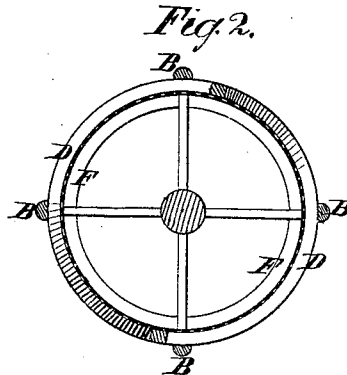
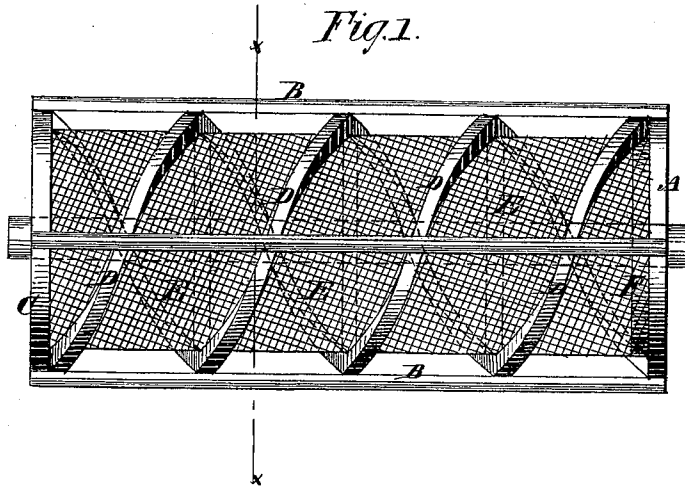


J. W. JOHNSON.

Improvement in Flour-Bolts.

No. 132,965.

Patented Nov. 12, 1872.



Witnesses:

John Becker
Alex F. Roberts.

Inventor:

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UNITED STATES PATENT OFFICE.

JOHN W. JOHNSON, OF EVANSFORT, OHIO.

IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. 132,965, dated November 12, 1872.

To all whom it may concern:

Be it known that I, JOHN W. JOHNSON, of Evansfort, in the county of Defiance and State of Ohio, have invented a new and Improved Flour-Bolt, of which the following is a specification:

My invention consists of a reel with spiral ribs inside of the ordinary longitudinal ribs, the former arranged as wide apart as the width of a strip of bolting-cloth, and the cloth arranged spirally on said ribs and nailed upon the inside, all as hereinafter more fully described.

Figure 1 is a side elevation of a bolt constructed according to my improvement; and Fig. 2 is a transverse section taken on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the ordinary reel-head; B, the longitudinal ribs; and C, the band or hoop at the tail end. D represents the aforesaid spiral ribs, which I propose to use for securing the cloth E to. They are arranged upon and attached to the inside of ribs B, and are placed as wide apart as the width of a strip of cloth. By preference, I will have the pitch of the spiral ribs such that two strips of cloth will cover it, so that two spiral ribs placed exactly opposite will be sufficient; but the pitch may

be adapted for three or four strips of cloth, and the reel will have as many spiral ribs. The cloth is nailed upon the inside of ribs D, making the reel smooth inside, and the ends of the pieces of cloth are cut diagonally to square with the head and the hoop C, to which they are nailed, the tail end being inside of the hoop and the head ends being nailed to the outside of a circular shoulder, F.

These spiral ribs make a much more rigid reel with a given quantity of material than the common arrangement does, and the strain on the cloth by springing is not so disastrous, because both the warp and weft threads are diagonal to the direction of said strain, whereby the cloth is more elastic and compensating to the strain.

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

The combination, in a flour-bolt, of the spiral ribs D and the cloth arranged thereon spirally to the axis of the bolt, the said spiral ribs being within the longitudinal ribs, and the cloth inside of the spiral ribs, all substantially as specified.

JOHN W. JOHNSON.

Witnesses:

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