J. E. DOLDT.

COIN PACKAGING DEVICE.

APPLICATION FILED DEC. 13, 1907.

1,085,673.

Patented Feb. 3, 1914.

FIG. 1

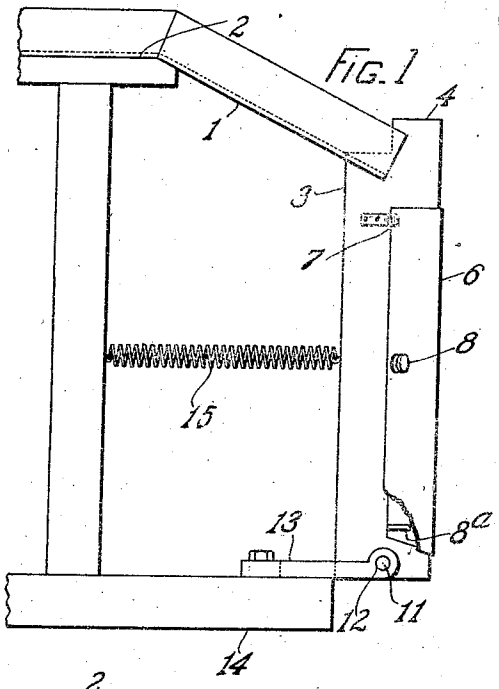
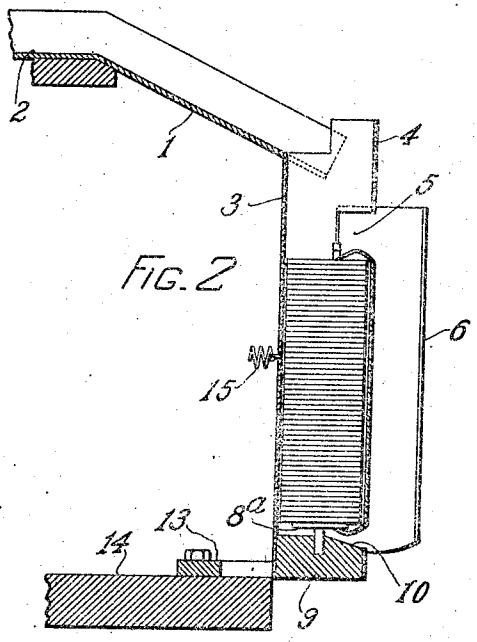


FIG. 2



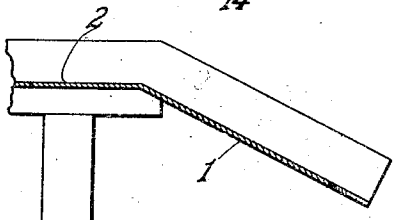


FIG. 3

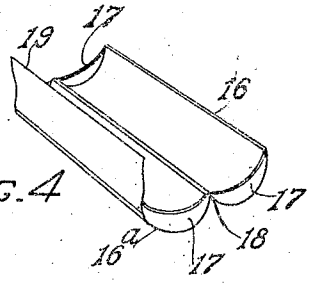
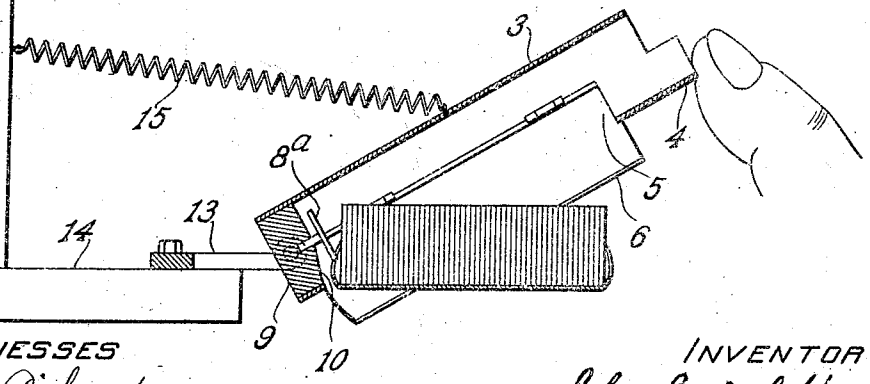


FIG. 4



WITNESSES

A. C. Richardson.

Edward L. Day

INVENTOR

John E. Doldt

by Phillips Van Everen Fish

Attys.

UNITED STATES PATENT OFFICE.

JOHN E. DOLDT, OF PORTLAND, MAINE, ASSIGNOR, BY MESNE ASSIGNMENTS, TO DOLDT COIN HANDLING MACHINE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

COIN-PACKAGING DEVICE.

1,085,673. Specification of Letters Patent. Patented Feb. 3, 1914.

Application filed December 13, 1907. Serial No. 406,262.

To all whom it may concern:

Be it known that I, JOHN E. DOLDT, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Coin-Packaging Devices; 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.

The invention relates to devices for use in forming packages or rolls of coin such as are extensively used in banking and commercial houses.

One object of the invention is to provide means whereby a series or stack of assembled coins may be rapidly and conveniently inclosed in a containing wrapper.

A further object is to provide devices whereby an operator may rapidly and conveniently assemble the requisite number of coins in an alined stack or series and apply a wrapper thereto.

In accordance with one of the principal features of the invention, the coins to be wrapped are delivered either manually or automatically into a coin retainer constructed to hold the coins face to face in an alined series. This retainer is provided with a discharge opening extending longitudinally throughout the length of the stack or series of coins in the container, and so arranged that a wrapper may be held by the operator in position over the discharge opening. The coin retainer is so supported that it may be moved by the operator after he has placed the wrapper over the discharge opening into such position that the stack or series of coins in the container will fall through the opening onto or into the wrapper held by the operator. The coins delivered into the retainer may thus be conveniently and quickly transferred from the retainer to a wrapper, and after the transfer has taken place the operator may quickly and conveniently close and seal the wrapper, thus completing the packaging of the coins.

To facilitate the packaging operation the coin retainer is preferably held in normal position where it receives the coins by a spring which will act to automatically return the retainer into position to receive a second series or stack of coins immediately it is released by the operator.

It is preferred to arrange the retainer in a normally vertical position so that the coins will be superimposed therein in a vertical stack, and in such case the retainer should be provided with a device for closing or partially closing the discharge opening while the coins are being delivered into the retainer, the closing device being arranged so that it can be readily moved into inoperative position prior to the placing of the wrapper over the discharge opening and returned to position where it will prevent the escape of the coins when the retainer is returned to its normal position.

In embodying the invention in a device or machine in which the coins are supplied to the coin retainer by delivering individual coins to the retainer in succession until the requisite number have been delivered, I prefer to direct the coins into the retainer by means of a guiding chute arranged at such an inclination that the coins will slide down the chute, and to arrange the receiver in a substantially vertical position at the end of the chute. In this form of the invention it is important that the coins passing from the end of the chute into the upper end of the receiver should be brought into such position that they will drop flat-wise into the retainer. In order to insure the proper positioning of the coins as they pass off from the end of the delivery chute I provide means for changing the plane of the coin so that it lies in a substantially horizontal plane when it is free to drop into the retainer. This means preferably consists of a guiding surface at the end of the chute which lifts the advancing end of the coin as it shoots off the end of the guide chute and flips it into a horizontal or substantially horizontal position. This feature of the invention may be employed with advantage in various constructions where it is desired to cause coins to fall flatwise into a retainer or tube to which they are delivered by sliding down an inclined guide-chute.

The features of the invention above referred to, as well as the further features of the invention which will be more particularly pointed out in the claims, will be readily understood from an inspection of the accompanying drawings in which a packaging device is shown embodying the features of the invention in the forms in which I prefer to use them.

In these drawings Figure 1 is a side elevation of the coin-packaging device; Fig. 2 is a vertical central section showing the wrapper in position at the discharge opening of the coin retainer; Fig. 3 is a similar sectional view showing the retainer tipped into position to transfer the coins to the wrapper; and Fig. 4 is a perspective view of a form of wrapper which it is preferred to use in connection with the coin retainer illustrated.

In the drawings the invention is shown embodied in a device or machine in which the coins are delivered to the coin retainer by means of an inclined guide chute 1. The coins may be supplied to this guide chute by an operator who separates the coins from a mass of coins on a supporting table or tray 2 and directs them into the upper end of the chute, or they may be delivered into this chute by an automatic counting mechanism which acts to deliver a certain number of coins and then ceases to act until again thrown into operation by the operator. In either case the coins slide down the guide chute 1 and are delivered into the upper end of a coin-receiving tube 3 which is arranged in a substantially vertical position at the lower end of the chute. The upper end of that half of the coin-receiving tube 3 which is toward the end of the guide chute is so formed that it lies in a substantially horizontal plane and in this form of the invention the upper end of the receiving tube forms the means for lifting the coins into a substantially horizontal position as they pass off of the end of the guide chute. The side of the receiving tube which is in front of the end of the guide chute is extended up at 4 to form a stop for arresting the coins when they come into position over the upper end of the tube.

As the coin slides down the chute 1 its front end rides onto the upper edge of the tube 3 and is thrown upward out of the plane of the chute so that when the coin strikes against the front side of the tube it is in a substantially horizontal position, or in such position that it will fall flatwise into the tube. The particular plane in which the upper end of the tube should lie, that is, whether in a horizontal plane or somewhat inclined to either side of the horizontal plane, will depend upon the inclination of the chute 1 and upon the size and weight of the coins being operated upon, and should be such that the coins will be lifted or flicked into such position as to insure their dropping flatwise into the tube.

The coin-receiving tube 3 is provided on its front side with a longitudinal opening 5 which extends substantially dianetrically across the tube and extends longitudinally beyond the upper and lower ends of the stack or series of coins which is collected within the tube. During the delivery of the coins to the receiving tube this opening 5 is closed by a door 6 hinged at one end of the opening and held closed by a spring clip 7. The door is provided with a knob 8 so that the operator may readily open and close it. The coins delivered to the receiving tube 3 are supported upon a plate 8^a arranged somewhat above the bottom plug 9 of the tube so that there is a free space between the disk and the plug. The bottom plug of the tube is also beveled off at 10 so as to leave space for the convenient application of the wrapper to the coins within the tube and the convenient removal of the wrapper and coins when the tube returns to its normal position as hereinafter described.

The receiving tube 3 is supported at its lower end by trunnions 11 which engage bearings 12 formed in a plate 13 which is securred to the base plate 14. The tube is held normally in position at the end of the chute 1 by a spring 15.

When the desired number of coins have been delivered into the tube 3 the operator opens the door 6 and places the wrapper in position at the opening holding the wrapper against the stack of coins with the fingers while he places his thumb over the top of the tube. The wrapper may be in any desired form and may be directly pressed against the coins by the fingers of the operator or may be a sheet of paper held within a former which partially forms the wrapper. It is preferred to use the form of wrapper which is extensively used in packaging coins and known as the "Detroit wrapper." This wrapper is the form indicated in Fig. 4, and consists of two sections 16 and 16^a provided with inturned flanges 17 at their ends and united by a thin strip of paper which forms a hinge at 18, and a gummed flap at 19. In using this wrapper the operator applies the section 16 to the coins as indicated in Fig. 2, the lower end or the flange 17 of the wrapper passing under the thin plate 8^a which supports the coins. While holding the wrapper against the coins with his fingers the operator tips the tube 3 into the position indicated in Fig. 3 so that the stack of coins falls through the opening 5 in the tube, the operator allowing the coins and package to drop down as indicated in Fig. 3. The operator then releases the tube feed, which is returned to normal position by the spring 15, the coins and wrapper remaining in the hand of the operator. The section 16 of the wrapper is closed over the coins and the gummed flap 19 secured in place, thereby completing the packaging of the coins. When the tube is returned to normal position the operator closes the door 6 and the tube is ready to receive a new supply of coins.

Having set forth the nature and object of

the invention and specifically described one form of device in which it may be embodied, what I claim is:

1. A coin packaging device comprising a coin retainer for holding coins face to face in an alined series, provided with a discharge opening extending the length of the series and so arranged that a wrapper may be applied thereto, and devices for supporting the retainer having provision for permitting movement of the retainer into position to cause the series of coins to fall laterally through the discharge opening, substantially as described.

2. A coin packaging device comprising a coin retainer for holding coins face to face in an alined series, provided with a discharge opening extending the length of the series, a device for preventing the discharge of the coins through the opening movable into and out of operative position, and devices for supporting the retainer having provision for permitting movement of the retainer into position to cause the series of coins to fall laterally through the discharge opening, substantially as described.

3. A coin packaging device comprising a pivoted coin receiving tube, a longitudinal opening in the side of the tube through which a series of superimposed coins may pass laterally out of the tube, means for delivering coins flatwise into the upper end of the tube, and means for retaining the tube in substantially vertical position constructed and arranged to allow the tube to be tilted into position where the coins will fall laterally through the discharge opening, substantially as described.

4. A coin packaging device comprising an inclined chute down which the coins slide, a substantially vertical coin receiver, and means at the sides of the receiver for lifting the advancing edge of each coin as it leaves the inclined chute so that it will drop flatwise into said receiver, substantially as described.

5. A coin packaging device comprising an inclined chute down which the coins slide, a substantially vertical coin receiver having an open end at the end of the chute, and coin guides at the sides of the receiver arranged to lift the coin into a substantially horizontal plane as it passes over the open end of the receiver, substantially as described.

6. A coin packaging device comprising a coin receiving tube, a coin support at the bottom of the tube arranged to overlie the flange of a coin wrapper, an opening at one side of the tube extending diametrically across the tube and longitudinally throughout the length of the stack of coins collected in the tube, a door for closing the opening, and means for supporting the tube constructed to allow the tube to be tilted into position where the coins will fall laterally through the opening, substantially as described.

7. A coin packaging device comprising a coin receiving tube, a disk at the lower end of the tube for supporting the coins therein, means for delivering coins into the tube, an opening in the front of the tube extending diametrically across the tube and longitudinally throughout the length of the stack of coins supported within the tube and pivotal supports for the tube, substantially as described.

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

JOHN E. DOLDT.

Witnesses:
EBEN WINTHROP FREEMAN,
FRED V. MATTHEWS.