

B. F. Bashor,

Flour Packer.

No. 106,912.

Patented Aug. 30, 1870.

Fig. 1.

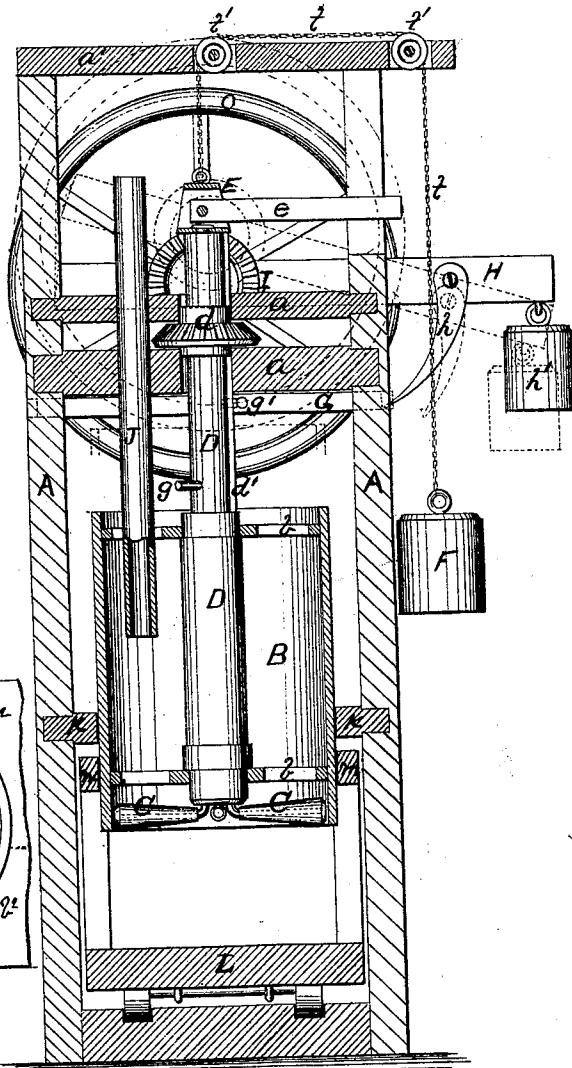
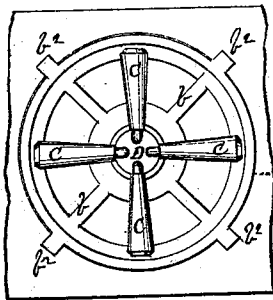


Fig. 2.



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Fig. 3.

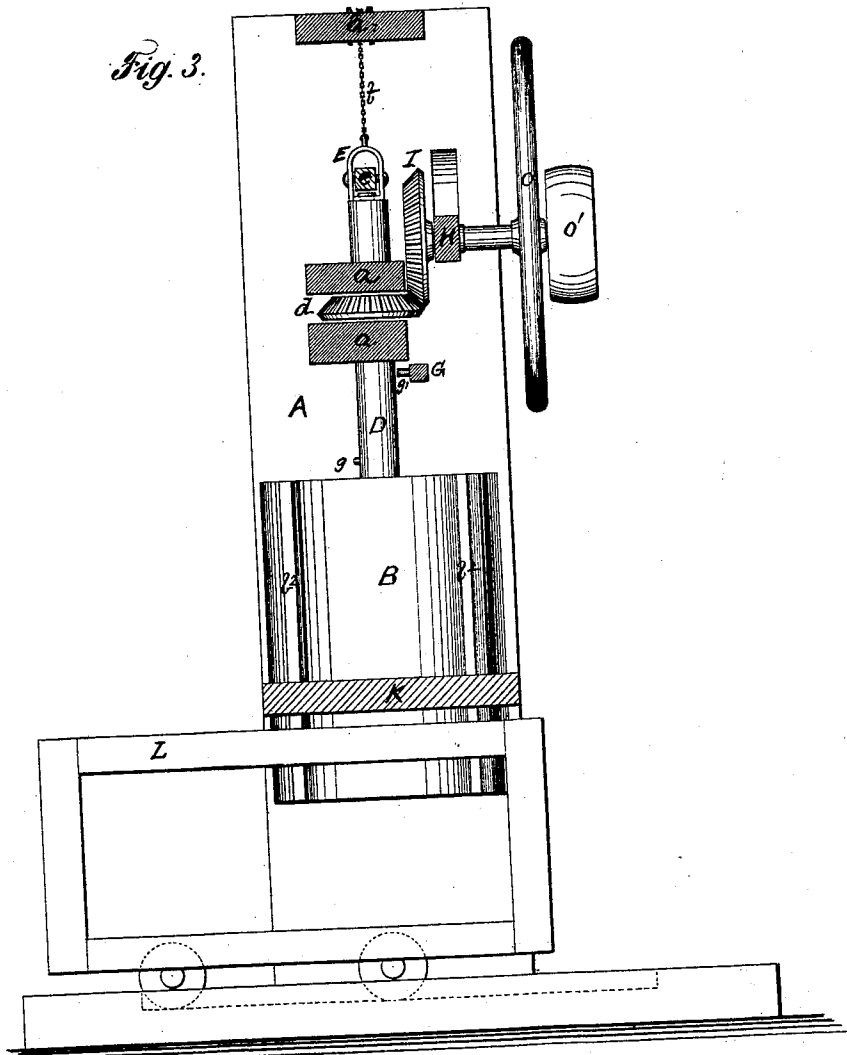
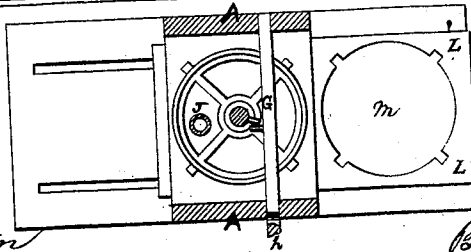


Fig. 4.



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# UNITED STATES PATENT OFFICE.

BENJAMIN F. BASHOR, OF CARTER'S DEPOT, TENNESSEE.

## IMPROVEMENT IN MACHINES FOR PACKING FLOUR.

Specification forming part of Letters Patent No. **106,912**, dated August 30, 1870.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. BASHOR, of Carter's Depot, in the county of Carter and State of Tennessee, have invented a new and Improved Machine for Packing Flour; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing, making part of this specification, and to the letters and figures marked thereon.

My invention relates to a machine for packing flour in sacks or bags; and consists in such an arrangement of devices or parts that the flour is conveyed through a tube to a hollow endless cylinder, which is lowered into the sack to be filled, and the flour rolled therefrom and packed in the sack by means of cone-shaped rollers placed in the lower end of the cylinder and radiating horizontally from its center, which rollers are operated by means of an upright shaft suitably geared. The device is fixed in a suitable frame, and is provided with a sliding chain for holding the sacks and other necessary arrangements.

In the accompanying drawing, Figure 1 represents a sectional end elevation of the machine. Fig. 2 represents an inverted view of the packing-cylinder, showing the position of the packing-rollers therein. Fig. 3 represents a side elevation of the machine, partly in section; and Fig. 4 is a top view or plan of the machine.

Similar letters of reference indicate corresponding parts.

A A are the sides of the frame. B is the packing-cylinder, and *b b* its upper and lower grates. C C are the packing-rollers, revolving on pinions rigidly secured in the lower end of the shaft D. *d* is a gear-wheel, which revolves the shaft D. The shaft D moves up and down through this gear-wheel, and is provided on one side with the vertical key *d'*, which occupies a corresponding ward in the wheel *d*, and it is by means of this key and ward that the shaft D is revolved by the wheel *d*. *a a* are cross-beams, which act as braces for the frame, a stop for the rising of the packing-cylinder, and a seat for the wheel *d*. E is a stirrup, pivoted to the top of the shaft D. The object of this stirrup is to prevent the chain *f* from twisting with the revolving of

the shaft D. *e* is an arm, one end of which is secured in the stirrup E and the other made to slide in a slot in one side of the frame. F is a weight, which assists the rising of the packing-cylinder B as the flour is packed in the sack. *g* is a spur in the side of the shaft D. The object of this spur is to stop the revolution of the shaft D by disconnecting the gearing, which it accomplishes as follows: As the bag fills with flour the shaft D and cylinder B rise up out of the same until the top of the cylinder B reaches the under side of the lower beam *a*, when the spur *g* connects with the spur *g'* in the sliding bolt G and moves it from left to right, thereby throwing the foot of the supporting-pawl *h* of the beam H out of its seat in the side of the frame of the machine. H is a rocking beam, forming the bearing of the gear-wheel I, which connects with and operates the shaft-wheel *d*. This beam is run through an opening in the right side of the frame of the machine and pivoted therein. Its inner end rests on a seat in the left side of the frame, and its outer side is provided with the weight *h'* and the supporting-pawl *h*. The foot of the pawl *h* rests in a seat in the side of the frame and holds the beam in position.

When the sliding bolt G is moved to the right, as before described, and has thrown the foot of the supporting-pawl *h* out of its seat, the weight *h'* carries down the outer end of the rocking beam H, and thereby disconnects the gear-wheels *d* and I, and assumes the position shown by the dotted lines.

O is the balance-wheel of the machine, and O' is its pulley or driving-wheel. J is a tube through which the flour is conveyed to the packing-cylinder B. *a'* is the top of the frame, and *f' f'* are friction-wheels placed therein to accommodate the chain *f*. *k* is a shelf through which the packing-cylinder moves.

The cylinder B is provided on its sides with the keys *b<sup>2</sup> b<sup>2</sup>*, which occupy corresponding wards in the shelf *k*, and prevent the cylinder from taking any other movement than a vertical one.

L is the sack-chair. This chair is provided with the open sack-seats *m m*, in which the sacks to be filled are hung.

The operation of my machine is as follows:

The sacks to be filled are hung in the seats *m m* of the chair *L*, and the chair slid in under the shelf *k*, so that one of the seats will come under the end of the packing-cylinder *B*, which is lowered into the same. The flour is then run into the cylinder through the tube *J* and the machine put in motion. As the flour falls it is packed in the sack by means of the rollers *C C* revolving over it and pressing it down in a continuous layer. As the flour is packed the rollers *C C* rise, carrying with them their shaft and the cylinder *B*, until the spur *g* comes in contact with the spur *g'* and stops the machine, as before described. One of the sacks being now packed the chair *L* is moved, so as to bring the empty sack under the cylinder, when the operation is commenced anew, the full sack being removed and replaced by an empty one.

Instead of the rocking beam *H* and the other devices herein described for disconnecting the gear-wheels *d* and *I*, a sliding pulley may be used, and the machine may also be so geared as to automatically shut off the supply of flour from the cylinder while the chair is changing position.

Having thus fully described the nature and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The packing-cylinder *B*, with its grates *b b*, in combination with the upright shaft *D* and its packing-rollers *C C*, arranged and operating as herein shown, and for the purpose described.

2. The rocking beam *H*, gear-wheel *I*, pawl *h*, and weight *h'*, in combination with the sliding bolt *G*, arranged and operating in the manner and for the purpose herein set forth and described.

3. The chair *L*, provided with the sack-seats *m m*, constructed, arranged, and operating in connection with the packing-cylinder *B*, in the manner and for purpose herein set forth and described.

In testimony that I claim the foregoing flour-packing machine I have hereunto set my hand this 26th day of May, 1870.

BENJAMIN F. BASHOR.

Witnesses:

EDM. F. BROWN,  
C. F. MCGILL.