(No Model.)

W. F. LEWIS.

BAG-HOLDER.

No. 384,454. Patented June 12, 1888.

Fig. 1.

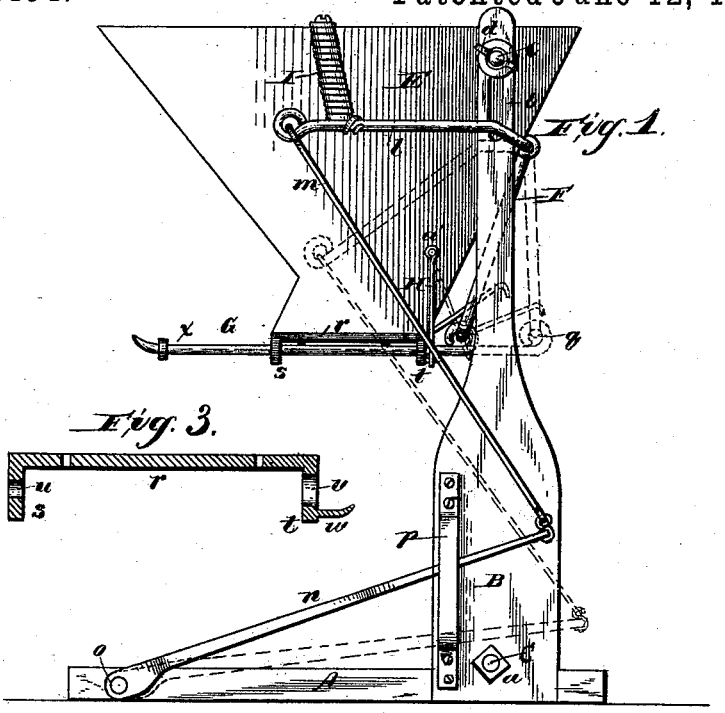
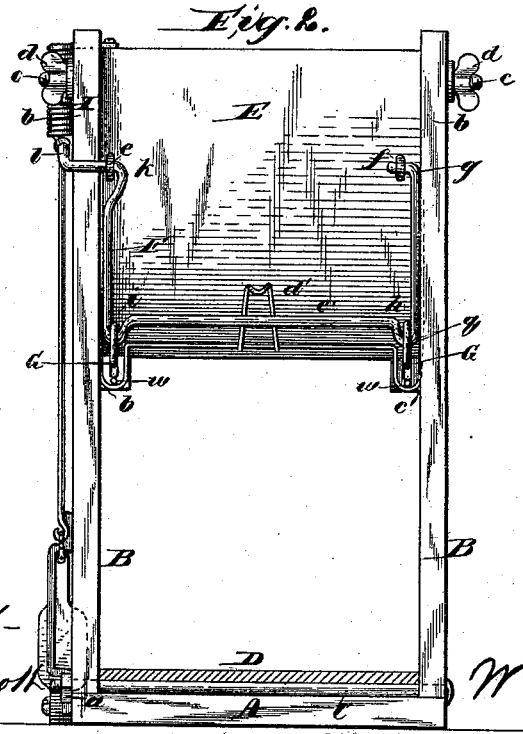


Fig. 3.

Fig. 2.



Witnesses—
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UNITED STATES PATENT OFFICE.

WILLIAM F. LEWIS, OF WASHINGTON, DISTRICT OF COLUMBIA.

BAG-HOLDER.

SPECIFICATION forming part of Letters Patent No. 384,454, dated June 12, 1888.

Application filed February 10, 1888. Serial No. 263,596. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. LEWIS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Bag-Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to bag-holders, and has for its object the construction of a cheap, simple, and durable device for the purpose of holding the mouth of a bag open while it is being filled with grain or any other material.

The invention will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a side elevation of my bag-holder; Fig. 2, a rear elevation of the same, and Fig. 3 is an enlarged longitudinal section of one of the supports for the movable holder.

Reference being had to the drawings and the letters marked thereon, A represents the base, which conforms to the dimensions of the platform of a scale as is ordinarily used in flour and feed stores.

B B are uprights or posts, which are set into the sides of the base and held in position in any suitable manner.

C is a rod which passes through the posts B B and a cleat, D, on the upper side of the base and between the posts. The rod C is provided with a nut, *a*, and prevents the posts from spreading at their lower ends, and in conjunction with the cleat D prevents the base from warping or springing.

In the upper ends of the posts are formed slots *b b*, through which bolts *c* pass, and upon which bolts a hopper, E, is suspended. The bolts are provided with thumb-nuts *d* for securing the hopper in position to adapt it for use in filling sacks or bags of different lengths.

F represents a compound lever or crank, which is secured in suitable bearings, *e f*, on the rear of the hopper, and is provided with bends *g h i k*, and an arm, *l*, which extends out on one side of the hopper, and is connected at its outer end to a link or rod, *m*, which is attached at its opposite end to a treadle, *n*, which is fulcrumed to the base A by a bolt or pin, *o*. The treadle is kept in position by a guide or loop, *p*, attached to one of the posts B.

G represents two rods or movable supports, which are connected to the compound crank F in its bends *h i*, respectively, by the eyes or loops *q q*, formed in the rods. On each side and to the lower surface of the hopper A is secured a bar, *r*, which is provided with a depending arm, *s*, in front and arm *t* at the rear end, which form ways in which the rods *c* reciprocate. The front arm is provided with a circular aperture, *u*, and the arm *t* with an elongated aperture, *v*, to afford room for the rod G to rise and fall as it is moved back and forth in its bearings. The rear arm, *t*, is also provided with a fixed stud, pin, or support, *w*, for engagement with a sack or bag. The front ends of the rods G and the rear ends of the supports *w* are slightly curved upward to prevent a sack or bag from slipping off, and collars *x* are provided on the rods G to prevent the rods from passing too far through the material of which the bag is made. If the rods should bend inward or toward each other under the weight of the bag, a brace may be applied to them to hold them in position.

H represents a rod pivotally secured to the sides of the hopper at *a'*, (only one side being shown in the drawings,) crosses the hopper on its rear side, and is curved at *b' c'*, to fall below the supports *w w*, for the purpose of automatically removing the bag from said supports when the rods G are drawn back to release the front side of the bag. The rod H is moved out to release the bag by the compound crank F, with which it is connected by a link or hook, *d'*, which engages with the horizontal bar *e'* of said crank, and returns to its normal position, ready for use, by gravity. To the arm *l* of the compound crank F is attached a spring, I, which throws the rods G forward, opens the mouth of the bag when attached, keeps the bag stretched open, and adapts the holder to various-sized bags.

It is obvious that the spring I, or a pair of them, may be placed between bar *e'* of the crank F and the hopper, if desired.

The device being constructed substantially as described, the operation is as follows: The hopper E having been adjusted to suit the length of sacks or bags to be filled, a bag is attached to the fixed supports *w*, and the movable

supports or rods G drawn back by pressing upon the treadle *n* and expanding the spring I. The bag is then passed over the ends of the rods G, when the foot of the operator is removed from the treadle, and the resiliency of the spring draws the arm *l* upward and forces the crank forward, projecting the rods automatically in the same direction, stretching the mouth of the bag and keeping it under tension while being filled. The tension of the spring operating to distend the mouth of the bag secures it against falling off and relieves the workman from giving any attention to the bag-holder. After the bag has been filled the treadle *n* is depressed, which draws the rods or supports G rearward and automatically releases the bag at the front by the rods being drawn out of connection with the bag, while the bag is simultaneously and automatically released from the fixed supports *w* by the curved rod H being drawn rearward by the bar *e'* and the hook *d'*

Having thus fully described my invention, what I claim is—

1. In a bag-holder, the combination of fixed and reciprocating bag-supports, a spring for projecting the movable supporters and keeping the bag stretched at its mouth, and a swinging bar for releasing the bag from the fixed supports, substantially as described.

2. In a bag-holder, the combination of fixed and horizontally-reciprocating supports, a compound crank provided with bends, substantially as shown, to which the reciprocating supports are attached, a spring and a treadle connected to said crank, substantially as described.

3. In a bag-holder, the combination of a hopper, fixed and reciprocating bag-supports, a compound crank crossing and secured to the hopper and provided with an operating-arm, a spring attached to the hopper and to said arm, and a treadle also attached to said arm, substantially as described.

4. In a bag-holder, the combination of a hopper, fixed and reciprocating bag-supports, arms or ways under the hopper for supporting and guiding said supports, a compound crank, a curved swinging rod for releasing the bag from the fixed supports, a connection between said crank and rod, and a tension device for operating the crank, substantially as described.

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

WILLIAM F. LEWIS.

Witnesses:
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WM. C. MERTZ.