Sept. 5, 1950 M. N. WARD 2,521,029

BAG HOLDER

Filed July 24, 1947

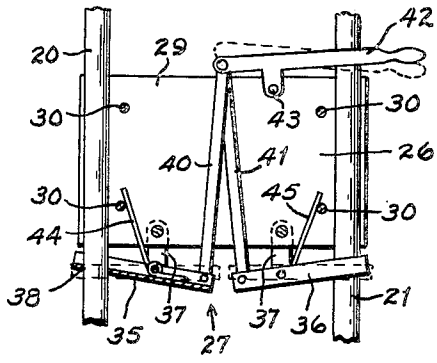


FIG. 4.

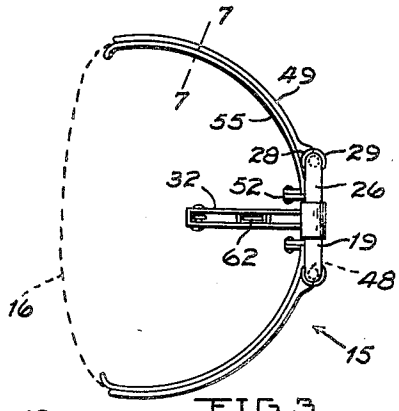


FIG. 3.

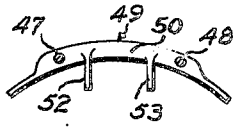


FIG. 6.

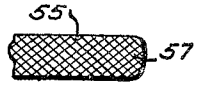


FIG. 5.

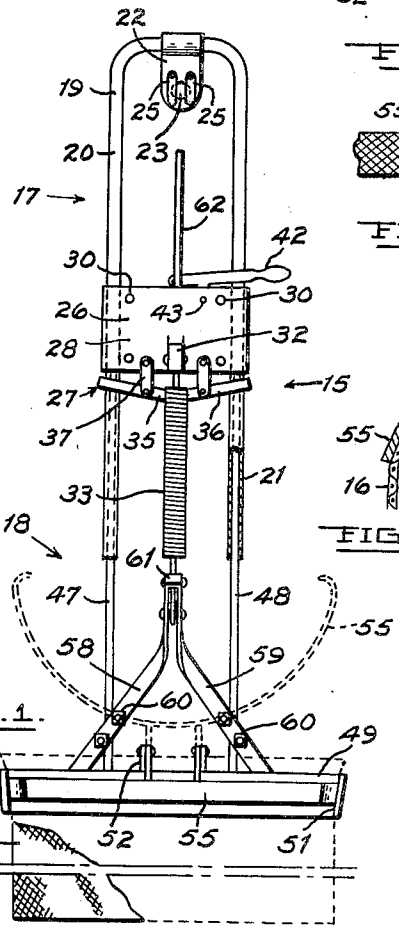


FIG. 1.



FIG. 7.

FIG. 2.

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BAG HOLDER

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4 Claims. (Cl. 248—99)

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This invention relates to new and useful improvements in bag holders and one of the objects of the present invention is to provide a device of this character wherein a bag or sack is supported with the neck in open position in order that the bag may be filled with the desired products without the aid of a second party.

Another object of the present invention is to provide a device of this character which is portable and wherein the bag or sack may easily and readily be connected or disconnected from the holder.

A further object of the present invention is to provide a device of this character wherein the bag support may easily be adjusted to accommodate bags or sacks of different length.

Still another object of the present invention is to provide a device of this character wherein "sacking" or the shaking-down of the contents of the bag or sack may be effected without disconnecting the bag or sack from the holder or support.

Yet another and further object of the present invention is to provide a device of this character in which the bag with contents may be weighed as the bag is being filled.

Another and yet further object of the invention is to provide structure of this character which is novel and simple in form, rugged in nature and one that will the more satisfactorily perform the functions required of it.

Having regard to the foregoing and other objects and advantages which will become apparent as the description proceeds and the details of the invention become known, the present structure consists essentially of the novel combination and arrangement of parts hereinafter described in more particular detail and illustrated in the accompanying drawings in which;

Fig. 1 is a front elevational view of an embodiment of my present invention.

Fig. 2 is a side view of Fig. 1.

Fig. 3 is a plan view of Fig. 2.

Fig. 4 is an enlarged sectional elevational view of the adjustable support means for adjusting the height of the bag holder.

Fig. 5 is an elevational view of a fragmentary portion of the bag engaging arm or support.

Fig. 6 is a plan view of a fragmentary portion of the main bag supporting base, and

Fig. 7 is a section taken on the line 7—7 of Fig. 3.

Referring now to the accompanying drawings wherein a preferred embodiment of the present invention is disclosed and wherein like numerals

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of reference designate corresponding parts in the various illustrations, the numeral 15 indicates the bag holder as a whole while the numeral 16 indicates a bag or sack mounted in the holder.

As more particularly observed in Figs. 1 and 2, the present invention, broadly speaking, comprises a main supporting section 17 and a movable section 18.

Referring first to the main supporting section, this comprises an inverted substantially U-shaped frame or section 19 provided with hollow arm extensions 20 and 21 with a supporting bracket or suspension means 22 secured to the upper extremity thereof. An opening 23 is formed in the bracket for engagement with a fixed means of support such as a bolt, nail or the like 24 mounted in a wall or on a post in order that the device as a whole may be suspended in operative position free of the floor or the ground as the case may be. A pair of fingers 25 are pivotally mounted on the bracket on opposite sides of the opening 23 and form a releasable locking means for the holder when supported on the bolt or nail.

Movably mounted on the arms 20 and 21 of the section 19 is an adjustable support 26 having engaging means 27 for releasably engaging the arms 20 and 21. The support includes a pair of spaced plate members 28 and 29 which form a housing slidably movable on the frame 19, the sections being connected to one another by means of bolts or the like 30. Extending outwardly from the front of the housing or support 26 is a support arm 32 to which an expandable spring 33 is connected, the purpose of which will be later referred to.

The adjustable mechanism for releasably engaging the arms 20 and 21 comprises a pair of arm engaging dogs 35 and 36 movably connected to the housing by means of pivotally connected link members 37. The outer ends of the dogs (see Figs. 2 and 4), are provided with openings 38 through which arms 20 and 21 extend while the inner ends thereof are pivotally connected to operating rods 40 and 41, the rods, in turn, being pivotally connected to operating lever 42 which still further in turn is pivotally connected to the housing as indicated at 43.

The means for normally retaining the dog members 35 and 36 in engagement with the arms 20 and 21 comprise spring or like means 44 and 45. The springs, as in the present instance, embrace the pivotal connections of link members 37 with one end thereof engaging bolts 30 and the opposite ends in engagement with the base of the

dogs. Thus the inner ends of the dog members are constantly urged downwardly to lock the walls of the openings 38 in engagement with the arm members 20 and 21.

From what has already been described it will be seen that a downward pressure exerted on the operating lever 42 will move rods 40 and 41 upwardly at the same time with the inner ends of the dog members 35 and 36 so that the walls of openings 38 are released from their gripping engagement with arms 20 and 21 and such release will permit the movable support 26 to slide downwardly on the arms 20 and 21. Immediately the operating lever 42 is released, the spring members 44 and 45 will move the inner ends of the dogs 35 and 36 downwardly while the outer ends thereof automatically move into gripping engaging with the arm members to lock the adjustable support and housing in a predetermined position. While I have described the action and operation for adjustably lowering the support and housing, it is well to note that by simply placing the hands underneath the support and pushing upwardly, the support may be raised to a predetermined elevated position without operating the lever member 42.

Slidably and telescopically mounted in the hollow arm members 20 and 21 are a pair of guide rods 47 and 48, the rods being securely mounted in the base or primary bag holding member 49. The member 49, as indicated in Fig. 3, is arcuate or semi-circular in form in plan, the rear portion thereof being relatively thick as indicated at 50 in Fig. 6 to provide a stable body portion while the remaining and free ends of the bag holding arms are relatively thin. In addition to its arcuate formation, the member 49 tapers inwardly in substantially conoidal form as indicated at 51.

Extending upwardly and inwardly of the member 49 are a pair of support arms 52 and 53. These arms are designed to pivotally support a secondary bag holding element 55 which is also of arcuate and conoidal form. The arc of the member 55, it is observed, is of a lesser diameter than the interior of the base 49 and thus may be swung downwardly into nested position within the arcuate form of the member 49.

As more particularly illustrated in Fig. 1, 2, 3 and 7, the bag or sack 16 is designed to be supported between the members 49 and 55 in a vertical position elevated from the floor or ground and with the neck of the bag or sack maintained in open position as seen in Fig. 3 ready to be filled with the desired products.

When it is desired to place a bag or sack in the holder, the secondary bag holding element 55 is moved to the position shown in dotted lines in Fig. 1, when the open neck of the bag or sack is simply fitted around the outer rim of member 55. The member 55 is then swung downwardly into nested position within the primary member 49 as shown in full lines in Figs. 1, 2 and 7.

With the downward movement of element 55, the neck of the bag 16 is secured in open position between the members 49 and 55, where by virtue of the conoidal formation of the respective holding elements, the bag is firmly gripped therebetween. In order to guard against slipping of the bag when in position, the interior of member 49 and the exterior of member 55 is provided with a grilled or ribbed surface as indicated at 57 in Fig. 5, thus an anti-slip or friction grip is provided between the bag holding elements. The bag then is firmly and securely held between the two holding members yet may readily and easily be disconnected or released from the holder by simply moving element 55 upwardly to the position shown by dotted lines in Fig. 1.

As illustrated in Figs. 1 and 2 brace members 58 and 59 are connected to the bag holding member 49 and the guide rods 47 and 48 by means of bolts or other appropriate securing means 60. These brace members extend upwardly to a common terminal point 61 at which point the lower end of the spring 33 is connected. As clearly shown in Fig. 2 a guide bar 62 provided with a stop 63 is pivotally connected to the brace members as indicated at 64 with the free end thereof being movable through support arm 32 while indicia 65 in graduated form is imprinted on the guide bar to form a weight indicator. From the foregoing it will be seen that as the weighted bag in the holder moves downwardly under the influence of its weighted load, the guide bar 62 also moves downwardly in accordance with the resistance offered by spring 33. Thus the weight of the bag and its contents registers on the indicia 65.

Should it become necessary or desirable to "sack" or shake-down the contents of a bag during a filling operation, the sides of the bag holding unit 49 are gripped between the hands when the movable section is moved upwardly and downwardly in an ordinary "sacking" movement, the telescopic arrangement of the guide rods and the resiliency of spring 33 permitting the movable section 18 to be freely moved upwardly and downwardly for this purpose.

In operation, the bag holder is suspended on a bolt, nail or other suitable medium in a barn or other convenient place at a height sufficient to insure that the bottom of the bag is sufficiently elevated to be free of the floor or ground. The member 55 is then moved to the position shown by dotted lines in Fig. 1 when the open neck of the bag or sack is fitted around the exterior of member 55 with a small overlap after which member 55 is swung downwardly to the position shown in full lines in Figs. 1, 2 and 3. In this position the bag is gripped between the two arcuate members 49 and 55 and held in open position ready to be filled. As the bag gradually becomes filled, its weight causes movable section 18 to move downwardly together with guide bars 62 so that the weight of the bag and contents register and may be read on the indicia above the upper margin of the support arm 32. Should the contents of the bag require "sacking," this is accomplished while the bag remains in the bag holder by simply gripping the sides of sections 49 and 55 and sharply moving them upwardly and downwardly with the bag all as previously described.

When a bag is filled to the desired extent or weight, the member 55 is swung upwardly by hand to the position shown in dotted lines in Fig. 1 when the bag is immediately released from the holder.

Should it become desirable or expedient to adjust the position of the movable section 18 as to height or to accommodate bags of different length, the handle 42 is depressed by a sharp blow with the hand or otherwise. This action will cause dogs 35 and 36 to release engagement with arms 20 and 21 when the support 26 and its associated parts will move downwardly to a lower position. Alternately, when it is desirable to adjustably move the support 26 upwardly, the sides of the housing are grasped between the hands

when the support may simply be pushed upwardly the desired height.

Many changes may be made in the above and many apparently widely different embodiments constructed without departing from the spirit or the essential characteristics of the invention. The present disclosure therefore is intended to be interpreted illustrative and not in a limitative sense.

What I claim as my invention is:

1. In a bag holder of the character described, a main supporting section having a movable section slidably connected thereto, bag holding means carried by the movable section comprising primary and secondary bag holding members of arcuate form, the said secondary member being swingably mounted for movement into and out of nested relationship with the primary bag holding member to releasably retain a bag or sack therebetween in suspended open position, an adjustable support carried by the main supporting member for suspending the movable section, resilient means connecting the movable section with the adjustable support, hand lever means for adjusting the position of the adjustable support on the main supporting section and means carried by the movable section registerable with the adjustable support for indicating the weight of the bag and its contents.

2. In a bag holder of the character described, a main supporting section having a movable section movably connected thereto, bag holding means carried by the movable section comprising primary and secondary bag holding members, the said secondary member being movable into and out of nested relationship with the primary bag holding member to releasably support a bag or sack therebetween in suspended open position, an adjustable support carried by the main supporting member comprising a housing movable on the main supporting member, engaging dogs mounted in the housing and releasably engaging the main supporting member and hand operable lever means for releasing the said dogs from engagement with the main supporting

member, means for connecting the movable section to the adjustable support and means for detachably connecting the main supporting member to a suspension support.

3. In a bag holder of the character described, a main supporting section, a movable section telescopically connecting the main section, means for supporting a bag or sack in the movable section comprising primary and secondary bag engaging members, the said secondary member being movable into and out of nested relationship with the primary member to releasably support a bag therebetween in suspended open position, brace supports for the movable section, an adjustable support carried by the main section provided with an extension arm, means for movably connecting the brace support of the movable section to the extension arm and means for adjusting the position of the adjustable support on the main section to vary the position of the movable section.

4. In a support for bags or sacks, a main supporting section, a movable section movably connected to the main section and adapted to support a bag or sack therein in suspended open position, an adjustable support carried by the main section comprising a housing, engaging dogs for movably engaging the housing and lockingly engaging the main section, lever operating means for releasing the dogs from engagement with the main section, means for normally maintaining the dogs in locked engagement with the main frame and means for movably connecting the movable section to the adjustable support.

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