

W. MASTERTON.
Sacking-Attachments for Thrashing-Machines.
 No. 139,073.

Patented May 20, 1873.

Fig. 1.

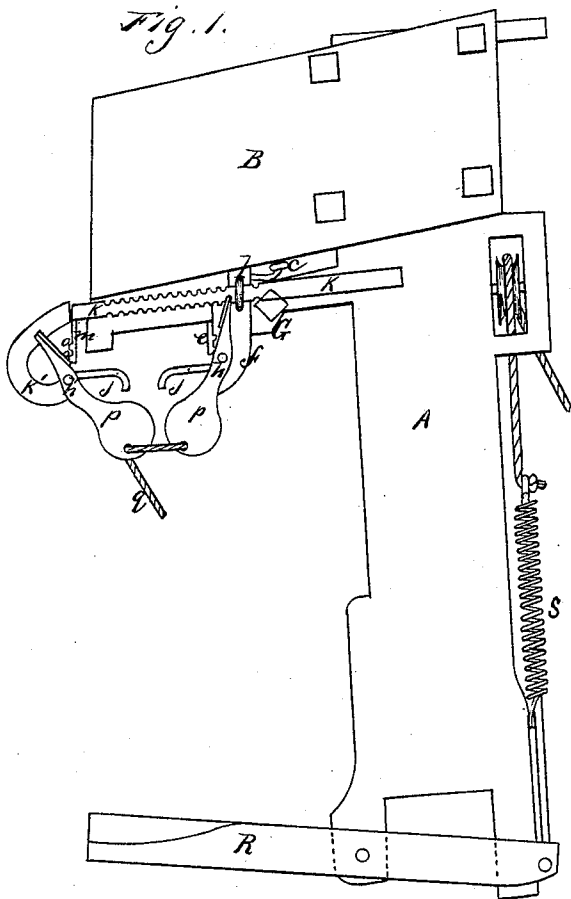


Fig. 2.

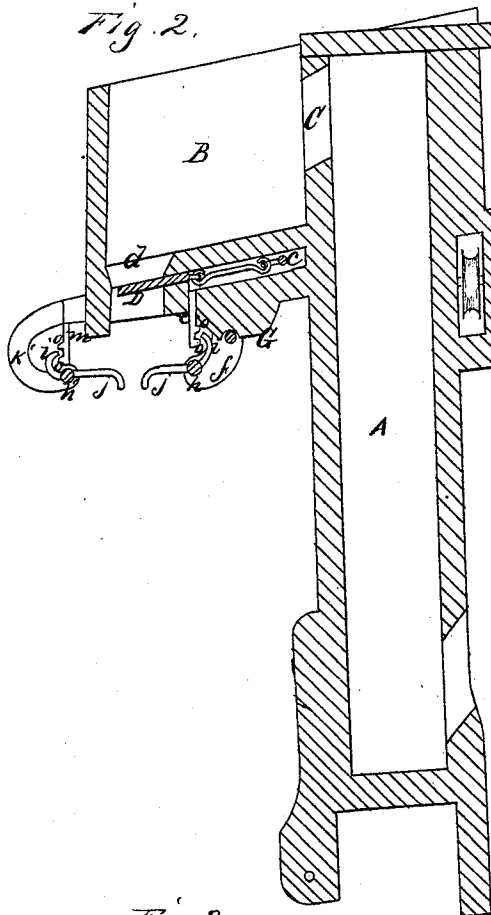
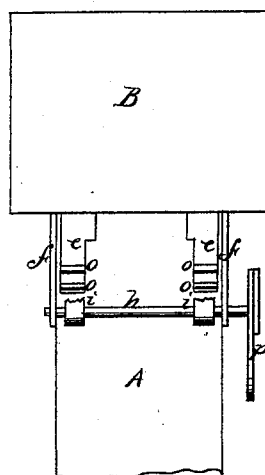


Fig. 3.



Witnesses

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WALTER MASTERTON, OF STOCKTON, CALIFORNIA.

IMPROVEMENT IN SACKING ATTACHMENTS FOR THRASHING-MACHINES.

Specification forming part of Letters Patent No. **139,073**, dated May 20, 1873; application filed February 6, 1873.

To all whom it may concern:

Be it known that I, WALTER MASTERTON, of Stockton, San Joaquin county, State of California, have invented an Improved Grain-Sacking Attachment for Thrashing-Machines; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use my said invention or improvement, without further invention or experiment:

My invention relates to a grain-sacking attachment to thrashing-machines which is so constructed that the sacks can be suspended clear of the ground, and properly stretched while they are being filled by the joint action of the weight of the grain and the blows of a vibrating lever or striker against their lower ends or bottoms. The sack-holders are adjustable so as to accommodate sacks of different sizes, and are so arranged that the sacks cannot be torn.

In order to more fully illustrate and explain my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation of my sacking attachment. Fig. 2 is a vertical sectional view. Fig. 3. is a front view.

A represents a vertical tube or elevator, which is to be attached to a thrashing-machine in the proper position, to allow the grain as it comes from the thrasher-shoe to be caught by the vertical auger or elevator in the tube, and carried to the upper end of the elevator, where it is discharged through an opening in the side of the elevator at C, into a box or hopper, B. This box B is secured to the upper end of the elevator at an angle, so that its bottom will be inclined thus causing the grain to move to the lower end of the box, where an opening, *d*, is made in the bottom, through which the grain will flow into the sacks. The sack-holding attachment is secured to a ledge, G, on the under side of the box B, and a sliding cut-off, D, is arranged to be moved across the opening *d*, between the ledge and the bottom of the box, by means of a lever, *e*, where it is desired to stop the flow of the grain. A downward-projecting flange or plate, *e*, is secured trans-

versely across the under side of the ledge G, between the opening *d* and the elevator. A hanger, *f*, depends from the bottom of the box on each side of the ledge, and nearly opposite the ends of the flange *e*, so as to provide a bearing for the opposite ends of a shaft, *h*, which passes across the ledge below the lower edge of the plate or flange *e*. A curved lip or gripping plate, *i*, is secured to the shaft *h*, near each end, so that their ends will bear against the outside of the flange *e*, and a lever arm, *j*, is secured to each end of the same shaft at right angles to the griper lip, which, by their superior length and weight, serve to keep the ends of the grippers *i* pressed against the side of the plate. The portion of the sack-holder upon the opposite or outside of the opening *d* is attached to the ends of two adjustable rack-bars, *k*, one of which is secured upon each side of the ledge in a staple, *l*, so that the bar can be moved in or out as desired, according to the size of the mouth of the sack. The holding device upon this side of the opening is constructed similar to the one above described, the shaft *h'* being supported in the extremities of the downward curved ends of the bars *k'*, while the gripping-plates *i* *i* press against the outer face of the two plates *m m* which project downward from the cross-plate which ties the two bars together.

To guard against tearing the sacks I secure them in position to be filled by first wrapping each of the four quarters of the mouth of the sack over the lever-arms *j*, and then placing the edges of the mouth of the sack between the lips or curved gripping-plates *i i*, and outer face of the flanges *e m*, so that the weight of the sack depending from the lever-arms will tighten the pressure and hold them firmly in place. An elastic pad can be secured to the outside of flanges or plates *e m*, if desired, so that one of the surfaces will be yielding; but when I use a metal surface I form two parallel ribs, *o o*, longitudinally with the plates between which the ends of the lips or gripping-plates *i i* will press the edges of the sack.

The lever-arms *j j* are of greater length and weight than the gripping-plates *i i*, and consequently serve by overbalancing them to keep them pressed against the stationary surface at all times, and the weight of the sacks

depending wholly from these lever-arms will press the surfaces together with such force that they cannot possibly be released without first displacing the gripes. Secured to one end of each of the shafts *h h'* is a fixed lever-arm, *p*, which extends from the shaft at an angle downward, the weight of which also aids in keeping the gripping-plates pressed against the stationary surfaces. A cord, *q*, is secured to the extremity of these levers, so that, by pulling upward upon the cord, the shafts *h h'* will be revolved simultaneously and the gripers lifted from the stationary surface, so as to free the four corners of the filled sack at once and allow it to fall of its own weight.

The sack-holder is placed at a sufficient height from the ground to permit all ordinary-sized sacks to swing clear; and as it is a well-known fact that the bottom of the sack must be thoroughly filled before it is half filled, or else it cannot be properly filled afterwards, I have in addition to suspending the whole weight of the grain in the sack provided a vibrating lever, *R*, to strike a series of blows in rapid succession against its bottom. This lever will be operated by a crank on the same shaft of the thrashing-machine by which the elevating part of the sacker is driven. On the end of the lever which is attached to the thrashing-machine, I have placed one or more spiral springs *s* for the two-fold purpose of striking the blows against the sacks, and for

permitting the cranks to start only a part of the weight of the blow from a state of rest. By this means I avoid the sudden strains on the shaft which would attend the starting of the full weight of the blow at once.

The box *B* will have sufficient capacity to contain all of the grain that will be thrashed while the attendant charges the sacks.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The gripping attachment, consisting of the transverse shafts *h h*, with their gripping-plates *i i*, lever-arms *j j*, and operating-levers *p*, in combination with the stationary vertical plates *e m*, when said plates are provided with a yielding or ribbed surface, substantially as and for the purpose above described.

2. The adjustable rack-bars *k k*, with their movable sack-gripping attachment, in combination with a stationary gripping-attachment upon the opposite side of the opening, *d*, substantially as and for the purpose above described.

3. The vibrating-lever *R*, substantially as and for the purpose above described.

In witness whereof I hereunto set my hand and seal.

WALTER MASTERTON. [L. S.]

Witnesses:

L. E. CHICARD,
GEO. W. SPERRY.