Aug. 20, 1929. E. P. DONNELLAN 1,725,345

BAG HOLDER

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Fig. 1

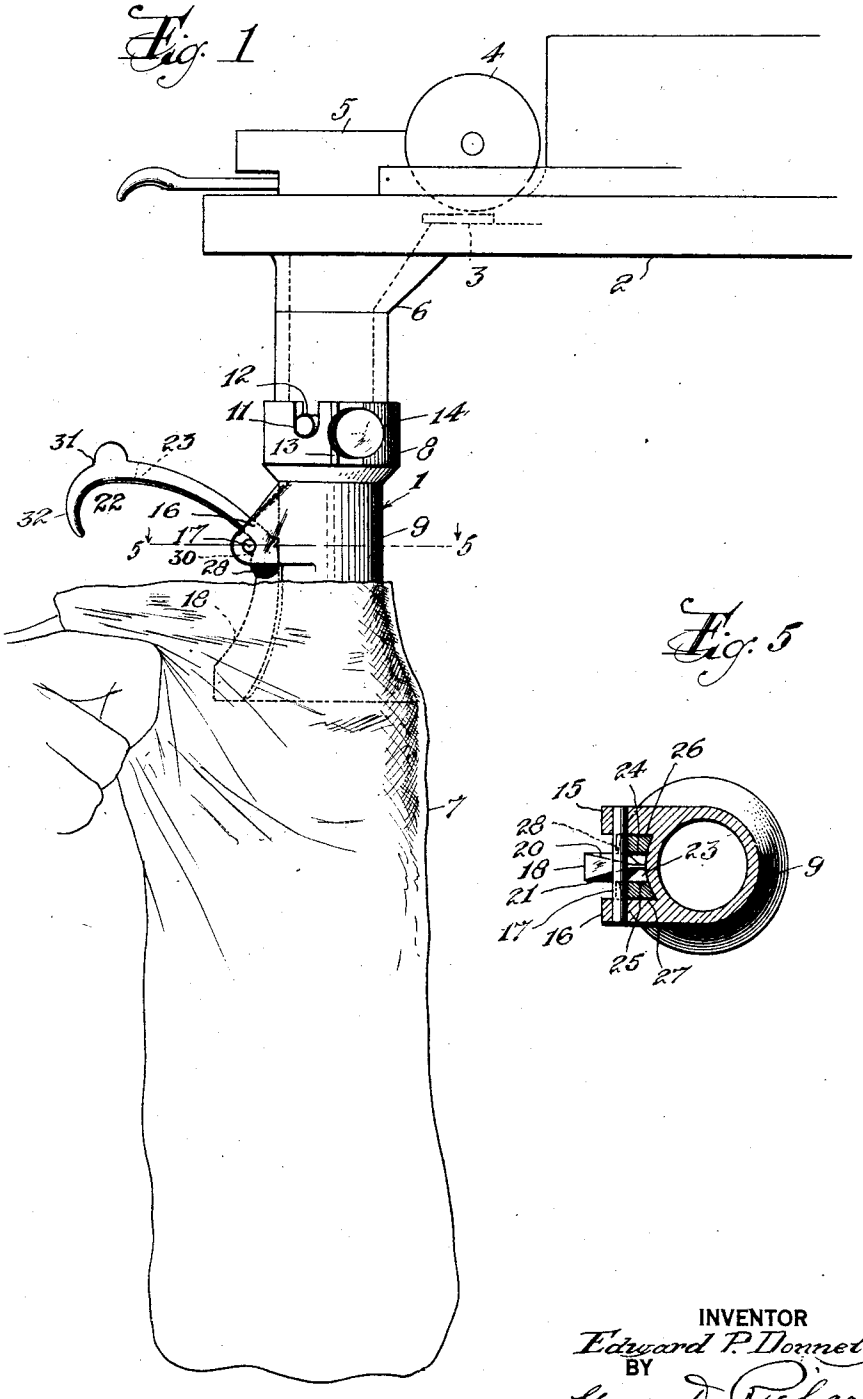


Fig. 5

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Fig. 2

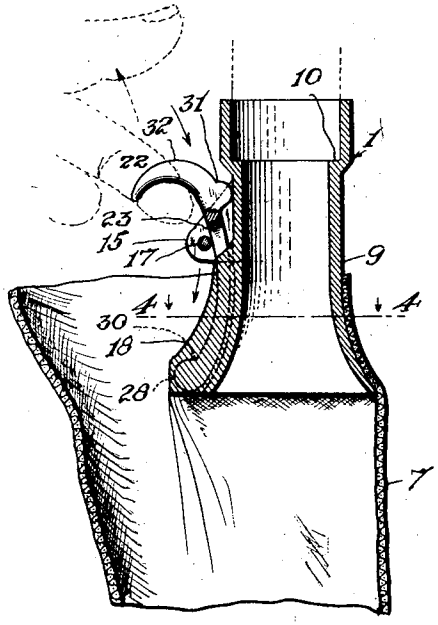
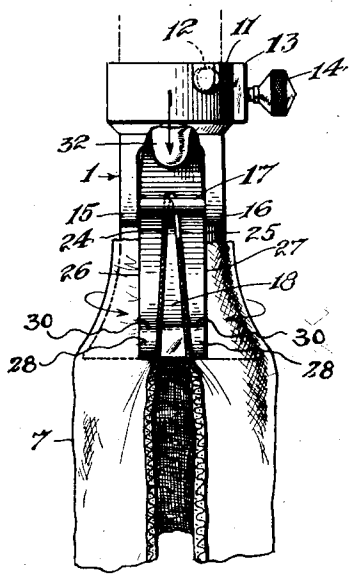


Fig. 3



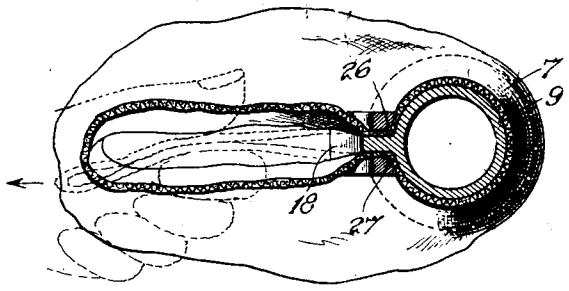


Fig. 4

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UNITED STATES PATENT OFFICE.

EDWARD P. DONNELLAN, OF BROOKLYN, NEW YORK, ASSIGNOR TO STANDARD-JOHNSON COMPANY, INC., OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

BAG HOLDER.

Application filed July 5, 1928. Serial No. 290,632.

This invention relates, generally, to bag holders or means for supporting bags or similar receptacles; and the invention has reference, more particularly to a novel bag holder that is adapted to support a bag while it is being filled.

The invention has for its principal object to provide a novel construction of bag holder that is quickly and easily operated both for the purpose of attaching a bag to the bag holder and for releasing it therefrom.

The invention has for a further object to provide a bag holder of the above character that is positive and reliable in operation and which grips the material of bag uniformly over a large surface so as to prevent injury or tearing of the bag.

A third object of the invention lies in the provision of a bag holder of the above character that may be quickly and easily attached to any apparatus employing a bag holder.

Still another object of the invention is to provide a bag holder of the above character that is not only of simple construction, but also is designed so as to reduce the wear of its several parts to a minimum, thereby enabling it to have an exceeding long life in use.

Other objects of the present invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

With the various objects of the present invention in view, the same consists, primarily, in the novel bag holder hereinafter set forth; and the invention consists, furthermore, in the various arrangements and combinations of the several devices and parts, as well as in the details of the construction of the same, all of which will be more fully described in the following specification, and then finally embodied in the claims which are appended hereto.

The invention is clearly illustrated in the accompanying drawings, in which:—

Fig. 1 is a view in side elevation of a coin counting machine equipped with the novel bag holder made according to and embodying the principles of the present invention, and illustrates the manner of attaching a bag to the bag holder;

Fig. 2 is a vertical central sectional view of the bag holder shown in Fig. 1 and shows a bag with parts broken away attached to the holder;

Fig. 3 is a front view of the structure shown in Fig. 2, parts of the bag being broken away;

Fig. 4 is a sectional view taken substantially along the line 4—4 of Fig. 2; and

Fig. 5 is a sectional view taken along the line 5—5 of Fig. 1.

Similar characters of reference are employed in all of the hereinabove described views, to indicate corresponding parts.

Referring now to the said drawings, the reference numeral 1 designates the novel bag holder of this invention as a whole. The bag holder 1 is illustrated as employed in conjunction with a coin counting machine 2. It is to be understood, however, that the invention is not limited to a bag holder for coin counting machines but may be employed whenever it is desired to support bags or similar receptacles for receiving articles or materials. A coin 3 is illustrated as passing under the propeller-wheel 4 during which movement it effects an operation of the coin counting mechanism 5. After passing propeller-wheel 4, coin 3 drops through the spout 6. From the spout 6 the coin 3 passes through the bag holder 1 and is deposited in the bag or similar receptacle 7.

The bag holder 1 is a hollow cylindrical member having an upper socket portion 8 and a body portion 9. Socket portion 8 is adapted to extend upwardly over the lower end portion of the spout 6. The socket portion 8 has an internal annular shoulder 10 that is adapted to abut the lower end of the spout 6 when the bag holder is mounted upon this spout. A vertical slot 11 is provided in the wall of the socket portion 8 and cooperates with a pin 12 projecting from the spout 6. While the bag holder 1 is being assembled upon the spout 6, the pin 12 serves to guide the bag holder into the desired angular position with respect to the spout 6. A lug 13 is formed on the wall of the socket portion 8. A thumb screw 14 is adjustably threaded through an aperture in the lug 8 and is adapted to abut against the spout 5, thereby serving to secure the bag holder 1 upon the spout 6. A pair of spaced parallel lugs 15 and 16 are formed upon the body

portion 9. A pin 17 extends through aligned apertures in the lugs 15 and 16 and is fixedly retained within these apertures. Below the lugs 15 and 16 the body portion 9 is flared outwardly and has a form similar to that of a bell. This flared portion of the bag holder is formed with a vertically extending projection or wedge block 18. Wedge block 18 has operative sides 20 and 21 that converge from the lower end of the wedge block toward the upper end thereof. The upper end of wedge block 18 is relatively narrow and is positioned midway between the lugs 15 and 16.

A clamping member designated as a whole by the reference numeral 22 is provided on the bag holder 1. Clamping member 22 is shaped to conform to the exterior of the body portion 9 of the bag holder 1. The central vertical portion of the clamping member 22 is cut away from the bottom upwardly for the greater part of the length of this member to provide a recess 23 conforming to the wedge block 18. The side walls 24 and 25 of recess 23 converge toward the upper portion of the member 22 and are adapted to cooperate with the operative sides 20 and 21 respectively of the wedge block 18 in securing a bag upon the bag holder. The recess 23 divides the greater part of the clamping member 22 into two side portions 26 and 27 that are adapted to extend downwardly alongside the wedge block 18 when in operative position. The lower ends of the side portions 26 and 27 are radially enlarged to form bosses 28. The bosses 28 prevent the clamping member 22 from being completely withdrawn from between the body portion 9 and pin 17. The juncture of the bosses 28 with the outer surfaces of the side portions 26 and 27 is curved and provides a bearing surface 30 that is adapted to turn upon the pin 17 during the operation of the bag holder as will be later described.

The inner surfaces of the side portions 26 and 27 of member 22 are concave to conform to the outer surface of the body portion 9. A stop shoulder 31 is formed upon the clamping member 22 near the upper end of the member. Stop shoulder 31 is adapted to engage the body portion 9, and cause the outer surfaces of the side portions 26 and 27 to engage the pin 17 to thereby limit the downward movement of the member 22 with respect to the body portion 9. The upper end portion of clamping member 22 is formed with an outwardly curved handle 32 which provides a convenient means for manually operating the clamping member 22.

The clamping member 22 is so designed and proportioned that when it is placed in the upper position illustrated in Fig. 1, in which position the bearing surface 30 rests against the pin 17 and the rear of bosses 28 bear against the body portion 9, then the weight of the portion of member 22 that overhangs the pin 17 causes this member to remain in this overhanging position. In this position of the clamping member the bosses 28 are located on opposite sides of the upper end of wedge block 18. When so positioned it requires but a slight upward pressure upon the handle 32 to cause member 22 to turn about the pin 17 and effect its downward movement into cooperating engagement with the wedge block 18.

In operation, to secure a bag to the bag holder 1, the clamping member 22 is placed in its upper position illustrated in Fig. 1 and the open end of the bag 7 is passed over the lower flared end of the bag holder 1 until the upper edge of bag 7 is positioned just below the bosses 28. During this manipulation of the bag 7 at its opposite sides may be grasped between the thumb and forefinger as illustrated in Figs. 1 and 4. These sides may now be pulled forward, as illustrated in these figures, without changing the position of the hand with respect to bag 7 so as to eliminate any slackness of the bag about the body portion 9. In this position of the bag 7, its upper opposite edges lying in front of the bag holder are closely adjacent and underlie the recess 23 in the clamping member. The clamping member may now be swung upwardly about the pin 17 by means of handle 32. This upward swinging movement of the clamping member causes the bosses 28 to move forward somewhat so that they are positioned on opposite sides of the bag 7. The handle 32 is now released so as to permit the clamping member 22 to drop downwardly between the pin 17 and body portion 9.

During this downward movement, the side portions 26 and 27 pass down along opposite sides of the bag 7. The inner walls 24 and 25 of the side portions 26 and 27 contact with the sides of the bag 7 and as these walls converge upwardly they cause the sides of the bag to move inwardly and against the operative sides 20 and 21 of the wedge block 18. If desired, a slight downward pressure may be applied to the handle 32 to assist in the downward movement of the clamping member. As the clamping member continues to move downwardly, the sides of the bag are gripped between the inner walls 24 and 25 of the clamping member and the operative sides 20 and 21 of the wedge block, as illustrated in Figs. 2 to 4 inclusive. This is because the recess 23 conforms to the wedge block 18, and this downward movement of the clamping member moves the side walls of this recess into closer and closer relation to the sides of the wedge block until the sides of the bag are tightly gripped between these members. The upper portion of the bag 7 that surrounds the bag holder is wrapped

tightly about the body portion 9. The flared lower end of the body portion extends some distance into the bag. The flaring of the body portion 9 acts to securely hold and support all sides of the bag 7 uniformly. Any tendency for the bag to move downwardly at any point around the periphery the bag holder is prevented since the sides of this upper portion of the bag converge upwardly in conformity to the flared portion of the bag holder and are of less diameter than the lower flared end of the bag holder. Any downward pull exerted upon the bag 7 would tend to cause the bag and hence its sides to move downwardly also. However, since the inclined inner walls of the clamping member are in frictional contact with the sides of the bag 7, this clamping member tends to move along with the bag 7, thereby causing the space between the inner walls of the clamping member and the outer walls of the wedge block to be still further diminished, thereby increasing the gripping action upon the bag 7 proportionally and preventing its downward movement. This facilitates the easy and quick attachment of the bag to the bag holder, for all that is necessary, is to drop the clamping member so that its side portions pass down on opposite sides of the bag. Then as money is fed into the bag the increased load therein will cause the clamping member to proportionally increase its grip upon the sides of the bag so as to enable the bag to carry any load that may be imposed upon it. The extent to which the bag has been filled can be determined at any time by merely looking into the bag through that portion of the top that is in front of the bag holder.

When it is desired to release the bag from the bag holder it is merely necessary to exert a slight upward pull upon the handle 32, thereby causing the inner gripping walls of the clamping member to move away from the sides of the bag and effect the release of the bag. Only a slight upward pull is necessary because the opposed gripping walls of the clamping member as well as the operative sides of the wedge block converge upwardly and a small upward movement eliminates all pressure existing between these members. Since the side portions of the clamping member exert equal and opposite pressures upon the sides of the bag, this clamping member is "freely floating" and exerts no friction producing forces upon any part of the bag holder but only upon the bag itself. This is also desirable for it renders the clamping member self adjusting and causes it to grip both sides of the bag uniformly regardless of irregularities in the material or thickness of the bag or in the manner in which it is placed upon the bag holder.

Also since the inner walls of the side portions 26 and 27 exert an uniform gripping pressure all along their length upon the material of the bag 7, and as the bag is supported all around the periphery of the bag holder, there is no tendency to tear the bag at any place. This results in the bag having an exceedingly long life in actual practice.

It is obvious that the socket portion of the bag holder may have any desired cross-sectional shape so as to enable it to be attached to the discharge end of any apparatus employing a bag holder. The use of the thumb screw 14 and pin 12 makes it possible to quickly and easily attach and detach the bag holder from such apparatus although it is obvious that there are various convenient methods of so attaching the bag holder.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed:

1. A bag holder comprising, a body having a bell shaped lower portion, wedge means provided on said lower portion and clamping means for cooperating with said wedge means for securing a bag to said bag holder.

2. A bag holder comprising, a body having a bell shaped lower portion, a wedge block provided on said lower portion and having converging working faces, and clamping means also having converging working faces for cooperating with the working faces of said wedge block to secure a bag to said bag holder.

3. A bag holder comprising, a body having a bell shaped lower portion, a wedge block provided on said lower portion and having upwardly converging working faces, and a clamping member provided with a recess, said recess having upwardly converging walls adapted to cooperate with the working faces of said wedge block to secure a bag to said bag holder.

4. A bag holder comprising a body having a bell shaped lower portion, integral wedge shaped gripping means provided on said body, a clamping member conforming to the lower portion of said body and adapted to cooperate with said gripping means to secure a bag on said bag holder, and means for retaining said clamping member in cooperating relation to said gripping means.

5. A bag holder comprising, a body, a wedge block provided on said body and clamping means conforming to said wedge block and adapted to cooperate with said wedge block to secure a bag to said bag holder.

6. A bag holder comprising, a cylindrical

body having an outwardly flared lower portion, a vertically extending wedge block formed on the lower portion of said body, said wedge block having upwardly converging working sides, lugs formed on said body at opposite sides of said wedge block, a pin spaced from said body and extending through apertures in said lugs, and a clamping member confined between said body, said lugs and said pin, said clamping member having a vertically extending recess, the walls of said recess conforming to said wedge block and adapted to clamp the sides of a bag upon the working sides of said wedge block.

7. A device as defined in claim 6 in which the lower end of said clamping member is provided with means engageable in stopped relation to said pin and body when said clamping member is raised and outwardly turned to thereby retain said clamping member under gravity in its cooperative position.

In testimony that I claim the invention set forth above I have hereunto set my hand this 28th day of June, 1928.

EDWARD P. DONNELLAN.