

G. W. BROWN.

Flour Bolt.

No. 6,897.

Patented Nov. 27, 1849.

Fig. 2.

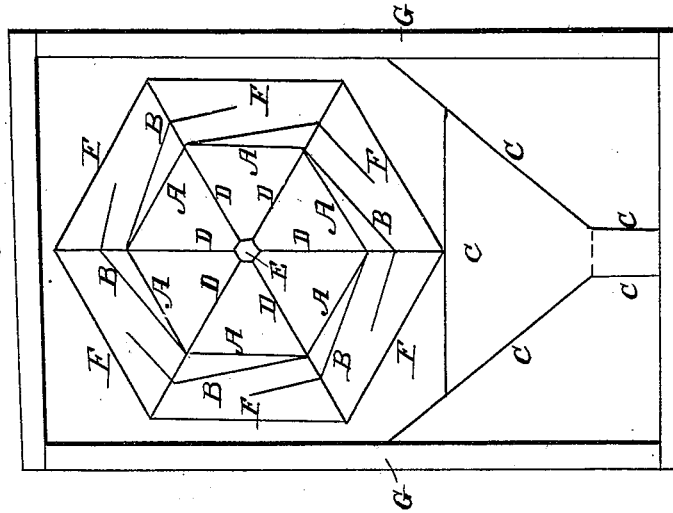
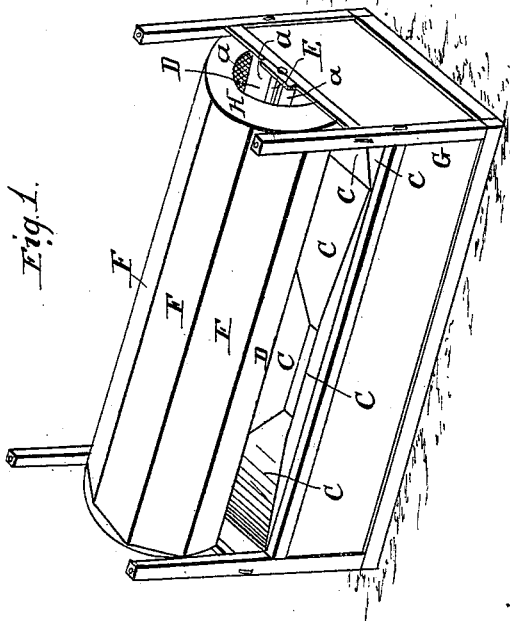


Fig. 1.



UNITED STATES PATENT OFFICE.

GEORGE W. BROWN, OF VILLAGETOWN, MICHIGAN.

FLOUR-BOLT.

Specification of Letters Patent No. 6,897, dated November 27, 1849.

To all whom it may concern:

Be it known that I, GEORGE W. BROWN, of the Villagetown and county of Jackson, in the State of Michigan, have invented a
5 new and Improved Mode of Bolting the Meal of the Different Kinds of Grain; and I do hereby declare that the following is a full and exact description, reference being had to the accompanying drawings, which
10 form a part of this specification.

The nature of my invention consists in reversing the order of bolting; running the meal over the coarse cloth, first using wire instead of coarse cloth thereby preventing
15 any and all hard substances from passing over the surface of the superfine cloth. Allowing nothing to pass out to the superfine cloth except the flour and middlings. And also the use of zinc or other metallic
20 substance in and about the reel, chest, and spouts for the purpose of cooling the flour, after it is separated from the bran and shorts, also the use of one cloth inside of the other upon the same reel and round arms
25 and three square ribs.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation. I arrange a set arms 1 which are represented in Figure "2" and marked "D, D," &c., in a shaft "E" of any required length and number of squares with two sets of ribs placing the first set five eighths of the length of the arm from the shaft, and upon this
30 set of ribs I place wire cloth, (twenty five or thirty meshes to the inch) as at "A, A," &c., in said Fig. 2. I then put a sheet of zinc, "B, B," &c., upon every square of the reel, laying one edge upon the wire cloth,
35 where it rests upon the ribs, and extending the other edge to the next set of arms half way between the wire cloth and the end of the arms, and upon the outer set of ribs upon the end of the arms, I place my superfine and middling bolting cloths marked
40 "F F" under this form of reel. I place a V spout as seen at "C, C," &c., in Figs. 1 and 2, which spout I line with zinc. I also line all of my flour spouts with zinc for
45 the purpose of cooling the flour. "G, G," &c., represents the frame of the chest.

Fig. 1 is a perspective view showing the whole bolt and "H" being the open head all the rest is shown and described above.
55 The above form of reel agrees with the

drafts and model herewith sent and may be used in bolting for from one to six runs of stone or more.

Another form of constructing the reel and arranging the cloths spout &c. is as follows. I use one reel above the other the coarse above the fine and place a half concave of zinc, under the coarse reel and by means of flights upon an extra set of ribs of the coarse reel convey the flour and
60 middlings that passes through the coarse bolt to the head of the superfine reel, lining the flour spouts with zinc as above mentioned; in either form of reel, I run the meal from the stones into the coarse reel first,
65 which retains bran, shorts and all hard substances, while it allows the flour and middlings to pass through to the superfine cloth. I also in either form of reel use round arms and three square ribs to render
70 the flour less liable to carry over.

The benefit of my improvement is this the flour being passed over the coarse cloth first, prevents the bran shorts and all other hard substances from passing to the superfine cloth (wire being used instead of coarse cloth it is less liable to be cut, or injured by the hard substances referred to and from its harsher nature is better calculated to scour the bran and shorts) consequently the
75 superfine cloth will last several years longer and greatly diminish the amount of surface required. By the use of zinc as above described the entire machinery now used for cooling is dispensed with also the use of
80 conveyers to a great extent. Lastly the bolting apparatus upon this arrangement does not require to exceed one tenth of the power to do the same amount of business as is required in any other form of bolt in
85 general use. But

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

The arrangement of the bolting cloths upon a reel of any convenient construction
90 in such manner as to run the meal over the coarse cloth first, and the use of zinc or other metallic substance in and about the bolts, to operate as a cooler upon the flour after it is separated from the bran and
95 shorts.

GEORGE W. BROWN.

Signed in presence of—

E. HIGBY,
WM. OSBORN.