

**RECENTLY PATENTED INVENTIONS.**

**Electrical Devices.**

**ELECTRIC SWITCH.**—L. R. BROWN, South Orange, N. J., and F. H. WENTWORTH, New York, N. Y. The principal objects of the invention are to provide means for making and breaking contact and leaving the various electrical connections of the device in such condition when not in use that no current will flow through them; further, to provide means which can be operated by the time-clock or similar device for operating both making and breaking parts and for providing a switch which can be used in any kind of electric circuit and for operating any kind of an electric instrument.

**Of Interest to Farmers.**

**BELT-REEL.**—D. F. GEIGER, Barlow, N. D. In this patent the invention relates to improvements in reels for winding up and holding driving-belts on shredders, threshing-machines, and the like, the object being to provide a reel of simple and novel construction and so arranged that a belt may be easily wound thereon. The frame preferably consists of angle-iron; but it may be of wood and otherwise shaped.

**Of General Interest.**

**ART OF MINING.**—A. G. PARKER, Platte Center, Neb. In this case the invention relates to mining, and particularly to the removal of placer deposits. It is particularly applicable to the working of placer-deposits which have already been mined by the ordinary methods, these not permitting the effective removal of the auriferous sands from very irregular surfaces or those in which there are abrupt depressions. In this improved method the nozzles may be introduced into any recesses and contents entirely withdrawn. New placer claims may be equally well operated upon, and in this case a much greater profit will result.

**CLAMPING DEVICE.**—A. E. BROWN, Brookfield, and C. H. RHODES, Herkimer, N. Y. This invention relates to clamps such as used by silversmiths or goldsmiths in delicate soldering operations or similar work connected with their arts. The invention is intended especially to be used in connection with the repairing of spectacles, eyeglasses, delicate chains, or similar articles. While the invention is intended especially for use in the connection suggested, it should have a wide general usefulness in the arts where similar functions are to be performed.

**CONVEYER.**—H. BROWN, New York, N. Y. The principal object of the invention is the provision of automatic means for depositing the material upon the desired floor of a building whether the material is being raised or lowered. It relates to a conveyer of that class known as "vertical" conveyers which is provided with a series of horizontal pans or shelves for carrying the material to be transferred.

**PULP-SCREEN.**—C. E. CHAPMAN, Fort Edward, N. Y. A purpose of the inventor is to provide a construction especially adapted for screening paper-pulp, wherein as the fluid leaves the pulp upon a screen the slivers will be constantly tossed up and down, separating and drying them. Another, is to provide for such action upon the slivers through the simultaneous contrary movement of series of paddles located between the screen proper and independent thereof, which paddles operate in a body of water also beneath the screen proper.

**MAIL COLLECTION AND DELIVERY BOX.**—J. I. FULLWOOD, Cedartown, Ga. Mr. Fullwood's object is to provide novel simple details of construction for a mail box to be carried in or on a suitable vehicle which affords safe and very convenient means for holding collected mail-matter and also for distributing other mail-matter addressed to patrons living on rural delivery and mail routes traversed by Federal mail-carriers.

**LIFE-SAVING RAFT.**—H. J. MATSON, Havre, France. The invention pertains to improvements in rafts or similar floats and which are particularly adapted for use on marine vessels, the object being to provide a life raft or float that will be effective for its purpose, simple in its construction, and that will be found equally efficient on being launched either side up.

**PROPELLER FOR MARINE VESSELS.**—L. D. MALLORY, Longbeach, Cal. This inventor employs a supporting-frame for the operative parts, in which is mounted a right and left hand screw-shaft, through the medium of which the propulsion is effected. He also employs reciprocatory devices for imparting rotary motion to the screw-shaft in either direction, said shaft having coupled relation with the propeller-shaft. Special means are employed for manually operating the reciprocatory devices, as well as for steering the vessel.

**ADJUSTABLE SHEET-METAL PIPE.**—H. LATIMER, High Bridge, N. J. In the erection of sheet-metal piping, such as stovepipes, considerable difficulty is experienced in forming the joints between the sections, as these joints should fit with nicety though the pipe-sections vary in dimension. The object is to produce a form of pipe which is easily adjusted at its extremities to fit the adjacent sections.

**BURNER FOR HYDROCARBON VAPORS.**—W. KEMP, Tucson, Ariz. Ter. In this instance the invention has reference to burners, and admits of general use, but is particularly

applicable to burners of a type for use in connection with hydrocarbon vapors or the like, and is preferably employed in connection with furnaces for smelting ores.

**HARNESS.**—C. C. KING, Little Rock, Ark. By the provision of friction-rollers in the stirrups the shaft is permitted to move freely thereover, thus reducing rubbing to a minimum, and by providing a plurality of supports for the stirrup at different points on the back a firmer support for the stirrup is provided, decreasing to a considerable extent the movement thereof and also equalizing and distributing the weight of the shaft. The improvement may be applied to existing harness.

**SCREEN FOR IRRIGATING-DITCHES.**—W. E. RACE, Lake, Idaho. This improved screen is entirely automatic in its action, requiring no attention, the rubbish being released when the water above the screen attains a predetermined level, and the height of the level may be regulated by the length of a depending-bar which projects below a cross-bar. By inserting a pin in different holes a greater or less extent of the bar may be allowed to project below the cross-bar, and as a consequence the catch will be released at a greater or less height of the water above the screen.

**MAILING-ENVELOP.**—J. SAWDON, Stronghurst, Ill. This invention relates more especially to envelopes employed for mailing third and fourth class matter, such as catalogues, merchandise, etc. The object is to provide an envelop for this purpose in which provision is made for the binding of the contents of the envelop and fastening of the same to the envelop. A further object is to relieve the envelop of the strain of the fastening device.

**METHOD AND MEANS FOR PROCURING WATER FOR IRRIGATING AND OTHER PURPOSES.**—I. TELMAN, Fresno, Cal. The inventor's object is to provide improved means arranged to utilize the fall of water in a waterway for operating pumps employed to lift the water from the well to the head of the waterway, the water discharged at the foot of the waterway being utilized for irrigating and other purposes.

**AUXILIARY RUDDER.**—W. M. TAYLOR, Mecklenburg, Va. This improved rudder, while simple in construction, is yet efficient in operation, and when the desired end is attained it is very quickly drawn out of action, which is a most important feature in devices of this class. Owing to its peculiar construction, the action of the flowing water helps to close it, as well as to open it, thereby requiring very little power for its manipulation.

**Hardware.**

**DEVICE FOR DRESSING SAWS.**—T. W. ROACH, Lyman, Wash. This improvement pertains particularly to a device for use as a gage in connection with the operation of swaging the drag-teeth of cross-cut or drag saws. The object is primarily to provide means which will prevent injury of the cutting-teeth by the application of the gage to the saw.

**KEY - HOLDING ATTACHMENT FOR LOCKS.**—H. A. SEAGER, Monroe, Wash. Means are afforded by this attachment for holding the key of a lock from turning in either direction when the lock is in locked or unlocked adjustment, thus preventing the door-lock from being unlocked on the outside of the door and also preventing the accidental displacement and loss of the key when the lock-bolt is released from the door-casement.

**Heating and Lighting.**

**HOT-WATER HEATER.**—J. A. COPPRIDGE and T. E. STULTZ, Roanoke, Va. The inventor's object is to provide a novel construction for heating the water circulating through radiators and the like for heating purposes. As the fire burns a thin annular sheet of water in the inner compartment of the water-chamber will become heated and rise, the colder water in the outer will enter the inner compartment at the bottom thereof and it is replaced by other water, and so on, as operation proceeds, the inner inclination of the inner-plate increasing heating effect of the fire.

**Machines and Mechanical Devices.**

**CANDY-FORMING MACHINE.**—J. A. HOLLOWELL, Memphis, Tenn. The patentee's object in the present invention is the provision of a new and improved machine more especially designed for forming the plastic candy material into sticks of any desired shape and size and cutting the stick transversely into pieces of the desired length.

**ECCENTRIC.**—F. M. BERGER, Basin, Mont. The design in this instance is to obviate objections to machine-eccentrics in general as same have been heretofore constructed—that is to say, objections to all forms of such devices known to this inventor whereby endwise motion is imparted to a rod or shaft from a driving-shaft having rotary motion and longitudinally disposed at an angle to the driven rod or shaft.

**CABLE OR ROPE GUIDE.**—G. FRINK, Seattle, Wash. In this patent the invention has reference to logging-machines; and the inventor's object is the provision of a new and improved cable or rope guide or fair-leader arranged to properly lead the cable or rope to the drum of the logging-engine from any direction.

**MACHINE FOR CALCULATING INTEREST AND PERCENTAGE.**—W. M. BRADY, Blackwell, Oklahoma Ter. The intention of this improvement is to provide a machine adapted for calculating interest and percentage and which at the same time when set to a date from which interest is to be computed will automatically indicate date after date until when the example is finished the day and date to which the interest is computed, together with the time, rate and amount, will appear in full view at the exterior of the machine.

**HOTEL-REGISTER.**—J. P. HART, Bridgeport Borough, Pa. The leaves whereon names and addresses of guests are inscribed are loose and detachable in place of being bound together, a special means for fastening being employed, whereby they may be quickly separated. The carrier upon which leaves are laid and secured revolves upon a base having an antifriction-bearing vertically adjustable, and between the leaf-carrier and base is interposed an antifriction-bearing, means being provided for holding revolving part central against lateral oscillation. Register carrier has foldable top sections. Closed, they cover and protect the register, the same having spaces for advertisements and ornamental panels.

**ADVERTISING DEVICE.**—H. A. DE RUDIO, Los Angeles, Cal. The invention relates to advertising by the use of signs. It is especially useful in connection with street-car advertising. The object is to produce a device of simple construction which will contain a plurality of signs or cards carried upon a web, such that these signs may be periodically brought into view.

**DOUGH-BREAKER.**—L. A. ROCKWELL and J. J. LINDEN, New York, N. Y. This invention refers to improvements in machines for breaking dough for bread-making or the like, the object being to provide, in connection with a machine of this character, a safety device by means of which the operation of the machine may be instantly stopped while the driving-shaft continues in motion should accident or other cause require the stopping.

**EXCAVATOR.**—A. M. ANDERSON, Moorhead, Minn. The invention relates to excavators, and especially to machinery for making ditches and trenches. It is especially applicable in laying pipe-lines. The machine advances by its own traction when desired. A clutch carried by the engine-shaft enables this traction to be thrown in or out, without stopping the engine. Mr. Anderson has invented another excavator, such as used in railroad construction-work, repairing road-beds, and in the construction of ditches and irrigating-canals. It is also useful for clearing a road-way of ice, snow or similar obstruction.

**Prime Movers and Their Accessories.**

**ROTARY ENGINE.**—A. H. WRIGHT, South St. Paul, Minn. This improvement pertains to a rotary engine designed to operate with steam or other elastic fluid under pressure, and it belongs to that class in which the rotating element or rotor turns eccentrically in the stationary casing or stator and carries a radially-movable piston-head, which bears the pressure of the working fluid and transmits the same to the engine-shaft and rotor.

**VALVE-GEAR.**—W. HARTMANN, Berlin, Germany. In this instance the invention refers to valve-gears for use on steam-engines, gas-engines, and other motors. The aim of the inventor is to provide a gear which is positive in its action, requiring comparatively little working power, and arranged to prevent undue influence on the governor by back strains.

**Railways and Their Accessories.**

**RAILROAD-RAIL JOINT.**—E. P. SANDEFUR, Manda, Ky. The purpose of this inventor is the construction of a joint which will stand on a level with the rail under the heaviest train, thereby preventing low joints. The purpose also is to make a joint which will always be ready for use, one which when fastened in its place a train can pass over without danger or delay should the bolts from accident or other cause be out.

**CAR-RAIL HORSE BRIDGE.**—J. S. HEATON, Shelbyville, Ky. The invention pertains to improvements in devices for bridges over fire-hose or the like on a car-track, so that movements of cars will not be interfered with during the progress of a fire, the object being to provide a bridge that may be readily put in position and firmly anchored to prevent either lateral or lengthwise movement.

**Pertaining to Recreation.**

**GAME DEVICE.**—A. EHEWALD, New York, N. Y. The invention relates to improvements in devices with which a variety of games may be played by any number of persons, the winner being indicated by the highest number on a rotary part that may be disclosed through a chosen opening in the top of the casing when the rotary part comes to rest, the object being to provide a device of this character that will afford amusement with a degree of uncertainty as to results.

**GAME-BOARD.**—R. F. ELBURN, Chestertown, Md. Mr. Elburn provides a game which will be pleasing and interesting and also an aid in teaching children how to count. The holes in the box-cover may extend entirely through the same. The game-pieces or men can be made in any desired shape or con-

figuration, the only requisite being that each set of six should be of contrasting colors.

**THEATRICAL DEVICE.**—H. M. PETTIT, New York, N. Y. An automobile or other vehicle is provided with wings and means for spreading and vibrating the wings to give the desired effect, and also means for propelling the automobile along a way or track and for supporting it when removed from the track, so that it may give an appearance of leaping from a cliff to a track located on the opposite side of the chasm at a lower level. Safety devices insure the performance of the act without danger to occupants of the vehicle.

**Pertaining to Vehicles.**

**NECK-YOKE.**—C. E. HESS, Saco, Mont. The invention relates to improvements in neck-yokes, and particularly in the connections between the yoke and a wagon-tongue, the object being to provide a novel device for detachably securing the yoke to the tongue without danger of the parts becoming accidentally separated, and, further, to provide ball-bearings for the yoke.

**TIRE.**—C. MILLER, Binghamton, N. Y. The invention pertains to an improvement in what are known as "cushion-tires," and more specifically to the particular class of cushion-tires in which a resilient core is inclosed in an outer casing and the whole suitably fastened to the felly or rim of the wheel. The object is to increase the resiliency of the tire and to secure it to the felly in such manner as to avoid all danger of creeping or other dislocation of the tire.

**BRICK-TRUCK.**—M. K. SACHS, Houston, Texas. The invention relates to a truck designed with special reference to the transfer of bricks along a track and on pallets or drying-boards. The principal object is to provide means whereby a truck can be moved under a load, the load readily lifted from its place and left in an elevated position upon the truck, and the truck moved away.

**NON-SLIPPING TIRE AND BRAKE.**—J. A. YOUNG, New York, N. Y. In the present patent the invention has reference to vehicles, the inventor's more particular object being to produce a wheel provided with a tire constructed for the purpose of preventing slipping and provided with a brake peculiarly adapted for this form of tire.

**Designs.**

**DESIGN FOR A BOX.**—W. JONES, New York, N. Y. In this instance the ornamental design shows a clock upon the box cover. Two columns rest on a base and support a dial flanked by two smaller columns and capped with a head piece. An original feature is furnished by a mouse climbing a weight chain suspended near the pendulum.

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