N. E. BUNTING.

BAG HOLDING MEANS.

APPLICATION FILED JULY 20, 1917.

1,294,764. Patented Feb. 18, 1919.

Fig. 1.

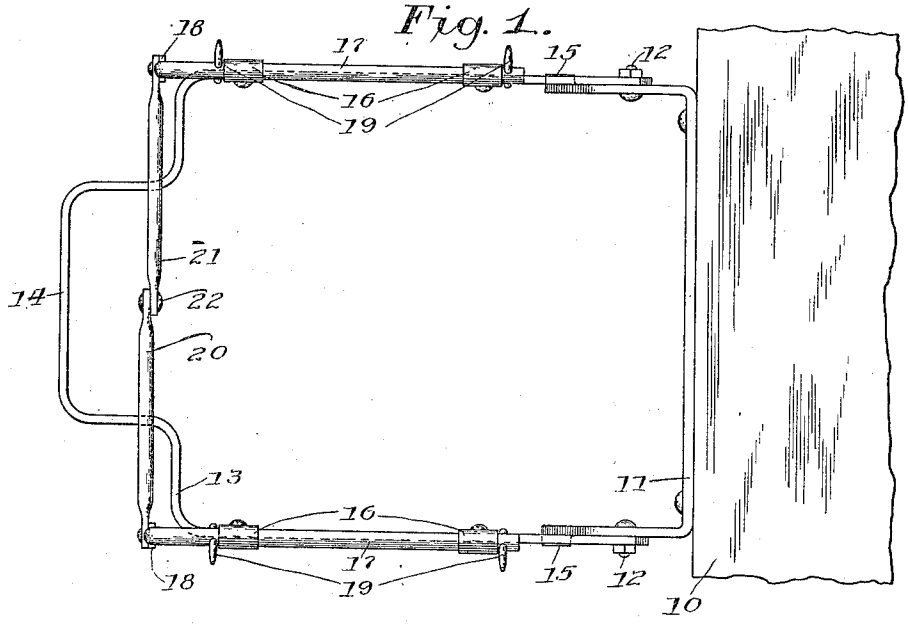


Fig. 2.

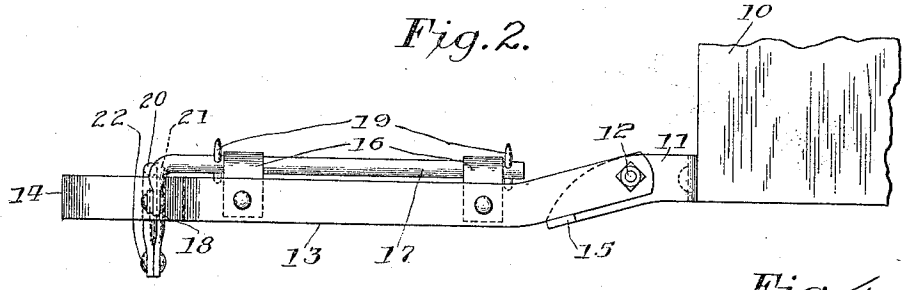


Fig. 4.

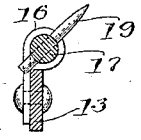
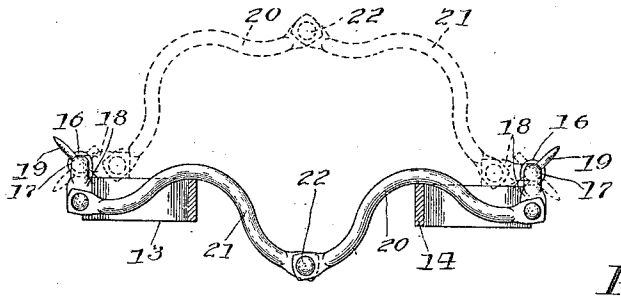


Fig. 3.



Inventor.
Norman E. Bunting,
by Chas. E. Lord
Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON.

UNITED STATES PATENT OFFICE.

NORMAN E. BUNTING, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO INTERNATIONAL HARVESTER COMPANY, A CORPORATION OF NEW JERSEY.

BAG-HOLDING MEANS.

1,294,764. Specification of Letters Patent. Patented Feb. 18, 1919.

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To all whom it may concern:

Be it known that I, NORMAN E. BUNTING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bag-Holding Means, of which the following is a full, clear, and exact specification.

This invention relates to bag holding means, and more particularly to that type of bag holder employed for supporting large fabric bags when they are filled with grain.

The object of the invention is to provide means for supporting a fabric bag firmly and securely when being filled and subsequently discharging the filled bag without the necessity of lifting the same from the support.

With the above objects in view, my invention comprises a substantially U-shaped main frame pivoted to a suitable support and carrying two rock shafts disposed on opposite sides of the U-shaped frame and provided with suitable bag piercing means which in the normal position of the device project upwardly. The rock shafts are connected by toggle links that are so disposed that the weight of the bag locks the toggle. These links may be forced upwardly by a slight pressure on their common pivot, and after they have passed a certain point the weight of the bag assists in rotating the rock shafts and releasing the bag from the piercing means.

In the drawings I have illustrated one embodiment of my invention, in which—

Figure 1 shows a top plan view of the device;

Fig. 2 is a side elevation;

Fig. 3 is a front elevation; and

Fig. 4 is a sectional detail view showing the manner of mounting the supporting rods and perforating pins.

In these drawings, wherein like reference characters designate similar parts throughout the several views, the bag holding device is shown as secured to a U-shaped bracket 11, which is mounted on a suitable frame, or grain spout, 10, and pivotally secured to this U-shaped bracket at 12 is a substantially U-shaped frame 13. This U-shaped frame 13 is extended outwardly at its front end to form a handle 14, which also acts as a support for the toggle links as described below. Ledges 15 on the front portion of the frame 11 support the frame 13 in operative position. The frame 13 is provided at each side thereof with suitable clips 16, in which are journaled two parallel rock shafts 17 provided on their front ends with cranks 18. These rock shafts are provided, adjacent the clips 16, with pins 19, which perforate the bag and secure the same in place. The cranks 18 are connected by means of curved links 20 and 21, which in turn are connected together by a common pivot 22. It will be noted that this pivot 22 is located slightly below a plane passing through the outer extremities of the links 20 and 21, and because of this a toggle action is obtained, and when the bag is in place on the pins 19, the weight of the grain would, normally, tend to rotate the rock shafts 17 and force the cranks 18 inwardly, but this toggle action withstands the inward pressure and locks the mechanism in such a manner that as the weight of the material in the bag increases, the holder will be more firmly locked in position. From the above description the operation of the device will be clear, but the same may be described briefly as follows:

The bag is placed in position on the pins 19, in which position it receives the grain from a suitable discharging spout. When the bag is filled and it is desired to release the same from the holding device, the operator exerts a slight upward pressure on the common pivot 22 of the links 20 and 21, and as soon as this pivot 22 is pressed above the plane passing through the outer ends of the links 20 and 21, the weight of the grain will rotate shafts 17 and cranks 18 and force the links 20 and 21 upwardly, thereby turning the pins 19 into the position shown in dotted lines in Fig. 3, in which position the bag is automatically released.

From the above description it will be seen that I have provided a device which firmly and securely holds the bag in place while the same is being filled and which is easily and readily released after the bag has been filled, the weight of the bag assisting in releasing the same.

While I have illustrated and described one embodiment of my invention, it is to be understood that this embodiment was chosen merely for the purpose of illustrating the invention, and that the device may be modified without departing from the spirit of

the invention as expressed in the following claims.

What I claim as new is:

1. In a bag holder, a frame, a pair of spaced rock shafts journaled thereon, bag piercing means carried by said shafts, and toggle links fixed to said shafts and directly pivoted to each other for rotating the shafts and releasing the bag.

2. In a bag holder, a frame, a pair of spaced rock shafts journaled thereon, bag holding means carried by said shafts, crank arms formed on said rock shafts, and links connected to said crank arms and directly to each other for actuating said cranks and releasing the bag.

3. In a bag holder, a frame, a pair of spaced rock shafts journaled thereon, bag holding means carried by said shafts, crank arms carried by said rock shafts, and links connected at their outer ends to said crank arms and pivotally connected together at their inner ends, the common pivot being located below a plane passing through the outer ends of said links.

4. In a bag holder, a frame, a pair of spaced rock shafts journaled thereon, bag holding means carried by said shafts, crank arms carried by said shafts, and downwardly curved links carried by said crank arms and connected to a common pivot at their inner ends.

5. A bag holding device including, in combination, a substantially U-shaped frame, rock shafts journaled on said frame, crank arms carried by said rock shafts, and links carried by said crank arms, said links being pivotally connected at their inner ends, the common pivot being located below a plane passing through the outer ends of said links.

6. A bag holding device including a frame, rock shafts carried by said frame, bag holding means on said shafts, crank arms on said shafts, links carried by said crank arms and directly connected together, the point of connection of said links being located below a plane passing through the connections between said links and crank arms.

In testimony whereof I affix my signature.

NORMAN E. BUNTING.

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