2 Sheets--Sheet 1.

W. H. LAMB.

Middlings-Purifiers.

No. 155,316. Patented Sept. 22, 1874.

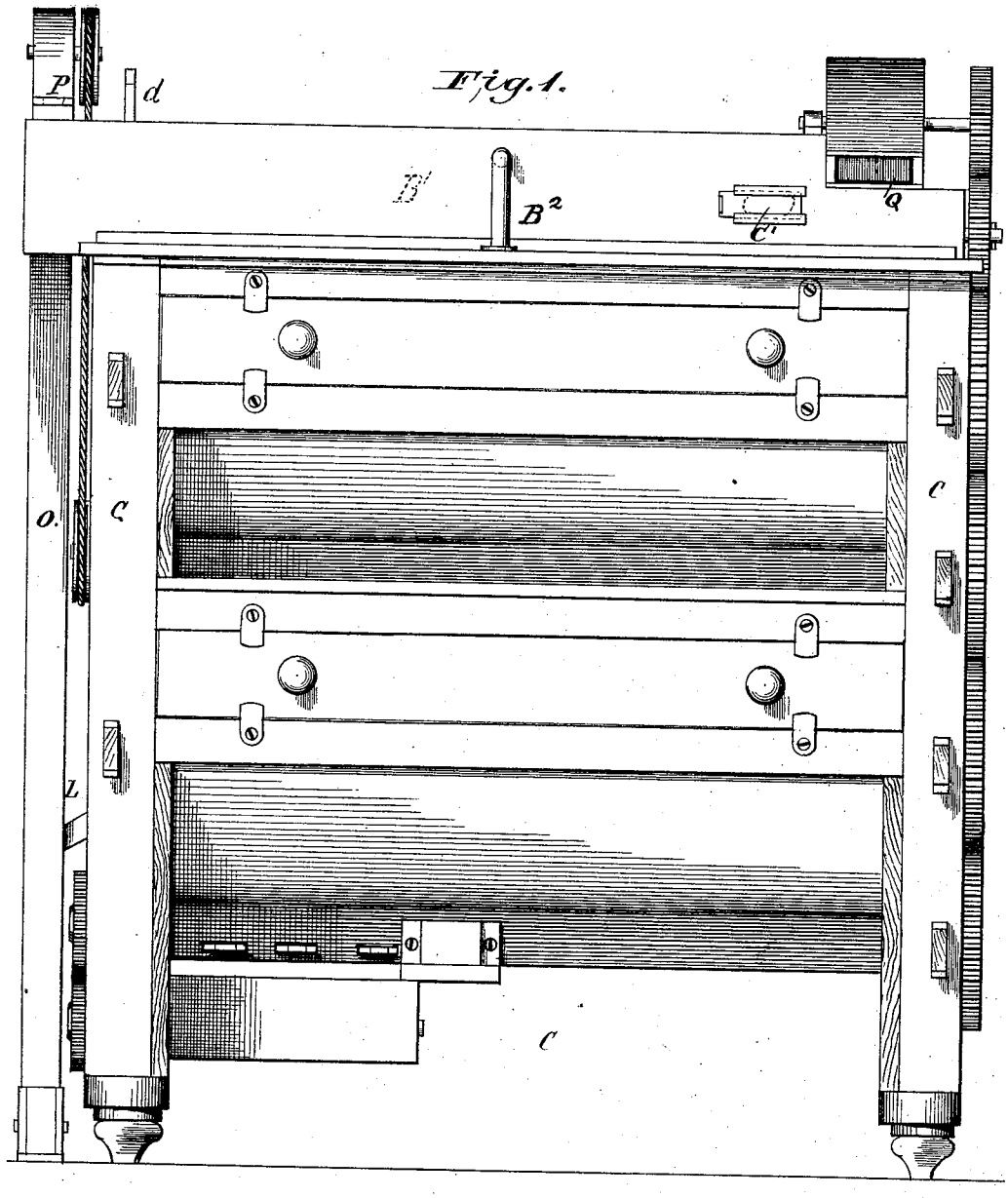

Fig. 1.

Witnesses:
Geo. W. Bart.
Ed. R. Kurtzhals.

Inventor:
William H. Lamb.

2 Sheets--Sheet 2.

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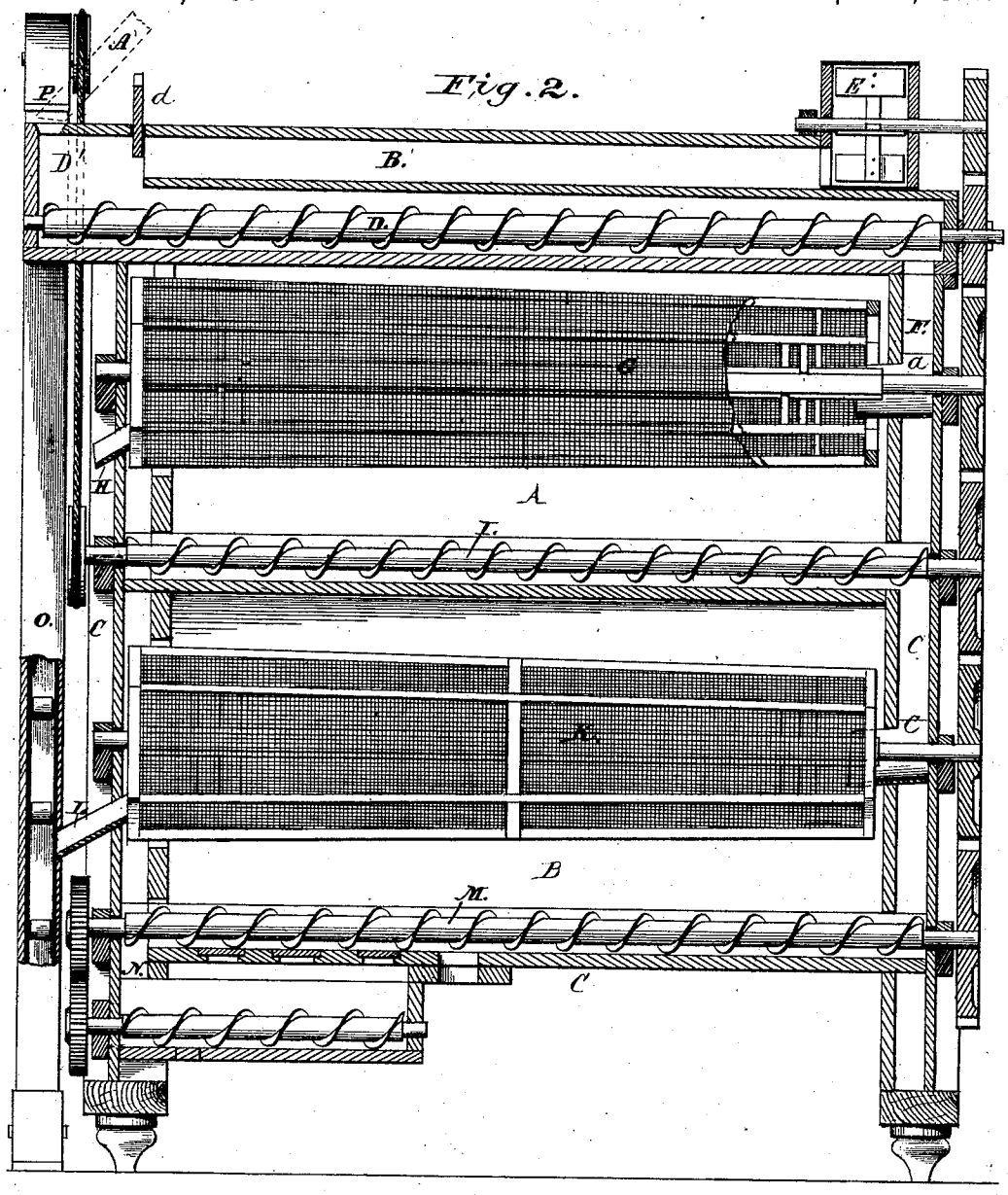
Fig. 2.



Witnesses:
Geo. W. Best
Ed R. Kurtz

Inventor.
William H. Lamb.

UNITED STATES PATENT OFFICE.

WILLIAM H. LAMB, OF ELKHART, INDIANA.

IMPROVEMENT IN MIDDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. **155,316**, dated September 22, 1874; application filed November 13, 1873.

To all whom it may concern:

Be it known that I, WILLIAM H. LAMB, of Elkhart, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Bolting-Chests and Middlings-Purifiers, of which the following is a specification:

This invention relates to middlings-purifiers or bolting-chests, in which conveyer-shafts, bolting-reels, and elevators are employed, in order to separate the different grades of material and convey portions of the same to the first bolting-reel to be again rebolted and separated, the operation being continued as long as is requisite.

The present improvements are fully hereinafter described, and pointed out in the claim, the object being to render such class of machines more compact, perfect, and effective in operation.

In the drawings, Figure 1 represents a side elevation of my apparatus, and Fig. 2 a vertical section thereof.

In the present instance I have illustrated two compartments or bolting-chests, A and B. In the upper portion of the casing C is journaled the conveyer-shaft D, and onto which the middlings are introduced by the opening D′. This shaft conveys such material to the vertical passage F at the side of the casing, when it falls onto the shelf *a*, from which it passes into the first of the tapering bolting-reels G, which, revolving, sifts the finer grade of flour onto the second conveyer-shaft I immediately beneath it, the coarser material passing out the spout H at the larger end of the reel G into a suitable receptacle. That material which passes through the first reel onto the conveyer-shaft I is, by the latter, delivered to the passage F and falls onto the shelf *c*, and passes into the second reel K, the second finer grade being sifted or bolted onto the conveyer M, and the coarser grade passing by the spout L onto the elevating-belt, which conveys it upward to the first conveyer-shaft D, to be delivered a second time to the reels and rebolted. At one side of the casing is arranged an exhaust-fan, E, which draws the light dust, &c., from the entire length of the conveyer-shaft D, drawing the said dust, &c., into the horizontal passage B^1 and out through the opening Q, the air necessary for such operation entering through the opening C′, which is directly beneath the passage B, and in the same compartment with the conveyer D, and the said passage can be closed by the slide *d* at the end of the same, as shown, when it is desired to regulate the draft. The bolting-cloth of the reels is of different grades, and is secured to the inside of the supporting-bars, furnishing an unbroken bolting-surface. In order to draw off the dust, &c., from the bolting-chest, I arrange one end of a pipe, B^2, to communicate with said chest, and the other end communicating with the horizontal air-passage B^1, as shown.

What I claim is—

The combination of the horizontal air-passage B^1 and exhaust-fan E at the top with the conveyer D beneath said air-passage, the tapering reel G, conveyer I, tapering reel K, and conveyer M, the whole communicating with each other, and constructed and arranged to operate, in respect to the elevator O, as herein shown and described.

WILLIAM H. LAMB.

Witnesses:

GEO. W. BEST,

ED. R. KIRSTEFTER.