

ENGINEERING INVENTIONS.

A high and low water indicator has been patented by Mr. John C. Palmer, of Hamilton, Ont., Canada. It consists of a vessel having boiler connections, a float, guide rod, and levers, so arranged that when the water rises or falls beyond certain points the levers will be moved to sound the whistle, and thus promote the more safe management of steam boilers.

A car coupling has been patented by Mr. William E. Samuel, of Fairfield, Neb. This coupling has an automatically operating cock connecting with the steam and air brakes, so that when the cars are coupled, and the speed of the locomotive suddenly checked so that the bumpers come together, joints are made whereby the tubes of the several cars are connected for a sufficient length of time to apply the steam or air brakes.

AGRICULTURAL INVENTIONS.

A hand seed drill has been patented by Mr. Frank H. Chesebro, of South Haven, Mich. The seed box has a sliding plate with a discharge opening, and is connected by a bent lever and a rod with an elbow lever pivoted to a handle of the drill, in connection with a furrow opening spout, the device being designed to promote convenience and accuracy in the drilling of small seeds.

A potato digger has been patented by Mr. Frank M. Thorn, of Orchard Park, N. Y. It consists of a vertically adjustable double mould board plow between two broad tread wheels, the axis of each wheel so fixed to the plow frame that as the machine advances the contents of the potato hills will be conveyed by the mould boards into the broad rims of the wheels, by which they are elevated and deposited by gravity on a sifter or separator or upon the ground behind the plow.

MISCELLANEOUS INVENTIONS.

A watch charm has been patented by Mr. Cornelius H. Davis, of Phillipsburg, Pa. It consists of a pendant and a spinning top removably secured thereto, so that the latter can be easily attached and detached, making an ornament and toy combined.

A surgical instrument has been patented by Mr. James Somers, of Moro, Oregon. It provides an instrument for certain kinds of amputations, so that the blood vessels and arteries will be twisted together before they are severed, and thus prevent hemorrhage without cauterization or tying.

A saddle bar has been patented by Mr. Thomas J. Haslam, of Dublin, Ireland. It is for holding the runner to which the stirrup strap is secured, and is made to hold the runner firmly under ordinary use, but so that it will become detached automatically when the rider is thrown or falls from his horse.

A cotton packer has been patented by Mr. Alfred Hart, of San Marcos, Texas. This device is designed to receive the cotton from the condenser, after ginning, and pack it in a box preparatory to being pressed and tied into a bale, and embraces novel features whereby the work may be done automatically.

A bed and bedstead has been patented by Messrs. Andrew Smith and George H. Albers, of Sellwood, Oregon. There are transverse rollers at the head and foot carrying an endless belt for supporting the bedding, there being also a drawer in the foot end of the bedstead, with hinged leaf and sliding boards.

An eaves trough fastening has been patented by Mr. Olin Harley, of South Whitley, Ind. It is so made that a readily accessible single upper nut, in the form of a thumbscrew, serves to secure the hanger to a cross bar and to provide for adjustment of the trough free from all liability of detachment or loss of the nut.

A stand or casing for bottles has been patented by Messrs. Camille S. Bleton and Adolphe Maleville, of Paris, France. It has inwardly projecting tenons, and at the bottom a spring cushion, and is to be used in combination with a bottle having longitudinal grooves in opposite sides.

A horse collar has been patented by Mr. Henry Brooks, of Brooklyn, Ohio. Its main lining, or portion coming in contact with the animal, is of felt, and contains within a canvas or other wrapper a suitable filling, which is prevented by the soft nature of the felt lining from gathering into wads or lumps.

A washing machine has been patented by Mr. Morgan L. Grover, of Laval, Wis. This invention provides a rocking clothes box or tub, in which the clothes are placed with hot soapsuds and washed by being thrown from one end to the other by rocking the box, at the same time that they are beaten by a swinging beater.

A carpet stretcher and tacker has been patented by Mr. George M. Brandon, of Harveyville, Pa. Combined with a series of sharp points extended from a suitable handle is a projecting head and spring for holding a tack over a slot between the points, so the carpet may be stretched to the point desired and so held while the tack is driven.

A cartridge loader has been patented by Messrs. Jacob D. McKenney and Thomas W. Brown, of Chattanooga, Tenn. Combined with the body of the shell loader are powder and shot hoppers arranged to be brought alternately under a suitable aperture, with such an arrangement of slides as will allow of readily increasing or diminishing the charge.

A churn has been patented by Mr. Alvin Cockrell, of Lamar, Mo. It has a shaft and a tubular shaft surrounding it, each operating blades in opposite directions in the cream box or tub, and the arrangement is such that the cream, buttermilk, etc., are drained off from the butter by a perforated bottom and a perforated tube.

A fabric measuring machine has been patented by Mr. John W. Kruger, of Litchfield, Minn. It is adapted for measuring goods of different widths, and will wind and unwind cloth accurately at the same time as measuring, the machine covering a special combination of rollers, fabric holding devices, and other parts and details.

A cravat fastener has been patented by Mr. John Adams, of Montrose, Col. It consists of a piece of rubber or other elastic material, having an opening with radial slits extending therefrom to the shield of the cravat, so that the collar button or stud may be pressed through the opening to attach the cravat in place.

A wash tub, sink, or other vessel made of cement has been patented by Mr. Carl Wesely, of West New York, N. J. This invention covers the making of such vessels with their angles and corners and upper edges faced with metal strips embedded in the cement or compound forming the vessel, to promote strength and durability.

A school desk has been patented by Mr. William P. Conner, of Bloomsburg, Pa. The desk has two leg frames on which the back of the seat and the box of the desk are held, the back of the seat also forming the back of the desk box, with numerous other special details, for strengthening such desks and simplifying their construction.

A vehicle shaft support has been patented by Mr. James F. Pace, of Simsborough, La. It consists essentially in a bar adapted to be pivoted at one end to the front of a wagon, and formed on its free end with a forward projecting hook, a spring for throwing the bar into a vertical position against the wagon front, and a catch plate to be applied to the front.

A needle for Jacquard looms has been patented by Mr. Andreas Mutter, of Paterson, N. J. The needle has a longitudinal slot, on the bottom of which rests a spiral spring, with a plate at its end adapted to slide vertically between the sides of the groove, so that if a needle is forced against a Jacquard card its end will not punch or perforate it.

A turpentine hacker has been patented by Mr. Walter Watson, of Fayetteville, N. C. The hacking blade has a shank of flat form for a portion of its length, and its end rounded, bent, and screw-threaded, combined with a handle having apertures, to receive and firmly hold the shank of the hacker throughout its length.

A pencil case and sharpener has been patented by Mr. Greenleaf A. Wilbur, of Skowhegan, Me. The pencil case is open at both ends, a rubber or eraser to be placed in one end, and so the pencil may be passed point first into the other end, the case having a side slot in which a sharpener may be held, the device thus affording protection to the point of the pencil and the means of readily sharpening it.

A gate spring has been patented by Messrs. Miles Kious and William A. Morton, of Le Roy, Kan. The action of the spring is such as to close the gate until the latter is opened so wide that the staple passes the hinge center, when the strain of the spring is on the opposite side of the hinge pin, and the gate is held open, while in the other cases it is automatically closed.

A ball and socket hinge has been patented by Mr. Albert G. Rockfellow, of Ashland, Oregon. With the use of a screw shank the construction is intended to protect the hinge completely from the weather, and from the lodgment of grit and dirt, thus prolonging the life of the hinge and at the same time giving a gate on which it is used the inclination that makes it self-closing.

A carpet stretcher has been patented by Mr. Joseph S. Ingham, of Academy Corners, Pa. A bar having a sliding cross bar carrying teeth is so combined with a pulley, rope, winding post, lever, and clamp, that the carpet can be stretched to the desired position and so held until tacked, the invention being an improvement on a former patented invention of the same inventor.

A compound for treating tobacco has been patented by Mr. Adolph Gloeser, of West St. Paul, Minn. It is for cigars and smoking and chewing tobacco, to destroy or neutralize its injurious properties and render it more agreeable, and consists of tincture of coca, fluid extract of tolu, fluid extract of hops, essence of lemon, and apple cider, in certain designated proportions.

A running gear for vehicles has been patented by Messrs. Alexander K. Wilson and Benjamin F. Holder, of Valdosta, Ga. By this construction the head block is located vertically over the front axle, and the weight of the body is borne directly on such axle, the use of the kingbolt being avoided, and the reach, guide, or keeper, and curved bar of the head block forming a fifth wheel.

A fruit drier has been patented by Mr. John G. McNaughton, of Marion, N. C. Combined with a series of pans, each having two bottoms forming a steam compartment between them, are steam spreaders forming an arched passage closed at the bottom and finely perforated at the top, so controlling the entrance and exit of the steam that the full heat is exhausted before its escape.

A mail crane has been patented by Mr. Fred W. Sensiba, of Talbot, Mich. This invention covers a special construction whereby cranes for holding mail pouches at the sides of railway tracks, to be taken therefrom by a passing train, are made to automatically swing into a position parallel with the track when the pouch is pulled out, so the crane will then be out of the way of the cars.

An underskirt has been patented by Mr. Jacob Mayer, of New York city. By this invention the yoke and body of the skirt are made of one piece of material, with folded darts in front and curved side and back seams and curved placket, to make a corset-fitting skirt without waste, slightly padding the figure in front, and preventing the outlines of the front points of the corset from showing through the dress.

An implement used in the manufacture of cans, etc., has been patented by Mr. Hiram G. Fison, of New Cumberland, W. Va. It consists of an adjustable cylindrical holder to be employed in soldering the edges and bottoms, and adapted to hold articles of different diameters, with self-adjusting bearings and a handle on the interior of the holder to withdraw it from the soldered article.

A water regulator for windmills has been patented by Mr. Anson M. Otis, of York, Neb. A tank is suitably suspended from one end of a lever, which carries a weight on the other end, the weight greater than the empty tank but less than a full one, making a device for automatically stopping the flow of water into a tank or throwing a windmill out of gear when the tank is full.

A split pulley has been patented by Messrs. Harrison Underwood and Charles Schweizer, of New York city. Combined with two half pulley sections is a split rim or band secured to and surrounding them, with bolts for clamping them on the shaft and for holding the ends of the band together, making a pulley which can be easily placed and firmly locked on the shaft.

A washing machine has been patented by Mr. Robert Lynn, Sr., of Pleasant Plain, Iowa. Combined with a rotary cylinder having longitudinal slits in its periphery are buckets secured within the cylinder adjacent to and in front of the slits, with backward curved rear sides, the device being adapted to be placed in a common tub for washing clothes, and continually dipping up water and pouring it upon the clothes.

A feed regulator for hemp drawing and spinning machines has been patented by Mr. George Davis, of Elizabeth, N. J. The condenser standard has an arm, and the brake strap has an arm with a suspended weight and a projecting pin, whereby the parts are connected and the movements of the condenser standard are made to control the drive pulley of the machine, and thus regulate the delivery of the sliver to the condenser.

A self-acting solar reflector has been patented by Mr. Heinrich A. W. Braune, of Valparaiso, Ind. The invention consists in a guide and a fixed piece for changing the inclination of the mirror as it revolves, with devices for adjusting the inclination of the longitudinal horizontal axis of the mirror to the longitudinal horizontal axis of the revolving frame, and keep a beam of light continually in the same position in relation to the lens of the solar camera.

A water elevator has been patented by Mr. Justus W. Thorp, of Dayton, Washington Ter. A lifting screw is hung from its upper end and supported on anti-friction rollers, dispensing with a lower end bearing, and there are universally jointed shaft connections from the driving bearing of the screw to a water wheel in the stream from which the water is lifted by the screw, the invention being calculated to facilitate hydraulic mining.

A machine for boring gun barrels has been patented by Messrs. Herman H. Hackman and Theophil P. Walter, of Vincennes, Ind. It is made with an expansible and hollow boring tool, and a guide bar clamped to the working carriage and passing through the boring tool, its bar, and the gun barrel, to govern the diameter and shape of the bore, with other special features, so that the work may be done by unskilled labor and the barrels will have great precision.

A water elevator has been patented by Mr. Benjamin J. Hewitt, of Manton, Mich. Over a well curb is placed a shaft having a loosely mounted shifting pulley, around which is coiled a rope with buckets at its ends, one bucket enough heavier than the other to overbalance the latter and its contents, in connection with which is a weight so arranged that the full bucket may always be lifted by moving the pulley one way or the other on its shaft with a lever.

A tension regulator for the let-off motions of looms has been patented by Mr. Arthur Middleton, Jr., of Pelzer, S. C. The construction is such that the pressure of the tension producing spring is regulated automatically and continuously in exact proportion to the reduction of the size of the roll of warp on the beam, thus giving the warp the same tension from the beginning to the finish of the roll without the help of an attendant.

An apparatus for and method of making and raising salt brine from deep salt veins forms the subject of two patents issued to Mr. John Peters, of Haverstraw, N. Y. The invention covers an arrangement of outside pumping machinery to force water into deep wells in salt deposits, where it will dissolve salt by contact and become brine, and to expel the latter from the well by pressure, thus doing away with inside pumping machinery, and allowing of the use of a natural or artificial head or pressure of water near the mouth of the well to dispense with the force pump.

A wind motor has been patented by Mr. Frank S. McKibben, of Tacoma, Washington Ter. Combined with an upright structure carrying a revolving platform a shaft is journaled with two cranks at right angles to each other, with a wind wheel on the shaft, connecting rods connecting the two cranks, with various other novel features, whereby the motion will always be transmitted vertically, and the top platform may revolve without affecting the devices for transmitting motion.

A money drawer and recorder has been patented by Mr. Alphonso S. Keating, of Corry, Pa. This invention affords means for automatically giving a signal when the drawer is opened, with certain devices for automatically feeding a strip or sheet of paper over the top of a box in front of the drawer, on which to note expenditures, etc. The same inventor has also patented a cash recorder, with devices for showing when the register has been opened, and various novel features for facilitating the correct keeping of the cash drawer.

A process of and apparatus for making wax and paraffine paper forms the subject of three patents issued to Mr. Edward G. Sparks, of New York city. These several inventions all cover different apparatus for passing paper through melted wax or paraffine in such way that both surfaces shall be thoroughly coated therewith, all superfluous wax scraped off, and the surfaces, if desired, be afterward brushed with a polishing roll, the body of the paper not being filled with the wax, thus making a saving in the cost of the manufacture of such paper, while either side of the paper may be applied for the ordinary uses indifferently.

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