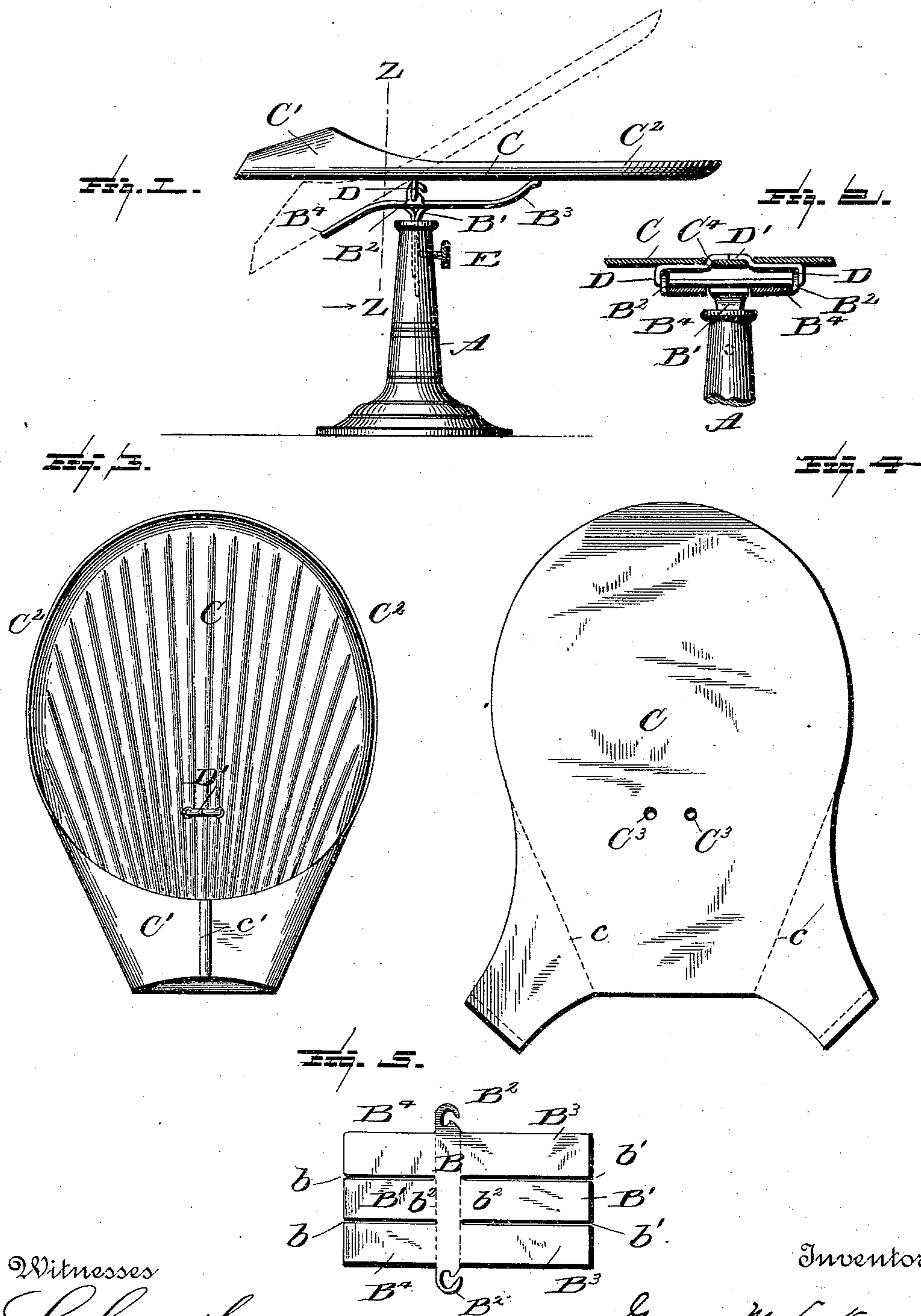


(No Model.)

G. M. LOCKWOOD.
COIN DELIVERING APPARATUS.

No. 475,086.

Patented May 17, 1892.



Witnesses

L. C. Hills
A. J. Cummings

Inventor

George M. Lockwood

UNITED STATES PATENT OFFICE.

GEORGE M. LOCKWOOD, OF WASHINGTON, DISTRICT OF COLUMBIA.

COIN-DELIVERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 475,086, dated May 17, 1892.

Application filed February 5, 1892. Serial No. 420,463. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. LOCKWOOD, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Coin-Delivering Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in coin-delivering apparatus; and it has for its main object the provision of a device of this character by which the delivery of coin to a customer or depositor at a store or bank counter or similar place can be easily and quickly effected.

As is well known, very great difficulty is often experienced in removing coin from a store or other counter, as metallic currency has a tendency to stick to the smooth surface and often can only be removed by sliding the pieces of money to the edge of the counter and letting them fall into the open hand. The difficulty in removing them is still further increased if the hands of the person receiving the coins are gloved. Various means have been devised for doing away with the inconvenience arising from the removal of coins from a smooth counter, among them rubber mats with corrugated or raised faces, smooth trays of small size elevated slightly above the counter, &c.; but these devices, while of considerable utility, only partially overcome the objections to the present method of delivering change, and it is the object of this invention to remove all these objectionable features.

In carrying out my invention I support upon a stand or pedestal by a pivotal connection a flat or slightly-rounded tray or pan having a narrow delivery-mouth at its front end, preferably formed by an overhang made integral with the body of the tray by raising each side of a forward extension thereof and securing the edges of such extensions together by a lock-seam. The body of the tray is preferably elliptical or ovoid, and is provided with a series of corrugations converging toward the mouth thereof. The sides of the tray are also slightly raised to prevent

escape of the coins at any point except the mouth. A little forward of its center this tray is pivoted to a supporting-stand provided with a rear stop, upon which the tray is supported by its own weight in a normally-horizontal position, and with an inclined forward stop to limit the movement of the tray when the forward end thereof is depressed to allow the escape of the contained coin. The pivoting of the tray may be effected in any desired manner, and means may be provided for effecting a vertical adjustment thereof with relation to its support.

Referring to the drawings, Figure 1 is a side elevation of a coin-delivering apparatus constructed in accordance with my invention. Fig. 2 is a vertical cross-section thereof. Fig. 3 is a plan view thereof, showing the corrugated coin tray or pan. Fig. 4 represents the blank from which the tray is formed, and Fig. 5 represents the blank from which is formed the journaled support to which the tray is hinged.

Like letters of reference indicate like parts throughout the several views.

A represents an ordinary supporting-stand or pedestal made of cast metal and provided with a central vertical recess.

B represents the support for the tray. This support is formed from a substantially rectangular blank of sheet material, preferably sheet-steel, about one-sixteenth of an inch thick. The blank is cut along the lines $b b b'$, as shown in Fig. 5, so as to divide it into three parallel portions secured together by a narrow cross-strip. The inner portion B' is then folded down upon the lines $b^2 b^2$ and headed up to form a vertical support (see Figs. 1 and 2) adapted to enter the vertical recess in the stand A. Lateral extensions or trunnions B^2 are formed at the sides of the blank, and their side edges are inclosed by the lines $b^2 b^2$. The trunnions are preferably elliptical and are provided with openings for the admission of the loop, (hereinafter described,) by which the tray is pivoted in said trunnions. These openings may be in line with the minor axes of the ellipses, if desired; but I prefer to form them obliquely to said minor axes for greater convenience in attaching and detaching the tray. After the blank is stamped out the extensions B^2 are bent up

at right angles thereto on the lines of the sides of the blank, so that the openings will register. The outer rear portions $B^3 B^3$ of the blank form a support for the rear end of the tray. As shown in Fig. 1, the bottom of the tray is flat, and these portions $B^3 B^3$ are bent upward in order to support the tray in a normally-horizontal position. If, however, the bottom of the tray were slightly rounded in cross-section, it would not be necessary to give this upward bend to the portions B^3 . The outer forward ends B^4 of the blank are bent downward at an angle of from twenty to forty-five degrees to the horizontal, so that when the tray is pressed down to the position shown in dotted lines in Fig. 1 the coin contained therein will readily slide into the hand of the person receiving the change. I may, if desired, stamp out the arms B' so that their free ends will not extend quite to the ends of the blank, thus leaving at each end a cross-strip connecting the parts $B^3 B^3$ and $B^4 B^4$. The tray C is also made of sheet material, the blank therefor being shown in Fig. 5. The main portion of this blank is substantially elliptical or oval and is provided at its front end with two diagonally-extending wings, which are bent upward upon the lines cc until their ends meet and are united by a lock-seam c' to form the overhang C' . This overhang forms, with the bottom of the tray, an elliptical or semi-elliptical delivery-mouth for the discharge of the coin. This mouth is sufficiently large to permit the discharge of five or more silver dollars simultaneously. The edges of the tray are raised to form the sides C^2 , in order to prevent falling off of the coin. As coins are extremely liable to adhere to a smooth surface, as before stated, I prefer to provide the bottom of the tray with a series of corrugations converging from the rear end toward the mouth, and sufficiently close together to enable the smallest coin to rest upon the sharp edges between the corrugations instead of in the grooves.

The tray is preferably pivoted to the support B by a wire link D , one side of which rests in the trunnions B^2 . The middle of the other side of the loop is provided with a raised portion D' , formed on each side of the point where the ends of the wire loop meet.

The loop passes through the two perforations C^3 in the bottom of the tray, and the portion of the tray between these holes is depressed at C^4 to receive the correspondingly-raised portion of the loop, as shown in Fig. 2. It will be seen that by securing the loop to the tray in this manner the top of the raised portion of the loop may be held in place, so as to offer no obstruction to the passage of the coins to the mouth of the tray. I may effect the same result, however, by simply passing the ends of the loop through the perforations C^4 and then heading these ends.

A thumb-screw E may be provided in the side of the stand A , by means of which screw the tray and its support can be raised and

lowered, if desired. It is evident, however, that if the arms B' are formed of resilient material—such as spring-steel—made slightly divergent at their free ends and so shaped as to fill the recess in the stand A , they will spread and bind tightly against the walls of said recess, whereby vertical adjustment of said tray and its support B may be effected with relation to the stand and accidental separation of the parts prevented without the use of the thumb-screw E .

The operation of my invention will be readily understood from the above description. The device is placed upon the counter or at the side of the cashier's or teller's window in a store, bank, or similar place, the mouth of the tray being toward the front side of the counter or desk. The coin then being placed in the tray, the purchaser or other person who is to receive the change presses down with his thumb or with one hand upon the front end or mouth of the tray and the money slides into the hand held to receive it. When the pressure is removed, the tray returns to its normal position by gravity. The tray may be depressed with one hand and the coin received in the other, or it may be depressed with the thumb and the money received in the same hand. When my device is placed at the side of the cashier's or teller's window, the mouth of the tray should project slightly beyond the edge of the desk or counter. The tray may also be slightly longer than when the device is intended for use on an open counter.

I do not wish to be understood as limiting myself to the exact details of construction shown and described, as it is evident that they may be modified without departing from the spirit of my invention. For instance, the tray may be secured to the support B by soldering or pivoted thereto in any other desired manner. The stand A and the support B may be formed in one piece of cast metal, and in order to prevent any waste of material the blank B may be stamped out as an exact rectangle, with the trunnions B^2 included in the rectangle instead of projecting from it, or formed with cross-bars at the front and rear ends thereof, formed integral with the end pieces $B^3 B^3 B^4 B^4$.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A coin-delivering apparatus comprising a stand or pedestal and a tray pivoted thereto in a normally-horizontal position and having a delivery-mouth at its front end and a body provided with longitudinal corrugations converging toward said mouth, said front end being adapted to be depressed and then returned to its normal position by gravity, substantially as described.

2. A coin-delivering apparatus comprising a stand or pedestal and a vertically-adjustable tray pivoted thereto in a normally-horizontal position and having a delivery-mouth

at its front end and a body provided with longitudinal corrugations converging toward said mouth, said front end being adapted to be depressed and then returned to its normal position by gravity, substantially as described.

3. A coin-delivering apparatus comprising a stand or pedestal and a vertically-adjustable tray pivoted thereto in a normally-horizontal position and having raised edges, a funnel-shaped delivery-mouth at its front end, and a body provided with longitudinal corrugations converging toward said mouth, said front end being adapted to be depressed and then returned to its normal position by gravity, substantially as described.

4. A coin-delivering apparatus comprising a stand or pedestal, a tray pivoted thereto in a normally-horizontal position, but adapted to be depressed at its front end and then returned to its normal position by gravity, and having a delivery-mouth and a body provided with longitudinal corrugations converging toward said mouth and a stop for limiting the downward movement of said front end, substantially as described.

5. A coin-delivering apparatus comprising a stand or pedestal, a trunnioned support mounted thereon and carrying front and rear stops, the latter stopping the tray in a horizontal position, and a tray pivoted in the trunnions of said support and held in a normally-horizontal position by said rear stop, but adapted to have a downward movement at its front end limited by the front stop, and having a delivery-mouth and a body provided with longitudinal corrugations converging toward said mouth, substantially as described.

6. A coin-delivering apparatus comprising a stand or pedestal, a trunnioned support mounted thereon and carrying front and rear stops, the latter stopping the tray in a horizontal position, and a tray pivoted in the trunnions of said support and held in a normally-horizontal position by said rear stop, but adapted to have a downward movement at its front end limited by the front stop, and having a funnel-shaped delivery-mouth and a body provided with longitudinal corrugations converging toward said mouth, substantially as described.

7. A coin-delivering apparatus comprising a stand or pedestal, a vertically-adjustable trunnioned support mounted thereon and carrying front and rear stops, the latter stopping the tray in a horizontal position, and a tray pivoted in the trunnions of said support and held in a normally-horizontal position

by said rear stop, but adapted to have a downward movement at its front end limited by the front stop, and having a delivery-mouth and a body provided with longitudinal corrugations converging toward said mouth, substantially as described.

8. A coin-delivering apparatus comprising a stand or pedestal, a vertically-adjustable trunnioned support mounted thereon and carrying front and rear stops, the latter stopping the tray in a horizontal position, and a tray pivoted in the trunnions of said support and held in a normally-horizontal position by said rear stop, but adapted to have a downward movement at its front end limited by the front stop, and having a funnel-shaped delivery-mouth and a body provided with longitudinal corrugations converging toward said mouth, substantially as described.

9. A support for a coin-tray, having ears, a bar or plate constituting front and rear stops, and a stem-support, all for attachment to said tray and formed integral with each other from sheet metal.

10. A support for a coin-tray, having a bar or plate constituting front and rear stops and a split stem-support, all formed integral with each other from sheet metal, in combination with a stand for the reception of said support.

11. In a coin-delivering apparatus, the combination, with a coin-tray and its stand or pedestal, of a support upon which said tray is pivotally mounted, said support having divergent spring-arms adapted to enter and fill a corresponding recess in said stand and bind tightly against the walls thereof, whereby vertical adjustment of said tray and support may be effected with relation to said stand and accidental separation of said parts prevented, substantially as described.

12. A coin-delivering apparatus comprising a stand or pedestal and a tray pivoted thereto in a normally-horizontal position and having a funnel-shaped delivery-mouth, said tray being formed from a single piece of sheet material and preponderating in the rear of its horizontal axis, but pivoted in front of said axis, whereby when the tray is depressed at its front end it returns to its normal position by gravity, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE M. LOCKWOOD.

Witnesses:

C. S. CUAMPION,
K. C. HORIGAN.