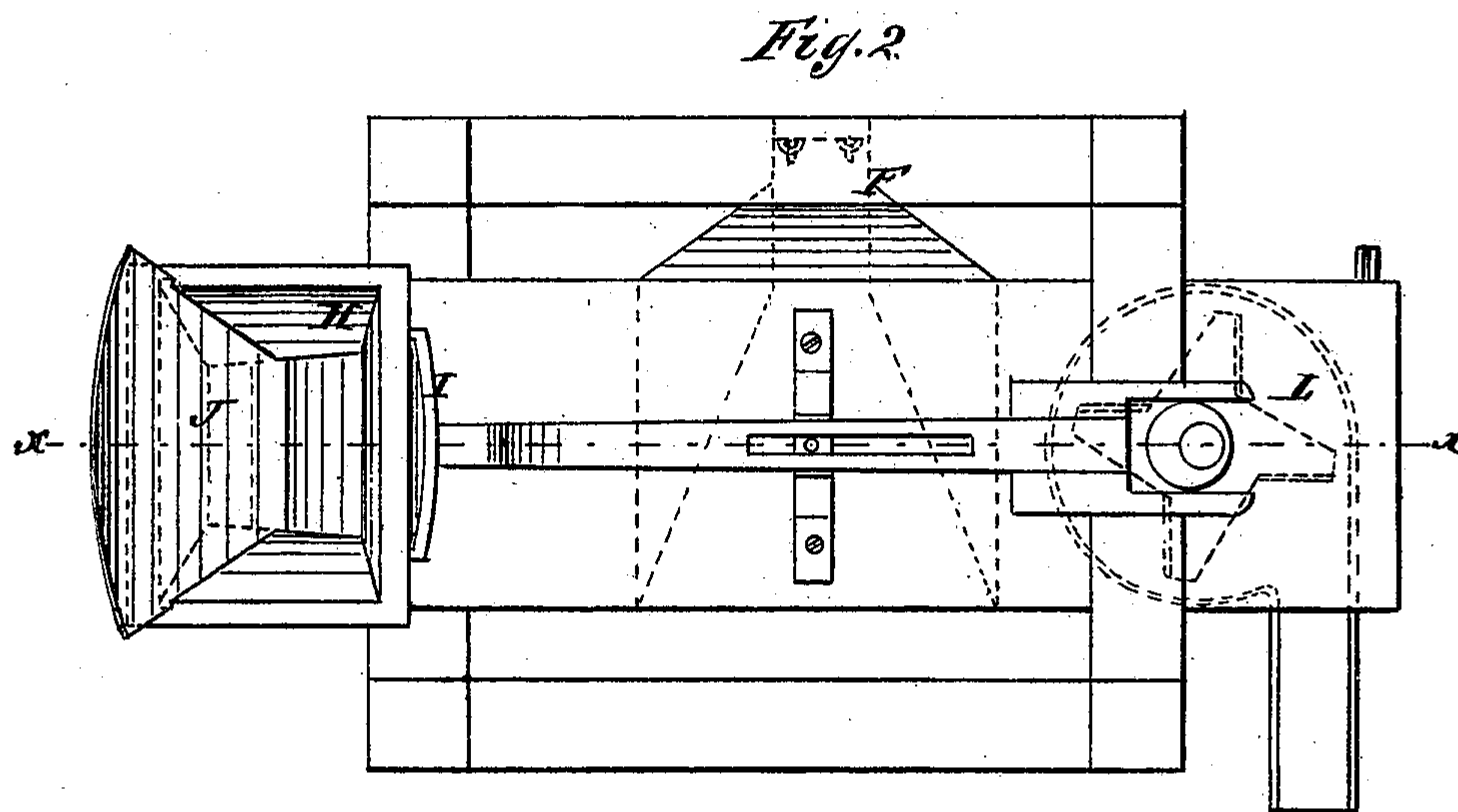
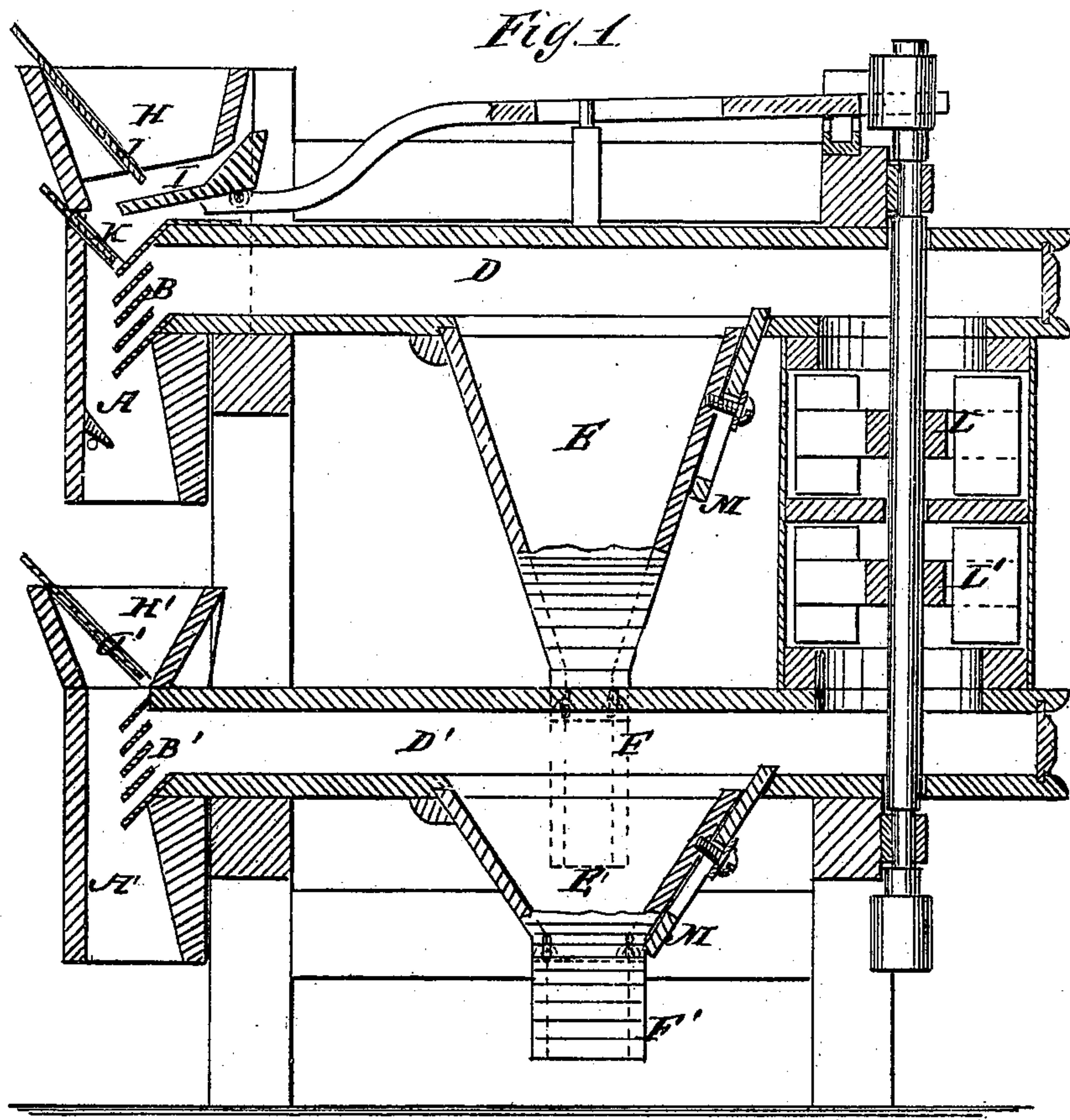


M. N. ELWELL.  
MIDDLINGS-SEPARATOR.

No. 174,726.

Patented March 14, 1876.



WITNESSES:

*E. Wolff*  
*John Goethals*

INVENTOR:

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BY

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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MORRIS N. ELWELL, OF ONEONTA, NEW YORK.

## IMPROVEMENT IN MIDLINGS-SEPARATORS.

Specification forming part of Letters Patent No. 174,726, dated March 14, 1876; application filed January 22, 1876.

*To whom it may concern:*

Be it known that I, MORRIS N. ELWELL, of Oneonta, in the county of Otsego and State of New York, have invented a new and Improved Middlings-Purifier, of which the following is a specification:

My invention consists of a simple contrivance of apparatus for separating the impurities by ascending air-blasts acting upon descending streams of middlings.

Figure 1 is a longitudinal section of my improved machine, the section being taken on line *xx* of Fig. 2. Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

A is a vertical draft-box, in the upper part of which are a number of inclined slats, B, for breaking and distributing the stream of middlings and the current of air, said slats being at the entrance of a horizontal box, D, along which the particles carried over from the vertical box are carried over a hopper, E, into which the final separation is made by a lighter current up the spout F.

The middlings are fed into the upper end of

box A from a hopper, H, shoe I, and regulating-slides J K, and the bran is discharged through the fan L. The box D is provided with a regulating-slide, M, for controlling the air-currents as required. Below this apparatus is a duplicate set, in which the middlings falling from box A are treated again in the same manner by air-currents set in motion by fan L', the said apparatus consisting of hopper H', slide J', slats B', vertical box A', horizontal box D', hopper E', regulating-slide M', and spout F'.

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

The combination of the hoppers H H', shaking-shoe I, draft-boxes A A', inclined slats B B', horizontal boxes D D', and hoppers E E', having spouts F F', with the fan L, all arranged substantially as and for the purpose specified.

MORRIS N. ELWELL.

Witnesses:

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