. The material to be cooked can be easily introduced into the drum, and the vapor-ventilating devices are also adapted to serve as the means through which the cooked materials can be discharged from the drum.

**MEANS FOR SETTING MOSAICS.**—FELIX ALCAN, Manhattan, New York city. The objections which attend the usual method of setting mosaics in cement Mr. Alcan seeks to overcome by providing means which permit the workman readily to detect a wrongly placed piece of mosaic when setting the pattern in the bed, so that the mistake can be corrected before the cement has set, and also to facilitate the stripping of the backing around the set mosaic, thereby effecting a considerable saving of time and labor.

**Railway Appliances.**

**CAR-WHEEL.**—MADISON T. DAVIS, JR., Charleston, W. Va. The invention is an improvement in car-wheels, and particularly in wheels designed for use in mines, and relates especially to the means for lubricating the wheels. Combined with a hub having a chamber for the lubricant and provided at its inner end with an inwardly projecting flange notched in its inner edge, is a lubricating bushing having at its inner end a head abutting the flange and provided adjacent to the head with perforations which register at their outer ends with the notches in the flange of the hub and discharge at their inner ends adjacent to the inner end of the bushing.

**EMERGENCY-GEAR FOR LOCOMOTIVES.**—WILLIAM W. MURCH, Brooklyn, New York city. The invention relates to block systems for railways. A new and improved emergency gear is provided for preventing collisions by automatically shutting off steam and applying the brakes to bring the train to a standstill, without any action on the part of the engineer in case a danger-signal has been disregarded.

**RETAINING-VALVE.**—WALTER V. TURNER and FRANKLIN C. FARQUHARSON, Raton, New Mexico. These inventors have devised an improved Westinghouse brake retaining-valve connected with the auxiliary reservoir and the exhaust of the triple valve. The retaining-valve is so completely under the control of the engineer that he can at all times know whether the retainers are all on or off. The arrangement is such that the brakes are uniformly applied on all the cars of the train. Sliding of the wheels is largely prevented. The engineer cannot apply more than the maximum pressure to which the relief-valves are set.

**Musical Instruments.**

**DRUM-STAND.**—ALBERT B. HELLENKAMP, Cleveland, Ohio. This simple device supports a drum at any desired height from the ground.

The parts of the stand can be readily adjusted so as to give the drum any desired inclination, the legs are contractible.

**HARP.**—KARL WEIGEL, Hanover, Germany. The harp is provided with a support for the hand of the player to obtain certainty of action for the fingers. A support is provided for the base of the harp and so arranged that the strings will be disposed of obliquely to the hand of the player, thus greatly facilitating the manipulation.

**Miscellaneous Inventions.**

**PENDANT SOAP-HOLDER.**—ROBERT H. NEAMANN, Manhattan, New York city. A longitudinal member provided with an anchor for holding a free bar of soap and composed of a number of separate cords each capable of use independently of the other, is the essential feature of this device. In washing the hands the bar of soap is drawn down. In order to clean the dirt from under the nails the ends of the fingers are scraped upon the cord.

**CURETTE.**—CHARLES W. SPAULDING, Carroll, Iowa. The curette comprises a handle, a member of spring metal secured by one of its ends thereto and terminating at its other end in an endless loop for the purpose of avoiding free ends. A portion of the loop is spirally wound into a general olive shape and is provided with a scraping edge.

**FOLDING TABLE.**—EDWARD P. VAN ALSTYNE, JR., Kinderhook, N. Y. The invention provides a folding table especially adapted to rest upon trunks, chairs, and like supports, for convenience in writing, reading, studying, displaying samples and the like. The table is light, simple, effective, and adjustable to various sizes of supports.

**PUNCHING-BAG PLATFORM.**—SAMUEL TREINIS, Manhattan, New York city. The punching-bag platform is rigid and strong, when supported from a wall or the like, and so arranged that it can be readily adjusted to take up possible wear in the joints or connections. The device is adapted to fold compactly for storage or transportation.

**GAME APPARATUS.**—JOHN S. AKERMAN, San Diego, Cal. This game apparatus is more especially designed for use as parlor clock-golf, and is arranged to afford amusement to players. Considerable skill is required to play the game successfully.

**GAS-BURNER.**—GEORGE LUND, Victoria, British Columbia, Canada. This gas-burner is designed for use in boilers to heat water and generate steam, but is also adapted for heating various other devices and articles, the arrangement being such that the gas is utilized to the fullest advantage and very economically.

**BLANK-CARTRIDGE HOLDER.**—MILTON J. SHIMER, Freemansburg, Pa. The holder may constitute a portion of a cane, pistol, cannon or other support, being adapted to retain a blank-cartridge in position to be exploded by contact with any suitable, nearby object.

**GARMENT FASTENER AND SUPPORTER.**—WINFIELD L. DINSMOOR, Portland, Ore. This improved fastener, besides supporting and fastening together the waist and skirt of a dress, will hold the detached waist of a dress, such as a shirt-waist, smoothly down in the back, and permit the easy removal of an outer garment without releasing the underwear. Hooks and eyes are dispensed with.

**BALLOT-BOX.**—HENRY DROUTLEDGE, Auckland, New Zealand. The invention relates to improvements in ballot-boxes wherein a revoluble drum is employed to contain suitable objects, such as marbles and the like. One object which the inventor has in view is the provision of a simple, compact structure, arranged to permit voting to be accomplished without any possibility of tampering with the contents of the drum or box.

**EYEGLASSES.**—JOHN CARTER, Malden, Mass. The invention relates to a means for fastening the spring and guard to the stud of eyeglasses, and particularly to a device to prevent the accidental loosening of the screw which is employed to effect the connection.

**NON-REFILLABLE BOTTLE.**—SAMUEL D. BLOCKER, Columbus, Ohio. In the bottle-neck is a holder and a tube having a closed upper end and an opening intermediate its ends. The tube is adjustably fitted in the holder and the holder is capable of closing the opening. Within the tube is a spring-actuated valve. A weight is arranged beneath the valve and capable of entering the tube to open the valve.

**ROLLER-BEARING.**—JOHN D. TWIGGS, JR., Manhattan, New York city. The invention relates to axle journals and bearings for rolling stock, and other devices and machines. The bearing is arranged to reduce the friction of the parts to a minimum, to hold the rollers in position when opening the bearing for examination or repairs, to insure a proper lubrication of the parts at all times, and to render the bearing dust-proof.

**Designs.**

**COFFEE OR TEA POT.**—HENRY NUTRIZIO, Manhattan, New York city. The pot is of cylindrical shape and has an ornamental enlarged base. From the base to a point near the upper end of the body the body is straight; and from this upper point the body is gradually, outwardly and upwardly inclined, forming

a beveled upper section, which is defined from the main and uniformly straight intermediate section of the body by a beaded panel. The cover is of ogee pattern; the spout is of polygonal type; and the handle is of bar formation.

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