

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

TROLLEY.—G. H. TUTTLE, Shorter, Ala. In this case the invention relates to improvements in trolleys for engaging with overhead wires of electrically-operated railway-cars, the object being to provide a trolley of simple and novel construction that may be readily engaged with a trolley-wire or removed therefrom and that when in connection with a wire will be secured from accidental displacement.

ELECTROMAGNETIC TRACTION DEVICE.—G. W. THOMPSON, Melrose, Mass. In its simplest form Mr. Thompson's invention consists of means for producing a magnetic pull at a point upon the periphery of a wheel of ferruginous material at the place of contact between that wheel and another wheel engaged thereby. He seeks to give the magnetic pole its greatest intensity at the point where the contact takes place between the wheels. The invention is of peculiar value in any machine where the desired change in speed rotation is greatest on account of economy of space and absence of added friction upon bearings—as when belts are used.

SHEATH FOR TROLLEY-WHEELS.—S. JURADO, New York, N. Y. One purpose of the inventor is to provide a sheath and a pivotal support on the sheath, through which support the bearings of the trolley-wheel extend. Another, is to provide springs at opposite sides of the support, connected with the sheath, whereby the wheel is held normally in longitudinal alignment with the sheath and whereby the springs will permit the wheel to move to right or left, as direction of the trolley-wire may demand, the springs acting automatically to restore the wheel to normal position in longitudinal alignment with the sheath as soon as a straight stretch of wire is reached.

Of Interest to Farmers.

HAY-SLING.—C. R. SCHULTZ, Poynette, Wis. The aim of this improvement is to provide a sling which may be easily and quickly dismembered, so that the contents of the sling may be dumped whenever and wherever desired. A further aim is to so construct the device that it may be expeditiously handled and so that all the parts may be quickly assembled for use.

COTTON-CHOPPER.—T. J. LOWRY, Mount Airy, N. C. This invention relates to machines used for the cultivation of cotton-plants and removal of weeds from rows of growing cotton or other plants, and has for its object to provide novel details of construction for a machine of the character indicated that afford a conveniently-operated device which may be altered in adjustment quickly to put it into or out of service, while the machine is being progressively moved and also to change the depth of the cultivator-blades in the soil to suit the needs of the service.

COTTON-PICKING MACHINE.—J. C. GROVES, Selma, Ala. The improvement has reference more especially to pickers or harvesters which are both hand-supported and hand-operated; and one of the principal objects thereof is to overcome numerous objections common to many contrivances devised for similar purposes. A further object is to provide a machine comprising few parts and one easily operated to pick or harvest cotton without injury to the unopened bolls on the standing plants in the field.

Of General Interest.

BRIDLE-STRAP FOR UPRIGHT-PIANO ACTIONS.—J. AMMON, New York, N. Y. Bridle-straps as heretofore used were usually made of a piece of tape reinforced at one end by a piece of leather, and the reinforced portion was provided with an aperture for engagement with the point of the bridle-wire. The leather of the reinforced portion in time became hard and brittle, and hence readily broke at the apertures and weak portion. With this improvement the defect is overcome and a durable non-apertured strap is produced which can be readily fastened in position on the bridle-wire.

APPARATUS FOR TREATING WOOL-WASH WATERS.—G. E. BEHRENS, Ivoryton, Conn., and G. TAYLOR, New York, N. Y. The improvement of these inventors relates to an apparatus for treating waters or "suds" obtained in the scouring operation of wool for the purpose of eliminating grease or fat, dirt, and other impurities. One object is to provide a form of apparatus wherein the refuse-laden liquid from wool-scouring machines may be treated by proper chemical agents in an economical and relatively expeditious manner for the purpose of filtering the impurities from the water and for separating fats and grease from dirt or other refuse.

OIL-PAINT.—M. HERISSON, 8 Rue du Sentier, Paris, France. In this instance the invention has relation to improvements in the manufacture of oil-colors, more particularly in view of obtaining a white color or paint which is unalterable in air and in water, salubrious to use, covering well the surfaces of a smooth aspect, mixing with any and every color without changing the tints, and doing away with minimum for painting on iron.

SLIDING-DOOR HANGER.—G. VOGT and J. MILLER, Covington, Ky. The Messrs. Vogt and Miller invention is an improvement in

sliding-door hangers or supports, and especially in the devices for holding the door of the car, the invention having for an object among others to provide a novel construction in the form of a support for the lower end of the door adapted to slide on the rail at the base of the doorway of the car.

WATERPROOFING AND PROCESS OF MAKING SAME.—H. PASCHKE, New York, N. Y. The prime object of this invention is to provide a system by which tunnel-walls may be rendered thoroughly waterproof without use of heat generated in any manner. To this end a waterproof covering is provided formed of sheets of fabric or the like saturated and coated with waterproof substance and united in a cold state by causing the waterproof substance of all the sheets to amalgamate into homogeneous mass by applying a cold solvent to the waterproof substance with which the sheets are coated. This solvent is combined with the basic element of the waterproof substance with which the sheets are saturated, so as to control the solvent and insure its proper action without employment of heat.

SHOE-LACE.—G. H. NICHOLLS, Galveston, Texas. The object of this invention is to provide an improvement in shoe-laces, such as ordinarily tied and fastened in bow-knots. Much annoyance is commonly experienced by wearers of shoes provided with this form of lace by the knots tending to become loose and untie in consequence of the friction of the bows of the knots with the edges of skirts or trousers. Mr. Nicholls has devised a lace which may be quickly tied and so securely that it cannot be loosened accidentally.

SUPPORT FOR PICTURE-FRAMES, ETC.—J. MOHLBERG, New York, N. Y. It is the purpose of this inventor to provide a support for picture-frames and similar articles arranged to allow of moving the supporting member into an active position for supporting the article upright on a table, shelf, floor, or other surface and to permit of conveniently swinging the supporting member into an inactive folded-up position for shipping the picture-frame in compact form.

FOLDING BOX.—J. R. MEDLEY, Atlanta, Ga. Mr. Medley's invention relates to collapsible pasteboard boxes, such as are used by milliners and other persons for holding ladies' hats and other articles of merchandise. The object is to provide a box arranged to fold up flat for convenient storage and shipping and to allow the user to readily extend or set up the box for filling the same with articles of merchandise.

HEATING COMPOSITION.—E. KAFKA, New York, N. Y. This invention relates to the retention of heat and emitting it for long periods. The inventor has discovered that by the use of a composition of two or more of certain crystalline salts a great increase in utility and effectiveness is produced, a higher temperature can be reached, the heat may be retained for much longer periods, at the same time much smaller amounts of material are required and other advantages will result. If a receptacle be provided with such a composition and heated until all ingredients are melted, a source of heat is obtained which remains at gradually-lowering temperature until they are recrystallized.

CLAMPING DEVICE.—A. J. WEED, New York, N. Y. The objects of this invention are to clamp flat plates or other articles firmly in position relative to each other, to permit turning them to present different edges to the operating position without danger of slipping, to hold them in any number of predetermined positions, and at the same time to provide a gage for use when anything is to be applied to the articles operated upon.

Hardware and Tools.

NAIL-PULLER.—H. L. FISH, Eau Claire, Wis. In operation when the parts are in full-line position the operator clamping the handle at the top of the main bar may push said bar to bring the parts to a position when the claw proper will engage with the head of the nail. He may now pull back on the upper end of the bar, bringing it into contact with a stop to tip the claw and its carrier to the position for drawing the nail. The bar projects below pivotal connection with the carrier, so that the lower end of the bar may be crowded against the box in forcing the claw into engagement with the head of the nail.

Household Utilities.

WASH-BOILER.—J. E. FAUCETT, Kenmare, N. D. In the use of this apparatus the clothes are placed in a vessel and the latter lowered in the water of the tank. To remove the clothes from the tank, the vessel should be elevated sufficiently and secured for draining purposes. When the clothes are drained, the suspending-chains may be wound on the shaft, elevating the vessel, the latter being adjusted as just described, with its chains wound on the shaft. The shaft may be utilized as a handle adapted to be grasped, and thereby facilitate handling of the vessel with hot wet clothes contained therein. When the boiler is not in use, the standards may be compactly folded within the tank and its cover arranged in place.

MATCH-BOX HOLDER.—O. C. LUTHER, 24 Grafton Street, Brockton, Mass. It is the ob-

ject of this inventor's improvement to provide a match-box holder more especially designed to receive and hold a box of parlor, safety, or other matches in such a manner as to project the matches beyond the box for convenient withdrawal by the user and to utilize the drawer of the box of matches as a receptacle for the burned matches. The device can be cheaply manufactured.

DIVAN FOLDING BED.—W. THOMPSON, New York, N. Y. The invention refers to folding beds, the more particular object being to produce such a bed suitable for use as a divan, and in which no particular crowding of the mattress occurs when the same is folded. It is not necessary, therefore, to use a so-called "broken-back" mattress, as a high-grade mattress of ordinary construction may be employed without any special effort being necessary to bend it in the middle. All parts of the device are maintained in symmetrical relation and this prevents one part of the mattress from being depressed relatively to another part thereof when the mattress is folded.

Machines and Mechanical Devices.

FURNACE FOR ROASTING ORES, ETC.—W. W. TOBEY, Iola, Kan. Mr. Tobey's invention has reference to kilns for roasting ores and the like, and relates to that type of kilns in which the furnace proper is divided into two parts for the purpose of allowing rakes or agitators to pass longitudinally through the furnace.

LADLE MECHANISM.—J. C. MCCOY, Metuchen, N. J. Among other objects this inventor attains: First, a provision for adjusting the ladle so as to maintain the same approximately level, thus facilitating the casting of copper as rapidly as possible when it has attained the proper pitch; second, a saving of time by handling the copper very rapidly; third, pouring the copper from a plurality of spouts at the same time under conditions otherwise offering more or less difficulty.

DREDGE.—J. HENDERSON and H. G. PEAKE, Oroville, Cal. The dredge is adapted for the raising of gold-bearing sands and similar operations. As apparatus of this class is usually operated there is much relative movement or slipping between buckets and supporting-wheels, which causes the coating surfaces to wear quickly and shortens life of the parts. The engagement between the corrugated faces will compel the elements to move together, greatly reducing wear, and what occurs is received by readily-removable plates, replaceable at slight expense. Toothed engagement between buckets and rolls compels the latter to move with the former at same rate and avoids danger of rolls becoming stuck, and thus becoming stationary and wearing the buckets and themselves into flattened sections.

Prime Movers and Their Accessories.

ROTARY ENGINE.—I. F. PARMENTER, Berlin, Mass. In the present patent the invention has reference to rotary engines, Mr. Parmenter's more particular object being the production of a type of reversible engine possessing certain advantages in the distribution of the steam. In carrying this out the inventor has produced a novel mechanism for accomplishing the indicated purpose.

DROP-FEED FOR LUBRICATORS.—E. D. MARVIN, Plains, Pa. The object in this invention is to provide a drop-feed for lubricators, such as are mainly used on locomotives and other places exposed to the inclemency of the weather, the feed being arranged to prevent the sight-feed tube from breaking and to allow a proper viewing of the lubricant-drops.

LOCOMOTIVE-BOILER.—N. L. WARREN, Macon, Ga. In this patent the object of the invention is the provision of a new and improved locomotive-boiler which is simple and durable in construction and arranged to provide a clear space between the fire-box and the wagon-top unobstructed by stays or the like.

WATER-HEATER FOR LOCOMOTIVES.—W. H. RICHMOND, Marquette, Mich. The water mechanism in the front end of the locomotive is heated in three different ways, first, by the exhaust from the air-pipe into the heater; second, by the flames and waste gases, and third, by waste heat radiating from the flue-sheet. In the ordinary locomotive there is considerable waste heat at this point, and the principal purpose of the invention is to prevent this waste of heat, thereby economizing fuel. Another object attained, however, is to enable the boiler to raise steam more quickly and also to slightly enlarge the capacity of the boiler.

Railways and Their Accessories.

WASHER.—H. M. WAITT, Chicago, Ill. Mr. Waitt's invention relates to washers, and particularly to those adapted for use in connection with railroad-track bolts and in similar situations where it is important to provide against the nut slackening off under shocks or vibrations. Its principal objects lie in the provision of a simple and secure device of this character.

BRAKE MECHANISM FOR INCLINED RAILWAYS.—S. E. JACKMAN, New York, N. Y. The object of the present invention is to provide a brake mechanism for inclined or pleasure railways arranged to permit the brake

attendant at the station to conveniently actuate the brake mechanism in the track to brake and stop a car or release the same, at the same time the attendant being enabled to give full attention to passengers to prevent accidents when they leave a car or embark in the car for a journey over the railway. It relates to a former patent granted to Mr. Jackman.

RAILWAY TRACK AND CAR.—S. E. JACKMAN, New York, N. Y. The invention relates to railways, such as switchback or inclined railways used in pleasure-resorts, exhibitions, and the like. The object is to provide a railway track and car arranged to insure the proper travel of the non-flanged car-wheels of the car on flat rails, especially around curves, without producing undue friction and without danger of the car wheels leaving the flat rails.

CAR-STOPPING DEVICE FOR INCLINED RAILWAYS.—S. E. JACKMAN, New York, N. Y. This improvement has reference to inclined or switchback railways, such as are used in pleasure resorts, exhibitions, and like places. The purpose is to provide a car-stopping device for inclined railways, arranged in case one of the cars breaks down or gets out of order or accidentally stops to stop all the cars on the track, thus preventing the cars from running one into the other.

INCLINED RAILWAY.—S. E. JACKMAN, New York, N. Y. Mr. Jackman's invention refers to switchback or pleasure railways of the kind used at pleasure-resorts, exhibitions, and like places. The intention is to provide certain new and useful improvements in inclined railways whereby a car moving in engagement with the endless traveling chain employed for carrying the car to the summit of the track is not liable to be accidentally bumped or jolted and an easy up-start of the car is had.

CABLE-TRAMWAY SUPPORT A N D SHIELD FOR AERIAL RAILWAYS.—C. MESSICK, JR., Hackensack, N. J. One purpose in this case is to provide a shield especially adapted for aerial railways, which is a removable approach-plane, independent of the cable yet resting upon it, and to provide a shield of the above character practicable for long spans and economic with respect to the construction and erection and not tend to lacerate the cable. The detail construction lies in the shield made of two independent parts, one for each direction of the travel of the car; but in the event a track is to be traveled in one direction only the shield is constructed, preferably, in but one part—that is, the part extending toward the approaching car.

SWITCH-OPERATING DEVICE.—W. K. SMITH, Denver, Col. Mr. Smith's invention relates to improvements in devices for shifting switch-tongues on street-railways, an object being to provide a device for this purpose carried by a car and so arranged as to be easily operated by a motorman or driver to shift the switch in either direction while the car is moving. In operation by moving the operating-lever forward the cable will swing the lever in a direction to tilt the frame, carrying the rear wheel or roller downward, so that it will be engaged between the fixed rail and a rib of the shifting-plate, and by moving the lever in the opposite direction the front roller will be moved downward to operating position.

Pertaining to Vehicles.

FRAME FOR MOTOR OR OTHER VEHICLES.—J. DE MONTGOLFIER, 20 Rue des Pyramides, Paris, France. The invention has for its object an improved frame for motor and other vehicles of the same kind. These frames have hitherto been constructed either of reinforced wood or of brazed tubes or of rolled or stamped metal parts. All the component longitudinal or transverse members are assembled one with the other by means of various devices, such as angle-pieces, sockets, lugs, and the like. It permits of dispensing with assemblages of this kind, which tends to increase cost of production, complicate the fitting, and augment the total weight. Mr. Montgolfier attains this by forming the above members by stamping in a single suitably-recessed plate of sheet metal.

DRAFT-EQUALIZER.—J. YOST, Thornville, Ohio. This invention refers to carriages and wagons and concerns itself especially with the draft mechanism. The object is to produce a draft-equalizer of simple construction which will operate effectively at all times, so that the doubletree may accommodate itself to circumstances and distribute the work of hauling between the draft-animals.

Designs.

DESIGN FOR A RECEPTACLE FOR TOBACCO, CIGARS, AND CIGARETTES.—A. Q. WALSH, New York, N. Y. This receptacle for tobacco, cigars, and cigarettes is in the form of a jar of simple and graceful lines, and beautifully ornamented by sprays of leaves with flowers.

DESIGN FOR A FINGER-RING.—I. ROSENBAUM, Mount Vernon, Ind. The design is of a ring open at one side, and ornamented by horseshoes disposed oppositely at the open portions, and presenting an ornamental appearance.

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.