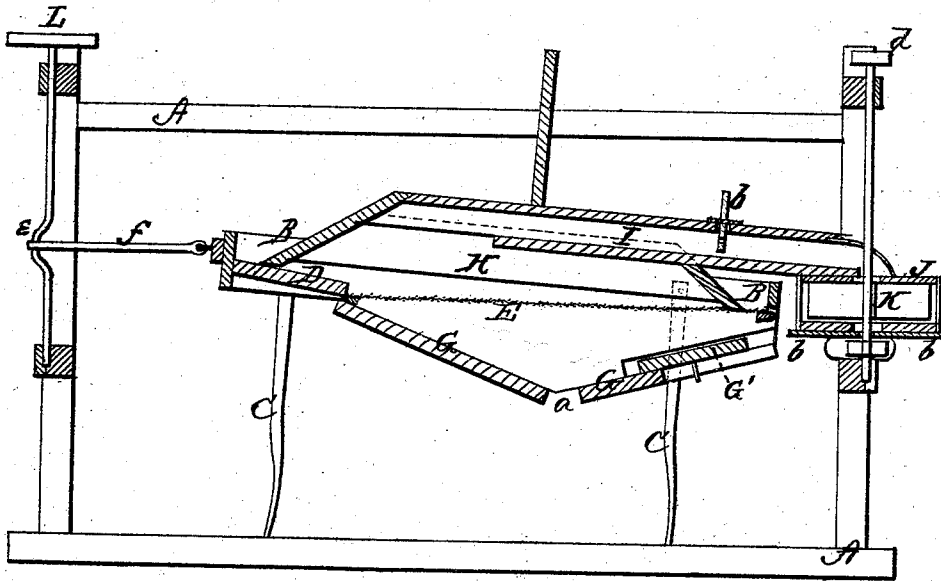


F. BLECKMAN.
Middlings-Purifiers.

No. 143,118.

Patented September 23, 1873.



Witnesses

John A. Ellis
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Att'y

UNITED STATES PATENT OFFICE.

FREDERICK BLECKMAN, OF WASHINGTON, ASSIGNOR TO JOSEPH F. IMBS,
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IMPROVEMENT IN MIDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. **143,118**, dated September 23, 1873; application filed July 18, 1873.

To all whom it may concern:

Be it known that I, FREDERICK BLECKMAN, of Washington, in the county of Franklin and State of Missouri, have invented certain new and useful Improvements in Middlings-Purifiers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for purifying middlings, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a longitudinal vertical section of my middlings-purifier.

A represents a frame of any suitable dimensions and construction to contain the working parts of my machine. B represents the purifying-box supported upon or suspended between four spring-arms, C C, more or less, which arms are attached to the lower part of the frame A. At one end of the box B is a feed-board, D, upon which the middlings are received. At the front end of the feed-board D is a fall of about two inches, so that the middlings, after passing over the inclined feed-board, will drop down onto a sieve, E, which extends from the front edge of the feed-board to the opposite end of the box. Below the sieve E are two inclined boards, G G, with an aperture, *a*, between them, through which the purified middlings pass into a hopper or spout convenient to the mill. H represents a cover for the purifying-box, which cover is made concave on the under side, and fits within the box from side to side, but is sufficiently short to allow of the vibration of the box without interfering with the cover. The cover H is attached to and supported by, or suspended from, the upper part of the frame A by any suitable means, and is provided with a spout,

I, which leads to the top of a fan-case, J, arranged in the frame A, and inclosing a horizontal suction-fan K. The suction-fan spout I communicates with the front end of the cover H, or forms this part of the same, as shown in the drawing, and extends backward along the top of the cover to the fan-case. The middlings being received on the feed-board D fall from the same onto the sieve E, which may be made from No. 5 bolting-cloth, or any other suitable material, and upon which the heavy or pure middlings are received and properly sieved while the light substances are being removed through the suction-fan. The effectiveness of the sieve E may be governed by regulating the sliding board G' under the rear end of the sieve. By means of this slide the draft through the sieve is easily regulated, which is of great importance in the proper working of the machine. In the bottom of the fan-case J, as well as in the spout I, are slides *b b* for the purpose of regulating the draft. The driving of the machine is conducted by the shaker-pulley L connected by a belt with a pulley, *d*, driving the suction-fan. On the shaft of the pulley L is a crank, *e*, connected by a pitman, *f*, with the front end of the box B.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The purifying-box B, constructed as described, with inclined feed-boards D, sieve E, inclines G G, and slide G', all arranged substantially as set forth.

2. The purifying-box B, sieve E, inclined feed-board D, inclines G G, cover H, fan K, spring-supports C C, and slide G', all combined in the manner and for the purpose set forth.

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

FREDERICK BLECKMAN.

Witnesses:

GEORGE LAMM,
HENRY BAUMANN.