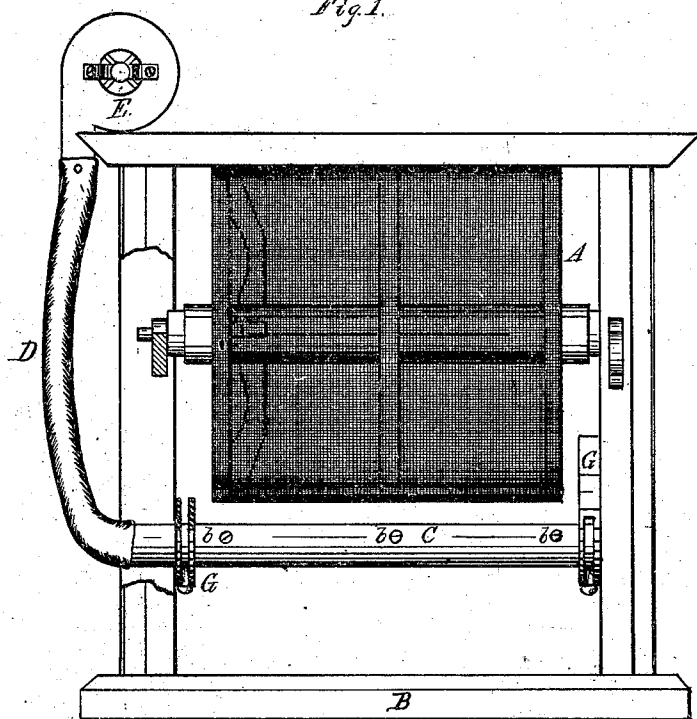


D. T. CHOAT.
Flour-Bolts.

No. 158,626.

Patented Jan. 12, 1875.

Fig. 1.



Witnesses;
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Thomas. Byrne

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Per H. A. Abbott.
Attorney.

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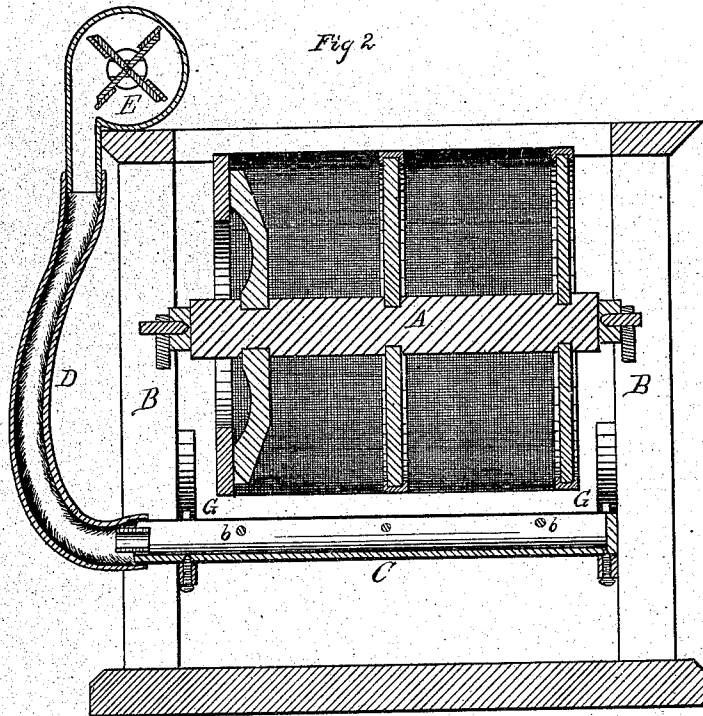
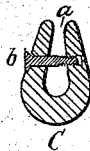


Fig 3.



Witnesses;

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Thomas Byrne

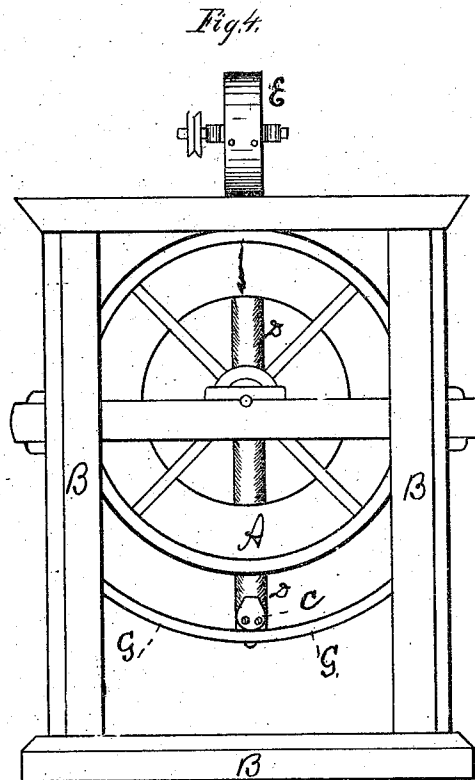
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UNITED STATES PATENT OFFICE.

DAVID T. CHOAT, OF CEDAR FALLS, IOWA.

IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. **158,626**, dated January 12, 1875; application filed December 10, 1874.

To all whom it may concern:

Be it known that I, DAVID T. CHOAT, of Cedar Falls, county of Black Hawk and State of Iowa, have invented certain new and useful Improvements in Flour-Bolts, of which the following is a specification:

The nature of my invention consists in an air tube or trunk placed longitudinally beneath a revolving bolting-reel upon slotted curved girders, and having a slot along its upper side, and connected at one end to the mouth of a blast-fan, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a side elevation of a flour-bolt embodying my invention. Fig. 2 is a longitudinal vertical section of the same, and Fig. 3 is a cross-section of the air-tube. Fig. 4 is an end view, showing the curved girders G.

A represents a flour-bolt, constructed in any of the known and usual ways, and revolving in a frame, B. Underneath the bolt A is placed an air tube or trunk, C, running longitudinally with the bolt, and connected at one end by a flexible pipe, D, with a blast-fan, E.

This fan may be run by the same power that revolves the bolt by means of suitable belt and pulleys.

On the upper side of the tube or trunk C is a longitudinal slot, *a*, and across said slot, through the sides of the tube, are passed screws *b b* at suitable intervals, for the pur-

pose of contracting and enlarging the slot at will, to contract or enlarge the current of air, as may seem desirable. The tube C is at each end supported upon curved girders G G, upon which the air-tube is adjustable, so as to enable the operator to adapt it to the varying circumstances many mills are subject to—namely, a faster or slower motion of the bolts.

By this device a current of air is directed against the under side of the cloth of the flour-bolt, whereby a twofold advantage is gained. The fuzz and scurf, being of the lightest specific gravity of all the component parts of the wheat, are raised up off the lower inside surface of the bolt, thus preventing the descending meal from falling upon them and forcing them through the meshes of the cloth, and thereby rendering the flour a dark color. By bringing a current of cold dry air in contact with the new-made flour, a dryer and consequently stronger article is produced.

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

The combination, with a revolving flour-bolt, of the air tube or trunk C, having adjustable aperture *a*, and adjustable upon the girders G G, the flexible pipe D, and fan E, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 24th day of November, 1874.

DAVID T. CHOAT.

Witnesses:

J. J. TOLERTON,
E. TOWNSEND.