

J. SKINNER.

Flour Bolt.

No. 106,223.

Patented Aug. 9, 1870.

Fig 1

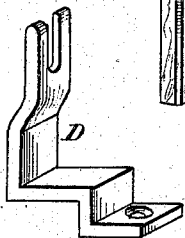
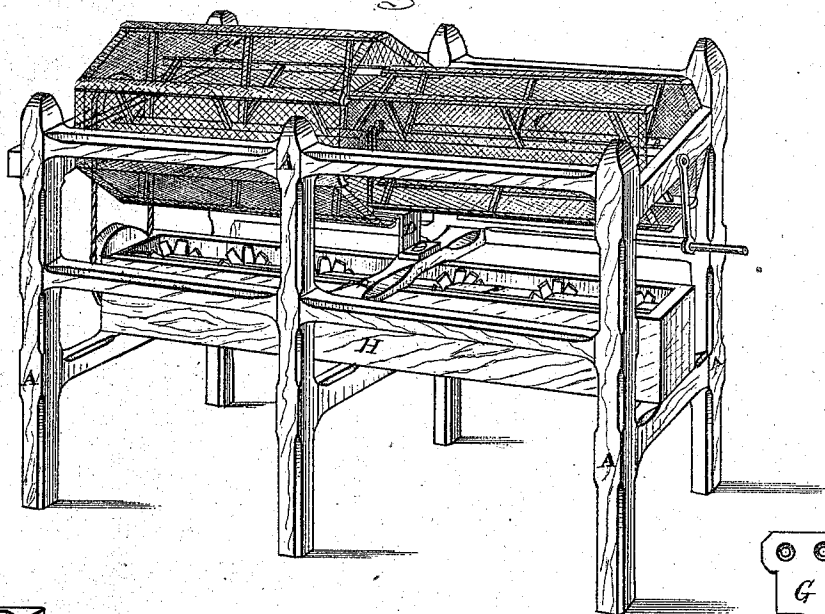


Fig 3



Fig 4

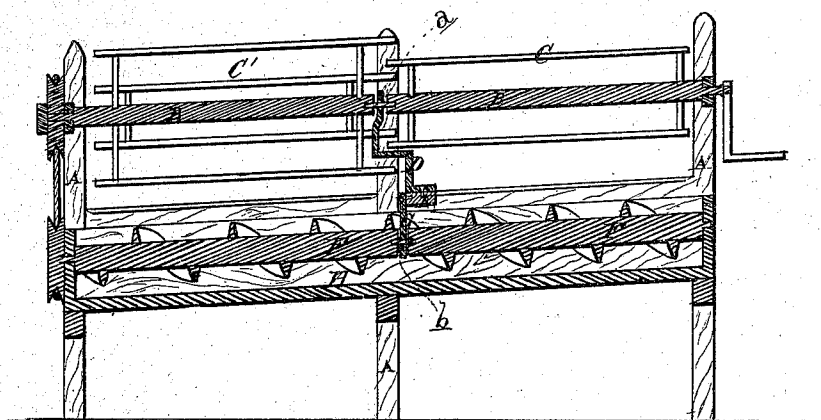


Fig 2

ATTEST

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INVENTOR

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United States Patent Office.

JOHN SKINNER, OF HADLEY, MICHIGAN.

Letters Patent No. 106,223, dated August 9, 1870.

IMPROVEMENT IN FLOUR-BOLTS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, JOHN SKINNER, of Hadley, in the county of Lapeer and State of Michigan, have invented a new and useful Improvement in Flour-Bolts; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view of my improvement;

Figure 2 is a longitudinal vertical section of the same;

Figure 3 is a perspective view of my reel-shaft bracket; and

Figure 4 is an elevation of the conveyer-shaft hanger.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improvement in the construction of flour-bolting devices, and consists in the arrangement on the one shaft of two or more reels and bolts, the one discharging its bran into the other, and in the peculiar construction of a bracket for supporting the shaft, thereby preventing it from springing; also, in the arrangement, underneath the series of bolts, of a conveyer, whose shaft is in like manner supported in a hanger, as more fully hereinafter set forth.

In the drawing—

A represents the frame-work of my bolting-chest, in the upper part of which is journaled the reel-shaft B, which is double the length commonly employed, or about thirty-two feet.

O is a reel extending from the upper end to a point a little past the center, and C', another reel of greater diameter, overlapping the lower end of the reel C, and extending to the other end of the shaft B. As it is not practicable to run a shaft of more than one-half the length of this without springing it, I support it in the middle of its length by a bracket, D, of the form shown in fig. 3, mounted on a cross-beam, E, in the lower part of the frame. The jaws of this bracket embrace a journal-bearing, a, in the middle of the shaft, if it be of metal, and in a single piece, or, if of wood, in two sections, a gudgeon connecting the two. Each reel is covered with a bolting-cloth of suitable mesh.

F is the conveyer, extending, in two sections, the full length of the bolts. It is provided with a gudgeon, b, connecting its two sections, and journaled in a hanger, G, depending from the cross-beam E, to prevent it from springing. The conveyer-trough H is provided with two or more discharge openings in its bottom, through which the flour may be graded and discharged.

I do not wish to confine myself to the construction of a flour-bolt twice the length of those now in use, as any desired length and number of reels may be employed, within a reasonable diameter, for the end reels; nor to the use of but one grade of bolting-cloth to each reel, as several numbers of cloth may cover each reel.

Motion being communicated to the reel-shaft and conveyer, the chop is fed into the uppermost end of the smaller reel, which discharges the finest flour first, and so on to its end, where the coarse flour and bran are discharged into the next reel, which, in like manner, permits the flour to pass down to the conveyer, and discharges the bran at its lower end. The conveyer, in the meantime, conveys or propels the different grades of flour along the trough until they reach their several openings, through which they are discharged.

Among other advantages possessed in this improvement is, that but one set of gears are necessary to operate it, dispensing with the separate gearing for each bolt and the intermediates.

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

1. In combination with the shaft B and the reels O and C', the bracket D, when constructed and arranged as described and shown, and as and for the purpose set forth.

2. In combination with the conveyer F, provided with the gudgeon b, the hanger G, depending from the cross-beam E, when constructed and arranged as described and shown, and as and for the purpose set forth.

3. The arrangement of the shaft B, the reels O and C', the bracket D, the cross-beam E, and the conveyer F, in connection with the frame A, when the several parts are constructed as described and shown, and as and for the purposes set forth.

JOHN SKINNER.

Witnesses:

MEDFORD HARTWELL,
GEORGE WILLIAMS.