Dec. 5, 1939. S. R. BLACKSTONE 2,182,464

COIN PACKER

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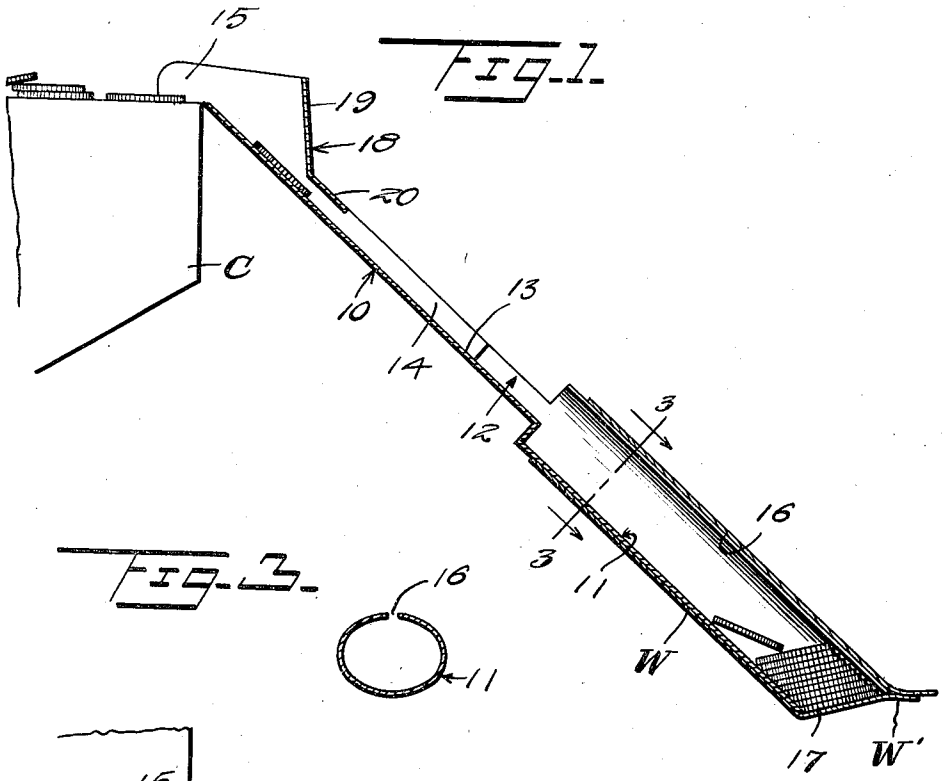


Fig. 1.

Fig. 3.

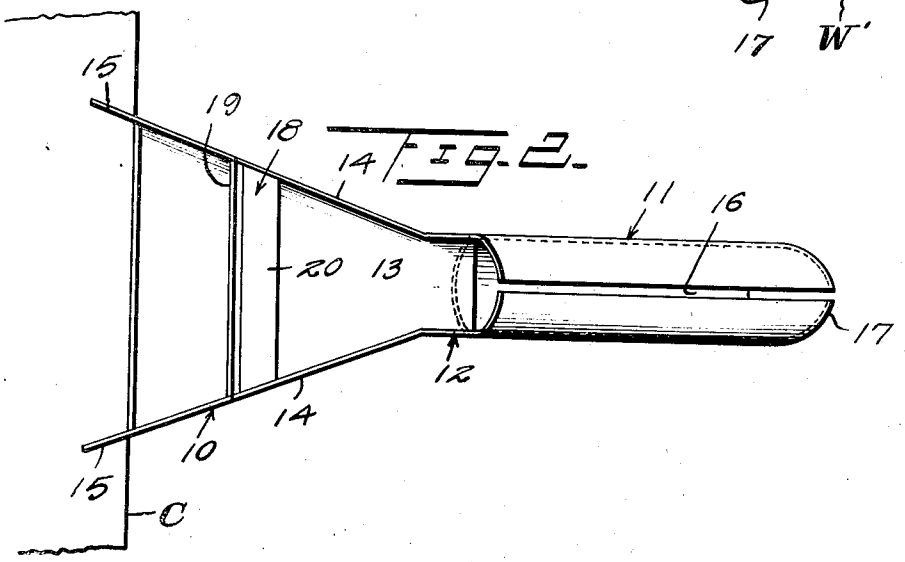


Fig. 2.

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COIN PACKER

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4 Claims. (Cl. 133—1)

This invention has for its object a simple and very efficient coin packaging device designed to facilitate, in banks, stores and the like, the packing of coins in the conventional paper wrappers now in common use, whereby the coins may be easily handled and readily counted.

My improved coin packer possesses distinctive advantages which I will specify hereinafter along with my description of the construction and arrangements of the different parts, as I feel that such advantages can be best emphasized or explained in that way, and reference is to be had to the following description and accompanying drawing, in which

Figure 1 is a longitudinal sectional view of a coin packer embodying the improvements of my invention.

Fig. 2 is a top plan view thereof, and

Fig. 3 is a detail section on the line 3—3 of Fig. 1.

Described generally, my coin packer, preferably formed of relatively thin steel, comprises a funnel-shaped trough 10, a wrapper supporting core 11 in the form of a longitudinally split contractile tube, and a neck 12 integrally joining the trough 10 and the tube 11.

The trough 10 is formed with a flat bottom 13 and downwardly converging side walls 14, the upper ends of which project beyond the bottom 13 to form fingers 15 adapted to engage the upper surface of a desk, table, or counter C when the device is held by one hand of the coin counting clerk for actual use. The core 11 which is designed to support the conventional cylindrical paper wrapper W for the coins, in the practical use of my device, is in the form of a longitudinally split tube, as hereinbefore stated, 16 designating the split or longitudinal slot which extends from one end of the tube to the other, as clearly illustrated in Fig. 2, and this tube or wrapper supporting core is, as also hereinbefore stated, capable of contraction and expansion which, with the longitudinal split or slot 16, serves two purposes, namely, to allow the requisite contraction and expansion in case the paper wrapper W is not exactly of the correct diametrical dimensions, and secondly in order to show, when the paper wrapper is filled and slipped off the tube, whether or not all of the coins are completely in the wrapper before the wrapper is completely removed from the tube.

It is to be particularly noted that the lower end of the tube or wrapper supporting core 11 is cut off (undercut) at an oblique angle, as illustrated at 17, and it is also to be noted that the tube is oval in shape, or in other words, elliptical in cross-section with the major axis relatively horizontal, as best illustrated in Fig. 3. The inside width of the tube on this axis is slightly greater than the diameter of the coin handled, the outside width of the tube along the minor axis being less than the diameter of the coin. By means of these two features, the coins will stack up at an angle, as clearly illustrated in the drawing. Since the tube is made in an oval shape, enough space is provided at the sides of the coin, or the ends of the ellipse, to let the coins slip smoothly into the tightly fitting paper wrapper surrounding the tube as the wrapper is drawn therefrom. This is important because, as is manifest, a coin at an angle takes less circumference than it would if slid down perpendicularly to the tube and paper wrapper in which it is finally packed. The area of the ellipse defined by the inner perimeter of the tube, is less than the total area of a coin and the outside perimeter of the oval, as seen in Fig. 3, is substantially equal to the perimeter of a coin. Thus the coin wrapper, when drawn from the tube when the latter is filled with coins, will receive the coins in the sloping stack which they form in the tube, and as the stack is pressed down in the wrapper, the wrapper will be filled out tightly with the coins.

18 designates a guard which extends across the funnel-shaped chute 10 of my device near the upper end of the latter, said guard being spaced from the bottom 13 of the chute and comprising a somewhat vertical upper portion 19 and a lower portion 20, which latter extends parallel with the plane of the surface of the bottom 13, whereby only the flat coins flush with the bottom of the chute will be permitted to slide thru because manifestly if two coins one on top of the other were allowed to slide thru they would not subsequently adjust themselves properly in the tube or wrapper supporting core 11.

The neck 12 is, of course, of a width corresponding approximately to the diameter of the coins for which the device is made, and preferably the bottom surface of the neck 12 is positioned a little below the median plane of the tube 11, as best illustrated in Fig. 1, so that the coin will ride or slide at the same level practically all the way down until it reaches the bottom or the top of the coin already down in the tube ahead of it.

In addition to the advantage hereinbefore described of the obliquely cut off lower end of the tube 11 in causing the coins to assume an oblique position in the tube and its surrounding paper

wrapper, this feature possesses another advantage, in that the point formed by the obliquely cut-off lower end of the tube will act in the nature of an entering wedge to facilitate slipping the paper wrapper upon the tube.

In the practical use of my improved coin packer, the clerk for example, first slips the paper wrapper W upon the tube, then bends a part of the paper wrapper adjacent the bottom across the open end of the tube, as shown in Fig. 1 and grasps the tube 11 with one hand holding the bent bottom part of the paper wrapper closed by means of his little finger or one of the lower fingers of this same hand. Then he raises the device at an angle against the edge of the desk or counter, holding the device at an angle as illustrated in the drawing, to permit the coins to slide flat all the way and not fall indiscriminately into the tube, which would cause bunching and clogging. The other hand, of course, is used to count the coins and slide them off the counter onto my coin packer, whence they will slide down the funnel-shaped chute 10 past and thru the neck 12 into the contractile and oval tube 11 with the wrapper W supported on it, and when the requisite number of coins have been counted the operator still holding the lower end of the wrapper closed, will slip it off the tube 11, and if the clerk finds that all the coins have slipped off into the wrapper, he will simply bend over the thin upper end of the paper wrapper so that both ends of the wrapper or paper cylinder will be closed and the operation is thus completed.

Manifestly the device can be made for any and all sizes of coins. There would, of course, be different models to fit each separate size of coin in order to get the best results, the neck 12 and the contractile wrapper supporting tube 11 being properly proportioned in width with that in view.

In speaking of the tube or wrapper supporting core 11 being elliptical in cross-section, it will, of course, be understood that the longer axis is relatively horizontal as clearly illustrated in Fig. 3 of the accompanying drawing.

While the accompanying drawing illustrates what I believe to be the preferred embodiment of my invention, it is to be understood that the invention is not limited thereto and that various changes may be made in the construction, arrangements and proportions of the different parts without departing from the scope of the invention as claimed.

I claim:

1. A coin packer, comprising a coin receiving chute having a coin discharge mouth which has a flat bottom, and a wrapper supporting tubular core connected at one end with said mouth and the other end being open, said core being of an elliptical cross-section for the support of coins obliquely therein and said mouth having the flat bottom thereof extending across the core parallel to and substantially on the long axis thereof.

2. A coin packer, comprising a coin receiver having a coin discharge mouth in the form of a flat chute, and a wrapper supporting tubular core open at its lower end and having an elliptical cross-section, said chute having the bottom of the discharge end secured across one end of the core with the end edge of the chute extending substantially along the long axis of the core and relatively horizontally when the packer is in use.

3. A coin packer, comprising a coin receiver having a flat bottom and side walls extending in convergent relation toward one end thereof and forming at said end a discharge mouth of a width slightly greater than the diameter of a coin, a flat coin guide neck leading from said mouth and having a bottom forming an integral extension of the bottom of the receiver and a coin wrapper supporting tube of elliptical cross-section having the end of said guide neck secured at one end thereof, the edge of the bottom of the neck extending across the end of the tube parallel with the long axis thereof and secured to the tube edge at opposite points on the latter.

4. A coin packer, comprising a coin receiver having a flat bottom and side walls extending in convergent relation toward one edge thereof and forming at said edge a discharge mouth of a width slightly greater than the diameter of a coin, a neck forming a continuation of the receiver at the mouth and having a bottom and side walls forming continuations of the bottom and side walls of the receiver, the neck side walls being parallel, a coin wrapper supporting tube of elliptical cross-section open at the bottom and having the bottom of said neck extending transversely across an end of the tube on a line paralleling the long axis of the tube, the side walls of the neck forming integral continuations of the sides of the tube and the forward edge of the bottom of the neck being joined to the adjacent underlying end edge of the tube.

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