ENGINEERING INVENTIONS.

A locomotive spring has been patented by Mr. John R. Fish, of Grand Rapids, Mich. The construction is such that hangers are dispensed with, the invention being a improvement on a former patented invention of the same inventor, touching a special construction for use in connection with the frame supporting the driving wheels of a locomotive.

A steam condenser has been patented by Mr. Talmadge Blass, of Millerton, N. Y. It is so designed that every part is accessible, that clogging by foreign matters may be prevented, being intended for the exhaust of steam engines, for producing a high vacuum without the use of a pomp, and to so regulate the flow of water that the temperature of the hot well can be kept as desired.

A steam condenser has been patented by Mr. John McIntyre, of West Hoboken, N. J. This invention relates to surface condensers of the Lighthall type, wherein water pipes are used, and consists principally in dividing the pipes into nests or tiers by the intervention of plates that compel the steam to spread and circulate more perfectly among the pipes, together with other novel features.

A railroad cattle guard has been patented by Mr. Delvin S. Lermond, of Delphi, Ind. It is so made as to be bolted down on common track ties without disturbing the roadbed, with slats arranged to slant from the center toward each end, so that when stock step on the guard their feet will slide down between the slats, and thus prevent their walking on the guard, while there is nothing to prevent their backing off.

A water or other engine has been patented by Mr. Parker F. Morey, of Portland, Ore. The engine has a system of automatically operating differential valves controlled by the action of a mechanically actuated auxiliary valve, the reciprocating piston being also a differential one, in combination with a general receiving chamber, whereby all valves for directly controlling the supply and discharge of water to and from the smaller end of the piston are dispensed with.

AGRICULTURAL INVENTION.

A seeder has been patented by Mr. William H. Holcomb, of Coral, Mich. This invention covers a novel construction of a machine which may be used to plant almost any kind of seed, irrespective of its size, and which may also be adjusted to deliver a certain required amount of seed to the running foot or yard.

MISCELLANEOUS INVENTIONS.

A pneumatic dredging machine has been patented by Mr. William P. Lewis, of Oroville, Cal. It consists of an agitator, an extensible cylinder, and a vacuum chamber provided with induction and eduction ports, and a means for producing the vacuum required to operate the machine.

A water closet indicator has been patented by Mr. Joseph H. Potts, of Toronto, Ont., Canada. The indicator has a suitable inscription and is adapted to slide between guides fastened in the upper inner face of the door, to indicate from the outside simultaneously with the bolting of the door that the room is occupied.

A drum tightener has been patented by Mr. Robert Buchanan, of Sioux City, Iowa. Single and double apertured hooks are used, in connection with a cord or rope and straps, with the drum body, whereby the rope employed to tighten the drum heads and bind the hoops may be passed in parallel lines from hoop to hoop.

An automatic grain measure has been patented by Mr. Samuel E. Crosbaw, of Three Oaks, Mich. This invention covers novel features of construction and combination of parts in a machine for measuring grain and similar substances delivered by a spout or chute, and is calculated to measure by weight or stroke measure as may be desired.

A fence has been patented by Mr. Lafayette Sams, of near Wolcottville, Ind. It is a portable fence, in which each panel is made separate, and it has an iron post support to prevent the wood from touching the ground and decaying, with adjustable connections for holding the panels together, and various other novel features.

A wagon seat has been patented by Mr. John W. Bunch, of Keokuk, Iowa. Combined with the seat are L-shaped supports, pivoted to the sides of the wagon box for holding the seat in position for use, and for supporting it out of the way of the load of the wagon when it is desired to employ the entire wagon box for carrying purposes.

A washing machine has been patented by Sabina W. Cook, of Dayton, Wash. Ter. The invention consists in a tube connected at one end with an inverted funnel, and having a flaring mouth at the opposite end in which is an air valve, allowing air to enter the tube and funnel, but preventing its escape, forcing air and water through the clothes to carry off the dirt.

A clamp for holding gun barrels while being cleaned has been patented by Mr. Frank M. Everett, of Washington, D. C. It is a portable apparatus consisting of a bar to which are applied clamps formed of laterally adjustable right metal parts having standing and horizontal portions, with vertical screw bolts passing through the bar, and other novel features.

A stovepipe holder has been patented by Mr. Edwin Hayes, of Kirkin, Ind. It consists of a wire band, with angle plates having apertures to receive the ends of the band, a binding screw and hook formed with an eye upon one side of the body to receive the binding screw between the angle plates, making a simple device for holding a stovepipe in a flue.

A milk pail holder has been patented by Mr. Granville Abbott, of Harrison, Minn. The holder is made of a single piece of wire or other suitable material bent to form a pail-holding hoop, with arms and loosely attached catches, making a simple device for holding milk pail while milking, and relieve the milker from the fatigue of holding the pail between the knees.

A reel for barbed wire has been patented by Mr. Matthias Kampf, of Minier, Ill. It consists of a suitable frame to be attached to a sled or other convenient vehicle, carrying a reel and ratchet wheel, with other novel features, and operated by a handle, whereby barbed wire can be readily wound and unwound, or easily stretched, as may be required in making fences.

Dress trimming forms the subject of a patent issued to Mr. Joachim Maidhof, of New York city. The invention relates to ball edgings such as used for ladies' dress goods, and provides for apertured cores strung on heads on the cord, so as to be free to turn transversely to the length of the trimming, to expose different portions as the flock becomes rubbed or worn off.

A paper box has been patented by Messrs. John F. Diemer, of Elizabeth, N. J., and Paul E. Gonon, of New York city. Combined with a body having flaps is a metallic slide and a locking plate, the metallic slide being held in place by the flaps on the ends of the sides, and a locking plate holding all the parts in position, making a box which is simple and durable.

An adjustable seat for vehicles has been patented by Mr. Michel Guiet, of Paris, France. This invention covers means of controlling and securing the sliding or movable seats of two-wheeled vehicles which have a front seat and a rear seat, one fixed and the other adjustable relatively thereto, to balance the vehicle or regulate the position of the load, making the adjustment quick and easy.

A scraper has been patented by Mr. James Hocking, of Denton, Neb. Adjustable shovels are mounted on a rotating frame, to be raised and lowered, there being a device for imparting the rotary motion from the driving wheel, and a device for raising and lowering the rotating frame, the dirt being deposited in a drum which can be readily opened and closed by the operator.

A tamping bar has been patented by Mr. Timothy Gleason, of Red Wing, Minn. It has a yielding handle which lessens the labor in use and obviates the jar and shock usually experienced by workmen, having in suitable position adjustable collars with spiral springs inclosed in a casing or hollow handle, by which movement is imparted to the bar through the medium of the springs.

A safety helmet has been patented by Messrs. Gustav Runge and Alexander Stude, of Bremen, Germany. It has a double lining, and fits the head closely, but leaves part of the face uncovered, there being means for forcing fresh air into the double lining, to pass to the uncovered part of the face, and keep off poisonous smoke or gases, so that a person wearing the helmet can safely work in a room filled therewith.

Automatic safe boltwork forms the subject of a patent issued to Mr. Thomas W. Brintnall, of Maryville, Mo. This invention relates to locks arranged to be opened by clockwork, and combined with the bolts and springs is an intermediate mechanism, with a cylinder and piston connected with the parts, whereby a gradually diminishing resistance is offered to the bolts in both directions of movement.

A velocipede has been patented by Mr. George W. Rodecap, of Middletown, Ind. This invention covers a novel construction, arrangement, and combination of parts, in which the power is transmitted from the pedals by wheels or pulleys and levers to the main drive wheel, making a machine which can be easily guided, and economically operated with a minimum expenditure of power.

A cigar wrapper cutter has been patented by Mr. Ledyard D. Bailey, of Central City, Neb. It is a circular rotary cutter of novel design, a ferrule projecting beyond the handle to form a shield or guard to the blade, the knife being intended for cutting the tobacco leaf for wrappers, and to cut near the edge of the leaf and across the stems and veins, without tearing the leaf.

A wheelbarrow has been patented by Mr. Joseph Annin, of Brooklyn, N. Y. This invention covers novel features of construction and combination of parts touching the handles and wheel bearings, the legs, and devices for attaching both handles and legs to the body of the harrow, making a firm and rigid attachment, but so that the legs and handles can be easily and quickly detached when desired.

A road cart has been patented by Mr. William R. Church, of Yorkville, Ill. The shaft coupling consists of rods to which the thills are to be pivoted, with clips at their rear ends, and sectional braces connected by a turn buckle, the forward sections of the braces being pivoted to the thille and the rear sections rigidly secured to the rods, making it convenient to raise or lower the shafts to suit the height of the horse.

A shoe fastener has been patented by Messrs. Samuel S. Knapp and Elliot Browne, of Abington, Mass. It consists of a wire bent in opposite directions at each side of its center to form two side rings, for use in connection with a single lace, being adjustable upon the lace at such distance from the end that sufficient length only intervenes to properly lace the boot or shoe and unite it at the top.

A sandpapering machine has been patented by Mr. Daniel Doncaster, of Mechanicsville, N. Y. The machine is so constructed that its working head has a universal movement which accommodates itself when in operation to the wind or twist in doors or the springs in panels, or to an uneven bench that is not horizontal or level, for doing all kinds of sandpapering rapidly and economically.

A riding saddle has been patented by Mr. Joseph F. Bennett, of Pellville, Ky. It has wire springs to render the saddle easy to the rider, the springs being attached to stirrups, and over them placed a shield connected at its sides and rear edge to the tree by means of straps, the saddle to contain about twenty springs, or as many more or less as required.

A heating attachment for cooking stoves has been patented by Mr. Richard A. Rew, of Pomeroy, Wash. Ter. It consists of a peculiarly constructed chamber, with smoke drums, and in combination with the smoke flue, for converting cooking stoves and ranges into hot air and ventilating stoves, to utilize them for the double purpose of cooking and heating the rooms above.

A drying machine has been patented by Mr. Joseph Hanson, of Philadelphia, Pa. This invention relates to a machine formerly patented by the same inventor, and covers a double construction or duplicate arrangement of the swifts and rods or reels, with a central arrangement of main bars, ways, and operating mechanism, whereby the capacity of the machine is doubled, and a desirable equipoise of parts effected.

A bottle washer has been patented by Mr. Peter A. Bennett, of New York city. It is a device for washing the interior of bottles with a brush, the brush being attached to a spiral spindle adapted to be moved longitudinally in a suitable apertured plate for causing it, while the brush is revolved axially, there being a fixed and a spring-actuated sliding frame carrying the spiral spindle.

A bottle stopper has been patented by Mr. Theodore G. Maier, of Camden, N. J. It is an elastic stopper, with an eccentric for forcing it into a bottle neck, means for attaching the eccentric, and a wire connected to the eccentric at one side of its pivotal point and passed through and connected to the lower end of the bottle stopper, being particularly adapted for bottles containing effervescing liquids.

An incidence window, for lighting basements, vaults, etc., has been patented by Mr. Isidor Schoenberg, of Baltimore, Md. It is composed of a frame with a parallel series of glass blocks of right-angled triangular shape, with their long sides in the plane of the frame, the blocks projecting upwardly to expose their two sides, so as to give the greatest amount of exposed reflecting surface without shoulders, while the faces of the prism are readily accessible for cleaning.

A ladder has been patented by Messrs. John McDonough and Walter B. Cox, of New York city. It is composed of sections hinged together, each section having a joint clasp or sleeve for locking the sections in line with each other, the sleeves being operated automatically, and there being an automatically operated locking device attached to each sleeve, making a flexible fire ladder adapted to be wound upon a drum and elevated by turning a drum.

A frame for drying houses has been patented by Mr. George E. Mills, of No. 612 Pacific Street, Brooklyn, N. Y. This invention relates to a drying frame in which horizontal trays are arranged to support the fruits, vegetables, etc., to be dried, the trays to be guided between vertical parts and held in parallel position in series, with novel means for raising and lowering and dumping them; the frame is also well calculated for drying malt.

A sash holder has been patented by Mr. James P. Hendrick, of Flemingsburg, Ky. The catch bar of the holder consists of a lower portion to be secured within the outer sash groove of the window frame, and an upper part which has an outward top or head plate, with various other novel features, making a device which can be readily applied, and will hold the sashes open at either the top or bottom, or at both places.

A sad-iron has been patented by Mr. August F. Chable, of Evansville, Ind. It is adapted to be reversed or turned on the handle, so that any one or two or more working faces may be used, and these faces are heated by the burning of fluid or gasoline from a perforated tube connected with a small reservoir, the flow being easily regulated, and the heating arrangement of the iron being such that it can be conveniently used for many other purposes.

A method of purifying water has been patented by Messrs. William J. Morrison and John C. Wharton, of Nashville, Tenn. The invention covers a method of adding to the water a mixture of lime, soda, and sand, and then a mixture of alum, permanganate of potassium, and sand, the method being advantageous for all waters to be used for domestic purposes, as also in the preparation of various beverages, and for steam boilers, laundry and bathing purposes.

The construction of sash windows forms the subject of a patent issued to Messrs. Vaclav Klan and Rudolf Seitz, of Prague, Bohemia, Austria-Hungary. The invention is for windows having an upper and lower outer and an upper and lower inner sash, all the sashes being mounted to slide and to swing on pivots, and counterbalanced by weights in such manner that they can be swung inward on hinges to facilitate cleaning or repairing.

A rotary system of stage scenery has been patented by Mr. Roderick G. Guptill, of Chicago, Ill. The construction of this scenery is such that it may be shifted by simply turning a pulley, so the scenes may be changed very easily and rapidly; and when the scenery is taken down it may all be rolled upon the rollers that support it, and the bars and braces being made in sections, the whole may be packed in small compass and easily transported.

A shingle-sawing machine has been patented by Messrs. Francie M. Hanks & Horace N. Sibley, of Midway, La. It is a band saw machine, with a reciprocating carriage carrying two sets of block holders, two sets of set works, and a mechanism whereby one set is actuated to feed its block forward while the block of the other set is operated upon by the saw, with other novel features, the invention particularly relating to a former patented invention of the same inventors.

An exhibitor for wall papers, borders, and ceiling decorations has been patented by Mr. Lewellen A. Ely, of Muir, Mich. It has interchangeable wings or frames, which can be removed instantly and held together for comparison of samples, the apparatus being light, strong, and durable, and one that can be worked and operated very easily, so that without change of position a customer can see samples of borders in combination with different styles of paper, etc.

A device for sorting horseshoe nails has been patented by Messrs. William M. Stone and Henry Dundas, of Keeseville, N. Y. This invention consists of a ring revolving on a block, and having recesses, with a adjustable stationary cam attached to the block, and a bent arm for separating the nails and leading them to a discharge opening in the block, making an improved device for sorting long and short nails rapidly and accurately.

A photographic apparatus has been patented by Mr. David H. Houston, of Hunter, Dakota Ter. A removable box with sliding shutter fits in the rear of the camera, and contains the sensitized paper wound upon two spools so that a straight part of the sensitized film passes over a plate or partition directly behind the sliding shutter, with other novel features, the invention being an improvement on a former patented invention of the same inventor.

A grub catcher has been patented by Mr. Frank Hulse, of Goshen, N. Y. The body of the implement is a sort of sheet metal pan, over which extends a wire spring in such way that, as the pan is pushed between rows of onion and other plants, the spring will act as a finger to jar and knock the grubs off into the pan, a small lantern stand being also attached to the implement for holding a lantern in position to aid in the work.

A picture-exhibiting musical box has been patented by Mr. Charles E. Juillerat, of New York city. The box has a ring or circular frame carrying pictures, the same being operated by the mechanism that produces the musical tones, so that the pictures are made to show through openings in the sides of the box, the idea being also applicable to the rotation of a disk, and exhibition of pictures in the top instead of the sides of a box.

The purifying of water for steam boilers forms the subject of a patent issued to Mr. Wilhelm Friede, of Hamburg, Germany. The invention consists in the use of a composition of matter to be dissolved in the water to prevent the formation of scale or incrustation, the composition including catechu, caustic soda, sodium hyposulphite, glycerine, and tanner's bark, the use of the compound not affecting the taste, smell, or purity of the steam, and not affecting it for any purpose for which steam is ordinarily applied.

A watch regulator has been patented by Mr. Jules C. Levasseur, of Miliana, Algeria. This invention provides means for adjusting the balance regulator of a watch without opening the case, and consists of a segmental gear wheel attached to or formed upon the regulator, and mechanism in gear therewith, whereby the regulator may be adjusted by means of the winding stem, when arranged for setting the hands, or by an independent stem fitted in the case, with other novel features.

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