June 21, 1927. J. SZTOGRYN 1,632,808

BAG HOLDER

Filed Oct. 16, 1926 2 Sheets-Sheet 1

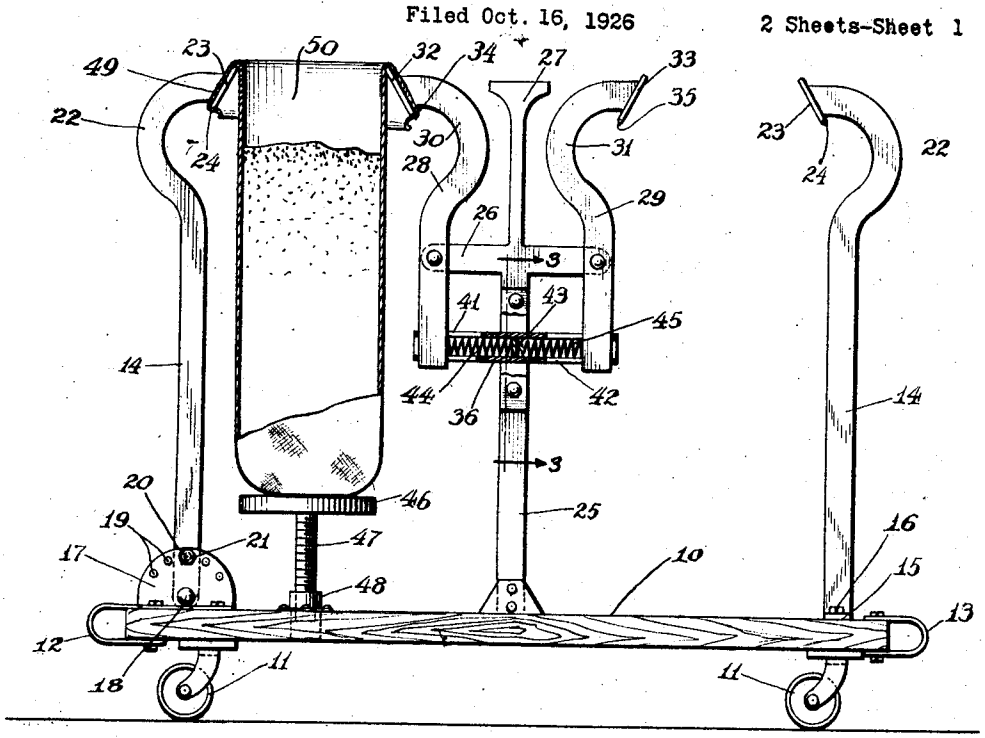


Fig. 1.

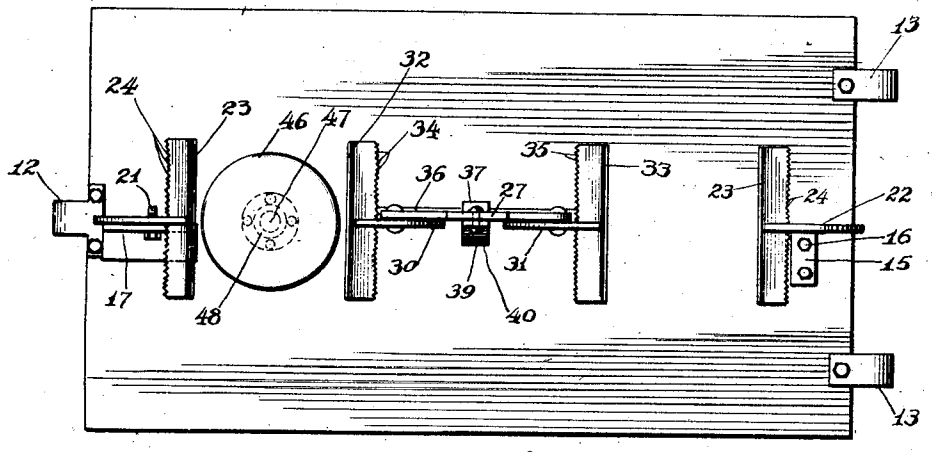


Fig. 2.

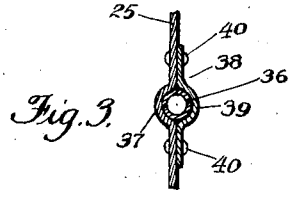


Fig. 3.

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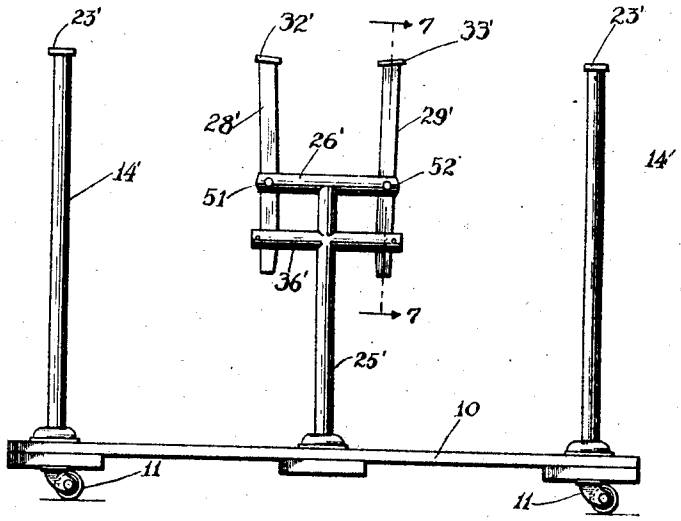
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Fig. 4.



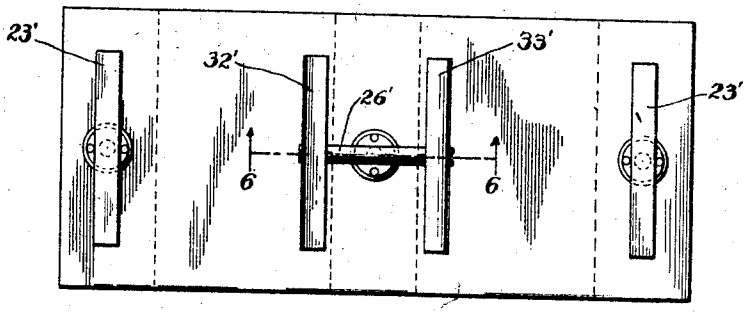


Fig. 5.

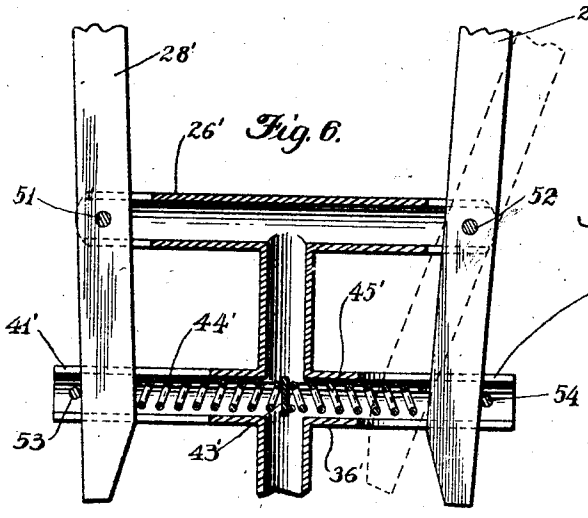


Fig. 6.

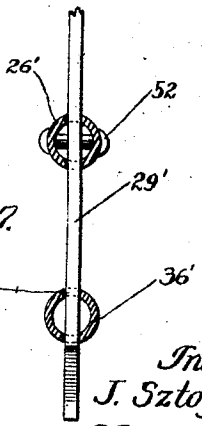


Fig. 7.

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UNITED STATES PATENT OFFICE.

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BAG HOLDER.

Application filed October 16, 1926. Serial No. 141,938.

The present invention relates to bag holders or supports which are adapted to hold the bag in open elongated position during the process of filling.

It is a known fact that an empty bag wrinkles, folds and collapses so that it is extremely difficult to fill the same in that condition. Therefore the principal object of the invention is the provision of holder or support for empty bags for maintaining the bags in upright tubular position while the same are filled with any material such as flour, grain, cement or the like.

Another object is the provision of a holder or support positioned upon a platform by means of which the device may be easily transported.

A further object of the invention is the provision of a plurality of holders disposed upon a platform, by means of which holders the bags may be supported during the process of filling as above set forth.

A still further object of the invention is the provision of means above indicated which engage the upper portion of the bags for holding the same in convenient position during the process of filling.

A still further object of the invention is the provision of adjustable support for the bags which fits various widths of bags.

Another object of the present invention is the provision of adjustable means in a device of the character indicated whereby the bags may be supported at their bottom during the process of filling.

A still further object of the invention is the provision in a bag holder of means for lateral stretching of the bag while the same is being filled.

With the above general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views,

Fig. 1 is the side view, partly in elevation and partly in section of the bag holder, illustrating the position of a bag during the process of filling;

Fig. 2 is the elevational top view of the device;

Fig. 3 is a detail cross-section on line 3—3 of Fig. 1;

Fig. 4 is the side elevational view of a modified form of the invention;

Fig. 5 is the top elevational view thereof;

Fig. 6 is an enlarged fragmentary view partly in section and partly in elevation of a portion of the device; and

Fig. 7 is a longitudinal cross-sectional view through said portion of the device, taken on line 7—7 of Fig. 4.

Coming to a detail description of the invention the same embodies a horizontal platform 10 supported by a plurality of casters 11. At one of its ends said platform is provided with a staple or ear 12, while the other end thereof is provided with a pair of similar staples 13, by means of which staples the platform may be moved in either direction.

Adjacent each of its ends said platform 10 is provided with an upright standard 14. Said standard may be either rigidly fixed to the platform by means of laterally extending plate 15 and a plurality of bolts 16, as shown at the right end of the platform on Figs. 1 and 2, or said standard 14 may be adapted for angular shifting movement as illustrated at the left end of platform 10. For adapting said standard for angular shifting movement segmental plate 17 is rigidly affixed to the platform and disposed longitudinally thereof. The lower end of standard 14 is pivotally mounted on pin 18 axially of said plate adapting said standard 14 for radial shifting movement in respect of said plate 17. Near its edge plate 17 is provided with a plurality of apertures 19 and on line with said apertures 19 the standard has aperture 20 which is adapted to register with the several apertures 19 of plate 17. Pin 21 passing through aperture 20 and one of the apertures 19 holds standard 14 in angular adjustment for the purposes hereinafter stated.

Said standards 14 at their upper ends are curved forming offsets 22 for the purpose

hereinafter stated. The upper terminations of said offsets 22 are disposed horizontally and are provided with bars 23, which at their lower edge are serrated as at 24 for the purpose hereinafter stated.

On direct line with the two standards 14 and intermediately thereof the platform has a rigidly mounted thereupon post 25 which carries an integral transverse arm 26 disposed longitudinally of the platform or on the plane with standards 14. Integrally formed with said arm 26 and upwardly projecting therefrom is a substantially T-shaped section 27 which is provided for the purpose of holding empty bags, strings or the like.

The outer ends of said arm 26 have pivoted thereto upright arms or supports 28 and 29, each of which cooperates with one of the adjacent standards 14 for holding the bag. Said arms 28 and 29 at their upper ends are provided with offsets 30 and 31, the horizontal portions whereof being provided with bars 32 and 33 which at their lower edges are serrated as at 34 and 35. Said bars 32 and 33 are likewise in transverse relation with the platform 10 and are parallelly disposed with bars 23 of the two standards 14.

From the hereinabove description it will be apparent that arms 28 and 29 with their respective cooperating standards 14 form by their respective offsets 30, 31 and 22 a sort of jaws between which the bag during the process of filling is positioned as clearly illustrated on Fig. 1.

Post 25 further carries tubular arm 36 which is in parallel relation with arm 26 and downwardly disposed in relation therewith. The post has an offset 37 wherein said tubular arm 36 is received and for further mounting said arm upon the post plate 38 with offset 39 affixed to the post 25 by rivets 40 is provided for maintaining the tubular arm 36 in rigid stationary position upon said post 25 as clearly seen on Fig. 3. The tubular arm 36 at its two ends is provided with longitudinal slots 41 and 42 which are on the plane with arm 26. Centrally of said tubular arm a stationary washer or stop 43 is provided preventing the bodily shifting movement of coil springs 44 and 45 in the direction of said washer 43. The lower ends of arms 28 and 29 are receivable within slots 41 and 42 and normally are against the tension of the respective springs 44 and 45, in consequence of which arrangement the upper ends of arms 28 and 29 tend to shift toward T-shaped section 27.

On a direct line of the two standards 14 and intermediately between one or both of said standards 14 and the post 25 an adjustable stool 46 may be provided for supporting the weight of the bag while the same is being filled. Said stool at its lower face has a rigidly mounted threaded post 47 which is receivable within threaded tube 48 which is mounted within platform 10 by any suitable means, as seen on Fig. 1. By imparting rotary movement to said stool 46 the same may be elevated or shifted toward the platform 10 depending upon the direction to which the stool 46 is turned. This arrangement provides a desirable means for supporting the bag and the adjustment of said stool 46 in relation with platform 10 on vertical line accommodates bags of various lengths.

Referring to the mode of operation of the device hereinabove described the upper portion 49 of bag 50 is turned outwardly of its periphery and said portion 49 thus turned is engaged by bar 23 of one of standards 14 and on directly opposite line by bar 32 of arm 28 or bar 33 of arm 29 as the case may be. The serrations 24 of bars 23 and serrations 34 or 35 or bars 32 and 33, respectively, as the case may be, penetrate or embed themselves in the fabric of the bag adjacent the upper edge of the bag and thus firmly hold the bag and prevent the upper portion of the bag from slipping from the several arms hereinabove mentioned under the weight of the filled bag. For further supporting the weight of the bag as it undergoes the filling process is stool 46 which provides an additional support as already mentioned.

As the bags are made in various widths the angular adjustment of standard 14 upon arcuate plate 17 provides means for shifting standard 14 to or away from the cooperating arm 28 or 29, as the case may be, and thus accommodate bags of various widths. By virtue of springs 44 and 45 and in consequence of the pressure thereof upon the respective lower ends of arms 28 and 29, respectively, the bag is held stretched during the filling process owing to the tendency of the offset portions 30 or 31, as the case may be, to pull toward T-shaped section 27.

The modified form of the present invention illustrated on Figs. 4 to 7, both inclusive, includes tubular standards 14′ with transverse bars 23′. The central portion of the device includes tubular post 25′ with integrally formed arm 26′ and another arm 36′ which corresponds to tubular arm 36 in the preferred form of the invention illustrated on Fig. 1. The modified form of the invention further comprises arms 28′ and 29′ which are pivotally mounted at the ends of arm 26′ on pins 51 and 52 and are provided with bars 32′ and 33′ as clearly shown on Figs. 4, 6 and 7. The lower tubular arm is provided with a stationary washer 43′ which limits the shifting movement toward it of springs 44′ and 45′ enclosed within said arm 36′. The outer ends of said tubular arm 36′ are likewise provided with slots 41′ and 42′ within which the lower ends of arms 28′ and 29′ are receivable and adapted for shifting movement under the tension of springs 44′ and 45′ or the weight

of the bag, as the case may be. For preventing the outer shifting movement of arms 28′ and 29′ within slots 41′ and 42′, respectively, tubular arm 36′ at its ends is provided with pins 53 and 54, respectively. Under the weight of the filled bag arms 28, 29, 28′ and 29′, as the case may be, will be drawn towards its cooperating standard 14 or 14′, as the case may be, causing the shifting of the lower end of the respective arm toward post 25 or 25′, as the case may be, causing compression of springs 44, 45, 44′ or 45′, as the case may be, and the action herein described is illustrated by dotted lines on Fig. 6. It is further observed that the primary object of offsets 22, 30 and 31 is to provide access around the bag adjacent its upper edge for passing the string around it and tying the same when the bag is filled.

While there is described herein a preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein, without departing from the spirit and scope of the invention as claimed.

What I claim as new is:

1. A device for holding bags, comprising a platform, a bag supporting post mounted intermediate the ends of the platform, standards on the platform and spaced from the post, bag engaging devices pivotally mounted on the post, one for each of the standards, and means for constantly urging said devices to swing with their bag engaging ends toward the post thereby to distend and retain bags engaged by each of said devices and by the standards.

2. A device for holding bags, comprising a support, plural means on the support for engaging each a bag and fulcrumed on the support intermediate their respective ends to swing toward and away from the support, other means for engaging each of the several bags, and means for urging the bag engaging portions of the first means toward the support thereby to distend and retain the bags.

3. A device for holding bags, comprising a support, plural means on the support for engaging each a bag and fulcrumed to swing toward and away from the support, other means for engaging each of the several bags, and means carried by the support for urging the first mentioned bag engaging means toward the support thereby to distend and retain the bags.

4. A device for holding bags, comprising a support having cross members, plural means pivoted on the respective ends of one of the cross members for engaging each a bag, other means for engaging each of the several bags, and means carried by the other cross member for urging the first mentioned bag engaging means toward the support whereby to distend and retain the bags.

5. A device for holding bags, comprising a pair of standards, one of which is fixed, and the other standard being adjustable with respect to the fixed standard, an arm on the fixed standard pivoted thereto intermediate its ends, means for urging the upper end of the arm normally to swing toward the standard on which it is supported, and said arm and the adjustable standard being provided with means for engaging a bag to distend and retain the same.

6. A device for holding bags, comprising a pair of bag supporting members each having bag engaging portions in the plane of the members, one of said members being positively adjustable either toward or away from the other member, means for locking said member in adjusted positions, and resilient means for normally urging the other member away from the lockable member, and the portions of said members adjacent the bag engaging portions being off-set to provide a space between the bag and the members to facilitate disposition of a tie about the bag.

7. A device for holding bags, comprising a pair of bag supporting members each having bag engaging portions, one of said members being positively adjustable either toward or away from the other member, means for locking said member, in adjusted positions, and resilient means for normally urging the other member away from the lockable member for the purpose defined.

8. In a bag holding device, a platform, a plurality of standards upon said platform, a plurality of arms thereupon, said arms cooperating with the respective adjacent standards for holding a plurality of bags, means upon said arms for normally exerting pressure upon the arms for pulling the same away from the respective cooperating standards, and means upon said standards and said arms engaging the bags.

9. In a bag holding device, a platform, a plurality of standards upon said platform, a plurality of arms thereupon, said arms cooperating with the respective adjacent standards for holding a plurality of bags, means upon said arms for normally exerting pressure upon the arms for pulling the same away from the respective cooperating standards, means upon said standards and said arms engaging the bags, and adjustable bottom supports for each bag for holding the weight of the bags as they undergo the filling process.

10. In a bag holding device, a platform, a pair of standards upon said platform, a cross-shaped post thereupon intermediately of said standards, arms pivotally mounted in the head portion of said post, each of said arms being adapted to cooperate with its adjacent standard for holding bags, a tubular arm disposed below said head portion upon

said post, the lower ends of said arms being located within the respective ends of said tubular arm, a pair of springs within said tubular arm, said springs normally pressing upon said lower ends of said arms for normally driving the upper ends of said arms away from the upper ends of the adjacent cooperating standards, and means associating with the upper ends of said standards and their cooperating arms for engaging the bags.

In testimony whereof I affix my signature.

JOHN SZTOGRYN.