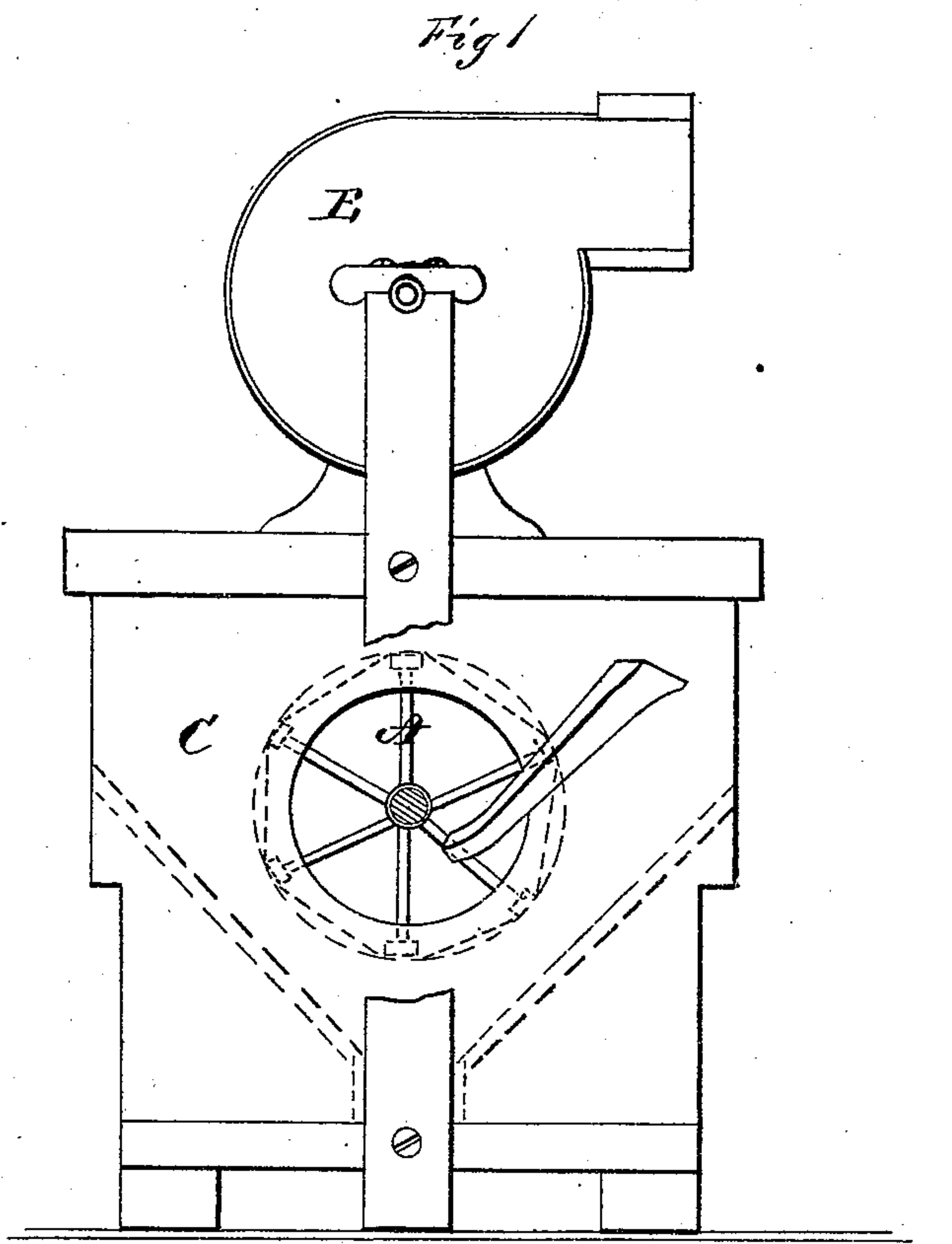


2 Sheets--Sheet 1.

W. H. SNYDER.  
Middlings-Purifiers.

No. 149,163.

Patented March 31, 1874.



WITNESSES.  
*P. L. Ourand,*  
*C. L. Evers,*

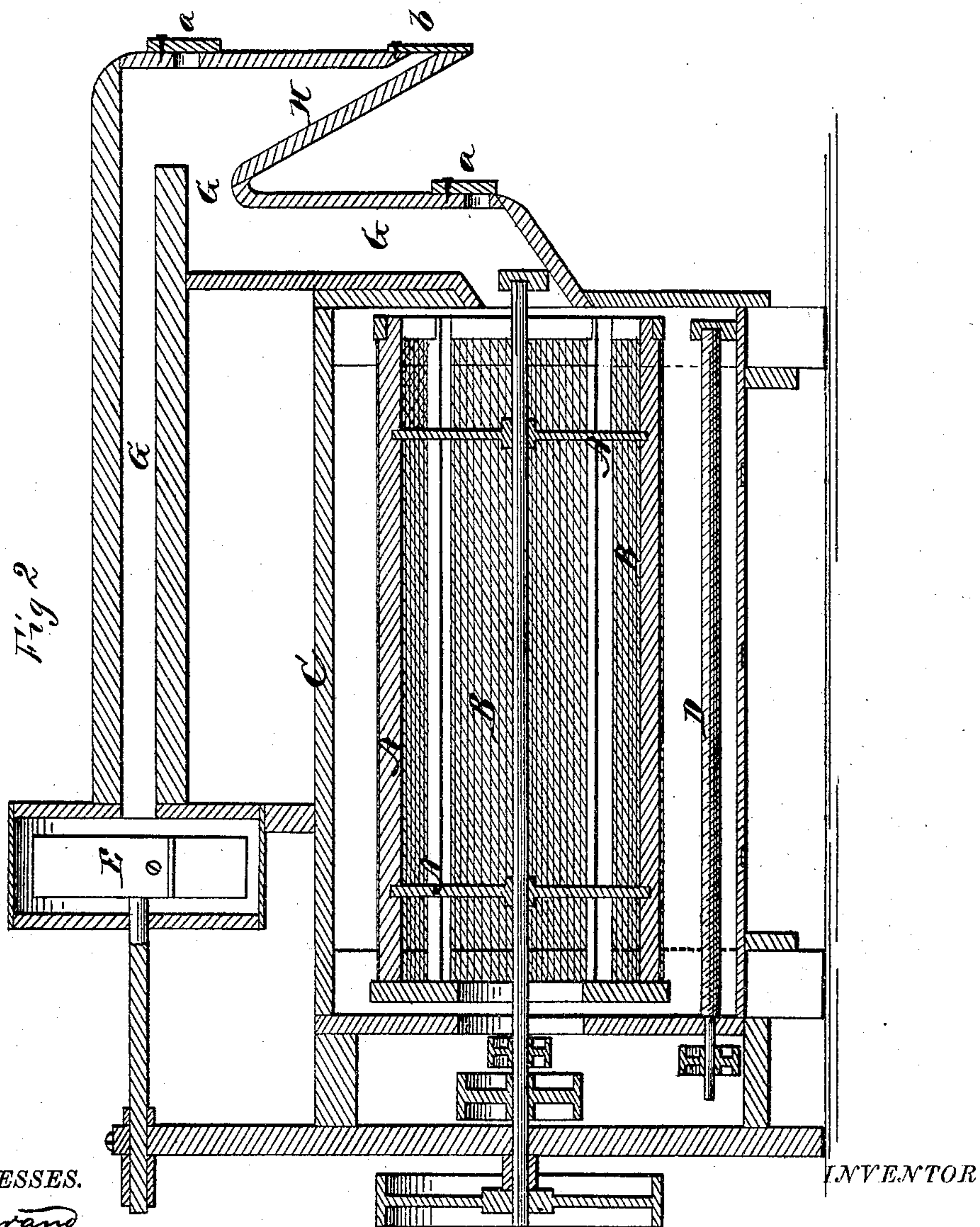
By

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WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILLIAM H. SNYDER, OF PHELPS, NEW YORK.

## IMPROVEMENT IN MIDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. **149,163**, dated March 31, 1874; application filed December 8, 1873.

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY SNYDER, of Phelps, in the county of Ontario and in the State of New York, have invented certain new and useful Improvements in Middlings-Purifiers; and 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, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a middlings-purifier having an air-blast lengthwise through a revolving reel, 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 drawings, in which—

Figure 1 is an end elevation, and Fig. 2 a longitudinal vertical section, of my middlings-purifier.

A represents a reel, of any suitable dimensions, covered with bolting-cloth of a number suitable to bolt middlings, and inclosed in a tight case, C. Below the reel A B, within the case C, is a conveyer, D. The head of the case C has an opening, *a*, to admit air through the reel, the air being drawn lengthwise through the reel by means of a suction-fan, E. G represents the air-spout, which is inserted in the tail end of the reel, and extends upward above the case C, when it turns outward for a short distance and then inward, over the top of the case, to the fan E. In the air-spout G are piv-

oted valves *a a*, to regulate the amount of air required. It is also provided with a vacuum-chamber, H, having a hinged valve, *b*, to allow any heavy stuff to drop out of the air-current and drip through the valve *b*.

The bolting-reel A B being revolved by any suitable means, the middlings are fed into the reel at the end opposite to where the spout G enters the casing. The purified middlings pass through the reel, and are carried off by means of the conveyer D, while the dirt, dust, &c., are drawn by the air-current caused by the suction-fan E into and up through the spout G. The heavier portion or particles thus drawn out of the reel fall down in the chamber H and pass out through the valve *b*, while the lighter particles go through the balance of the spout, and, through the fan, out of the machine.

By means of the valves *a a* the strength of the air-current or draft is easily regulated.

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

The combination of the reel A B, case C, conveyer D, suction-fan E, air-spout G with valves *a a*, and vacuum-chamber H with valve *b*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this 8th day of November, 1873.

WILLIAM HENRY SNYDER. [L.S.]

Witnesses:

LYSANDER REDFIELD,  
A. B. PRUYN.