

## ENGINEERING INVENTIONS.

A shoe attachment for car trucks has been patented by Mr. Elwood H. Newman, of Asbury Park, N. J. The invention consists in the application of longitudinally flanged shoes of novel form and in a novel way to a car truck, whereby a car upon jumping a track will be held in more or less engagement therewith, and prevented from falling from a bridge or down an embankment, and the engineer will be notified.

A hydraulic engine has been patented by Mr. Charles R. Whittier, of Yonkers, N. Y. The invention consists principally in providing such engines, used for operating elevators, with automatic valves or cut-offs between the main operating valve and the cylinder, or within the cylinder, for stopping the piston at both terminals without danger of its coming in contact with the cylinder head and without impeding its movement in the opposite direction.

## MISCELLANEOUS INVENTIONS.

A gate latch has been patented by Mr. George W. Charleville, of Baird, Texas. The invention covers a novel construction and combination of parts for a latch which avoids the use of springs, and possesses no complications of parts likely to get out of order, while it can be cheaply made.

A washing machine has been patented by Mr. Ira B. Stillman, of Wellsville, N. Y. This invention covers an improvement on a former patented invention of the same inventor, and provides a reversible roller depressing spring, to avoid the danger of the bars becoming set at any particular curve.

A baling press has been patented by Mr. William C. Ellis, of Rising Sun, Ind. It may be mounted on a wheeled truck, and the invention covers a novel construction, making a press designed to be inexpensive, durable, and efficient for a wide range of work, in pressing hay, straw, cotton, and similar material.

A folding seat or chair has been patented by Mr. Amos H. Underwood, of Auburn, N. Y. It is especially applicable to sewing machine or type writing machine tables, permanently connecting therewith a light and strong seat or chair, easily adjusted for use and capable of being folded beneath the table when not in use.

A jar clamp has been patented by Mr. Henry H. Davidson, of Northport, N. Y. It is for hermetically securing covers upon fruit jars or like packages, and consists of a wire or bar adapted to grasp or fit upon the open end of a jar, and having a transverse bend, a cam lever being fitted on the bend of the wire or bar.

A double seaming machine has been patented by Mr. Virgil Crockett, of Dexter, Me. It is for making a double seam in tinware, the machine providing means for easily and quickly setting the different sized disks, while the heads may be quickly changed, and no spring or other delicate mechanism liable to frequent disarrangement or breakage is employed.

Sheathing paper forms the subject of a patent issued to Mr. William H. H. Childs, of Brooklyn, N. Y. The invention covers a compound paper consisting of two or more layers cemented together in the center by one composition and at the edges by another, making a waterproof disinfecting or anti-moth paper of improved quality.

A projectile for rifled guns has been patented by Mr. John G. Butler, of Springfield, Mass. It is made up of metal of two or more qualities, as hard and soft steel, or hard steel and wrought iron, these metals being in alternate disks or rings, and welded one to the other, the head of the projectile being adapted to take a high degree of hardness.

A pipe thread protector has been patented by Messrs. William H. and Harry W. Pickett, of Warren, Pa. It is made in the form of a ring, preferably of sheet metal, with an intumed flange at its outer end which laps upon the end of a pipe, for protecting exterior threads on the ends of pipes from injury during handling or transportation.

A baling press has been patented by Mr. Moses C. Nixon, of Peru, Ind. It is of that class known as "continuous" presses, the invention providing novel constructions of condensing, feeding, and pressing devices, with improved operating mechanism, and various novel details in the combination and arrangement of parts.

A cotton press clamp has been patented by Mr. William F. Moss, of Fitzpatrick's, Ala. Combined with the side doors are hooked sections having hooked ends or points extending in inverse directions, permitting the same to interlock, which may be quickly and easily manipulated to lock the doors of the press together, and will not be liable to accidental displacement.

A folding bed has been patented by Mr. Karmell Brooks, of New York City. A spring is so connected with brackets attached upon either side of the divisions in the side boards that when the lower section has been folded over and locked on the upper section, and it is desired to open the bed, the spring will act and take the burden of weight as the lower section is lifted.

A link driving belt has been patented by Mr. John K. Tullis, of Glasgow, Scotland. The invention consists in forming the leather links of a gradually increasing depth from the center toward the edges, thus constituting the driving surface of the belt into a rounded hollow channel, so that the belts will lie in more close contact with the rounded surface of the driving pulleys.

A horse detacher has been patented by Mr. John M. Fiedler, of Wentzville, Mo. It is an attachment for the singletrees of vehicles for holding and adjusting the traces, and detaching the horse in case of accident, and consists in a clamping buckle pivoted to the end of a singletree and adapted to engage the trace, a cord extending therefrom into the vehicle for releasing the clamping buckle.

A safety attachment for anchors has been patented by Mr. Nelson Smith, of Smithville South, N. Y. The invention consists in pivoting a triangular frame to the shank of an anchor between the flukes, so constructed that it will guide the cable clear of the non-embedded fluke without regard to the position of the ship, and in no manner interfering with cutting the anchor.

A grocer's cabinet has been patented by Mr. John P. Flick, of Ottawa, Ill. Combined with top, bottom, and ends forming a casing are partitions extending entirely across the cabinet, open upon opposite sides, with rack bars, and other novel features, being especially adapted for holding wrapping paper, paper bags and boxes, butter dishes and twine, besides tools and various other articles.

A ball turning lathe has been patented by Mr. Tronson Draper, of Petrolia, Ontario, Canada. The invention consists of a face plate covered with leather and backed by an elastic material, means for stretching the leather cover, and means for holding the ball to be turned in contact with the leather-covered plate, in connection with various novel features of construction and arrangement of parts.

A book attachment has been patented by Mr. Aron Bieber, of Bieber, Cal. The invention consists of a spring-acted plate bent to receive the edge of the book cover, and provided with a slide in which is inserted an elastic band which passes around the cover and around the leaves of the book, to mark the place temporarily and bind the leaves of the book together against the cover.

A tobacco pipe has been patented by Mr. August Werner, of Leadville, Col. A block is hinged to the base, with a bowl open at both ends pivoted at about the center to the block, whereby the bowl may be reversed and fire held within it, the base being provided with a receptacle for any proper absorbent and provision being made for the cleaning of the stem and base.

A music leaf turner has been patented by Messrs. John T. Carrington and Andrew J. Sleeper, of Clay Center, Kan. It is designed to enable the performer to turn the leaves by touching finger plates on levers near the keyboard, or by the use of a foot pedal, the invention covering novel features of construction and the combination of parts to make a simple and inexpensive device.

A trace fastener has been patented by Mr. Samuel M. Stevenson, of Bastrop, La. Combined with a singletree mortised vertically through each end is a retaining bolt having a hook upon one end and a fork upon the other for engaging the ring of the trace, the arrangement being such that the draught is upon the singletree, and the fastener is subjected to very little wear or strain.

A tricycle has been patented by Mr. Hermanns T. Frie, of Caracas, West Indies. The invention consists of a rocking chair located on the frame and operating at its free end on a segmental gear wheel, connected by a train of gear wheels with the axle of a driving wheel, being designed to make a machine which can easily be propelled very fast without much exertion on the part of the operator.

A bed slat fastener has been patented by Mr. Lafayette B. Hopkins, of Council Grove, Kansas. The side rail is provided at its inner face with an auxiliary rail, supporting a rail iron which supports the bed slat, the latter being provided with a slat iron which interlocks with the rail iron, to hold the slat securely while allowing instant removal when required, and also prevent lateral spreading of the rails of the bedstead.

A resistance regulator for electric currents has been patented by Mr. Georg Montanus, of Frankfort-on-the-Main, Germany. The invention consists of a number of wires forming a rheostat and connecting a number of springs with the terminals of the motor, and of a ring having a segmental flange which, when turned, connects the first flange of the number of wires with any desired number of the remaining wires, being especially adapted for electrical dental motors.

A hoisting machine has been patented by Mr. Walter Hart, of East Orange, N. J. Two disks are arranged to rotate in different planes, one of them beveled or coned, the other plain or beveled, the angles of the disks being arranged so that one point in the surface of each will be parallel with the corresponding part of the other disk, on opposite sides the disks gradually receding, with other novel features, making a device for hoisting and lowering heavy bodies.

A hoisting and conveying machine has been patented by Mr. William Thornburgh, of Elyria, Ohio. Combined with a main shaft is a frame adapted to swing longitudinally and operated from the shaft, a swinging pulley hanger being held on the outer end of the swinging frame, with other novel features, the machine being adapted for hoisting, loading, or unloading iron or coal or other articles from or to the holds of vessels, cars, or other places.

A filter has been patented by Messrs. Jacob Waespi, Emil Fretz, John Spellman, and John Frey, of Dallas, Texas. The receptacle has receiving, settling, and filtering chambers, there being transverse wedge-shaped ridges in the bottom of the latter, outlet pipes being arranged at the bottoms of all the chambers, the several chambers being easily cleaned, and the arrangement being such that one can be cleaned while the other is working.

A coupling for gas, steam, or water pipes, etc., has been patented by Messrs. Harrison Traver, of Brooklyn, N. Y., and John Weeks, of New York City. The invention covers a novel construction and combination of parts for a coupling which is designed to be unaffected by expansion or contraction, and wherein the supply will be automatically cut off from one section of pipe while the other section is disconnected therefrom.

A speed indicator for vessels forms the subject of two patents issued to Mr. Charles Sperry, of New York City. It has a pressure chamber with a flexi-

ble diaphragm, and connected upon both sides of the diaphragm to an outside double tube, in combination with registering mechanism and mercury chambers, indicating varying pressures according to the speed with which the vessel is moved through the water, and in combination therewith is a clockwork and registering system, showing the distance that the vessel to which the instrument is attached has covered since the time of starting.

A shutter for photographic cameras has been patented by Mr. William H. Lewis, of Brooklyn, N. Y. Combined with an apertured sliding shutter is a lever adapted to throw it, a spring, and an adjustable slide, with means for clamping or holding it when adjusted to vary the tension of the spring, the invention being more especially applicable to shutters having a straight sliding movement, adapted to both instantaneous and time work.

A camera especially adapted for instantaneous work has likewise been patented by the same inventor. It has a focusing device by which the camera tube may be focused approximately without observing the image on the ground glass of the camera, an improved spring device for holding the ground glass and for receiving and holding the plate holder, an improved finder, means whereby the speed of the closing of the shutter may be regulated, and buffers of peculiar form for arresting the motion of the shutter after being released, with other novel features.

A grindstone frame has been patented by Mr. William Thornburgh, of Elyria, Ohio. Combined with the side bars and legs is a clamp having openings in its bottom and sides, into which fit the ends of the side bars and legs, a vertically moving wedge fitting on the inside edges of the legs, and a bolt and nut for holding the wedge in place, with other novel features, making a frame which can be readily knocked down for transportation and easily set up and fastened together.

A scissors sharpener has been patented by Mr. Isaac A. Abbot, of Denver, Col. It consists of a stock having a sharpening disk held thereto and a gauge with a flange against which the blade to be sharpened rests, the gauge being held to a curved end part of the stock by screws, allowing adjustment of the flange at various angles to the periphery of the disk, the blade to be sharpened to be drawn across the disk with its inner face flat against the gauge, the wire edge made by the disk being at the same time removed by another edge.

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