

attachments can be secured thereto, so as to adapt the device to various uses. To this framework as a base are secured attachments which adapt the device for use as a table, a flower-stand, and a clothes-rack.

BUCKLE.—JOHN C. ROSENKRANZ, New York city. To provide a buckle especially adapted for use upon trousers, waistcoats, and garments generally, and so to construct the buckle that it will be simple, capable of being conveniently manipulated, and of firmly gripping the fabric, are the purposes of this invention. The buckle consists of a frame having a toothed surface, and a spring tongue pivoted to the frame to swing parallel to the plane thereof, and with a tension at right angles to the plane of the frame, the tongue having a tooth at its free end adapted to enter the spaces between the teeth on the frame.

CARTRIDGE-BELT.—LOUIS SANDERS, New York city. In this belt two or more rows of cartridges may be carried. The cartridges in the several rows may be placed one in front of the other, each pocket being independent of the other. A separating device between transversely aligning pockets is provided, which may be made of metal or similar hard material. In connection with the separating device, another device is employed, which is designed effectually to prevent cartridges from leaving the pockets, even should the diameter of the pockets become accidentally enlarged beyond the dimensions required to hold the cartridge in place.

PASTRY-BOARD.—WILLIAM L. STANLEY and PRESSLY C. PATTERSON, Cambridge, Ohio. This pastry-board is designed to be placed upon the kitchen or pantry table. The board is principally characterized by several layers of sheet metal forming the body of the board, and producing a durable and efficient structure.

NON-REFILLABLE BOTTLE.—HENRY WEIL, New York city. The neck of the bottle is contracted to form a seat for a ball-valve. Within the neck a tube is inserted provided with a spring-pressed flap valve. The ball and flap, acting in conjunction, are designed to prevent the refilling of the bottle.

WAGON-LOADING DEVICE.—LEONARD C. WOOD, Alden, Ohio. By means of this improved device, a wagon may be quickly loaded by means of scrapers and a team of horses. The device comprises an inclined plane having a hinged extension adapted to extend over the end of a wagon-box bottom, and an inclined guide adapted to engage the double-trees or draft-bar, to be carried up above the sides of the wagon.

TOY-BOAT.—JOSIAH T. CRAWLEY, Honolulu, Hawaii. The hull of this toy-boat is partly filled with water, which may be discharged through a minute pipe leading from the bottom of the hull. A support is arranged within the hull above the liquid, and upon it is placed sodium carbonate, or sodium bisulfate, mixed with an acid. The resulting gas will press against the surface of the water, and force it out of the discharge-pipe to propel the boat.

EGG-CARTON.—ROBERT J. BARKLEY, Chanute, Kans. This inventor provides a folding carton which has cells to the number of twelve. The carton is designed to contain a dozen eggs, and to obviate the necessity of counting and of the danger of breaking the eggs by frequent handling. The cartons are of such form as to be readily used in packing eggs into the wooden cases ordinarily employed in the egg-trade.

COMBINED HOLDBACK AND WHIFFLETREE.—WILLIAM B. FROST, North Lansing, Mich. The novelty of the present invention resides in the use of an arched singletree, which is pivoted between its ends, and which has its extremities carried forward and united with the ends of the breeching-piece, arched to receive back pressure when the horse is backed or is holding back. The pivot of the combined device permits the proper application of the back pressure for the purpose desired. The improvement can be used on light-draft vehicles or on heavy wagons.

CONTINUOUS BRICK-KILN.—EDWIN T. HARRIS, Ridgway, Pa. This invention is in the nature of a continuous brick-kiln formed with a series of separate kilns connected by suitable underground trunk-flues arranged so that a part of the kilns may be burning while the rest are being filled or relieved of their burnt bricks. The heat of a burnt-out kiln may be used to "water-steam" or dry out the bricks in the next kiln. The invention also seeks to control the furnace-draft, and to "water-steam" the green bricks with smaller loss than has heretofore been possible.

DISH-WASHER.—HIRAM H. TUTTLE, Washington, D. C. The dish-washer consists of a body in which a plunger moves, having a perforated bottom plate; a side or rim; and an upwardly projecting, perforated, tubular column having at its lower end an enlarged collecting-chamber in which water may be collected and forced up the column on the descending stroke of the plunger, the plunger being operated by a lever. The water, as it is discharged by the plunger through the perforated column, streams over the dishes lying within the casing of the apparatus.

Designs.

BAG-TIE.—WILLIAM M. CLARK, Boscobel, Wis. The leading feature of this design is found in an elongated loop-body, both members of which at its open end being bent to form eyes. These eyes are carried in opposite directions, one eye having its terminal bent to form a hook.

MONUMENTS.—EDWIN O. TOWNSEND, New York city. The first of these designs consists of an altar-like body, surrounded by a stone cushion having battlement ornaments. The base of the altar, forming a surbase for the monument, is partially smooth and partially rough, and is also decorated by battlement ornaments. The second design has its leading features a sarcophagus; a surbase for the sarcophagus ornamented with molding and panels; and a plinth for the surbase, decorated by rough panels separated by plain surfaces.

COVERED DISH.—ADOLPHE PAROTTAUD, New York city. The characteristics of this design are a body of plain contour, flaring upwardly and outwardly; and a cover, having a scalloped, peripheral contour.

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(7540) B. N. L. asks: Will the zinc sold in the hardware store for use in the bell batteries answer to use in the plunze batteries illustrated in the SCIENTIFIC AMERICAN of August 31, 1889, that is, are they amalgamated as described? A. The zincs for bichromate battery should be flat plates as large as will slide freely into the glass cells, and about five-sixteenths inch thick. These plates can be purchased all ready for use, that is amalgamated, but it is easy to amalgamate them for yourself.

(7541) C. F. M. says: I would like to have a good receipt to make glue for tabbing note heads, etc. I want the kind that will enable one to reach into the middle of the tab, pull out a sheet and not disturb the remaining ones. A. The composition is said to be prepared as follows: Glue, 4 pounds; glycerine, 2 pounds; linseed oil, 1/2 pound; sugar, 1/4 pound; aniline dyes, q. s. to color. The glue is softened by soaking it in a little cold water, then dissolved together with the sugar in the glycerine, by aid of heat over a water bath. To this the dyes are added, after which the oil is well stirred in. It is used hot. Another composition of a somewhat similar nature is prepared as follows: Gln, 1 pound; glycerine, 4 ounces; glucose sirup, about 2 tablespoonfuls; tannin, one-tenth ounce. Give the compositions an hour or more in which to dry or set before cutting or handling the pads.

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