

JACOB BOEHM.

Improvement in Flour-Bolt Feeders.

No. 127,673.

Patented June 11, 1872.

Fig. 1.

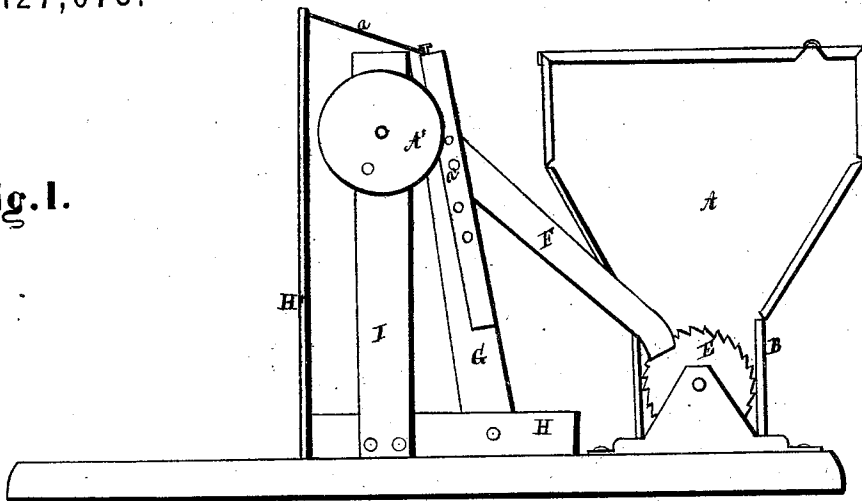
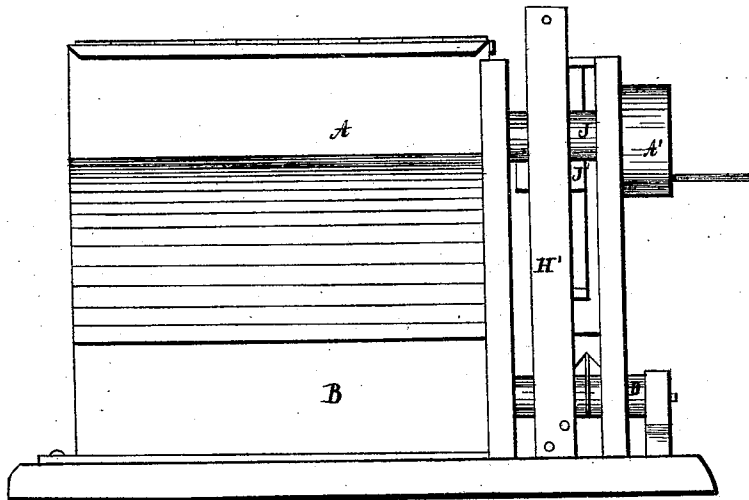


Fig. 2.



Witnesses.
G. C. Fryett.
A. F. Cornell.

Inventor.
J. Boehm.
Per Burridge & Co.
Atty

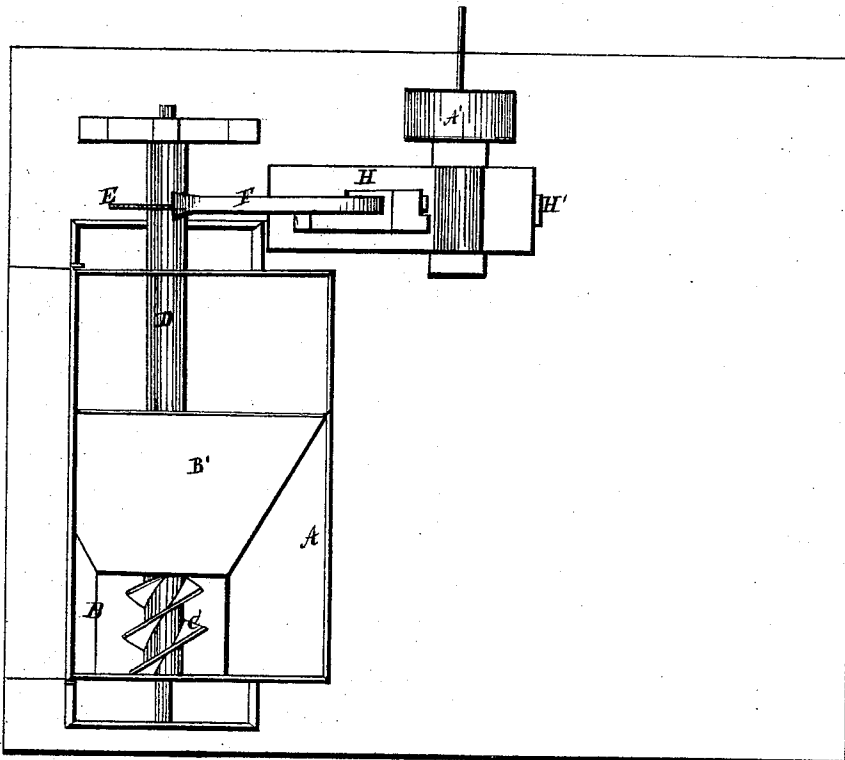
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Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB BOEHM, OF PERU, OHIO.

IMPROVEMENT IN FLOUR-BOLT FEEDERS.

Specification forming part of Letters Patent No. 127,673, dated June 11, 1872.

To all whom it may concern:

Be it known that I, JACOB BOEHM, of Peru, in the county of Huron and State of Ohio, have invented a certain new and Improved Flour-Bolt Feeder; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawing making part of the same.

Figure 1 is an end view of the flour-bolt. Fig. 2 is a side view. Fig. 3 is a plan view.

Like letters of reference refer to like parts in the several views.

SPECIFICATION.

The nature of this invention relates to an apparatus for feeding ground middlings to the flour-bolt; and the object thereof is to feed a certain and uniform amount of the same to the bolt, so that it may be mixed intimately therewith, and in a proportional quantity. Of said invention the following is a description:

In the drawing, Fig. 1, A represents a chest, the lower sides of which slant inwardly to the conductor B, which forms the bottom of the chest. In said conductor is a screw-conveyor, C, Fig. 3, winding around the shaft D, to which is secured a ratchet-wheel, E, whereby said screw is operated by a pawl, F, Fig. 1. The upper end of the pawl is pivoted in a standard, G, the foot of which is pivoted in a block, H, by which means is obtained to the standard a freedom to vibrate toward the ratchet-wheel. H' is a spring, the upper end of which is connected to the upper end of the vibratory standard G by a cord, a. Between the upper ends of the standards I is journaled a shaft, J, Fig. 2, from the side of which projects a lug, J'. On the outer end of the shaft is secured a pulley, A', whereby said shaft is driven by a belt.

As aforesaid, the object of this machine is for feeding a certain amount of ground middlings into the flour-bolt, so that it shall be intimately mixed therewith and bolted with the same. For this purpose the machine is put into communication with the chamber containing the ground middlings, from which it is conducted into the chest A, falling upon the cant-board B' and the slanting sides of the case, down which it slides to the conductor,

and is therein carried along by the revolving screw to the bolt, into which it falls and mingles with the fine flour in process of being bolted. The motion of the screw is not constant, but intermittent, it being made to rotate by the lug J', which, as it revolves, pushes forward the movable standard G, thereby rotating the ratchet-wheel E by means of the pawl F connected thereto; hence a constant stream of flour does not run into the bolt, but a certain amount is injected for each tooth of the wheel moved forward by the pawl, (the reaction of the pawl is effected by the spring H',) and which may be regulated as to quantity by changing the pivotal pin a', Fig. 1, from one hole to another, thereby shortening or lengthening the throw of the pawl, and, as a consequence, causing the wheel to rotate more or less at each movement thereof.

By the use of this machine I am enabled to produce a more even grade of flour, by causing a more uniform and intimate mingling of the middlings with the fine flour in the bolt, than can be done in the ordinary way; also, the flour is less liable to become speckled and shady in appearance.

A certain amount of flour is required at all times to be in the bolt in order for proper bolting, the amount being according to the speed of the bolt; hence a variable quantity of fine flour passing into the bolt is attended by an equally variable quantity of middling flour, so that the relative proportion is preserved.

In the event a larger or smaller proportion of middlings flour is wanted in the bolt, it can be had by shifting the pivotal pin a', as above mentioned.

The above-described intermittent feed device for conveying ground middlings to flour-bolts, for the purpose specified, can be used in combination with the hoppers of grain-mills, grinding-stones, and other cases where feeding-hoppers are used, and requiring in combination therewith an intermittent feed.

Claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The lug J', standard G, spring H, pawl and wheel E F, feed-screw C, and chest A, all

constructed to operate in relation to a flour-bolt in the manner as described, and for the purpose set forth.

2. The herein-described intermittent feed device, when constructed, arranged, and operated substantially in the manner as described, in combination with the hoppers of

grain-mills, grinding-stones, and other cases where feeding-hoppers are used, for the purpose specified.

JACOB BOEHM.

Witnesses:

W. H. BURRIDGE,
A. F. CORNELL.