#### RECENTLY PATENTED INVENTIONS. Of General Interest.

DISPLAY APPARATUS.—E. F. CANNON, Portland, Ore. The object of the invention is to provide a simple and inexpensive apparatus which has shelves for carrying and exhibiting wares and merchandise, which are movable in different directions and in different the forming of bundles or packages of boards ways, to display the exhibited articles in a plurality of fashions. Mr. Cannon has in tates the forming by providing a bed upon vented another display apparatus by means of which the articles are laid, and the device inwhich merchandise and other articles can be advantageously exhibited and can be mounted upon traveling shelves moving in a plurality of directions, and which is portable so that it can be moved from place to place as desired.

BARREL-SHELF. - A. HUGHES, Houston, Texas. The purpose here is to provide a portable barrel shelf which can be conveniently applied on a barrel to bear the weight of a sack and its contents in filling the sack, and which can be conveniently folded into compact form and stored in a small space when not

ENLARGING ATTACHMENT FOR CAM-ERAS.—C. F. Adlon, Las Vegas, New Mexico. One purpose of the invention is to provide an attachment whereby large prints may be made upon sensitized paper from small negatives, and to so construct the attachment for the enlarging camera that it can be expeditiously and conveniently set up and applied to an ordinary camera, and as readily and quickly removed therefrom.

#### Hardware.

CONVERTIBLE LADDER.—S. S. Groves, Loraine, Ill. This invention is an improvement in ladders and especially in ladders which may be extended or may be converted into step ladders as desired. A hinge joint is movable to a point below the guides on the main section when the parts are adjusted, so that when the ladder is extended the extension is firmly secured and braced by the guides on the main section.

ADJUSTABLE CASTER .- J. SHARON, Cana seraga, N. Y. The invention has for its object to provide a stove leg to which is pivoted an arm having a wedge-shaped flange which is adapted for engaging snugly converging sides of the stove leg, there being a caster pivoted to the fk ge and means being provided for holding the arm off the floor.

ADJUSTABLE WRENCH .-- O. C. CALDWELL, Klamath Falls, Ore. The wrench is of the sliding jaw type, and consists of but two sections, each cut from plate metal as flat blanks into proper form and completed by lapfolding members of each section upon other portions thereof, the two sections when completed being adapted for slidable engagement and locking adjustment at desired points of separation of the laws.

NUT-LOCK .- H. W. WORTHINGTON, Richfield, Kan. The nut lock devices forming the subject of this patent include a washer of a special torm. The washer is provided with a tooth which is bent out of the plane of the washer and is adapted to engage a ratchet piece in the nut to be locked. The washer is distinguished by an elliptical opening which permits the washer to be driven in the direction of the major axis of the opening and out of engagement with the nut.

MITER-BOX.-J. F. WINKLER. Marquette. Mich. This box comprises a rocking trough for securing the work, means for indicating the angle of its inclination, a saw guide arranged transversely of the trough, and mounted for swinging movement in a hori-

being strong, durable and exceedingly flexible in every direction. It relates to metallic belts such as shown and described in the application for Letters Patent of the U. S., formerly filed by Mr. Canne.

BUNDLE-FORMING MACHINE.—A. CHESSON, Suffolk, Va. The machine facilitates of short lengths, or similar articles. It facili- of which is arranged a moistening pad. The cludes means for bringing the different articles or members which form the bundle into alinement longitudinally and transversely.

CHAIR .- A. H. CLARK, Denver, Col. invention relates more particularly to chairs or seats for theaters and the like. An object is to have a movable seat held by resilient controlling mechanism in an elevated position and which can be depressed, locked in a partially depressed position and released from this by a further movement of the seat.

BURGLAR-ALARM. - H. SPENCER, Ridgefield Park, N. J. More specifically the invention pertains to that type of alarm which employs a bell which rings automatically when its plunger is pressed, and the improvement concerns itself especially with the construction of means for pressing the plunger of the bell and for disengaging the operating mechanism when desired.

AUTOMATIC REGULATING-VALVE.-J. C. SMITH, Louisville Ky. The subject of the invention is intended for controlling the flow of weak liquor to an absorber. This liquor leaves the generator under a pressure of approximately 150 pounds, while the gas admitted to the absorber is under a pressure of from 5 to 15 pounds. The returning fluid absorbs 27 to 29 per cent, of its weight of ammonia gas, and for this absorption to take place it is necessary that the pressure of the incoming fluid be equal to that of the incoming gas.

PHOTOGRAPHIC-PAPER-PRINTING MA CHINE.—E. N. KERR, Rock Island, Ill. One purpose here is to provide a construction of machine for printing photographic paper especially designed for use in connection with the so-called gas-light paper, wherein the time of exposure is under the complete control of the operator and may be made to vary as desired from a second or seconds to a minute or many minutes.

#### Prime Movers and Their Accessories.

ROTARY EXPLOSION-ENGINE.—W. SMITH, Los Angeles, Cal. There is provision in this invention of an improved rotary explosion or gas engine, arranged to utilize the force of the explosive mixture to the fullest advantage by giving a plurality of impulses to the rotor at each revolution thereof, thus insuring an easy and steady running of the engine.

REVERSING-VALVE .- J. W. BELL, Shenan doah, Pa. When this valve is closed it com-pletely shuts off all communication between the pressure chamber, back of the valve and the, cylinder, with the exhaust ports leading from the chambers at the ends of the side valve, thus preventing a loss of power from the cylinder through a reverse valve chamber, which stops all interference with the operation of the slide valve and auxiliary plunger therefor when used by reason of counter pressure leaking from the back of the reverse valve.

### Railways and Their Accessories.

RAILROAD CASH-FARE RECEIPT.—G. McN. Rose, Jr., Nashville, Tenn. The inven-

on its vertical axis, and by centrifugal action moves the passengers from the bottom seat to the side seat, where they remain suspended at right angles to the natural seating posture.

SNELLED-HOOK BOX .- M. M. SCHANEY, Dubois, Pa. In order to carry out the invention a cylindrical box is provided, having therein a spring-actuated reel, on the periphery reel is provided with grooves whereby the hooks may be protected, together with devices for keeping the snells taut and always accessible and in a condition to be used immediately.

#### Pertaining to Vehicles.

DUMPING-WAGON. — T. WRIGHT, Jersey City, N. J. The object of the invention is to produce a construction in which the body of the wagon or cart may be raised and inclined, but in which the center of gravity of the body and its load will remain in substantially the same plane as when the body is in its normal position on the track.

ROTARY WHEEL-GUARD.-F. E. HUTCH-INGS, New York, N. Y. The special object of the invention is to so construct and mount the guard that it will be at the minimum distance from the wheel, and the possibility of any person or object falling behind the guard and in front of the wheel will be eliminated. It relates to improvements shown in a prior application filed by Mr. Hutchings.

VEHICLE-WHEEL.—G. R. WILLIAMS, Little Rock, Ark. One purpose of the invention is to provide a wheel for carriages, automobiles, and like vehicles, that will possess efficient resilience without detracting from its supporting qualities, and to provide a construction wherein a resilient tire is combined with compensating

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\*\*Hallways and Their Accessories.\*\*

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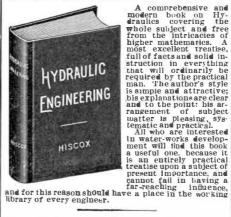
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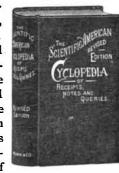
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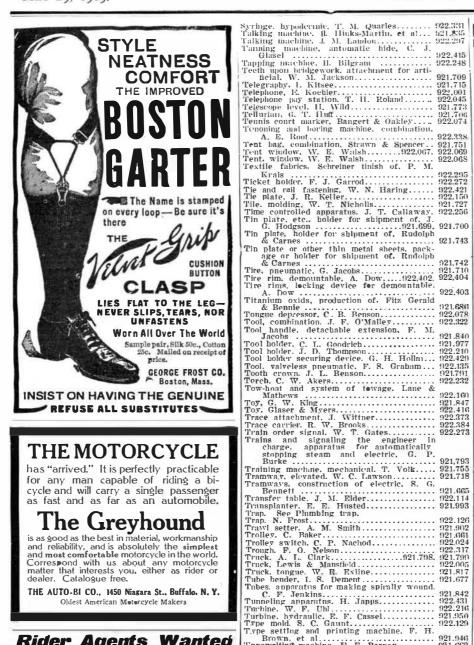


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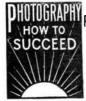




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