A. MINKE.

BAG HOLDER.

APPLICATION FILED MAY 13, 1913.

1,090,404.

Patented Mar. 17, 1914.

2 SHEETS—SHEET 1.

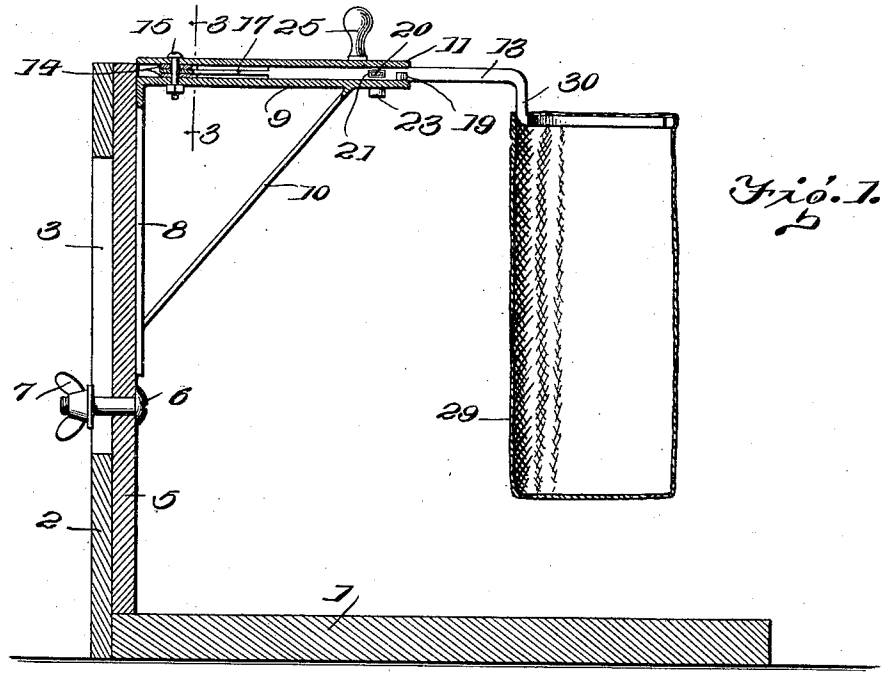


Fig. 1.

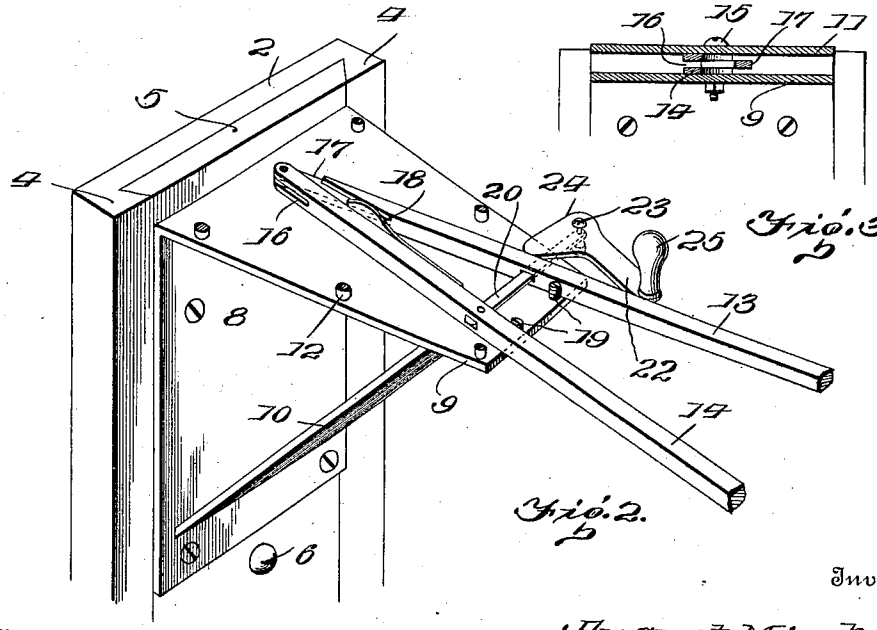


Fig. 2.

Fig. 3.

Inventor

August Minke

Witnesses

By

Attorneys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

A. MINKE.

BAG HOLDER.

APPLICATION FILED MAY 13, 1913.

1,090,404.

Patented Mar. 17, 1914.

2 SHEETS—SHEET 2.

Fig. 4.

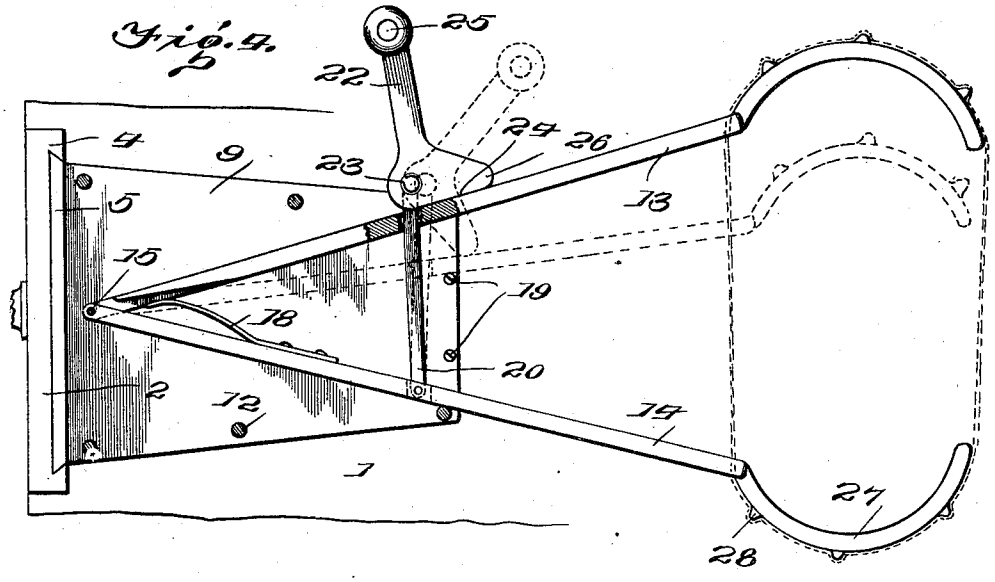
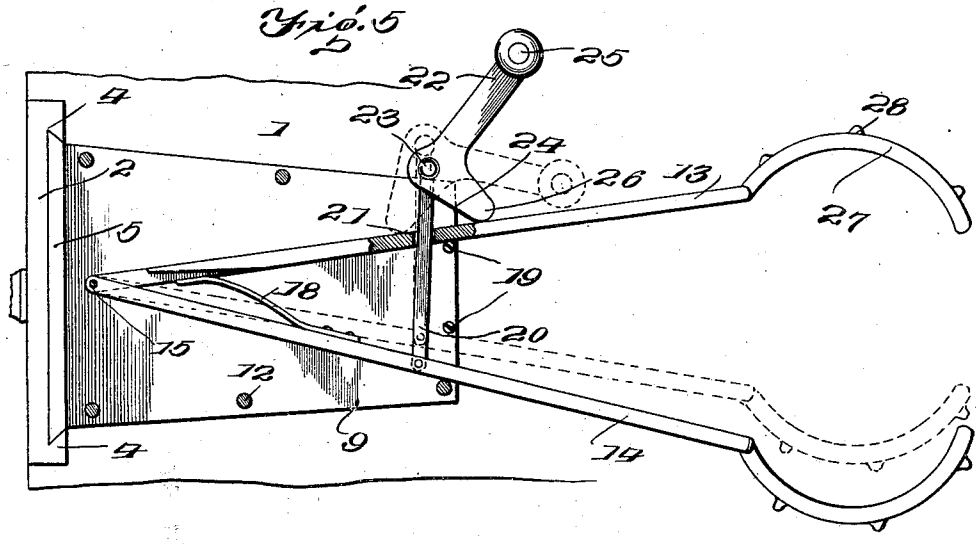


Fig. 5.



Inventor

August Minke

Witnesses

By

Attorneys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AUGUST MINKE, OF EVANSVILLE, INDIANA.

BAG-HOLDER.

1,090,404. Specification of Letters Patent. Patented Mar. 17, 1914.

Application filed May 13, 1913. Serial No. 767,425.

To all whom it may concern:

Be it known that I, AUGUST MINKE, citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Bag-Holders, of which the following is a specification.

This invention relates to bag holders, and has for its object the provision of a simple, efficient and inexpensive device by which bags may be held open while being filled and which may be readily adjusted to the height or diameter of the bag to be filled.

A further object of the invention is to provide novel means for moving the bag-holding arms to and from each other when a bag is to be supported thereby or removed therefrom, and the invention seeks, generally, to improve the construction and arrangement of the parts of a device for the stated purpose to the end that the efficiency and durability of the same may be increased.

The invention is fully illustrated in the accompanying drawings and will be hereinafter fully described, the novel features being subsequently particularly pointed out in the claims following the description.

In the drawings: Figure 1 is a vertical section of a bag holder embodying my present improvements; Fig. 2 is a perspective view with parts removed showing the means for operating the bag-engaging arms and the support for the same; Fig. 3 is a transverse section on the line 3—3 of Fig. 1; Figs. 4 and 5 are plan views with the cover removed showing the different relative positions assumed by the bag-engaging arms during the act of opening or closing the same.

In carrying out my present invention, I employ a support comprising a base 1 and a standard 2 erected at one end thereof, said standard being provided with a vertical slot 3 and having ribs 4 on its side facing the base plate which are under-cut or beveled, as clearly shown, so as to have a dove-tailed engagement with the vertical slide 5 fitted therein. The said slide carries a bolt 6 upon which is mounted a wing nut 7 adapted to be turned home against the rear side of the standard 2, as will be readily understood upon reference to Fig. 1, so that the slide may be adjusted vertically of the standard and secured at any point to which it may be raised so as to adjust the device to the length or height of the bag to be filled. Upon the face of the slide 5, I secure a bracket comprising a back plate 8 and a top plate 9 rigid with the upper end of the back plate and projecting therefrom over the base plate 1, a brace 10 extending between the back plate and the outer end of the top plate so as to prevent the top plate sagging or bending under the strain placed upon the same by the filled bag. A cover 11 is secured over the top plate 9 in spaced relation thereto and connected with the top plate by bolts 12 around which spacing collars or rings may be fitted.

The bag-engaging and supporting arms 13 and 14 are arranged between the top plate 9 and the cover 11 and have a common pivotal connection therewith, which pivotal connection consists of a bolt or pin 15 inserted through the top plate and the cover and the inner ends of the arms 13 and 14, as shown and as will be readily understood. It will be noted that one of the arms, 14, has its inner end longitudinally notched or slotted, as at 16, to receive the reduced end 17 of the other arm 13 so that the arms may be engaged upon the common pivot without requiring excessive space between the top plate and the cover. This arrangement also permits the arms 13 and 14 to lie in the same horizontal plane and rest upon the top plate 9, as clearly shown in Figs. 1, 2 and 3. The arms are normally held apart at their outer ends by a spring 18 which is secured to the inner side of the arm 14 and bears against the inner side of the arm 13, as shown. Upon the top plate 9, at the outer end or edge of the same, are provided stop pins 19 which are adapted to be engaged by the inner sides of the bag-supporting arms in the operation of the device to thereby limit the inward movement of the arms, as will presently appear.

A link 20 is pivoted to the arm 14 and extends through a slot 21 in the arm 13 and projects beyond the side of the top plate 9 to receive and support a cam lever 22 which is fulcrumed upon the free extremity of the said link, as shown at 23. This cam is preferably in the form of an angle lever having its shorter arm provided with a straight edge 24 adapted to bear against the outer side of the adjacent arm and the longer arm of the angle lever is equipped with a handle 25 whereby the lever may be easily manipulated. The fulcrum pin 23 extends below the link and bears against the outer edge of

the top plate 9 so as to form a rest for the lever and prevent lateral movement of the link during a part of the operation of the device. The free end of the shorter arm of the angle lever is convex, as shown at 26, so that it may ride easily upon the adjacent side of the arm 13, as will be presently stated. The outer ends of the bag-supporting arms are arcuate, as shown at 27, and are provided upon their outer sides with lugs or spurs 28 adapted to take into the material of the bag 29 so as to firmly support the bag while the same is being filled and the said arcuate free ends of the arm may be stepped downwardly from the main portions of the arms, as indicated at 30, if preferred, in order to more readily enter the mouth of the bag.

It is thought the operation of the device will be readily understood from the foregoing description, taken in connection with the accompanying drawings. The device having been secured at the proper height, the angle lever 22 is swung from the position shown in full lines in Fig. 4 to the position shown in dotted lines in said figure and this movement of the lever will cause the shorter arm thereof to bear upon the adjacent bag-supporting arm 13 and force the same inwardly until it impinges upon the adjacent stop 19. This movement of the arm is against the tension of the spring 18 and is due to the fact that the fulcrum pin or bolt 23 being in engagement with the side edge of the top plate 9 cannot move toward the longitudinal center of the support and the force of the spring 18 is exerted to force the arm 14 toward the adjacent outer edge of the top plate. When the arm 13 has been moved inwardly against the adjacent stop 19, further movement of the said arm will, of course, be arrested and the said arm will then remain in the position shown in dotted lines in Fig. 4 and in full lines in Fig. 5, while the continued movement of the angle lever or cam will carry said lever or cam from the position shown in full lines in Fig. 5 to the position shown in dotted lines in said figure. The arm 13 will, during this continued movement of the lever, constitute a guide or run-way upon which the convex end 26 of the shorter arm of the angle lever will ride, the fulcrum pin or bolt 23 moving away from the plate 9 and thereby drawing upon the link 20 and pulling the arm 14 toward the arm 13 until the said arm 14 reaches the stop 19 interposed in its path. The two arms will now be at the inner limits of their movements and the end 26 of the angle lever will be carried beyond the transverse plane of the fulcrum pin or bolt 23 so that the said pin will lie in a plane between the planes of the ends of the lever and the pull exerted upon the said link by the spring 18 through the arm 14 will be resisted by the engagement of the lever with the outer side of the arm 13, as clearly indicated in Fig. 5. The arms will, consequently, be locked in their inner positions and the operator will thus have both hands free to engage the bag over the arcuate extremities 27 of the arms. When the mouth of the bag has been placed over the said arcuate extremities, the lever is returned to the full-line position shown in Fig. 4 in which the straight edge 24 of the lever will engage against the outer side of the arm 13 and further opening movement of the arms will be prevented, the lever and link thus acting as a lock to prevent the bag-supporting arms spreading the mouth of the bag excessively and tearing the same. When the bag has been filled, the arms are thrown together by the manipulation of the cam lever as previously described and will be held in their inner positions while the filled bag is being removed and another empty bag being placed in position.

It will be readily seen that I have provided an exceedingly simple and efficient bag holder which is so constructed that a wide range of bags may be held upon a device of given dimensions. The spring and the inner ends of the bag-supporting arms are housed by the top plate 9 and the cover 11 so that the accumulation of dust around the pivot of the said arms and between the said arms will be prevented and the device kept in operative condition at all times. Moreover, the parts are readily accessible should repairs be necessary at any time.

What I claim is:—

1. In a bag-holder, the combination of a support, a pair of bag-supporting arms pivoted upon the support, means for holding the free ends of the arms normally apart, a cam disposed at one side of the support and arranged to ride on and in contact with one of the said arms, said cam being free of both arms and the support and a connection between the said cam and the other arm whereby movement of the cam will cause the arms to swing inwardly or outwardly in succession.

2. In a bag holder, the combination of a support, a pair of bag-engaging arms mounted thereon and having their outer ends normally separated, a cam lever disposed at one side of the support and having an arm adapted to ride upon the adjacent bag-engaging arm, a fulcrum pin carried by said lever and adapted to bear against the side of the support, and a link having one end pivoted to said fulcrum pin and its opposite end pivoted to the bag-engaging arm remote from the lever.

3. In a bag holder, the combination of a support, a pair of bag-engaging arms mounted thereon and having their outer ends normally separated, a lever disposed at one side

of the support and having an arm provided with a straight side adapted to bear against the side of the adjacent bag-engaging arm and a convex end adapted to ride upon said arm, a fulcrum pin carried by said lever distant from the convex end and adapted to bear against the side of the support, and a link having one end pivoted to said fulcrum pin and its opposite end pivoted to the bag-engaging arm remote from the lever.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUST MINKE. [L. S.]

Witnesses:
EDW. MCCARTY,
GEO. P. TAYLOR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."