

**M. YEOMANS,**  
N. Y. In this case the object of the inventor is to provide a new and improved hair ribbon pin, more especially designed for use on women's hair to securely hold a hair ribbon, to display the bow thereof to the greatest advantage, and to give the pin a buckle appearance.

**Electrical Devices.**

**PROCESS FOR OXIDIZING ATMOSPHERIC NITROGEN BY ELECTRICITY.**—D. HELBIG, Rome, Italy. This invention consists in employing an electric high-pressure flame arc blown in a special manner by means of air for the purpose of oxidizing atmospheric nitrogen. The quantity of energy which becomes effective every moment, remains practically constant.

**TELEGRAPH-REPEATER.**—E. LONGORIA, Monterey, Mexico. When one side of the repeater is working, vibrations are not produced on the reverse side, because the repeating contacts are arranged in such a manner that long before the first one opens the second is closed. Its work is safe and precise, as the closing of contacts are made through the use of independent springs for each of them, and they have a uniform tension. It works with less local battery than any system, as the force produced by this latter is not used to close the contacts, and to open them the pressure of the natural weight of the arm of the repeater is almost sufficient, and thus the sound is clear and sonorous.

**ELECTRICALLY-OPERATED PRICE-CARD.**—P. L. DIRKING, Spokane, Wash. The invention relates to signs, the more particular object being to produce an electrically-operated price card of simple construction. The effect upon the eye is simply that one legend, together with the light for exhibiting it, disappears, and that the other legend, accompanied by the light for exhibiting it, makes its appearance, the legend thus being presented alternately to the gaze of the observer.

**Of Interest to Farmers.**

**CULTIVATOR.**—A. HELMLINGER, Hanover, Kan. This invention relates more particularly to a form of disk cultivator. The patentee has provided a very simple and light construction of frame and cultivator supporting members which afford a very wide range of various adjustments to position the cultivators to adapt the implement to the particular work in hand.

**STACKER.**—W. T. MCCALL and D. L. ORENDOFF, Manhattan, Kan. The device is for use in the field for elevating and piling up hay or grain into stacks, and primarily for the purpose of stacking grain which has been cut by a header, in which the heads of grain with a small proportion of the straw are received into a box-like receptacle and is elevated to pile the same in suitable stacks.

**Of General Interest.**

**LUNCH-BOX.**—P. J. BIRD, New York, N. Y. The invention refers to improvements more particularly to that type of portable lunch boxes in which separate food drawers or compartments and a separate liquid receptacle are provided, together with means for heating the liquid receptacle, and, if desired, certain of said food compartments.

**FOLDING BOX.**—C. E. WRENSHALL, Owen Sound, Ontario, Canada. In the present patent, the invention is an improvement in folding or knock-down boxes whose sides and ends are hinged together or otherwise so connected as to lie parallel when folded. The box is well adapted for various uses and may be constructed in any size required.

**REVOLVING SIGN.**—M. HEIM, New York, N. Y. This device may be set and kept in motion by very light currents of air. The bearings are constructed to develop no appreciable friction either at first or after the sign has been in use and exposed to the weather for an extended period. The tendency of the sign to revolve is increased by providing each of its heads, or its opposite ends, with outwardly-extending vanes which incidentally add to the ornamental appearance of the sign.

**SOUVENIR.**—E. C. RICHMOND, Tacoma, Wash. The souvenir consists of a body having the opposite side faces inclining inwardly from each end toward the transverse center and having the edges scored to simulate a package of shingles, the representation being further perfected by placing cross-bars at opposite sides of the contracted central portion of the body, joining the adjacent ends of the bars by metallic straps and nailing the overlapping ends of the straps and bars to the body.

**NON-REFILLABLE BOTTLE.**—T. W. LEONARD, Richmond, Va. The construction preserves the appearance of the bottle and strengthens the bottle neck where desired. The bottle can be easily filled and sealed and while the dispensing of the contents can be readily accomplished, the sealing devices being adapted to move from sealing to unsealed position for such purpose.

**SAFETY WATCH-GUARD.**—L. FREEDMAN, New York, N. Y. The invention relates to certain improvements in that type of devices adapted for securing a watch chain or fob to

a watch, and at the same time fastening the watch to the edge of a pocket or other portion of a garment, so that the watch cannot accidentally fall out or be surreptitiously extracted.

**Hardware.**

**CLAMP.**—T. NEWTON and H. JOURDAN, Camden, N. J. The clamp is for leather and other goods, in which a member is provided with a flange at one end and arms to which are pivoted a movable member having a flange which is adapted to engage the flange on the first-named member, there being shoulders on the pivoted member against which a spring presses to hold the pivoted member firmly in an open or closed position, the spring being secured to the first-named member.

**HINGE.**—H. E. HOKE, Hanover, Pa. The inventor's object is to provide a hinge more especially designed for use on either the right or left shutter, and arranged to permit convenient hanging of the shutter; to prevent the shutter from falling off on an upward pull when closing the shutter; and to hold it against accidental closing when in an open position.

**LOCK FOR SLIDING DOORS.**—J. A. BENEDICT, New York, N. Y. The invention comprehends a plate mounted upon a movable door and sunken thereinto, the plate being provided with a pivotally mounted bolt for engaging the plate by entering the recess thereof, the arrangement of the parts being such that the swinging plate may be swung back into a normal position of inactivity or may be temporarily secured relatively to the plate in the movable door member.

**Heating and Lighting.**

**OIL-BURNER.**—W. S. ROBINSON, Fresno, Cal. The invention relates to oil burners adapted for use in cooking stoves, heating stoves, or for any or all other purposes where oil is used as a fuel for generating heat. The special object is to provide means for vaporizing the oil and means for controlling the draft of air to the burner.

**Household Utilities.**

**WINDOW-FIXTURE.**—A. F. GIROUARD, Leominster, and F. A. PERRON, Fitchburg, Mass. The object of the invention is to provide a fixture combining means for supporting or holding a curtain pole, shade roller and blind, the fixture being easily applied to the window casing without the use of nails, screws, or other similar fastening devices.

**BOILER-STAND.**—S. S. STAHL, Connellsville, Pa. The object in this case is to provide an adjustable stand, which may be varied to receive boilers of different diameters, and also varied in height so as to support such boilers at a proper distance from the floor in order to make connections with the heating apparatus.

**COMBINED TABLE AND LAMP-STAND.**—M. F. KOCH and M. KOCH, New York, N. Y. This invention has in view a combined table and lamp stand such as may be easily moved from place to place and support articles accessible from a bed, chair, or other convenient position, the lamp being adjustable over the table to direct the light to any required point.

**CONVERTIBLE BED AND MATTRESS THEREFOR.**—L. B. JEFFCOTT, New York, N. Y. The object here is to provide a bed and mattress, arranged to permit of conveniently converting the bed to form a davenport, a single bed, a double bed, or a couch, the mattress conforming to the changes, thus requiring no separate mattress for the different forms in which the bed is used.

**FOLDING BED.**—L. B. JEFFCOTT, New York, N. Y. The inventor provides a two-unit folding bed or couch, arranged to permit of collapsing one bed unit and passing it under the other bed unit, in such a manner that the mattress, blankets, bed clothes, pillows, and other bedding of the collapsed bed unit remain undisturbed and are accommodated in the space between the extended and the collapsed bed unit.

**FOLDING BED.**—J. RANKO, New York, N. Y. The invention includes a special form of support for the mattress, the support being resiliently carried by the frame. An object is to provide a folding bed frame which when extended forms a comfortable couch or cot, and which can be folded into compact form so that it can be easily moved from place to place, shipped or stored.

**Machines and Mechanical Devices.**

**MOTOR.**—A. P. BARNES and O. SCHMITT, Bolckow, Mo. The aim in this invention is to provide a motor with twin escapement wheels which are engaged by pallets mounted on pallet arms, the arms being pivoted to a rocking head, and being adapted to rest against the peripheries of the escapement wheels so that the pallets will be lifted from recesses in the escapement wheels periodically during the operation of the motor by the contact of the arms with the wheels at increasing distances from the pallets.

**SOUND-REPRODUCER.**—R. B. SMITH, New York, N. Y. Of the many purposes of this invention, one is the provision of means to increase the sensitiveness of the stylus lever as regards its movement toward and from the general position occupied by the diaphragm;

another is to provide means to enable the stylus lever to be played with various records having different types of sound grooves by merely throwing one jewel or record point out of service and another into service, both jewels being permanently carried by the stylus lever.

**FILTERING-MACHINE.**—R. T. WILDER, El Paso, Texas. The invention relates more particularly to such machines as operate centrifugally to force the substance to be filtered through the filtering media. An object is to provide a machine having a rotatable casing and a helical screw adapted to centrifugally separate the solid matter from the liquids in which it is held in mechanical suspension.

**TYPE-BAR.**—E. E. TALIAFERRO, Colorado Springs, Colo. The invention relates more particularly to type bars used in connection with writing machines and the like. One of the objects is to provide a type bar for producing a plurality of original, duplicate impressions by a single movement of the bar.

**ANIMAL-TRAP.**—J. SNOW, Falun, Minn. This trap has an open bottom permitting an animal to put its foot clean through the trap, so that the trap will become fastened well above the foot. The trap will throw its jaws up the leg of the animal some distance, making it impossible for the animal to escape by chewing away its foot, which is often the case with the old style trap.

**STAND FOR GRINDING-WHEELS.**—G. E. SOBER, Kankakee, Ill. The purpose here is to provide details of construction for a machine which will enable the instant arrest of motion of its grinding wheels, and a resumption of rapid rotary motion therefor as may be desired, the improvement dispensing with the employment of a countershaft and change wheels, as well as shifting gear therefor, usually provided for each machine.

**PIPE-REAMER.**—W. F. PORTER, Duke Center, Pa. This improvement is in the nature of a novel construction of pipe reamer for reaming out the ends of pipes or tubing such, for instance, as oil well tubing, and it consists in the novel construction and arrangement of parts whereby a reamer is provided which is adapted to ream out tubes or pipes of varying diameters.

**POWER-SCOOP.**—E. P. LORCH, New York, N. Y. An object of this inventor is to provide improvements whereby if the scoop in advancing should meet an obstruction, such as a projecting manhole cover or the like, it may slide backward and in doing so reach a higher level and pass over the obstruction, the scoop being immediately returned to its original position by means of a compressed elastic medium or member.

**ABSORPTION REFRIGERATING-MACHINE.**—T. J. KIRN, Louisville, Ky. The device while freeing the ammonia gas from the moisture contained therein and returning the latter to the generator, acts at the same time as an economizer of heat by preheating the aqua ammonia, before it is returned to the generator, so that the latter is raised to a considerable temperature and therefore does not require the same amount of heat to drive off its ammonia that it otherwise would.

**Railways and Their Accessories.**

**WAY-BILL.**—F. H. CRUMP, Los Angeles, Cal. One purpose of the invention is to provide an interline way-bill having coupons similar to a passage ticket, which furnishes each road over which the freight passes with sufficient information to enable it to provide the proper revenue accruing from the service performed.

**TORPEDO.**—E. P. S. ANDREWS, West Windham, N. H. The invention comprises a plate which forms a saddle or seat upon the head of the rail to which there is attached a receptacle for an explosive. This receptacle is in the form of a flattened tube, and the object is to arrange the latter so that the pressure of the wheel which discharges the torpedo will hold the ends of the tube closed. In this way the bursting of the receptacle by the force of the explosion is insured, and also a loud report.

**RAILROAD-TIE.**—J. A. MCCORMICK and E. E. THRASHER, Cumberland, Md. The improvement pertains to railroad ties, and more particularly to ties each comprising a body, and pivoted end sections arranged to swing into longitudinal alinement with the body, and, like the latter, having lips adapted to engage rail bases to clamp the rails in position.

**BOX-FREIGHT CAR DOOR.**—G. W. LOHMAN, Berwick, Pa. The object here is to provide box-freight cars, also barns, carriage houses, and other inclosures with an improved door adapted to slide parallel to the side of the car or other structure and to swing into the doorway thereof so as to lie flush with the adjoining sides of the same and to be locked thereto.

**NUT-LOCK.**—E. M. LOVELL, Stanberry, Mo. This invention of this patentee is the result of an effort to practically improve the nut lock devices intended mainly for preventing the loosening of nuts in railroad joints. The patent discloses a plurality of washers of special construction, the inner one of which receives the nut and is locked with the outer washer, the latter in turn being so disposed in relation to the fish plate and rail that the whole is held against turning until purposely released.

**CAR-FENDER.**—H. FAJANS and A. M. CHAMBERS, New York, N. Y. The fender con-

sists of a fender frame, an upright frame, arms adjustably and pivotally supported at their inner ends from the car and at their outer ends pivotally supporting the fender frame intermediate its length and having a sliding connection therewith, a slide carried by the upright frame, a net connected to the forward part of the fender frame and to the slide, means to hold the outer end above the ground, and swing to the ground when it strikes an object received in the net, and means to automatically lock the inner portion of the fender frame in its upper position.

**MINE-CAR.**—T. W. WEAVER and C. B. WEAVER, Tunnelton, W. Va. The aim in this case is to provide a device which will securely lock the end gate of a car, and which will be automatically released when the car has reached a predetermined point, so that the contents of the car will be easily discharged.

**Pertaining to Recreation.**

**PLEASURE-RAILWAY.**—W. F. MANGELS, New York, N. Y. This railway is for use in pleasure resorts and the like, and is arranged to enable the passengers of a vehicle to assist in propelling the power-driven vehicle, thus providing an exhilarating and healthy ride, and permitting several vehicles driven uniformly by power to race, the hand power supplied by the passengers being the determining factor of the race.

**AQUATIC MERRY-GO-ROUND.**—H. E. RIEHL, New York, N. Y. The object of the inventor is to provide a merry-go-round arranged to afford an exceedingly novel and highly interesting ride. The passengers in a car undergo several movements, that is, are carried bodily around with the platform, are moved up and down and turn alternately with the car around in opposite directions.

**Pertaining to Vehicles.**

**TIRE-PATCH.**—J. A. WHEELER, Onaway, Mich. An object of this invention is to provide a device by which the worn outer surface of a rubber tire may be protected and which may be readily applied without the necessity of special tools. A further object is to provide an emergency patch which may be cheaply made from old tires which have been discarded.

**DRAFT-EQUALIZER.**—E. COOK, Portland, Maine. The equalizer is adapted to be detachably connected to vehicles, plows, etc., and having a double tree adapted to rock on a block, with which it engages at opposite sides when thrown to reverse angular positions, and at the center when moved to an equalized position; the block and tree further having V-shaped or other engaging stop portions at the rear of the block, and the block having a rearwardly extending hook for detachably applying it to certain forms of appliances.

**DESIGN FOR A CUT-GLASS DISH.**—R. H. PITTMAN, Honesdale, Pa. In this ornamental design for a cut-glass dish the form of the dish is circular, and the ornamentation simply comprises a cluster of three flowers and their leaves in the center or base of the plate, and the same type of flower running around the rim.

**BICYCLE.**—I. DI FABIO, Philadelphia, Pa. Mr. Fabio, the inventor, shows a very interesting form of actuating device and structural features of a bicycle, the improvements more practically relating to means for mounting the cranks and the arrangement of clutches cooperating with the cranks to control the actuating sprocket wheel.

**TIRE.**—J. C. RAYMOND, New York, N. Y. The object of the present invention is to provide a tire arranged to permit of quickly disconnecting the tire from the rim of the wheel, for repairs or other purposes, and replacing the tire and securely locking it in place on the rim. It relates to tires, such as shown and described in Letters Patent of the U. S., formerly granted to Mr. Raymond.

**HITCHING DEVICE.**—H. A. WETTSTEIN, Hazleton, Pa. The invention relates to hitching devices for use in connection with horses. One object of the invention is to provide an improved device for supporting and releasing a hitching weight, and for connecting the same to a bit or reins of a horse. It provides means for engaging the hitching rein or rope, to prevent tension so as not to induce backing up.

**ATTACHMENT FOR DOUBLETREES.**—J. L. ALTER, Remington, Ind., and C. A. EINERT, Clarksville, Ark. The purpose of this invention is to enable the double tree for applying draft force to a load, to be positioned at a proper distance from its longitudinal center in engagement with the load, and thus by the leverage afforded at one end of the double tree, even the load to be drawn, if a strong horse or team is hitched to the shorter arm of the double tree and a weaker horse or team is connected with the longer arm thereof.

**Designs.**

**DESIGN FOR A BADGE.**—A. E. PARKER, Brooklyn, N. Y. The design in this case represents a badge comprising an ornamental and symmetrical arrangement of a horseshoe, three clover leaves, and a swastika.

**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.