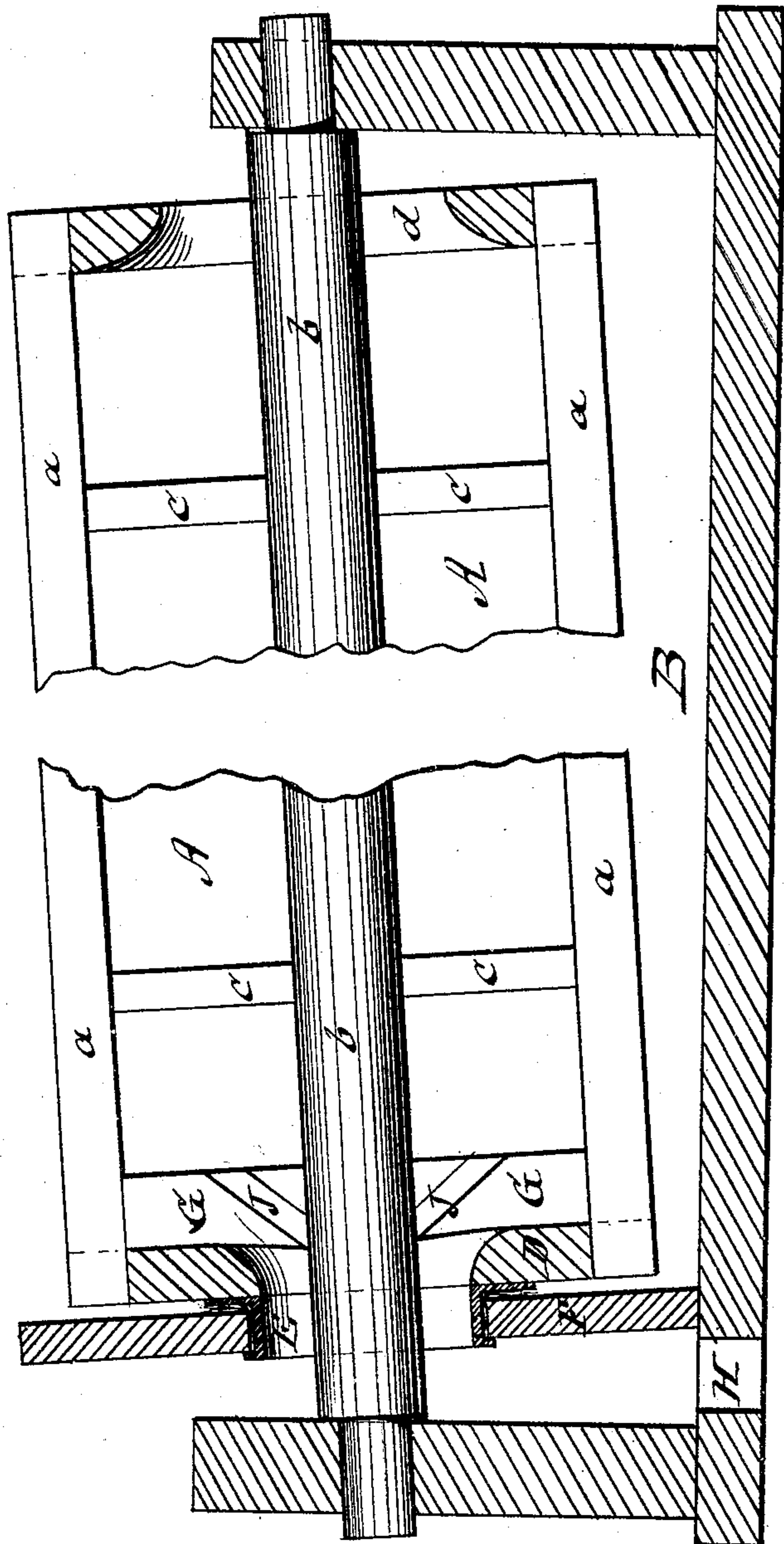


J. T. FERTIG.  
Flour-Bolts.

No. 151,769.

Patented June 9, 1874.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JOHN T. FERTIG, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. 151,769, dated June 9, 1874; application filed March 30, 1874.

*To all whom it may concern:*

Be it known that I, JOHN THOMAS FERTIG, of Brooklyn, Kings county, State of New York, have invented a new and useful Improvement in Bolters for Flour-Mills and other purposes, of which the following is a specification:

Several plans have been adopted for the purpose of obtaining a tight joint at the tail end of a circular, hexagonal, or octagonal bolter, or at that end where the grit or bran issues from the bolter, so that any draft or wind produced by the conveyer shall not be able to blow the grit or bran back into hutch among the bolted flour; but none of them have given any satisfactory result.

To obtain this object forms the nature of my invention, which consists in the arrangement of a head on the tail end of the bolter, provided with a large circular opening, supported in the end of hutch, in which the bolters are placed, and made perfectly tight by means of hair felt. On the inside of this bolter-head radiating flanges are attached, through which the grit or bran is carried from the bottom of the bolter upward, and is then, through diagonal or conical ribs or flanges attached to each side of these radiating flanges, conducted into the circular opening in the head and into the grit or bran conveyer.

By this arrangement, any draft or wind produced by the conveyer, or by any other means, can blow the grit or bran only back again into the bolter, to be forced out again as above mentioned, but will prevent the grit or bran from being blown into the hutch and mix with the already-bolted flour.

In the accompanying drawing a part of a bolter is represented embodying my invention.

A represents a bolter, of circular, hexagonal, or octagonal form, and constructed in the usual manner of laths *a*, running parallel with its axis *b*, and resting on spokes *c*, with the cloth tented round the laths. This bolter is placed somewhat obliquely in the bolting-hutch B, and revolved in the usual manner. The upper end of the bolter is provided with a wooden crown, *d*, whose interior diameter leaves sufficient room for the introduction of the usual gutter, by which the ground mass goes into the bolter. The lower or tail end of the bolter, where the grit or bran passes out, is provided with a head, D, having a circular ring or tube, E, on its outside, turning in a suitable opening in the end

partition F of the bolting-hutch B. Between the outside of the ring or tube E and the inside of the opening in the partition F felt, with the wool or hair on, is placed, to make a tight joint, and prevent the air or grit from passing. On the inner side of the head D radiating flanges G, running from the wooden frames or laths *a* forming the bolter-reel to to axis *b*, are securely fastened. On each side of these radiating flanges G diagonal ribs J, running toward the circular opening or tube E, are fastened.

Instead of these diagonal ribs a cone may be placed upon the axis *b*, with its point or vertex projecting into the opening or tube E, and the radiating flanges G running from the laths *a* to the surface of said cone.

The ground mass having passed through the bolter A, whereby the flour has been bolted out of the bolter, the grit or bran, when arriving at the lower end of the bolter, is taken up by the radiating flanges G and carried upward, and slides toward the axis by its own weight until it comes against the diagonal flanges or ribs J, (or against the surface of the cone, if a cone is used,) and is thrown by the same into the ring or tube E, and falls then out of the same into the opening H, and from there into the conveyer.

By this arrangement the grit or bran is easily thrown or moved out of the bolter through the central tube E into the opening H leading to the conveyer; and, by means of the circular ring or tube E, moving in the hutch-partition F, and packed by felt or any other suitable material, a perfectly-tight joint will be obtained, whereby any grit or bran will be prevented from being blown into the hutch-box B and mix again with the bolted flour.

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

In combination with the lower or tail end of a bolter, A, a head, D, provided on its outer surface with a circular ring or tube, E, turning tight in the hutch-partition F, and on its inner surface with radiating flanges G, having diagonal ribs or flanges J, all arranged and constructed substantially in the manner and for the purpose set forth.

JOHN THOMAS FERTIG.

Witnesses:

HENRY E. ROEDER,  
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