

E. N. GILES.

Improvement in Bag-Holders.

No. 131,267.

Patented Sep. 10, 1872.

Fig. 1.

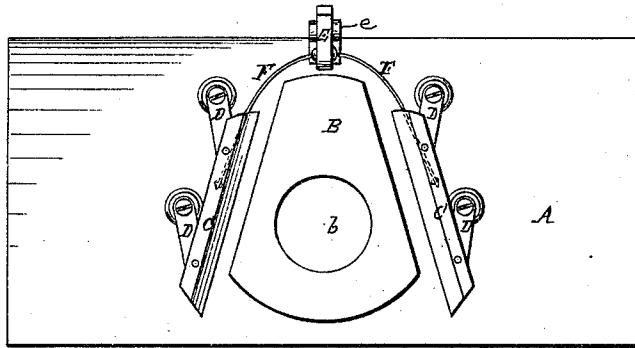


Fig. 2.

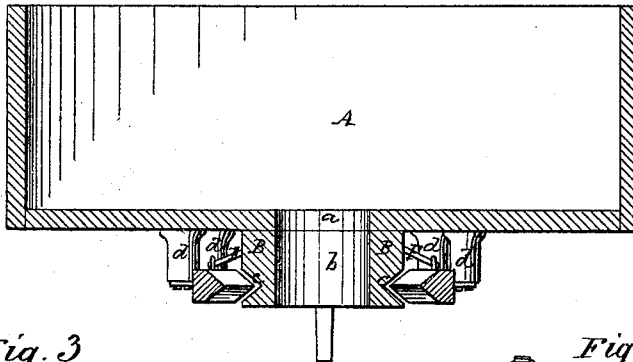


Fig. 3.

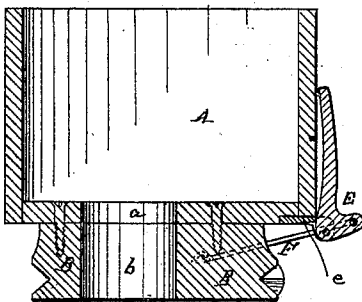
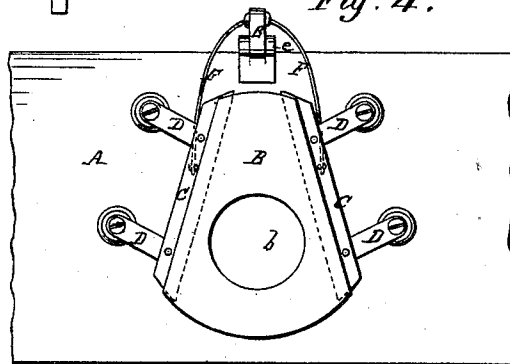


Fig. 4.



Witnesses.

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EDWIN N. GILES, OF BROWNVILLE, NEW YORK.

IMPROVEMENT IN BAG-HOLDERS.

Specification forming part of Letters Patent No. **131,267**, dated September 10, 1872.

To whom it may concern:

Be it known that I, EDWIN N. GILES, of Brownville, Jefferson county, New York, have invented certain new and useful improvements in apparatus for holding bags to the feed-boxes of grain-mills, of which the following is a specification:

In grain or flour mills it is usual to suspend bags under an opening in the receptacle—technically called the “feed-box”—that receives the grist as it comes ground from the mill, for the purpose of conveniently effecting the transfer of the grist from the feed-box to the bags. Generally the bags are suspended by means of hooks; but these hooks tear the bags, thus giving rise to complaints from customers, and to waste and loss to the mill-owner when using his own bags; and the difficulty thus experienced is so considerable as to call for a remedy.

The object of my invention is to remedy this difficulty in a cheap and convenient way, and to this end I use, in connection with the feed-box, an apparatus substantially such as hereinafter described, whereby the edge or top of the bag can be readily clamped and held in its proper position with relation to the opening in the bottom feed-box, and as readily released when desired.

The manner in which my invention is or may be carried into effect will be understood by reference to the accompanying drawing, in which—

Figure 1 is a bottom view of the “feed-box” with the bag-holder attached, the movable clamps being drawn back from the center-piece, around which the mouth of the bag is to be fitted. Fig. 2 is a longitudinal vertical central section of the same. Fig. 3 is a transverse vertical section. Fig. 4 is a bottom view of the box with the clamps closed on the center piece.

A represents a “feed-box” of the usual construction, provided in its bottom with a discharge-opening, *a*. To the under side of the bottom of the feed-box is fixed a metal or wooden center piece or block, B, through which a hole, *b*, is formed to correspond with the opening *a* in the bottom of the feed-box. In the longer sides of the center piece are formed longitudinal V or equivalently shaped grooves C, into which the end of the bag, fitted upon

or around said center piece, is forced and held by clamps, as hereinafter described. A convenient arrangement of clamps for this purpose is represented in the drawing. It consists of clamp-bars C, placed on opposite sides of and parallel with the center piece B, having their inner edges V-shaped, as shown, to fit the correspondingly-shaped grooves *c* in the sides of the center piece. These bars are supported by straps D, pivoted at one end to posts or other supports *d* fixed to the feed-box, and at the other end to the clamp-bars. The hinge thus formed is similar to a “parallel rule.” The clamp-bars are connected by metal rods or wires with a single lever-handle, E, by which they are both simultaneously moved either toward or away from the center piece. I prefer to use, for the purpose of making the connection between the clamp and the lever, a wire-rod of spring metal F, having its ends jointed to the clamp-bars, as shown in Figs. 2 and 4, and at its center passing through or attached to the lever. The clamp and lever are thus connected by a bowed spring, which has a tendency to spread apart the clamps and to hold them away from the center piece. The lever in this instance has an angle or bell-crank formation. It is pivoted at its angle to a forked stand, *e*, attached to the lower part of the front of the feed-box. Through the outer end of its shorter arm passes the connecting-rod of the clamps, and its longer arm serves as a handle. By lowering the handle the clamps are moved away from the center piece; by raising it the clamps are pressed into the grooves in the sides of the center piece. The handle when thrown up lies alongside of the feed-box, and the arrangement of the lever is such that when the handle is thrown up so as to bring the clamps home in their grooves the point at which the connecting rod or rods of the clamp are jointed to the shorter arm of the lever will be raised above the pivotal point of the lever, so that the line of draft will be in a plane above said pivotal point, as shown in Fig. 3. The result of this is to hold the handle in its position, thus providing a ready means of holding the clamps tightly against the center piece. The use of a spring connecting-rod in this arrangement is advantageous, as the tendency of the ends of the rod to spring apart produces a draft on the shorter arm of

the lever, which holds the handle firmly up in the position into which it has been moved.

The operation of the devices is as follows: The handle E is thrown down, thereby forcing apart the clamps and removing them from the center piece B, around which the mouth of the bag is then drawn. After this has been done the handle E is raised until its end touches the feed-box, by which movement the clamps are forced against the bag, which is thereby crowded into and held firmly in the grooves in the center piece. The handle, when fully raised, will, owing to its arrangement, as above described, remain in its position without requiring any fastening for the purpose.

Having now described my invention and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the feed-box of a grain-mill, of a center piece arranged below the box, with an opening corresponding with the opening in the said box, and a clamping device arranged and operating substantially as herein shown and described to clamp and hold in place the end of the bag drawn up around said center piece, as set forth.

2. The combination, with the center piece provided with V-shaped grooves in its sides,

and the clamp-bars having correspondingly-shaped edges to fit in said grooves, and hinged in the manner herein described so as to maintain their parallelism with the sides of said center piece, of the connecting rod or rods, and lever for operating said clamps, as and for the purposes herein shown and set forth.

3. In a bag-holding device, substantially such as described, the bent spring-rod connecting the clamps with the handle for operating the same, substantially as shown and set forth.

4. In combination with the clamps and their connecting-rod, the lever-handle arranged upon the feed-box and in relation to the clamps, substantially in the manner described, so that said lever, when thrown up in order to force the clamp home against the center piece, may be maintained in such position by the draft of the connecting-rod upon the shorter arm of the lever, as set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

EDWIN N. GILES.

Witnesses:

BYRON COLE,
WILLIAM T. SKINNER.