

## ENGINEERING INVENTIONS.

A safety water gauge valve has been patented by Mr. Peter Barclay, of East Boston, Mass. This invention provides a valve of which one section will be automatically seated in case the glass should be broken, and in which the other section may be turned down upon its seat, thus releasing the section which is closed.

A car coupling has been patented by Mr. Francis M. Hewett, of Beirne, Ark. The drawhead has hinged spring-actuating jaws which engage with one end of a double-headed coupling bar, the other end of the bar being held in a similar manner within the drawhead of the adjacent car, the device being operable from either side of the car to release the coupling bar.

A car coupling has been patented by Mr. Edward McC. Reynolds, of St. Louis, Mo. The coupling hook or drawbar is adapted to be pivotally supported between its ends, its forward end having means for coupling with a meeting drawbar, and its rear end having a hook or shoulder to engage against the rear side of a suitable shoulder or bearing on the drawhead, with other novel features.

## AGRICULTURAL INVENTION.

A gopher cultivator has been patented by Mr. Thor. O. Thorson, of Elliott, Ill. It is so constructed that the shovels may be given any desired inclination that the nature of the ground and character of the work demands for successful cultivation, the invention covering various novel features of construction and the combination of parts.

## MISCELLANEOUS INVENTIONS.

A snow shoe attachment has been patented by Mr. Benjamin C. Woodbury, of Patten, Me. It is a flexible hinged foot, or toe and heel attachment, designed to give freedom to the working of the foot, without restricting the turning of the snow shoe by the foot.

A passenger elevator has been patented by Mr. Seth K. Humphrey, of Faribault, Minn. It has an endless chain passing over sprocket wheels, of which one is rotated, platforms fastened on the chain, and guides for holding the platforms, making an elevator especially adapted for carrying employes in factories, mills, etc.

A vegetable slicer has been patented by Mr. David F. McDonald, of Lake Butler, Fla. It is so made that the gauge plate serves also as a rest plate or support on which the vegetables rest, and as the carriage reciprocates, the vegetables will be cut into slices and drop on a plate, whence they may drop into any suitable receptacle.

A curtain fixture has been patented by Mr. Robert P. Trimble, of Oregon, Mo. This invention covers an improvement on a former patented invention of a curtain shade and lambrequin fixture of the same inventor, and consists of a peculiar construction of the castings, with reference to the cheaper production of the fixture.

A folding ladder has been patented by Mr. William S. Ethridge, of Paluxy, Texas. It is so made that it can be arranged for use for a protected way through which parties may pass, being especially applicable for use in mines, and for a fire escape, while it may be folded in small space for convenience in storing and transportation.

An expansible lunch box has been patented by Mr. John S. McGuire, of Bayonne, N. J. Combined with telescopically sliding box like sections, with a cover on the upper section, are adjustable straps and buckles for connecting the cover with the lower section, making a box which can be enlarged as desired and contracted when not in use.

A counting attachment for thrashers has been patented by Messrs. Jefferson C. Rand and Edwin Thompson, of Maynard, Iowa. This invention covers a novel construction and combination of parts in a practical adding or counting device to be used principally for tallying the measures of grain in connection with thrashing machines.

A faucet has been patented by Mr. William B. Rodman, of Norfolk, Va. It is particularly adapted for use with stationary basins, and is so made that either or both hot and cold water may be made to flow from one spout and be controlled by one handle, and the flow be increased or diminished, or the proportions changed, as desired.

A reel for harvesters has been patented by Messrs. J. Calder Cunningham and George A. Cunningham, of Washington, Kansas. Combined with the reel and its driving mechanism is an adjusting and holding mechanism, the invention being an improvement on a former patented invention of the same inventors.

A hitching device has been patented by Mr. Willard G. Thorpe, of St. Paul, Minn. The invention embraces combining with the vehicle a weight having a connection for securing it to the horse, the connection being disposed over a guide on the vehicle, with a detent where by the force of the weight may be held clear of or be freed to secure the horse, as desired.

A folding table for paper hangers has been patented by Mr. Edward M. Addaman, of Jersey City, N. J. It has a folding top and folding end supports, and is so made that the top and supports can be readily unfolded and the table set up for use, or quickly folded into compact form for removal, the table when set up being firmly braced and supported.

A dumb waiter has been patented by Mr. Garrett M. Emerick, of Brooklyn, N. Y. This invention covers a novel construction and arrangement of parts in an elevator which is perfectly protected against the falling of the car, and in which the descent of the car can be easily controlled, while it may be stopped and held in any desired position, even when heavily loaded.

A water elevator has been patented by Mr. Monroe Stevens, of Shellman, Ga. It is designed

to elevate water from a well in a bucket in such manner that when the bucket has reached its highest point it will be automatically engaged by a hinged chute, and the water emptied through the bottom of the bucket into the chute, the apparatus being operable by a wind-mill.

A photographic accessory has been patented by Mr. John W. Tinsman, of Kirksville, Mo. It comprises a novel form of clamping frame, with other details, for exposing on the floor or about the base of a subject grasses, weeds, or grain, or other vegetable products, including cut flowers, to give a rural or ornamental appearance to the picture when photographed.

A device for holding cans has been patented by Mr. George W. Hill, of Stark's Point, Washington Ter. It is a device for holding cans, casks, barrels, and similar receptacles in such way as to facilitate emptying them, and consists of a bracket or frame adapted to be attached to a wall, with a spider-like bottom to be supported in such bracket, with other novel features.

A continuous dough press has been patented by Mr. Justin J. Langles, of New Orleans, La. Plain rollers are journaled in a frame to revolve toward each other, with a trough arranged between them, its sides in close proximity to the rollers, and with an aperture in its bottom and dies in the bottom of the trough, for pressing dough in continuous strips or sheets.

A fish trap has been patented by Mr. Abner H. McDowell, of Progress, Va. It differs from the ordinary trap principally in having the guide hood at the rear end of the trap and a box on the side, the improvement being simple and inexpensive, and such as can be attached to any trap already in the water, whereby the fish may be caught at low or high tide, and safely retained without danger of being stolen.

A medical compound for dyspepsia, etc., has been patented by Mr. Albert Marx, of Baltimore, Md. It consists of water pepper, root ginger, garden melisse, peppermint leaves, pennyroyal, lobelia inflata, rosemary, cramp bark, golden seal, blood root, prickly ash bark, wahoo bark, capsicum, golden rod, horseradish, and other ingredients, in certain proportions and prepared after a described manner.

A temple plate for power looms has been patented by Mr. John J. Honan, of Fall River, Mass. It has a slotted bottom plate having at one end a lug, with a slot between the lug and the body of the plate for the passage of the selvage of the woven fabric, with other novel features, the improved plate being one which can be attached to all kinds of temples, especially the well known Dutch temple.

A leveling rod has been patented by Mr. Walter J. Ritchie, of Lima, Ohio. It is so constructed that the engineer or surveyor may read the elevations in feet and fractions of a foot through the telescope attached to a leveling instrument at a distance of a thousand feet or more, thus keeping his own record and dispensing with reports of such elevations from the rodmen.

An apparatus for distilling wood has been patented by Mr. Gasper Hunziker, of Cloverdale, Cal. It embraces a cage on wheels for running the wood on rails into an oven having a specially constructed bottom to aid in the passage of the heat and escape of the products of distillation, with various other novel features, being an improvement on a former patented invention of the same inventor.

A grain weighing apparatus has been patented by Mr. Le Roy C. Tryon, of Marseilles, Ill. It has a stationary hopper with a sliding bottom operated by a measuring receptacle pivoted on the weighing beam, and connected with the mechanism for returning the receptacle after dumping the measured grain, making a machine that will automatically weigh and measure grain with great accuracy.

A trousers stretcher has been patented by Messrs. Walter A. and Harrison S. Rollins, of Chicago, Ill. It has end clamps, side bars arranged in pairs, joint bars pivotally connected at their opposite ends with inner ends of the side bars, and means to secure the joint bars in different adjustments with reference to the side bars, making a convenient device for restoring distorted garments to their proper shape.

A permutation padlock has been patented by Messrs. Marshall B. Palmer and Clark S. Mudge, of Germantown, Neb. The main frame has recessed side faces to receive disks formed with slots which extend from the peripheral edges of the disks inward toward the center, with other novel features, making a strong and simple lock, very difficult to open unless one has the two combinations necessary.

An automatic egg boiler has been patented by Mr. George L. Dale, of New York City. It has inner and outer chambers so arranged that the eggs will be subjected to sufficient heat to produce a proper coagulation of the albumen, but not subjected to so great a heat as usual, whereby the albumen is made hard, instead of soft and creamy, as designed by the use of this invention.

A combined cart saddle and yoke has been patented by Mr. Thaddeus Ivey, of Ashpole, N. C. The invention consists in the peculiar construction and arrangement of a yoke suspending the tongue or shafts by a chain, and having a peculiar adjustable connection with the saddle sustained upon the backs of the two horses, the device being one which can be used in conjunction with the ordinary traces and singletrees.

An automatic grain weighing scale has been patented by Mr. Henry Cutter, of North Wilbraham, Mass. Combined with an oscillating lever are weighing beams loosely connected with the lever by S-shaped hooks, grain boxes supported on the beams, and a pivoted grain spout adapted to connect alternately with the grain boxes, and operated from the oscillating lever, with other novel features, the scale being simple and durable.

A zinc casting machine has been patented by Messrs. Joseph J. Smith, of Jamaica, N. Y., and Charles A. Janson, of New York City. It is specially adapted for making zinc beds used for separat-

ing the iron magnetic folds of dynamo electric machines from the iron bed plates, and provides for the core being held firmly in place in the flask, no pressure being required to force the fluid metal into the mould, and producing castings rapidly of very superior quality.

A grain weighing apparatus has been patented by Mr. George P. Jameson, of Abingdon, Ill. Combined with a spring weighing scale is a counter-balanced grain cylinder, lugs on the sides of the cylinder engaging hooks carried by adjustable lever arms, so that when the uppermost compartment of the cylinder is filled with a certain amount of grain the lugs are disengaged from the hooks, with other novel features, the machine being also adapted for weighing other substances.

A piano tuning pin has been patented by Mr. Fred E. H. Goodenow, of Springfield, Mo. It has a fixed collar, and there is a fixed bushing in which the pin turns, washers being held on the pin and against the top and bottom of the bushing, a clamping collar being held on the pin and turning with it, while there is a nut for pressing the clamping collar against the lower washer, the pin being securely held in place and not materially influenced by changes of temperature.

A cotton gin has been patented by Mr. Benjamin Andrews, of New Orleans, La. The saws employed are much thinner than those in ordinary use, and they are clamped between spacing frames having a continuous periphery, the stock being fed into the top of the roll box, the seed, etc., dropping out of the bottom, the first grade of stock being delivered to the brush and passing out of the back of the machine, while the second grade separates by being thrown down between the saws and brush.

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