

ENGINEERING INVENTIONS.

A valve gear has been patented by Mr. James Des Brisay, of Kamloops, British Columbia, Canada. It is so constructed that one, two, or more cylinders of a steam engine may be controlled by a single rotating valve, being especially adapted for locomotive engines, while it may also be employed on nearly all classes of steam engines.

The heating of railway cars forms the subject of a patent issued to Mr. William M. Scott, of Cambridge, Vt. It is designed to use the exhaust steam from the locomotive, the invention covering a simple and inexpensive system and apparatus, in which there will be no danger of firing the cars in case of accident, and the apparatus can be easily controlled by the engineer.

An automatic switch and frog for railroads has been patented by Messrs. Lawrence W. Cromer and George Gavin, of Eureka, Nevada. The invention covers a novel construction, whereby it is designed that the engine and cars may be switched through the contact of the wheel flanges with the frog, and whereby the engineer may switch the train directly from the engine.

A car coupling has been patented by Mr. Bush F. Laird, of Ocean Springs, Miss. The drawhead has a link mortise, upper and lower pin openings, and lateral holes for bolts or pins which form pivots for pin-supporting devices, an anchor being so connected with the pin that it may fall in either of two opposite directions, and will properly engage the bearing in either case, with various other novel features.

AGRICULTURAL INVENTION.

A fender for cultivators has been patented by Mr. John W. Kennedy, of Miltonvale, Kansas. It is applicable to both single and double plow cultivators, and consists of a flat blade rounded at its lower front corner, curved outward along its upper longitudinal edge, and with an apertured strap curved between its ends to fit the curve, being designed more particularly for use on growing check-rowed and listed corn.

MISCELLANEOUS INVENTIONS.

A curry comb has been patented by Mr. Frank S. Neal, of Plainfield, N. J. This invention covers a light yet durable construction of a comb, which may be readily cleaned of dust without striking the comb against another object.

A hat wire has been patented by Mr. Alanson Cary, of New York City. It is of triangular shape in cross section, combining increased lightness with strength, for use in the brims of hats, to stiffen and hold them in shape, its form being designed to better adapt it for this purpose.

A metallic shingle has been patented by Mr. Edgar E. Barker, of Junction City, Kansas. This invention covers a novel form of roofing plate designed to be fitted and nailed to the sheathing, so as to interlock and form a water-tight roof, without soldering or crimping of seams.

A drag saw has been patented by Mr. Robert Doak, of Sidney, Ohio. It has an axle or shaft on wheels supporting one end of a frame section, a slotted section beam forming a guide for the saw blade, with handle levers and pitmen, being adapted for sawing logs or sawing horizontally.

A yoke for connecting animals has been patented by Mr. William Carmichael, of Baird, Texas. It is so made as to admit of automatic disconnection in case either of the animals gets a fore leg over the coupling, when grazing, thus preventing injury to the animals.

A drip can has been patented by Mr. Hedwig L. Kinports, of Annville, Pa. It has a concave cover with a central aperture and a pivoted self-opening lid, being specially adapted to catch the drippings of the spigots of barrels containing liquids, such as molasses, etc.

A fastener for meeting rails of sashes has been patented by Mr. John E. Brown, of Honolulu, Hawaii. It is designed to automatically lock the sashes when the windows are closed, in such way that they cannot be unlocked from without by a knife, wire, or similar instrument.

A line protector has been patented by Mr. Frank C. York, of Salina, Kansas. This invention covers an improvement on a former patented invention of the same inventor, in such supports where the straps extend between the forward ends of the thills, with a view to prevent the harness lines from being caught under the ends of the thills.

A windlass has been patented by Mr. Earle C. Bacon, of Brooklyn, N. Y. It is designed to carry several hoisting drums or winch heads actuated from one main shaft, and traveling independently of each other at a differential rate of speed, the invention covering various novel details in construction and arrangement of parts.

A garment stretcher has been patented by Mr. Fred E. Bailey, of Manchester, N. H. Combined with a pair of clamps is a sectional extension brace, readily permitting a varied adjustment of the two sections with respect to each other, with other features, making a convenient stretcher for trousers and other garments.

A trap has been patented by Emily A. Stears, of Brooklyn, N. Y. It is designed for application to wash bowls, bath tubs, wash tubs, and sinks, to permit the free escape of the water while effectually preventing the entrance of sewer gas through the wash bowl and sink connections, while the construction of the trap is such that it can be readily cleaned.

A mail bag catcher has been patented by Mr. Jarrett M. Keith, of Greenville, S. C. The invention is designed to facilitate the adjustment or reversal of the hook, according to the direction in which the

train may be moving, the hook being rendered movable bodily from side to side of the door opening, with other novel features.

A saw swage has been patented by Mr. James H. Miner, of Baton Rouge, La. Combined with the body portion is a steadying pin having a forked end, a screw threaded shank fitting in a screw-threaded socket of the body portion, providing means for swaging teeth of varied thickness, and operating upon the teeth at any point in their width.

A grape seed extractor has been patented by Sarah E. Toucey, of New York City. It has a flatpick with a sharpened point on its end in line with the handle and a groove in its top face, a cutting blade projecting laterally from the pick, and its point forking out therefrom a short distance within the point of the pick.

A composition for softening and renovating leather has been patented by Mr. Leopold C. Dewillers, of Brooklyn, N. Y. It is for preserving and softening all varieties of leather, especially black kids, and consists of soft water, salts of sorrel, castile soap free from potash, oil and ammonia, combined and applied in a manner described.

An elliptic spring has been patented by Mr. James R. Fletcher, of Clarksville, Iowa. It is for use in vehicles, and consists of inner and outer leaves, with means for connecting the ends of the inner leaves, and for spacing the leaves, whereby friction between the parts is reduced and liability to breakage is lessened.

A heater for cars and buildings has been patented by Mr. Thomas McCrossan, of Winnipeg, Manitoba, Canada. The fire box is of cast iron, inclosed by a shell of steel or wrought iron, making an air space, and the draught is supplied through a hollow door, the slides for controlling the draught serving also as a means for fastening the door.

An electric alarm for ships' compasses has been patented by Mr. Augustus Gross, of Newcastle, New South Wales. A bell or bells is so placed in electrical connection that upon any deviation of the vessel from its established course an alarm is sounded to give notice of such deviation, the invention covering a novel construction, combination, and arrangement of parts.

A running gear for vehicles has been patented by Mr. Elijah Hickman, of Red Bluff, Cal. It provides a means whereby the bed of the vehicle may readily move sideways without causing the weight to depress one side more than the other, while the bolster of the hind axle will have a yielding or vibrating action if the wheels come in contact with an obstacle.

A saw guide has been patented by Mr. John O. Morrow, of Thomas Mills, Tenn. The guiding arms are so arranged that they may be reversed to be used on right or left hand mills, while the outer arm may be turned to a position to permit of the removal of the saw from its arbor, a proper adjustment of the several parts of the guide being provided for.

A churn has been patented by Mr. William Bechtold, of New York City. A cream receptacle something like an ordinary glass jar is preferred, which is secured upon a carrier of peculiar construction, when a crank is rapidly manipulated, which reciprocates the carrier, and imparts a quick, churn-like motion to the cream, bringing butter in a few minutes.

A two wheeled vehicle has been patented by Mr. William Lawless, of Ottawa, Ill. The shaft bars carry a cross beam on which is held a spring supporting the outer ends of the seat bars, which are pivoted at their inner ends on the shaft bars, whereby the seat can be conveniently adjusted to suit the driver.

A dough kneading machine has been patented by Mr. Bryant H. Melendy, of Battle Creek, Mich. It has a roller journaled in a frame open at top and bottom, a partition held in the frame in front of the roller, and a plate adjustably secured to the partition and having its lower end projecting below it, for kneading dough for all kinds of bread, crackers, pastry, etc.

A feathering paddle wheel has been patented by Mr. Amos H. Carpenter, of West Waterford, Vt. This invention relates to feathering blade wheels in which transverse rock shafts on the main shaft each carry counter blades thrown alternately into and out of action by cams operating the blades in their rotation, to render wheels of this character peculiarly adaptable as propellers.

A slatted blind has been patented by Mr. John A. Sherington, of New York City. The frame has a recessed moulding in which is a fixed plate having a series of apertures, collars adapted to turn the slats having their bearings in the slots of the fixed plate, angle arms entering the recesses of the moulding and a rod being pivotally connected thereto, for conveniently opening and closing the blinds.

A filter has been patented by Mr. Marshall McDonald, of Washington, D. C. The invention proceeds on the plan of filtering only a portion of the water that enters its case, the rest of the water being used in connection with a body of sand for scouring or cleansing the filtering surface, the filter thus automatically cleaning itself, and eliminating from a portion of the water all sedimentary matter.

A detachable shelf and heat regulator for ovens has been patented by Mr. Oscar F. Frost, of Monmouth, Me. It consists of a horizontal rectangular frame to rest on the slide supports of a baking oven, in connection with counterbalanced shutters pivoted within the frame and a sliding bar placed edgewise under the shutters, with other novel features, whereby the heat may be regulated at will in the oven.

A wire cloth holder has been patented by Mr. William A. Tea, of Clyde, Ohio. A roller is journaled in brackets projecting from a supporting frame, there being a pivoted and spring pressed bar above the roller, outwardly projecting arms secured thereto, and a roller removably held in the outer ends of the arms, whereby rolls of wire cloth may be compactly arranged and any number of yards easily measured off.

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