

ENGINEERING INVENTIONS.

A car coupling has been patented by Mr. John B. Butts, of Kansas City, Mo. This invention furnishes an improved construction for raising the pin and retaining it in elevated position, so that a car may be bumped or shunted without coupling with an opposing car, and provides a means for retaining the link in suspension outside the drawbar when the cars are in an uncoupled position, with other novel features.

A railroad signal has been patented by Mr. Robert D. Anderson, of Ethel, La. A small lantern house is located conveniently to the track, suitably provided with lenses, and with a weighted curtain to roll or unroll in place of a flag, and this apparatus is so connected by an operating cord with the railway office that an order cannot be taken there by telegraph for a train without taking down a manifold clip controlling and operating the signal.

A railway switch has been patented by Mr. James B. Suffern, of Hillburn, N. Y. It is intended to be operated by the locomotive, without applying any fixtures to the locomotive, and consists in the combination with a track lever of a locking and releasing device connected with the switch bar, to move the switch bar when engaged by the car wheels, to close the switch, or to release the track lever, so that a passing train will produce no effect upon the switch bar.

AGRICULTURAL INVENTIONS.

A corn or cane harvester has been patented by Mr. Theodore Merrell, of Dixon, Ill. The invention covers various novel parts and details of a gathering and cutting mechanism, with shields extending over the wheels to prevent the severed stalks coming in contact therewith, and is an improvement on a machine which has been the subject of two former patents issued to the same inventor.

An attachment for harrows has been patented by Mr. James D. Armstrong, of Effingham, Kansas. The harrow is made with runners and a system of levers, whereby the teeth may be raised and lowered at will, or entirely withdrawn from the ground to enable them to be transported from place to place without inverting them or employing a wagon for their conveyance.

MISCELLANEOUS INVENTIONS.

A snap hook has been patented by Mr. Sidney S. Stahl, of Connellsville, Pa. The hook is provided with a snap spring normally resting against its inner surface, and has a spring-actuated latch adapted to lock the spring in such position.

A swing saw has been patented by Mr. James Martin, of Brooklyn, N. Y. This invention covers a construction whereby the saw is made to cut in a straight line parallel with the table or cutting surface, for changing its direction of cut to a variable angular relation, and so as to cut at different depths.

An ash sifter has been patented by Mr. William Coughlin, of New York City. A cylindrical sifter is mounted on a shaft to be rotated by a crank, and is provided with sifting bars, a spirally arranged plate, and agitators, with other novel features, to effectively separate the ashes from cinders and other bodies.

A collapsible carton has been patented by Mr. William Wright, Jr., of New York City. It is made with removable and collapsible end pieces, and a knock-down frame placed upon the inside, being more particularly designed to imitate boxes in which medicines, small bottled groceries, and other goods are packed.

An excavator has been patented by Mr. Howard W. Roop, of McMeekin, Fla. It has a shore pulley with driving mechanism, a bog anchor and its pulley, an endless cable and excavator bowls, with other novel features, the invention being an improvement on a former patented invention of the same inventor.

A duplex time ticket has been patented by Mr. William W. Currie, of Smith's Falls, Ontario, Canada. It is for keeping a record of the services of employes, the tickets being in exact register, and the various entries punched in both simultaneously, so that the duplicate must agree with the original when presented for settlement.

A music leaf turner has been patented by Mr. Albert J. Cole, of Waterloo, Iowa. The invention covers novel features of construction and the combination of parts in a mechanically operated device for automatically turning leaves of music for the convenience of the performer, and adapted also for turning the leaves of books.

A variable ticket has been patented by Mr. William E. Waller, of Rutherford, N. J. It is composed of individual characters, as letters, figures, etc., having pins, hooks, or equivalent devices for fastening them to goods, and connected by separable joints, the joint sections on each character interlocking with those on the adjacent character.

A mechanical movement has been patented by Mr. Dennis H. Bennett, of Allendale, Mich. This invention covers a novel construction and arrangement of parts for converting motion derived from a prime motor, to produce a rapid and powerful oscillating motion, which may be utilized for various industrial purposes.

A trunk strap has been patented by Mr. George A. Berry, of Colorado Springs, Col. It is provided with a separate loop, independent of the buckle, to take the initial strain, so that the buckle is left entirely free during the act of drawing up the strap, and the buckling may be effected with ease, no matter how tight the strap may be drawn.

A lifter and carrier has been patented by Mr. Franklin P. Keller, of Sabula, Iowa. It consists of bars with handles at their ends and plates hav-

ing teeth, supports working on the bars, and chains or other means of suspending the article to be carried from the bars, to facilitate the lifting and carrying of barrels, stoves, and other heavy articles.

A necktie fastener has been patented by Mr. August Larson, of Chicago, Ill. It has a main plate having a button hole, and a locking plate movably connected with the main plate, with one of its side edges arranged in a line intersecting the button, with a notch movable into and out of register with the button hole, whereby the necktie may be easily applied and then locked in place.

A steering gear for ships has been patented by Mr. Oliver Adams, of Larchmont, N. Y. Combined with the rudder post is a beveled gear attached thereto, a shaft supported above the gear carrying pinions meshing with the gear, to be interchangeably keyed to the shaft, which has a hand wheel, whereby the rudder may be made to turn in the same direction with the wheel or in an opposite direction.

A stencil printing machine has been patented by Mr. Charles N. Jones, of Ann Arbor, Mich. The invention covers a novel construction whereby the printing frame is so mounted that it is controlled by springs and treadle, leaving the operator's hands free for use in the actual printing and handling of the sheets, and a diaphragm is interposed between the stencil and the ink or pressure roller, to protect the stencil.

A fence has been patented by Messrs. Henry T. Lee and Charles Protsman, of Tullahoma, Tenn. This invention relates to fences made in panels formed of rails held together by looped wire hangers and supported upon inclined stakes, the parts being interchangeable, and the fence being such as can be erected or removed by a single person, one piece at a time, until finished.

An automatic alarm for drip pans has been patented by Mr. William Williams, of Brooklyn, N. Y. In connection with a float within a chamber of the vessel whose overflow is to be indicated, simple but novel means are provided whereby a series of alarms will be rung after the water or fluid has reached a predetermined height, thus obviating the danger of overflow.

An insecticide has been patented by Mr. William A. French, of Senatobia, Miss. It is to be used on live stock, for exterminating gnats, flies, and similar insects, and cure the poison from their bites, and is made of lard, coal oil, corrosive sublimate, alcohol, cobalt, benzine, sulphur, and other ingredients, in certain proportions and compounded in a specified manner.

A ventilating heater has been patented by Mr. Asa Weeks, of Minneapolis, Minn. It consists of an auxiliary stove mounted on a lower stove and surrounded by a jacket, the design also embracing a combined open and closed stove, the open stove having a casing or jacket at its rear, and the closed stove mounted on the open stove having a casing or jacket inclosing it and the pipe of the open stove.

A submarine torpedo has been patented by Messrs. Timothy Sullivan and Ernest L. Etheridge, of New York City. Its casing is composed of two main cylindrical sections connected to a central section, the rear section holding a rocket composition which propels the torpedo, the central section having radial rudders for steering it, and the front section being charged with gun cotton or other violent explosive.

A safety transparent box has been patented by Mr. George W. Smith, of Union City, Ind. It is cut from a single sheet, and has an outer and inner section, a closed end and inner and outer flap, the sides or bottoms having openings for the disclosure of the contents, being designed for the transmission of money or other articles, so that the contents may be seen to discover loss.

A bustle has been patented by Messrs. Edward D. and John Fraser, of Brooklyn, N. Y. It is formed from a single length of wire bent to the form of a volute spiral, the several coils being brought together and secured and the whole attached to a waist band, the bustle being quite pliable, and collapsing when subjected to direct pressure from the back without bulging at the sides.

An opera glass has been patented by Mr. Frederick Scheidig, of New York City. It is pivoted in a casing having a handle, with means for moving it into a position at right angles with the casing, and means for adjusting the focus while in the latter position, whereby it may be held very conveniently to the eyes, can be focused easily, is ornamental in appearance, and handy to carry.

A crate for shipping and packing hats has been patented by Mr. Sven P. Svensson, of Orange, N. J. It consists of parallel frames pivoted to each other, having attached transverse cords or lines adapted to engage and clamp the hat brim, and so spaced as to hold one hat independent of the other, so that the crate may be thrown upon either side or end without disarranging or injuring the hats.

A combined hot air and steam heating apparatus has been patented by Mr. John H. Waterman, of Cheboygan, Mich. Combined with a boiler and its inclosing heater and ash pit are an air supply chamber and pipe for conveying air to or above the fire, a damper to control the draught, and an automatic steam regulator adapted to simultaneously control both valves, the construction being well adapted for burning natural gas.

An instrument for describing circles has been patented by Messrs. Theophilus A. and Samuel B. Wylie, of Bloomington, Ind. The arm of the instrument is pivoted to turn upon an annular base as a center, and is adapted to hold a crayon or other marker in contact with the surface on which the instrument may be used, the device being more especially designed for school use in drawing circles and geometrical figures on a blackboard.

The desulphurizing and purifying of petroleum oils forms the subject of a patent issued to Mr. Daniel M. Kennedy, of Petrolia, Ontario, Canada.

The process consists in first preparing a solution of sulphate of copper, caustic soda, and chloride of sodium in water, then mixing the solution with the oil and heating the whole in a still and subsequently separating from the oil the combined metallic matter of the solution and sulphur in the oil.

A fence post has been patented by Mr. Louis Gratton, of Friendship, N. Y. It has a fixed bed, with short and long braces attached to the post at their upper ends and interlocking upon the bed, the longer braces having integral horizontal arms resting on the bed and terminating in vertical legs adapted to be driven into the ground at the end of the bed, so that no post holes need be dug and the posts are supported at a distance from the ground.

A dust collector has been patented by Messrs. William and James Comerford, of Rathdrum, Wicklow County, Ireland. It is a machine with an air filter of layers of granular material between perforated walls, with provision for constant renewing of the filtering medium, through which leads an air chute conducting the dust-laden air from grinding or other machinery, exhaust fans being used when desired for increasing the draught.

A combined ticket case and diagram has been patented by Mr. David D. Grant, of Franklin, Pa. The diagram represents the arrangement of the seats in a theater or other place, and has on its face pockets over or on the seat marked portions to receive and expose correspondingly numbered tickets, whereby the purchaser can see the tickets left for sale and the relative positions of the seats, the device being made flat, with or without a cover, or so as to fold conveniently for transportation.

A drawing board has been patented by Mr. Casimir M. Podgorski, of Northampton, Mass. Combined with the drawing board are strips attached to the upper surface, within its edges, and made to be adjusted upon a pivot at one end, the strips being formed with slots, in combination with slots in the supporting frame, whereby the T-square can be adjusted at any time to any line, no matter if the board and square are out of true, or the paper stretched or shrunken.

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