J. A. STEWART.

MIDDLINGS-SEPARATOR.

No. 179,622. Patented July 4, 1876.

Fig. 2.

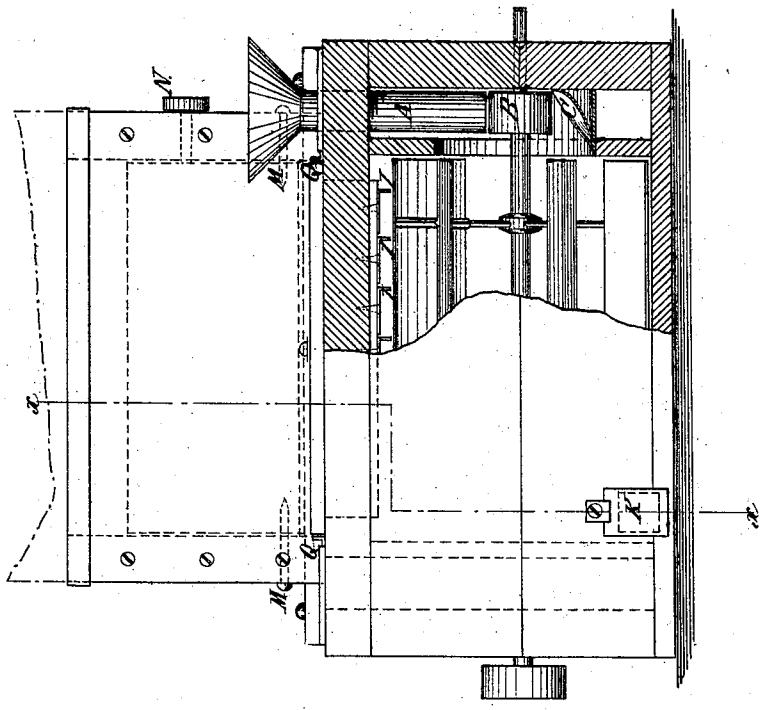
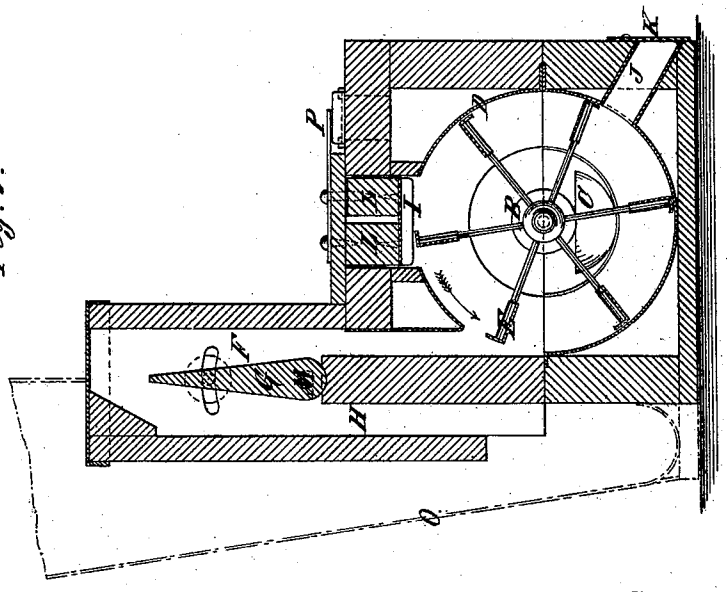


Fig. 1.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES A. STEWART, OF ATLANTA, GEORGIA.

IMPROVEMENT IN MIDDLINGS-SEPARATORS.

Specification forming part of Letters Patent No. **179,622**, dated July 4, 1876; application filed April 25, 1876.

To all whom it may concern:

Be it known that I, JAMES ADDISON STEWART, of Atlanta, county of Fulton, and State of Georgia, have invented a new and Improved Middlings-Purifier, of which the following is a specification:

The invention is based upon the fact that under the impulsive force of a current of air the middlings will have greater momentum than the dust or fiber from which they are to be separated; and consists, mainly, in using a fan, so as to move the middlings in one direction, while the dust will be driven out in another at a tangent to the fan.

Figure 1 is a transverse sectional elevation of the purifier on line *x x*, Fig. 2; and Fig. 2 is partly a side elevation and partly a longitudinal sectional elevation.

The middlings are fed in through the funnel-mouthed spout A upon the wheel B, from which they pass by the chute C into the circular case D, in which the fan-wings E revolve, carrying the middlings around with them, and creating a draft, which carries off the light matters, through the vertical side passage F on the valve G, into the descending spout H, while the heavier middlings are worked along, by the fan-wings and the stationary conveyers I, to the spout J, at the mouth of which is a flap, K, to prevent the air from passing, but allowing the middlings to escape by gravity. The spout A is fitted so as to be shifted up and down to regulate the feed. The conveyers are pivoted to the shifting bars L, to set them, by lever P, more or less oblique, to regulate the movement of the middlings along the fan, and the valve G is pivoted at M, and provided with an adjusting clamp-screw, N, to regulate the opening at the top. Q Q are slides at the head and tail of the fan, to regulate the air. The dotted lines O represent a case for concentrating the tailings at the bottom, to be conducted to a spout by a conveyer thereat.

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

The combination, in a middlings-purifier, with a fan, E, having conveyers I, and a feeder, A B C, of the case D, provided with upward dust-discharge F G H, and the downward discharge J, for the middlings, all constructed and arranged substantially as and for the purpose specified.

JAMES ADDISON STEWART.

Witnesses:

E. L. WINHAM,

C. B. LIN.