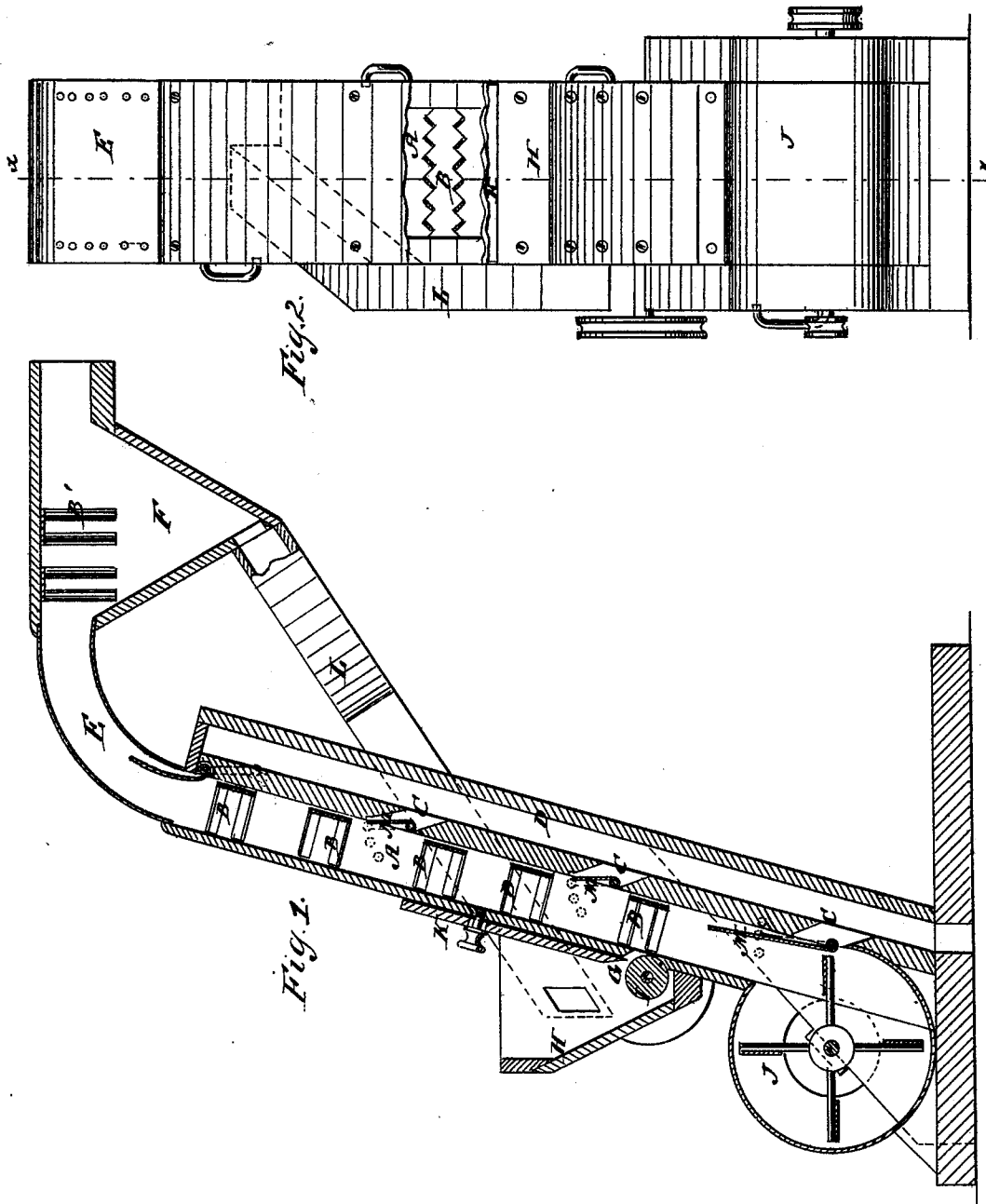


E. N. & J. LAPHAM.
MIDDLINGS-PURIFIER.

No. 175,114.

Patented March 21, 1876.



WITNESSES:

E. Wolff
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UNITED STATES PATENT OFFICE.

EDWIN N. LAPHAM AND JOSEPH LAPHAM, OF PERU, NEW YORK.

IMPROVEMENT IN MIDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. 175,114, dated March 21, 1876; application filed January 22, 1876.

To all whom it may concern:

Be it known that we, EDWIN N. LAPHAM and JOSEPH LAPHAM, of Peru, in the county of Clinton and State of New York, have invented a new and Improved Middlings-Purifier, of which the following is a specification:

The invention consists of a hollow trunk or chest standing nearly upright, having clusters of stationary beaters standing across it, and valves in the lower side at certain distances apart, and turning into a horizontal direction in the upper part, in which are other beaters, with a hopper below for returns, into the lower part of which trunk the middlings are fed above a fan, which blows the middlings up past the beaters, which disintegrate the lumps and break off the heavier from the lighter particles, so that the latter are carried off through the bran-spout, while the former escape through the valves and are conducted away, and the returns are conducted from the hopper back into the machine again for being worked over.

Figure 1 is a sectional elevation of our improved purifier, and Fig. 2 is a front elevation.

Similar letters of reference indicate corresponding parts.

A represents the hollow trunk, which stands nearly upright, and has thin, flat, or other shaped stationary beaters, B, extending across from the lower side to the upper one, and preferably located in groups or clusters at certain intervals of space along the upright portion of the trunk, and the back or lower side has a number of passages, C, for the es-

cape of the middlings into a spout, D, for conducting them away, the passages being regulated by valves M. The trunk bends over at E into a horizontal portion, in which are other stationary beaters, B', and below them is a hopper, F, for returns. The middlings are fed into the trunk at G from a hopper, H, by a roller, I, and regulated in quantity by a slide, K. From the inlet G they are blown up along the trunk against the beaters by the fan J, the light particles being separated and carried off to the bran-bin through E, while the heavier portions fall through the valves, and the returns go back into hopper H by the spout L, to be worked over again. The lower valve M is longer than the others, and is adjusted so as to concentrate the blast on the feed-roller, thereby subjecting the middlings to a strong blast at the time of entering, and before they can fall into the passages C.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of hollow inclined trunk A, stationary beaters B, passages C, valves M, and fan J, substantially as specified.

2. The horizontal portion E of the trunk, stationary beaters B', hoppers F, and spout L, combined with the inclined trunk A and fan J, substantially as specified.

EDWIN N. LAPHAM.
JOSEPH LAPHAM.

Witnesses:

GEO. N. MCINTYRE,
GEO. C. SEELEY.

750. wms