April 8, 1930. E. P. DONNELLAN 1,753,852

BAG HOLDER

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Fig. 1

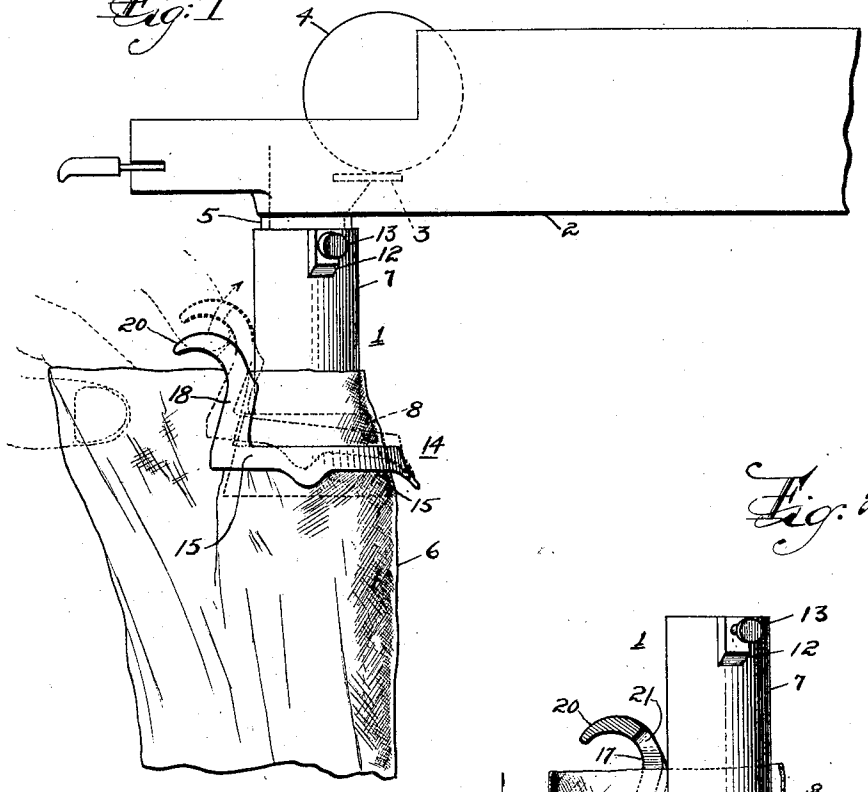


Fig. 2

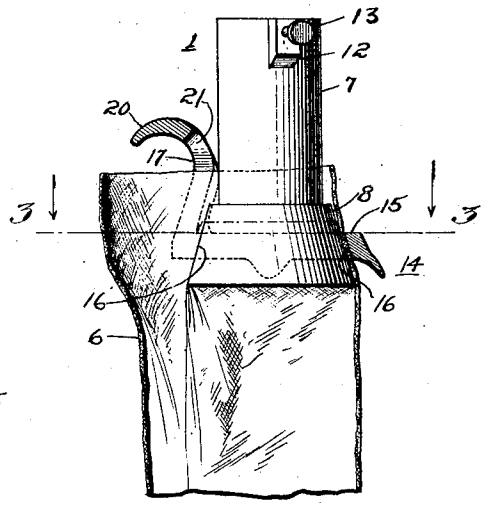
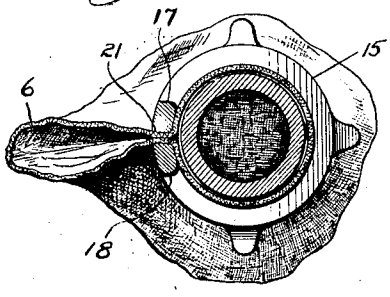


Fig. 3



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Fig. 4

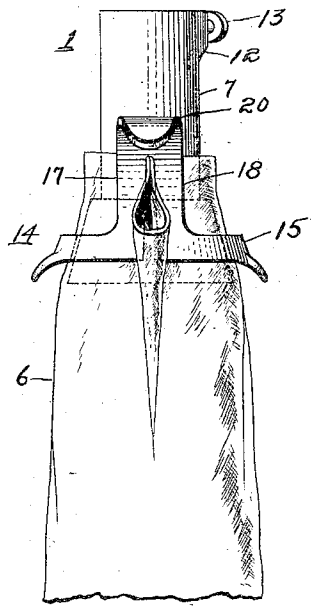
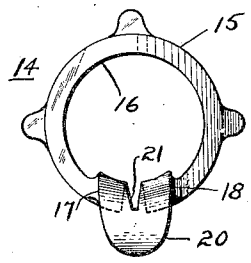


Fig. 5



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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 August 3, 1928. Serial No. 297,343.

This invention relates, generally, to bag holders or means for supporting bags and similar articles; and the invention has reference, more particularly, to a novel bag holder which is adapted to support a bag in a suspended condition while being filled.

The invention has for its principal object to provide a novel construction of bag holder that enables the easy and rapid attachment of a bag thereto as well as the removal of a bag therefrom.

The invention further provides a bag holder of the above character that is reliable and which grips the material of the bag with uniform pressure over a large area so as to prevent injury to or tearing of the bag material.

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

Still another object of the invention is to provide a bag holder of the above character that is exceptionally simple in construction and is also designed so as to reduce the wear of its parts to a minimum, thereby enabling it to have an exceedingly long life.

Other objects of this 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:—

Figure 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 the bag to a bag holder;

Figure 2 is a view of a portion of the structure shown in Figure 1, with parts broken away;

Figure 3 is a sectional view taken along the line 3—3 of Figure 2;

Figure 4 is a front view of the structure shown in Figure 2; and

Figure 5 is a plan view of the clamping member.

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

Referring 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 wherever 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 of the coin counting machine during which movement it effects an operation of the coin counting mechanism, not shown. After passing the propeller-wheel 4, the coin 3 drops through the spout 5. From the spout 5 the coin 3 passes through the bag holder 1 and is deposited into the bag or similar receptacle 6.

The bag holder 1 is a hollow cylindrical member having a body portion 7 and a lower offset flared portion 8. A lug 12 is formed on the wall of the upper part of the body portion 7. A thumb screw 13 is adjustably threaded through an aperture in the lug 12 and is adapted to abut against the spout 5, thereby serving to secure the bag holder upon the spout.

A clamping member designated as a whole by the reference numeral 14 is provided on the bag holder 1. Clamping member 14 has an annular portion 15, the interior surface 16 of which is adapted to conform to the offset flared portion 8. The annular portion 15 is formed with upward extending and inwardly inclined side portions 17 and 18. The upper ends of the side portions 17 and 18 terminate in an outwardly projecting handle

20. A recess or slot 21 is provided between the side portions 17, 18 and extends upwardly from the bottom of the clamping member to the handle 20, which recess is adapted to receive the upper portion of the bag 6 in a manner to be described.

In operation, to secure a bag to the bag holder 1 the clamping member 14 is lifted away from the flared portion 8 by means of the handle 20 until its annular portion 15 surrounds the upper part of the body portion 7. The upper end of the bag 6 is passed over the lower flared end 8 of the bag holder 1 and the sides of the bag are drawn taut around this portion of the bag holder. During this manipulation of the bag 6, its opposite sides may be conveniently gripped between the thumb and forefinger in front of the bag holder, as illustrated in Figure 1. In this position of the bag 6, its upper edges lying in front of the bag holder are closely adjacent and underlie the recess 21 in the clamping member. The clamping member 14 may now be dropped downwardly along the body portion 7 until the walls of the recess 21 pass down along opposite sides of that portion of the bag positioned in front of the bag holder. At the same time the inner surface 16 of the annular portion 15 passes down around that portion of the bag that is drawn taut around the bag holder. The inner surface 16 contacts with the sides of the bag and causes the bag to move inwardly against the flared portion 8. If desired a slight downward pressure may be applied to the handle 20 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 outer wall of the flared portion 8 and the inner surface 16 of the clamping member, as illustrated in Figures 2 to 4. This is because the inner surface 16 conforms to the flared portion 8 and this downward movement of the clamping member moves the inner surface 16 into closer and closer relation to the flared portion 8 until the sides of the bag 6 are tightly gripped between these members. The recess 21 extending between the side portions 17 and 18 permits the downward movement of the clamping member without interference from that portion of the bag that extends in front and which is not wrapped about the bag holder.

The flared portion 8 extends some distance into the bag and acts to securely hold and support the upper portion of the sides of the bag and any tendency of the bag to move downwardly at any point around the periphery of the bag holder is prevented inasmuch as the clamping member securely grips all the sides of the bag. A downward pull exerted upon the bag 6 would tend to cause the bag and its sides to move downwardly also, but since the inclined inner wall of the clamping member is in frictional contact with the sides of the bag, it tends to move along with the bag, thereby causing the space between the inner walls of the clamping member and the outer walls of the bag holder to be still further diminished thereby increasing the gripping action upon the bag 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 17 and 18 pass down the opposite sides of the bag so that the annular portion 15 surrounds the portion of the bag upon the bag holder. Then as the 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 whatever load 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 thereof that is open and 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 20, thereby causing the interior surface of the annular portion 15 to move upwardly and away from the sides of the bag so as to effect the release thereof. During this releasing operation the bag may be supported by the thumb and forefinger gripping the portion of the bag in front of the bag holder. Only a slight upward movement is necessary because the opposed gripping surfaces of the clamping member as well as the operative sides of the flared portion 8 converge upwardly and a small upward movement eliminates all pressure existing between these members. Since the annular portion 15 extends substantially completely around the flared portion 8 of the bag holder the clamping member grips all sides of the bag uniformly, rendering this clamping member "freely floating". This is also desirable for it causes the clamping member to be self adjusting, resulting in its gripping all sides of the bag upon the bag holder 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 surface 16 exerts a uniform gripping pressure all along its length upon the material of the bag 6 and as the bag is supported all around the periphery of the bag holder, there is no tendency to tear the bag in any place. This results in the bag having an exceedingly long life in actual practice.

It is apparent that the presence of the upwardly extending side portions 17 and 18 and the recess 21 enable the easy and rapid attachment of the bag to the bag holder

having this novel structure, the clamping member may be readily moved downwardly into gripping relation with the flared portion 8 without requiring the entire upper portion of the bag to be wrapped about the bag holder.

It is obvious that the upper end of the bag holder may have any cross-sectional shape so as to enable it to be attached to any apparatus employing a bag holder. The use of the thumb screw 13 makes it possible to quickly and easily attach the bag holder to such apparatus although it will be obvious that there are many other convenient methods of attaching the bag holder which may be employed as alternative to said thumb screw means.

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 is:

1. A bag holder comprising, a body having a flared lower portion, and a clamping member having means to engage said flared lower portion for clamping the upper part of a bag upon said body, said clamping member being cut away to permit the remainder of the upper part of said bag to extend freely from said bag holder.

2. A bag holder comprising a tubular body having a flared lower end about which a loop of the mouth portion of a bag may be engaged with the remaining portion thereof extending laterally outward therefrom, and a clamping member to embrace said body so as to be vertically movable thereon relative to said flared lower end thereof, said clamping member being discontinuous to provide a gap therein to straddle said laterally extended portion of said bag when said clamping member is positioned in bag gripping relation to the flared lower end of said body.

3. A bag holder comprising a tubular body having a flared lower end about which a loop of the mouth portion of a bag may be engaged with the remaining portion thereof extending laterally outward therefrom, and a clamping member to embrace said body so as to be vertically movable thereon relative to said flared lower end thereof, said clamping member being discontinuous to provide a gap therein to straddle said laterally extended portion of said bag when said clamping member is positioned in bag gripping relation to the flared lower end of said body, and said clamping member having upwardly extending side portions forming continuations of the sides of said gap and a handle connecting the upper ends of said side portions.

4. A bag holder comprising, a hollow open ended body having an outwardly flared lower portion adapted to receive a loop of the mouth of a bag upon its outer surface with the remainder of the bag mouth held taut outwardly in front of said bag holder, a clamping member movable along said body, said clamping member having a gripping part surrounding said body and an operating member extending upwardly from said gripping part, said operating member and said part being vertically recessed so that when said clamping member is moved downwardly over said bag, the walls of said recess pass downwardly on opposite sides of the outwardly extended portion of said bag mouth.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 1st day of August, 1928.

EDWARD P. DONNELLAN.