

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

ELECTRIC RAIL.—L. STEINBERGER, New York, N. Y. Among the several improvements in this case Mr. Steinberger provides a system for heating the rail, thereby keeping it clear of snow and ice; renders the heating mechanism readily accessible without incurring danger on the part of operators; provides thorough insulation between the rail and its support; renders different parts of support detachable, so that the same may be taken asunder without much interruption in traffic; concentrates the heat as nearly as possible to contact-surface of the rail; confines and retains heat near contact-surface and prevents its absorption by the body portion of the rail-supports; and provides an inclosed chamber within the rail, to prevent radiation of heat except toward the contact-surface of the rail.

INSULATOR-PIN.—L. STEINBERGER, New York, N. Y. The more particular objects of this invention are to so improve the insulation as to lessen the tendency under wet-weather conditions of a high-voltage current to arc over the surface of an insulator or its support or partly over the surface of an insulator and partly through the air from the conductor to the ground or to the support for the insulator, if this support be grounded. He also seeks to preserve the insulating device and its accompanying parts from deleterious weather action and to enable it to be used for supporting insulators or for supporting a conductor directly.

ILLUMINATING DEVICE.—A. RICHTER, New York, N. Y. The invention has reference to an illuminating device intended especially for use in connection with incandescent electric lights, but useful with other lights, if desired. It resides in certain novel features of construction and arrangement of parts, involving a rotating light by means of which the rays are projected rapidly in all directions.

Of Interest to Farmers.

HORSE-HOE.—E. A. HARVEY, Hillsboro Bridge, N. H. In this patent the purpose of the invention is the provision of a construction of horse-hoe whereby the wings can be opened and closed more expeditiously and conveniently than heretofore and wherein the adjustment of the wings can be readily made while the hoe is in operation.

HAY-PRESS.—C. COTHAM, Monticello, Ark. The invention relates to presses of the toggle-plunger type, and has for its object not only to provide a press of this character having new and improved means whereby the plunger may be operated, but also to simplify and improve the press-box, feed-door construction, and frame.

CULTIVATOR.—E. B. WINTERS, Coffeyville, Kan. The purpose of the invention is to provide a simple implement having disk cutters which can be operated either by pushing or pulling and to provide such means for adjustment of the cutters that the implement may be quickly and conveniently adapted for the cultivation of plants on a reach of level ground or in a hollow and whereby further adjustment may be made to adapt it to wide or narrow rows. It relates to hand or garden cultivators.

PORTABLE FENCE-POST.—W. R. HARRIS, Pelican, La. Mr. Harris has produced a portable fence-post and base therefor possessing advantageous features of construction and organization, and the entire structure is readily portable besides being strong, durable, and capable of withstanding strains. Members of the post can be separated from each other for any purpose, and the materials employed in constructing either post or base may be such as may be found to be best suited therefor in different localities.

Of General Interest.

OILER.—W. L. HOWLAND, Monmouth, Ill. Mr. Howland's invention relates to oiling apparatus, and more particularly to cans provided with a force-feed. The arrangement of the valve for ready cleaning, the means used for introducing the nozzle into otherwise inaccessible places, the retention of oil within the delivery-tube until the pressure generated by the piston raises the valve and forces out the oil, and the effective venting of the can, are among the advantages of this efficient device.

COKE-PULLER.—H. F. PEARSON, Redstone, Col. This apparatus is especially adapted for use in pulling coke from the ovens and loading it upon wharves or cars. The objects of the invention are to improve the construction of the device, to render it universally adjustable, so that the material may be reached at all points and from all directions, to make it easily operable by a single attendant, and to make it efficient and certain in operation.

METHOD OF REVIVIFYING SPENT CLAYS.—A. B. LATTING, Memphis, Tenn. In this patent the improvement has reference to a method for revivifying spent clays—such, for instance, as fuller's earth and other mineral substances used for purposes of absorbing grease, cleansing garments, and the like. By the means employed by this inventor the process is rendered virtually continuous.

BLANKET-PROTECTING DEVICE.—T. T. CHALONER and G. H. CHIPCHASE, New York, N. Y. The invention has reference to improvements in devices for preventing a horse from biting and tearing his blanket or clothing while

in a stall and also serves as a means for preventing a vicious horse from turning his head laterally to injure with his teeth a person who may be leading him.

HARNESS-SADDLE.—G. McMULLIN, Elk Rapids, Mich. The invention is an improvement in flexible harness-saddles. A feature is the construction and attachment of a check-line fastening or loop. Another, the construction and attachment of leather terrets. The saddle is particularly adapted for use as a coach-pad or gig-saddle. This saddle can be made for track-harness, light driving-harness, and express-harness. A similar saddle can be made for double harness, dispensing with the sliding bearing-strap.

SAND-DRIVER.—W. KING, Cedar Rapids, Iowa. The principal objects of the invention are to provide means for the effective separation of sand from coarser materials mingled therewith, for drying both the fine and coarser materials, and for separating the former from the latter. Further objects are to provide means for permitting steam or any volatile matters to escape from the material operated upon, for slowly feeding the material over a drying-surface, and for effectively supporting the apparatus and applying heat in an economical and efficient manner.

BOILER-TUBE FASTENER.—A. J. ERVIN and J. R. WALKER, South Cumberland, Md. With this fastening it is unnecessary to make any change in the tube-sheets as ordinarily arranged, and the same tubes may also be used, only, furnish the separate nipple. Flues are made ready to install and necessity for rolling ends cold, is eliminated. Each tube acts as a stay, drawing the opposite sheets toward one another and preventing loosening of tubes. When these tubes are used as flues, means provide for avoiding undue expansion and contraction. Either end of the flue may be removed separately without interfering with the other parts.

FOLDING BOX.—C. B. RUTLEDGE, Tullahoma, Tenn. This invention relates to folding boxes, popularly called "knocked-down" boxes. It is intended to be especially useful as a receptacle for articles of any kind and is capable of being folded up into a compact body, which can be quickly opened out into the form of a box. The box should be especially useful for grocers, druggists, or confectioners for various purposes.

OIL-CAN.—T. B. WILKINSON, Rivera, Cal. The object in this improvement is to provide a novel construction whereby the fluid contents of the can may be forcibly ejected through the spout by a pumping action. To discharge oil the operator grasps the handle of the can and the pull-bar will press the latter up against the handle, and will eject the oil by the action of the piston through the connecting rod and spout.

SELF-MEASURING CORK.—E. S. RAYMOND and W. W. FRASER, Denver, Col. The invention relates to measuring stoppers or corks for bottles or like vessels, and the object had in view is a device of that character affording in itself the ready measuring of medicine in tea, dessert, or table spoonful. It is particularly useful to persons traveling on cars, as the jolting or vibrations thereof render it extremely difficult, if not impossible, to measure medicine with a spoon.

HAND-OPERATED PUMP.—W. H. JORDAN, Hays, Kan. The object of this invention is to provide novel features of construction for a hand-operated pump which adapt it for very convenient and effective service as an instrument for the abstraction of pus or extravasated blood from a wound, boil, or ulcer on the human body. It may be constructed in a very compact form so as to be small and light.

LAUNDRY DAMPENING APPARATUS.—H. M. FORBES, Portage, Wis. This apparatus is intended for use in applying steam or vapor to starched goods along the lines of fold in order that they may be folded without difficulty or any danger of breaking or unduly straining the fabric or fibers thereof. The invention is more particularly an improvement upon the portable hand-tool for which Letters Patent of the United States were formerly granted to Mr. Forbes.

FURNACE-FRONT.—J. BISHOP, Bartow, Fla. The invention relates to furnace-fronts; and its object is to improve the construction of this part, to increase durability, and render the fire-bed more accessible. A further object is to improve the construction of water-jacketed doors used in furnace construction. Among the many advantages, the horizontal-arch construction facilitates the care of the fire; and a certain fire-door is water-jacketed, preventing the door from becoming highly heated and warping out of shape.

MAIL-BOX.—W. O. DRESSER, Cripplecreek, Col. This box is intended for use for street and rural delivery of mail-matter. The invention provides a novel construction of box made of metal and suitably constructed of the different plates secured together. A plate may be provided in front to receive name and number. The drop-lid can be thrown open and will remain so while letters are being placed in the box. If desired it may be cast in aluminum for attachment to office-doors, club-rooms, rooming-houses, etc.

SQUARE.—D. B. LYNCH, Reno, Nev. The improvement pertains to squares, and has for its principal object the provision of such a tool by the aid of which a number of operations may be conveniently performed. In this device

the handle and blade may be provided with the usual scales upon both sides, and in the handle is an opening for hanging the tool. Near the center of the handle an opening is formed to receive the level.

Machines and Mechanical Devices.

AUTOMATIC DAMPER AND VALVE REGULATOR.—C. E. SANFORD, Oswego, N. Y. This device admits of general use, but is of peculiar value in cases where the mechanism is desired to be simple and reliable, and more particularly where the apparatus is provided with electric circuits in which it is desirable to prevent the circuits from being closed by any means so as to remain closed, battery energy being thus conserved.

TREADLE-HAMMER.—C. M. NIELSEN, 3 Blaagaardsstræde, Roskilde, Denmark. In this improvement the rear end of the hammer-arm is secured to a plate spring, the lower end of which is connected through the medium of rods, and a system of similar springs pivotally mounted in the underframing to another spring is in turn coupled by a strap fitted with an adjusting-screw to a further spring movably connected at both ends to the underframing, so that the last-named springs can be brought nearer to or farther away from each other by means of the adjusting-screw, whereby the hammer can be raised to greater or less extent, according to the blow to be delivered, by depressing the treadle.

ORE-CONCENTRATOR.—M. R. LYLE, Oakland, Cal. This invention concerns itself especially with the construction of a concentrator or dry washer. The object of the inventor is to produce a device which is simple in construction and which subjects the ore-bearing gravel or earth to a succession of separations by gravitation. Means are provided for agitating the device during the concentration process.

REGISTERING DEVICE FOR PRINTING-MACHINES.—W. H. WALDRON, New Brunswick, N. J. The invention relates more particularly to such wall-paper-printing machines in which the paper is run two or more times through the machine for successive impressions. The object is to provide a registering device for multicolor-printing machines, arranged to permit a quick, convenient, and easy adjustment of the printing-rolls relative to the impression-cylinder to secure an accurate registering of the printing-rolls with a previous impression on the paper.

VOTING-MACHINE.—J. P. PAYNTER, Topeka, Kan. Among the several objects of the inventor are, first, to prevent fraudulent voting by providing certain safeguards of a mechanical nature; second, to protect the voter from espionage while giving him unrestricted choice as to candidates and parties; third, to provide certain improvements in construction and operation whereby the general purposes of a voting-machine are carried out more efficiently. The mechanisms provided are automatic.

WHEELBARROW-BEARING.—J. STANLEY, New York, N. Y. The object of the invention is to provide a bearing for wheelbarrows, hand-trucks, and other wheeled vehicles, easy to apply, and arranged to produce an equal distribution of the load on both ends of the axle, to reinforce the forward ends of the frame-beams, to insure an easy running of the wheel, and to prevent the latter from falling out or being forced out of position.

DERRICK.—E. A. SOHN, Bedford, Ind. The inventor's object is to provide an apparatus in which the source of motive power, the drums, and all of the gearing are connected with the derrick as an integral part, and all arranged to turn with the boom and mast, producing thereby a self-contained derrick and avoiding the usual practice of leading the boom and fall lines from the derrick to a power-house located at some more or less distant point from the derrick.

BRAIDING-MACHINE CARRIER.—R. HANTUSCH, New York, N. Y. The object of this improvement is to provide a carrier having an adjustable racer-base to allow of readily and accurately fitting the base on a race-plate of any desired thickness to allow of taking up wear and to permit of conveniently and cheaply renewing the base in case the same is completely worn out. A further object is to allow convenient removal of the yarn-guide for repairs or other purposes.

Prime Movers and Their Accessories.

ROTARY ENGINE.—H. M. LOFTON, Atlanta, Ga. This invention relates to a type of rotary engine in which the rotary piston has radially sliding blades adapted to be projected beyond the periphery of the piston during a portion of the revolution. A piston of this character is employed in connection with a casing of generally oblong form. The inventor provides an interior surface of the casing on certain curves of his own devising which he finds to give improved results in securing smooth and easy operation of the engine free from pounding. The engine also has various other improvements including a new arrangement of the ports, designed to balance the pressure against the blades during a portion of their travel.

Railways and Their Accessories.

SWITCH.—J. C. SCARGLE, Philadelphia, Pa. The design in this case is to automatically op-

erate the switch by a passing car or train. The inventor's principal object is to provide means for efficiently operating the switch in a simple manner without greatly increasing the cost of the equipment, and also to improve the form of the switch itself. It is applicable to steam, electric, and in fact, all other forms of railways.

CAR-JOURNAL BOX.—A. V. PEPPIARD, San Luis Potosi, Mexico. The object of this invention is to provide simple novel details of construction for a car journal-box which will permit the use therein of the standard brass and facilitate the free removal of a worn-out or split brass without excessive loss of time be merely raising the box sufficiently to remove the bearing-weight from the brass that is to be displaced, and thus enable the insertion of a new one.

RAILROAD-TIE.—J. L. CATLETT, Vincennes, Ind. Mr. Catlett's invention is an improvement in steel cross-ties. In his construction the ties are laid along the road-bed, the rails laid thereon and secured in place. No gaging is required, since the ties themselves gage the rails, and as the ties are of uniform size no blocking is required. When properly ballasted, the ties are immovable and traffic tends to fix them more securely. The track is more easily kept in shape and the rail will be free from depressions due to imperfect ties.

APPARATUS FOR LAYING AND TAKING UP RAILWAYS.—G. I. RITCHIE, Crossett, Ark. Mr. Ritchie's invention relates to an apparatus for laying down and taking up railways which is adapted particularly for use in connection with temporary roads, such as those which are constructed in lumber districts. In this industry rail or tramways are frequently laid through forests, and when the supply of timber along the road is exhausted the road is taken up and relaid, these operations frequently recurring and involving considerable expense. The object is to provide a practical means for doing this work quicker and at less expenditure. By his arrangement he is enabled with great facility either to take up or lay down a railway, dispensing with all hand-labor excepting in bolting up or unbolting fish-plates to connect or disconnect track-sections.

RAIL.—H. HERDEN, Wellsboro, S. E. FITCH, and J. H. BURGOYNE, JR., Galeton, Pa. In this patent the invention relates to certain improvements in rails, especially those for use upon railway-tracks, and includes a method of constructing a railway-track with such rails. The principal objects of the invention are to provide for more rapidly and conveniently laying rails and for more efficiently securing them in position upon the track and to each other.

RAILWAY-RAIL JOINT.—J. T. EVANS, New York, N. Y. In this instance the invention has reference to improvements in joints for railway-rails—the inventor's object being to provide a joint of novel construction that may be readily placed in position and secured without the employment of bolts as ordinarily used with fish-plate joints.

Pertaining to Recreation.

GAME APPARATUS.—W. J. HAMILTON, Franklin, Pa. The purpose here is to provide an exceedingly interesting and amusing game and one that will tax the patience of the player, in the playing of which it is required to transfer marbles or other rolling objects from a tunnel or subway to a plane surface above it, which surface is provided with openings communicating with the tunnel, the transfer to be made by shaking the device until all have passed through one at a time, it being required to keep the extracted objects upon the plane until all objects have been landed.

Pertaining to Vehicles.

COMBINATION BED AND CARRIAGE FOR CHILDREN.—S. D. CARMICHAEL, Tama, Iowa. This contrivance may be readily taken apart and folded together, either for storage or transportation of the structure, and again assembled in position for use. It affords the maximum of comfort to the occupant and may be converted into either a carolee or a bassinet when desired, and possesses all of the advantages of the indoor uses for which the latter are usually employed. It is comparatively cheap to manufacture.

BREECHING.—C. A. ACKENHAUSEN, Leavenworth, Kan. The object here is to provide a leather breeching for harness which will more effectively resist the destructive strains to which the breeching is necessarily subjected and which will also enable the breeching to be constructed more easily and cheaply than heretofore. The end is attained by forming the body and stays of the breeching of an integral section of leather, to which the holdback and hip straps are attached by rings or buckles.

VEHICLE-WHEEL.—G. I. GLASER, New York, N. Y., and J. OLSEN, Jersey City, N. J. The purpose of this invention is to provide a wheel which contains in its inner circumference, not in contact with the roadway, an elastic or pneumatic cushion which takes up and diminishes any shock or jar upon the axle as the result of the wheel rolling over uneven roadway and which contains a mechanical contrivance constructed so that the driving-hub may be instantly displaced from its center when at rest and will as quickly recover its normal center, or, in other words, the hub may assume eccentric centers to which it may be pressed by shock or jar and will instantly and automatically resume normal center.

