ENGINEERING INVENTIONS.

A feed water regulator has been patented by Mr. Frederick E. Smith, of South Boston, Mass. This invention covers a novel construction and arrangement of parts, designed to provide a single apparatus of simple and inexpensive construction, which will act automatically to maintain the water in the boiler at a given height.

A wheel fastening device for car axles has been patented by Mr. Andrew J. Spicer, of Portland, Oregon. This invention provides a means of attaching car wheels to their axles in such manner that the two wheels carried by an axle will be able to revolve independently, and if necessary in opposite directions, thus avoiding undue wear and tear upon the tread of the wheel when the vebicle is passing about a curve.

+++ AGRICULTURAL INVENTION.

A corn crib rat trap has been patented by Mr. William R. Parker, of Muddy Creek Forks, Pa. This invention covers a novel construction and combination of parts in a trap especially designed for use in connection with corn cribs, the trap being also adapted for use in the house or barn.

MISCELLANEOUS INVENTIONS.

A holdback has been patented by Mr. William Corcoran, of Copenhagen, N. Y. This invention provides a means of detachably securing the holdback strap in connection with the shafts, whereby, should the traces become loose on the whiffletree, the shafts will not become entangled with the harness.

A corn husker has been patented by Mr. Herbert S. Blair, of Bucyrus, Ohio. This invention relates to hand huskers or husking pins, in which the implement is held on the hand by a strap, and consists in combining with the husking pin or tool a flexible loop-like strap of novel construction.

A thill coupling has been patented by Mr. William M. Spicer, of Wellsville, N. Y. Combined with a pin having a stud projecting from one side, is a spring attached to the axie and having an eye for receiving the stud of the pin, making a coupling which will remain in place ir the thill irons without rattling.

A suspender buckle has been patent ed by Mr. Charles F. Walters, of Prospect, N. Y. It consists of a single piece of wire bent upon itself, forming front and back members, making a buckle easily adjusted up and down on the web of the suspender while connecting very firmly and securely the straps to the web.

A fountain pen has been patented by Fred A. Robinson and Amy I. Smith, of New York City. This invention relates to that class of fountain pens which employ a nib pen, and consists principally in such construction of the pen that it is adapted to have a longitudinal movement which is utilized for feeding the ink to the pen.

A spring hinge has been patented by Mr. Henry F. Keil, of New York City. This invention relates to a spring butt, and provides a construction whereby the tension of the spring may be regulated by the manipulation of one tip, the spring being completely concealed and the device having the outward appear ance of an ordinary butt.

A composition for sidewalks has been patented by Mr. Louis N. Beauchemin, of Hancock, Mich. It is made of coal tar, black pitch, resin, slab tar, pulverized limestone, copper moulding stamp sand, and other ingredients, mixed in specified propor tions to a mortar-like mass, and laid on a proper foundation with the aid of a heated roller.

A game counter has been patented by Mr. Ferdinand King, of New York City. It consists of 11. a disk upon which hands are pivoted to move independently of each other in the segment of a circle, making a simple device, capable of being carried upon the person, upon which the tally of points made in any game by two or more persons may be kept separately.

A gate latch has been patented by Mr. George W. Charleville, of McKinney, Texas. A ring or rings are loosely suspended in a case, with a lever or levers for operating the rings, while the case has side plates formed to constitute guides for the rings and prevent them from sidewise rocking or play, making a latch especially designed for use on gate barns, and the like.

A wire joint has been patented by Mr. William A. Reddick, of Niles, Mich. It is formed by cutting away one side of the end of the wire, bend ing the reduced portion around another section, with the flat face of the cut part next to the wire grasped, and connecting the parts by tinning, such joint being especially serviceable in making skeleton frames for various purposes.

A hydraulic lift has been patented by Mr. Thomas P. Ford, of London, England. This in vention relates to the valve gear for controlling the admission of water to the main cylinder, and its circulation from one end of the cylinder to the other, enabling plug or slide valves to be used, while preventing leak age from grit interfering with the proper seating of the valves A sea-quieting apparatus has been patented by Mr. Jens F. O. Larsen, of Copenhagen, Denmark. It is a compressible oil distributer made of a flexible pervious bag open at both ends, with rigid apertured covers and devices for closing the openings, an oil absorbent material filling the bag, out of which the oil is forced by the compression of the bag by the force of the waves An automatic temperature regulator has been patented by Mr. James W. Brook, of Lynchburg, Va. It is designed to automatically stop the flow of water, or open or close a window or ventilator. the device covering a novel construction and combination of parts in an apparatus having a longitudinally contractible and expansible rod, according to the variations of the temperature.

A screw driver has been patented by Messrs. George E. Gay and John H. Parsons, of Augusta, Me. It is an improved form of round-bladed screw drivers, in which the blade is secured in the handle by having its upper end driven into the wood, the upper end of the blade being so formed that by simply forcing it into the handle the screw driver is completed, without any other device to connect the blade and handle.

A wagon pole attachment has been patented by Mr. George F. Colby, of Shelby, Iowa. It is for preventing the neck yoke from coming off the pole, and consists of a longitudinally slotted and apertured tube provided with downwardly projecting lugs at each end, a spring being secured to the tube and provided with a pin engaging the aperture, the attachment being easily put on and taken off, and adapted to fit different sized poles.

A gear power for presses has been patented by Mr. Peter D. Roquemore, of De Berry, Texas. This invention covers improvements in mechanism for operating baling presses, the driving gear comprising shafts geared together at one end, with loose pinions at or near the other ends, and an intermediate fixed pinion upon a third power transmitting shaft, admitting of running either right or left, packing the bale up or lown, and running at any rate of speed

An electric regulator forms the subject of two patents issued to Messrs. Joseph A. Vansant and Frank S. Anderson, of Easton, Md. The construction is such that the normal circuit may be broken at will and the current caused to diverge and pass through a powdered material whose low conductivity is increased or diminished by compressing it more or less, thereby increasing or diminishing the strength of the current, the powdered substance employed being preferably mineral wool and carbon, one or more cells or receptacles containing the powder, and the invention providing means for compressing the powder as required.

SCIENTIFIC AMERICAN BUILDING EDITION.

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