March 14, 1939. A. N. WAGNER 2,150,473

DEVICE FOR FILLING COIN WRAPPERS WITH COINS

Original Filed March 8, 1935

Fig. 1.

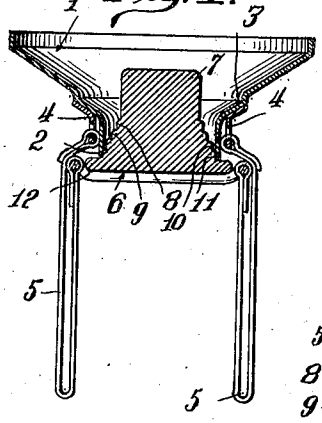


Fig. 2.

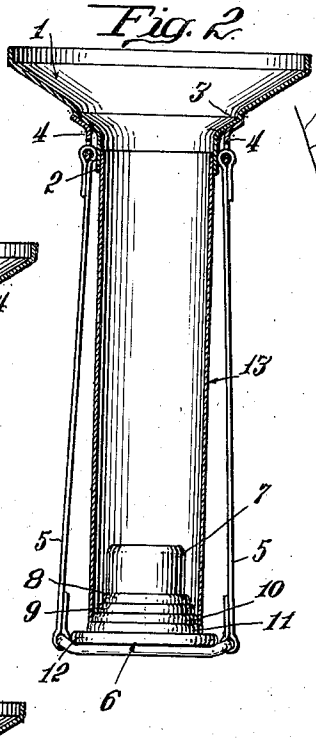


Fig. 3.

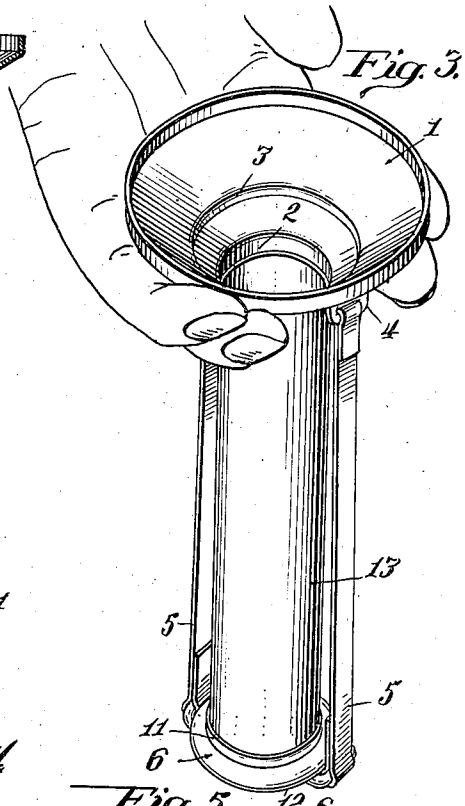


Fig. 4.

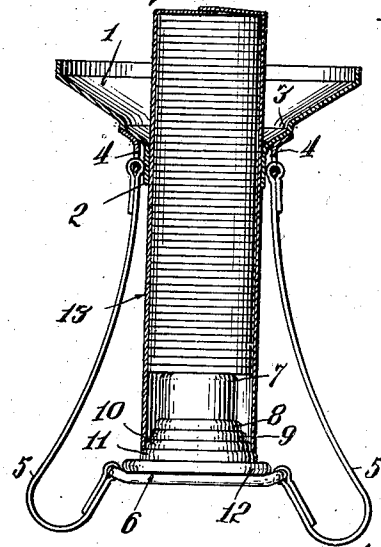


Fig. 5

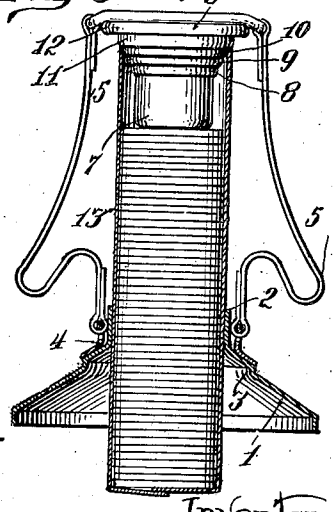


Fig. 6.

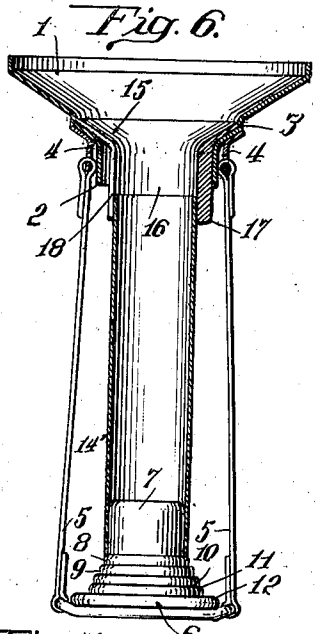
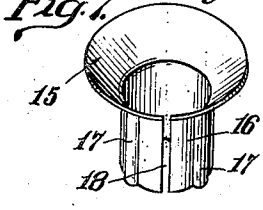


Fig. 7.



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DEVICE FOR FILLING COIN WRAPPERS WITH COINS

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Application March 8, 1935, Serial No. 10,029
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13 Claims. (Cl. 133—1)

The invention has for its object to provide a very compact, simple and efficient device to receive paper coin tubes of various sizes to be filled with coin stacks of respectively different denominations and wherein the paper tube, per se, constitutes an element of the device when the latter is in use.

The specific objects of the invention will be understood or recited in the following specification.

In the accompanying drawing illustrating a suitable embodiment of the invention,

Fig. 1 is a central, vertical, sectional view of a device constructed in accordance with the invention, showing the same in folded or collapsed condition for insertion into a coin receiving bag such as is carried by collectors of coins from telephone toll boxes and the like.

Fig. 2 is a view similar to Fig. 1, showing the device in the position in which it is used with a paper coin receiving tube inserted therein.

Fig. 3 is a perspective view in elevation of the structure shown in Fig. 2, showing the same held in position to receive coins from a table or the like.

Fig. 4 is a view similar to Fig. 2 showing the coin tube filled with coins of the proper denomination and closed at one end.

Fig. 5 is a view similar to Fig. 4 showing the device in inverted position proparatory to releasing the tube from the device and closing the other end of said tube to complete the wrapping of the stack of coins contained therein.

Fig. 6 is a view similar to Fig. 2 showing the device equipped with a reducing funnel, for engaging the receiving end portion of a coin wrapping tube of smaller diameter than that shown in Figs. 2 to 5 inclusive.

Fig. 7 is a perspective view of one of the reducing funnels adapted to be employed.

The device of the present invention comprises a funnel 1 having a relatively short neck or discharge spout 2 and which is provided with an offset 3 between its discharge spout and its rim. Secured to the funnel 1, at diametrically opposite points, is a pair of laterally slotted projections 4 to which the upper ends of the flexible straps or tapes 5 of suitable material are secured.

Secured to the lower ends of said straps or tapes 5 is a bottom member 6 constituting the support for the lower ends of coin wrapper tubes of different diameters to receive, for example, dimes, pennies, nickels and quarters, respectively. Said member 6 comprises a cylindrical member 7 and a series of annular enlargements 8, 9, 10 and 11 respectively, preferably integral with the member 7 and each of which presents an upper annular shoulder upon which a coin receiving tube of proper diameter is adapted to be supported. The cylindrical surface of the enlargement 11 is adapted to fit snugly into the discharge spout of the funnel 1 for holding said member 6 in place in the latter by friction when the device is in collapsed condition as shown in Fig. 1. The base member 6 presents an annular flange 12 against which the discharge end of the discharge spout of the funnel 1 abuts when the funnel and member 6 are in relative position illustrated in Fig. 1. A paper coin wrapper tube 13 of diameter to receive quarters may be inserted into the discharge spout of the funnel and is guided by the latter so that it rests upon the shoulder at the upper end of the annular enlargement 11 and said tube, when so engaged with the member 6, is pushed down through the discharge spout of the funnel until it attains the position shown in Fig. 2, whereupon, it constitues the body of a receptacle of which the member 6 constitutes the bottom wall or member. The top of the cylindrical projection 7 of the member 6 constitutes a false bottom upon which the quarters projected into the tube 13 will rest, the position of the top surface of the member 7 being such that when the number of quarters to be comprised in the stack contained in the tube 13 has been projected into said tube, it will have attained the same length of end portion at the upper end of the tube 13 disposed above the coin stack, as is provided below the top surface of the member 7.

As shown in the drawing, the funnel 1 comprises a conical portion, the upper end of which has a diameter equal to at least half the circumference of the flexible tube 13, the lower end of the conical portion having a diameter slightly greater than the outside diameter of the tube so that in use even if the paper tubes are folded flat before insertion into the conical portion of the funnel, the taper of the funnel will cause the flat tube to bulge outwardly and assume a cylindrical form so that it will slip down into the circular lower portion of the funnel and will slip down over the coin supporting projection 7 when further inserted.

When the tube 13 is in the position shown in Fig. 2, the funnel 1 is supported between the second and third fingers of the left hand of the operator with a part of the rim of the funnel placed firmly against the cupped palm of the

hand, as indicated in Fig. 3. The coins to be received in tube 13 are usually disposed upon the top of a table or other raised flat surface and the funnel is disposed below the level of said surface and contiguous to the same, the palm of the hand holding the funnel being opposed to the edge of the said surface. The operator then projects the coins from the flat surface directly into the funnel or into the cupped palm of the hand engaging the funnel and said coins then drop successively by gravity into the tube 13 and become deposited upon the said member 7.

Generally speaking, forty quarters totalling $10.00 will be projected into the tube 13 and the height of said stack will be such as to provide ample end portions of the tube 13 to be folded upon said stack. After the stack of coins is disposed within the tube 13, the funnel 1 is moved toward the member 6 until the upper end portion of the tube 13 is sufficiently exposed to enable the same to be closed in the usual manner as shown in Fig. 4 and, thereafter, the whole device is inverted to the position shown in Fig. 5 whereupon the funnel and member 6 are disengaged from the tube 13 and the other end portion of the latter folded in upon the contained stack of coins to complete the wrapping of the latter.

In instances where paper tubes of smaller diameters are to be used, as for example, a tube 14 of a diameter and length to receive a stack of fifty dimes, and which is appreciably shorter than the tube 13, there is provided an insert funnel 15 having a discharge spout 16 equipped with a plurality of longitudinal rib formations 17 and which is preferably split, as shown at 18, so that its spout may be normally of slightly greater diameter than the inner diameter of the discharge spout 2 of the funnel 1. The body of the funnel 15 is of a diameter so that its rim will lie within the offset 3 of the funnel 1 when the spout 16 is passed through the spout 2 of the funnel 1. The inner diameter of the spout 16 of the funnel 15 will now coincide substantially with the outer diameter of the projection 7 of the member 6, the latter being disposed within said spout 16 when the lower end of the tube 14 is inserted. Said lower end portion of the tube 14 telescopically receives said member 7 and thereupon the respective component parts of the device are moved to the position shown in Fig. 6 whereupon the operations hereinbefore described are repeated.

Additional funnels similar to the funnel 15 and equipped discharge spouts of inner diameter to accommodate respective coin wrapper tubes of the size to receive pennies and nickels are provided and are used in the same manner as the funnel 15. The inner diameters of the discharge spouts of these additional funnels cooperate with the respective annular formations 8 and 9 to receive and engage the penny and nickel tubes respectively.

Obviously, the device is well adapted also for use in banks stores and offices for efficient wrapping of coins.

It may be observed that the coin wrapper tubes, such as tubes 13 and 14, are delivered in flat form to the users and are reshaped into cylindrical form by the mere act of primarily pressing together the side edges of the flat tubes to render the same almost cylindrical and then inserting the same into the discharge spout of the funnel adapted to receive the same, said spouts acting to render said tubes cylindrical.

The device is advantageous, not only by reason of its convenience, but also by reason of its low cost and convenience in handling as hereinabove described.

I claim as my invention:

1. A collapsible device of the type specified comprising a closure member for telescopic engagement with and the support of a paper tube intended to receive a stack of a predetermined number of coins of a given denomination and providing a coin stack support within the tube spaced from the supported end thereof, a funnel equipped with a short cylindrical neck adapted to telescopically receive and engage the coin receiving end portion of said tube and flexible longitudinally foldable members connecting said closure member with said funnel and limiting the spacing apart thereof to a distance less than the length of said tube while permitting said closure member and funnel to approach each other for collapsing the structure.

2. A collapsible device for loading a coin wrapper tube comprising a funnel equipped with a cylindrical neck through which a coin wrapper tube is adapted to pass, a member equipped with a plurality of annular spaced apart coin tube supporting shoulders and with a plurality of cylindrical surfaces of different diameters for supporting the lower ends of tubes of respectively different diameters and for telescopic reception within said tubes, respectively, removable devices engageable in the said funnel and the neck thereof for fitting tubes of different diameters passed through the funnel neck, and flexible, foldable means connecting said funnel with said member for limiting the spacing of the latter from said funnel.

3. A collapsible device for the purpose specified comprising a funnel, a closure plug for a coin wrapper tube, and longitudinally foldable means connecting the said plug with said funnel for permitting said plug and funnel to approach each other.

4. A collapsible device for the purpose specified comprising a funnel, a closure plug for a coin wrapper tube, and flexible longitudinally foldable means permanently connecting the said plug with said funnel for permitting the latter and said plug to become directly engaged with each other, said plug constituting also a closure plug for the funnel when the device is collapsed.

5. A collapsible coin-wrapper filling device comprising a base member equipped with an annular shoulder for supporting a paper tube and with a central portion adapted to fit telescopically within one end portion of said paper tube and providing a coin-stack support within and spaced from the extreme end of said tube, a funnel unsupported by but attached to and spaced from said base member and equipped with a discharge spout telescopically receiving the other end portion of said paper tube, the body of said funnel constituting a guide to receive coins and deliver the same into said tube, said funnel being movable toward said base member along said tube to expose the upper end portion of said tube to manual manipulation for closing the same.

6. A collapsible device for introducing coins into a coin wrapper tube, comprising a base member equipped between its ends with an annular wrapper tube support, a funnel equipped with a cylindrical neck for telescopically receiving the upper end portion of the wrapper tube, flexible devices connecting the funnel neck with the base member and permitting free relative movement of said base

member and funnel toward and from each other and being of such length that when the wrapper tube is supported upon said support, its upper end portion is disposed within the funnel neck below the body of the funnel as the latter is positioned at the limit of its movement away from said base member, a portion of the latter below said support being adapted to be telescopically engaged with said funnel neck when the device is not in use.

7. A collapsible device of the kind specified comprising a funnel, a closure plug digitally movable for telescopical engagement with the neck of said funnel for collapsing the device, an annular substantially cylindrical surface on said plug of smaller diameter than said neck of said funnel and adapted to fit snugly within the lower end of a conventional coin-wrapper tube, a wrapper supporting shoulder bordering said cylindrical surface, and longitudinally collapsible devices connecting said plug with the funnel and permitting the latter to be spaced from the funnel neck a predetermined distance and to permit the same to be axially aligned with said funnel neck and for cooperation with the latter for supporting the lower end of a wrapper tube whose upper end portion is disposed within the funnel neck to receive coins projected into said funnel.

8. A collapsible device of the kind specified comprising a funnel, a plug equipped at one end with an axially disposed coin stack support opposed to the neck of the funnel and equipped below said support with a short cylindrical surface adapted to fit a conventional coin tube of given diameter, an annular coin tube supporting shoulder at the base of said surface and a slightly greater diameter cylindrical surface below said shoulder adapted to fit telescopically within the neck of said funnel when the device is collapsed, and a pair of flexible foldable straps connecting the said plug with said funnel and limiting spacing of the latter from said funnel to a distance for causing the coin tube supported upon said shoulder to have its other end disposed within the funnel neck in coin receiving position, said funnel being movable along said tube toward said plug to expose its receiving end to manual closure.

9. A collapsible coin-wrapper loading device comprising a closure plug for the lower end of a coin wrapper tube, said plug equipped between its ends with an annular wrapper tube supporting shoulder, a portion of said plug arranged to project into the tube supported on said shoulder and constituting a coin-stack support spaced from the supported end of said tube, a loading funnel opposed to said plug, foldable means connecting said funnel permanently with said plug and permitting limited movement thereof from said plug axially of the latter, said funnel, when disposed at the last-named limit of its movement being positioned to embrace at its discharge end the receiving end of a wrapper tube of given length supported upon said shoulder of said plug, and when said funnel is moved toward said plug, exposing said receiving end of the wrapper tube to manual manipulation for effecting closure thereof.

10. A collapsible coin wrapping device comprising a coin receiving member equipped with a discharge opening for coins of a given denomination adapted to receive telescopically and relatively snugly a coin wrapper of diameter to fit said coins, a coin wrapper supporting member equipped with a coin stack supporting projection for extending telescopically into the lower end of a coin wrapper passed through said opening in said receiving member, a coin wrapper supporting shoulder bordering said projection, and collapsible means connecting said supporting member with said receiving member, said means being of such length as to so limit the maximum spacing apart of said members as to cause the upper end portion of a wrapper to project into said opening in said receiving member when the lower end of said wrapper is supported upon said shoulder, said projection of said supporting member being receivable into said discharge opening when said device is collapsed.

11. A collapsible coin wrapping device for use with coin holding tubes of flexible material, said device comprising a conical tube guiding and coin receiving funnel having a flaring entrance portion, the upper end of which has a diameter equal to at least half of the circumference of the flexible tube and the lower end of which has a diameter slightly greater than the outside diameter of the tube, and a circular tube-supporting portion having a diameter slightly greater than the outside diameter of the tube, a wrapper and coin stack supporting member having a coin stack supporting projection for extending telescopically into the lower end of the coin holding tube which is inserted through said funnel, a tube supporting shoulder adjacent said projection for engagement with the lower edge of the tube, and longitudinally extensible means connecting said supporting member with said funnel having sufficient movement to enable the tube containing its allotment of coins to be moved from a position in which the upper end of the tube does not extend into the flaring portion of the funnel to a position in which the upper end of the tube extends above the funnel sufficiently to enable the end of the tube to be folded down over the stack of coins.

12. A collapsible coin wrapping device for use with coin holding tubes of flexible material, said device comprising a conical tube guiding and coin receiving funnel having a flaring entrance portion, the upper end of which has a diameter equal to at least half of the circumference of the flexible tube and the lower end of which has a diameter slightly greater than the outside diameter of the tube, and a circular tube-supporting portion having a diameter slightly greater than the outside diameter of the tube, a wrapper and coin stack supporting member having a coin stack supporting projection for extending telescopically into the lower end of the coin holding tube which is inserted through said funnel, a tube supporting shoulder adjacent said projection for engagement with the lower edge of the tube, and longitudinally extensible means connecting said supporting member with said funnel having sufficient movement to enable the tube containing its allotment of coins to be moved from a position in which the upper end of the tube does not extend into the flaring portion of the funnel to a position in which an end of the stack of coins extends a substantial distance beyond the smaller part of the conical funnel.

13. A collapsible coin wrapping device for use with coin holding tubes of flexible material, said device comprising a conical tube guiding and coin receiving funnel having a flaring entrance portion, the upper end of which has a diameter equal to at least half of the circumference of the flexible tube and the lower end of which has a diameter slightly greater than the outside diameter of the tube, and a circular tube-supporting portion having a diameter slightly greater than the outside diameter of the tube, a wrapper and coin stack supporting member having a coin stack support-

ing projection for extending telescopically into the lower end of the coin holding tube which is inserted through said funnel, a tube supporting shoulder adjacent said projection for engagement with the lower edge of the tube, and longitudinally extensible means connecting said supporting member with said funnel having sufficient movement to enable the tube containing its allotment of coins to be moved from a position in which the upper end of the tube does not extend into the flaring portion of the funnel to a position in which a major portion of the coin stack extends beyond the smaller part of the conical funnel.

ALBERT N. WAGNER.