BEALL & SHAFFER.

Flour Bolt.

No. 49,365. Patented Aug. 15, 1865.

Fig. 2

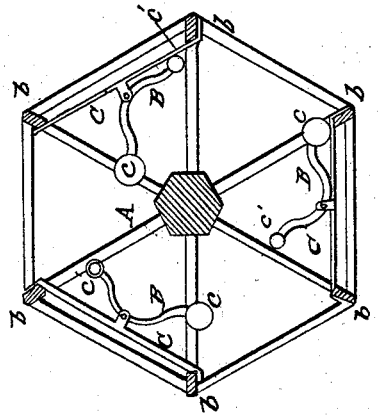
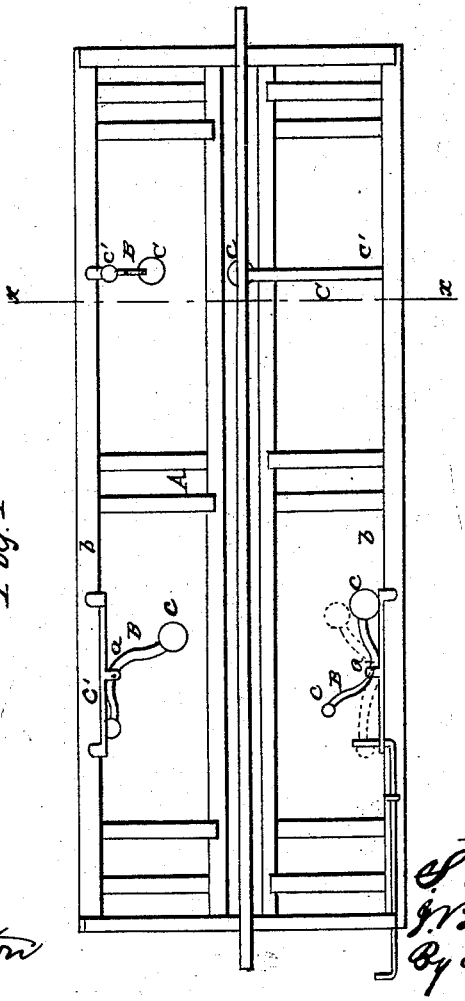


Fig. 1



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN BEALL AND SAML. K. SHAFFER, OF DECATUR, ILLINOIS.

IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. **49,365**, dated August 15, 1865

To all whom it may concern:

Be it known that we, JOHN BEALL and SAMUEL K. SHAFFER, of Decatur, in the county of Macon and State of Illinois, have invented a new and useful Improvement in Flour-Bolts; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of our invention; Fig. 2, a transverse section of our invention, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and improved knocking device to be applied to flour-bolts, for the purpose of keeping the same clean or open, so that the flour may readily pass through it.

The invention consists in pivoting a series of arms provided with weights or balls to the ribs of the reel in such a manner that the bolt will, as it rotates, be knocked or jarred both at its top and bottom, and thereby rendered very efficient.

A represents the reel of a bolt, which may be constructed in the usual manner, and therefore does not require a special description.

B, Fig. 1, represents a series of arms, which are secured by pivots *a* to the inner sides of the ribs *b* of the reel, the arms having a longitudinal position with the ribs. These arms have balls or weights *c c'* at their ends, the ball or weight *c* being larger or heavier than the ball or weight *c'*, as shown clearly in Fig. 1. The arms B are slightly curved, and the balls or weights serve as knockers and jar the reel as it rotates, the balls or weights *c* striking the ribs as they reach a point underneath the reel-shaft, and the smaller balls or weights *c'* striking the ribs as they reach a point over the reel or shaft. These arms, it will be seen, are operated by the gravity of the large balls *c*, which should be of such a size or weight as to act with efficiency.

Instead of the arms B having a longitudinal position with the ribs *b* they may have a transverse position therewith and be pivoted to the centers of plates C, the ends of which are secured to the ribs. (See Fig. 2.) The operation, however, is substantially the same in both cases.

The arms may be attached to the outer instead of the inner sides of the ribs.

We do not claim the application of balls or weights to a bolt-reel to serve as knockers, for they have been previously used, although arranged and applied differently from our plan herein described. Neither do we claim the broad idea of jarring the bolt at the top and bottom during its rotary movement, knowing this to be old.

We claim, therefore, as new and desire to secure by Letters Patent—

The application to a bolt-reel of a series of pivoted arms, provided at their ends with weights *c c'*, the ball or weight *c* at one end of the arms being heavier than the balls or weights *c'* at the opposite end, and all arranged to operate in the manner substantially as and for the purpose set forth.

JOHN BEALL.
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Witnesses:
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