

(No Model.)

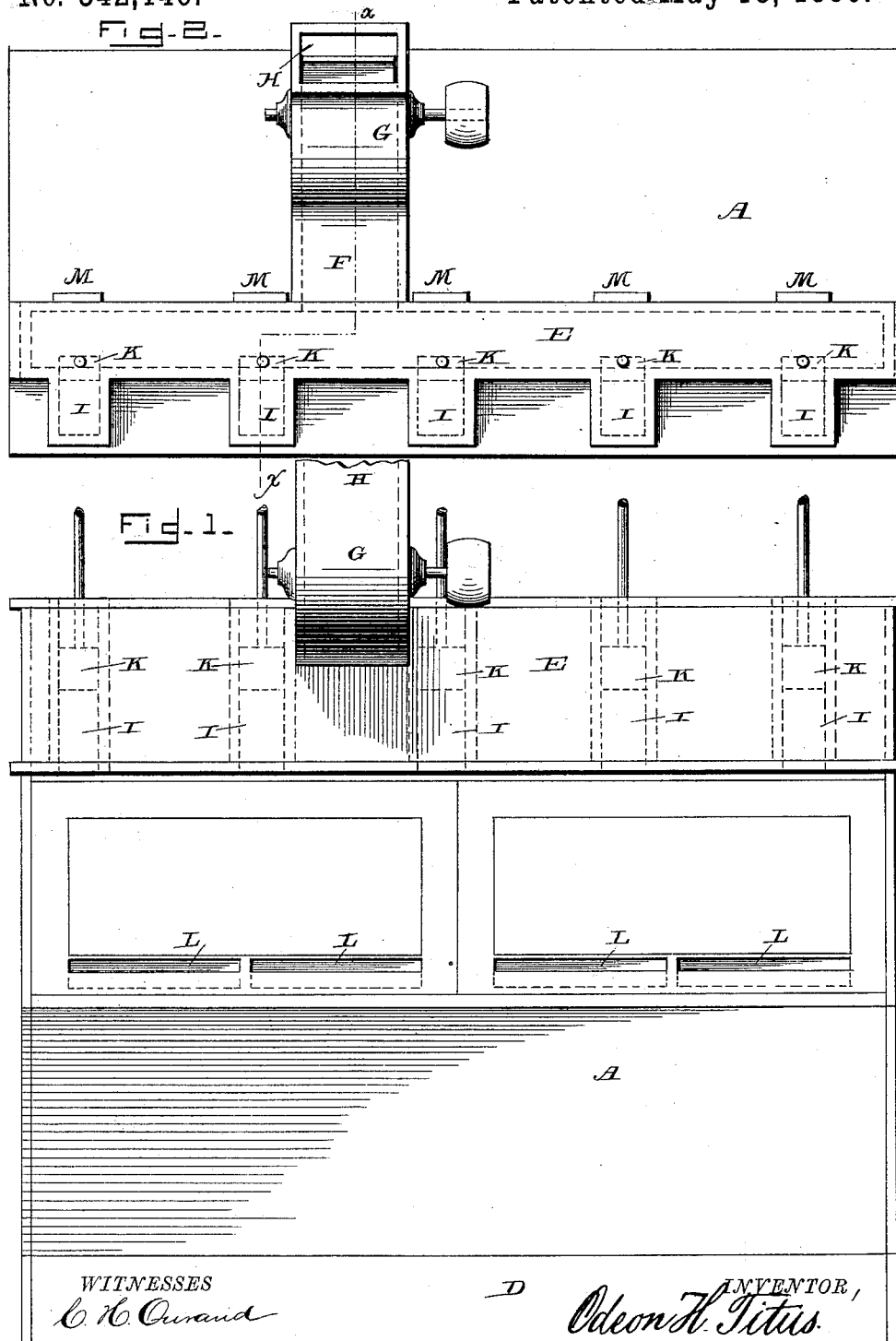
2 Sheets—Sheet 1.

O. H. TITUS.

FLOUR BOLT.

No. 342,146.

Patented May 18, 1886.



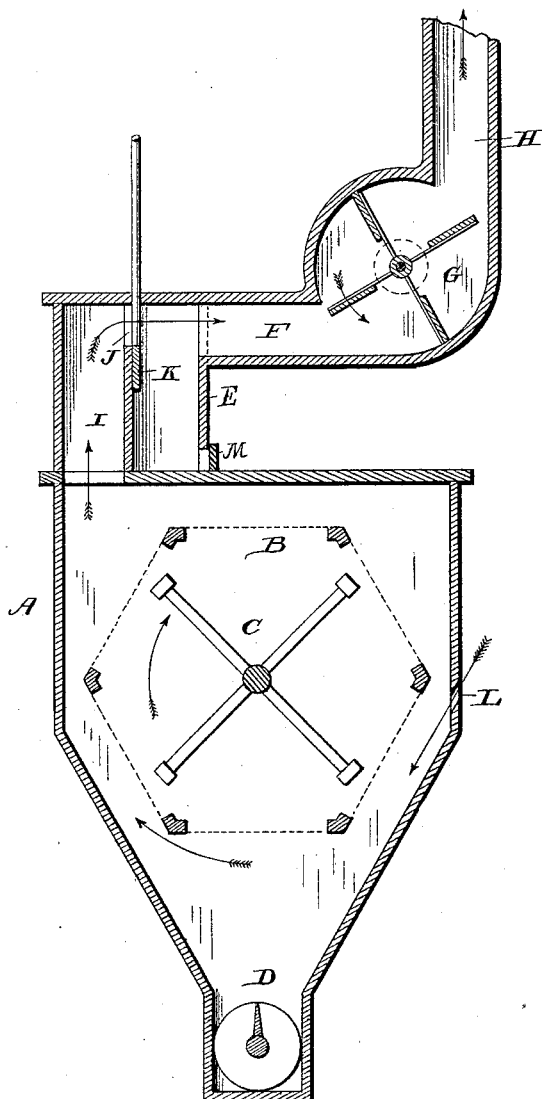
O. H. TITUS.

FLOUR BOLT.

No. 342,146.

Patented May 18, 1886.

Fig. 3.



WITNESSES
C. H. Curran
Edward Stanton

INVENTOR
Odeon H. Titus,
By Louis Baggett & Co.
Attorney

UNITED STATES PATENT OFFICE.

ODEON H. TITUS, OF WILMINGTON, DELAWARE.

FLOUR-BOLT.

SPECIFICATION forming part of Letters Patent No. 342,146, dated May 18, 1886.

Application filed January 13, 1886. Serial No. 188,390. (No model.)

To all whom it may concern:

Be it known that I, ODEON H. TITUS, a citizen of the United States, and a resident of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Flour-Bolts; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of my improved machine for purifying flour during the process of manufacture. Fig. 2 is a plan view of the same; and Fig. 3 is a vertical sectional view on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to machines for purifying flour during the process of manufacture; and it consists in the improved construction and combination of parts, hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the casing of the scalper or bolting-reel B, which is provided with beaters C, of the usual construction, and which casing is provided with the usual conveyer, D, at its bottom. A casing, E, is secured upon the top of the reel-casing, and this casing or box E is provided with a flue, F, projecting rearward, which flue enters the casing of a fan-blower, G, having a discharge-flue, H, at its upper side. The front side of the box upon the reel-casing—which box I shall term the “air-chamber”—has vertical chutes I, which enter with their lower ends into the upper forward corner of the reel-casing, and which communicate with the air-chamber through apertures J, provided with slides K, by means of which slides the apertures may be more or less covered, as desired. The rear side of the casing is provided with one or more downwardly-inclined slots, L, at about the middle of the reel, and the reel revolves in the direction indicated by the arrow in the drawings, having its upper portion traveling away from the upper forward corner having the chutes.

The fan, which draws the air from the air-

chamber, and consequently from the reel-casing when the apertures are opened, creates a mild air-current from the downwardly-inclined slot or slots in the rear side of the reel-casing, under the reel, and up through the chutes, and through the air-chamber and fan, and the reel, revolving in the same direction as the air-current, will force all impurities, cellulose, hair, and other foreign matter toward the upper front corner, whence they will be drawn out of the casing by the air-current into suitable receptacles. I having found by experience that all these impurities, which are lighter than the flour-stock, without regard to the fineness of the said stock, will always seek the upper corner, toward which the beaters revolve from the lower half of their revolution, while the good stock will seek the bottom of the reel-casing and be carried off by the conveyer, and for this reason I place the air-chutes entering at that corner of the casing and draw a light current of air through them around the under side of the reel, which current is not strong enough to carry off any of the good stock, while it will carry off all the impurities, which, generally, are first removed during a later stage of the process of manufacturing the flour.

It will be seen that the incline of the slot or slots in the rear side of the reel-casing will give the air-current a downward direction, and the current of air may be regulated by the slides covering the apertures of the air-chutes, the opening or closing of the said apertures increasing or decreasing the strength of the air-current. The air-chamber will also act as a trap for any particles of good stock which might be carried off with the impurities by a too heavy current of air, the heavier particles of good stock falling toward the bottom of the casing during their passage through the same, while the impurities, which are lighter, will pass on through the casing and fan, and the stock accumulated in the bottom of the air-chamber may be removed through suitable doors, M, in the sides of the chamber, and be subjected to further treatment with other flour-stock.

I am aware that it is not new to supply the casing of bolting-reels with means for removing the dust and impurities out of flour dur-

ing the process of milling by means of suction-fans exhausting a part of the air out of the casing, and I do not claim such construction broadly; but

5 I claim and desire to secure by Letters Patent of the United States—

The combination of a casing having a bolting-reel journaled within it, and having a series of apertures in its top and a series of apertures in its lower portion, an air-chamber secured to said casing over each of said apertures in the top, said air-chamber having a

vertical partition having an opening near its upper portion, an adjusting-slide fitting over said opening, and a suction-fan connected with said air-chamber, as shown and described. 15

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ODEON H. TITUS.

Witnesses:

LOUIS BAGGER,

J. MORTON POOLE, Jr.