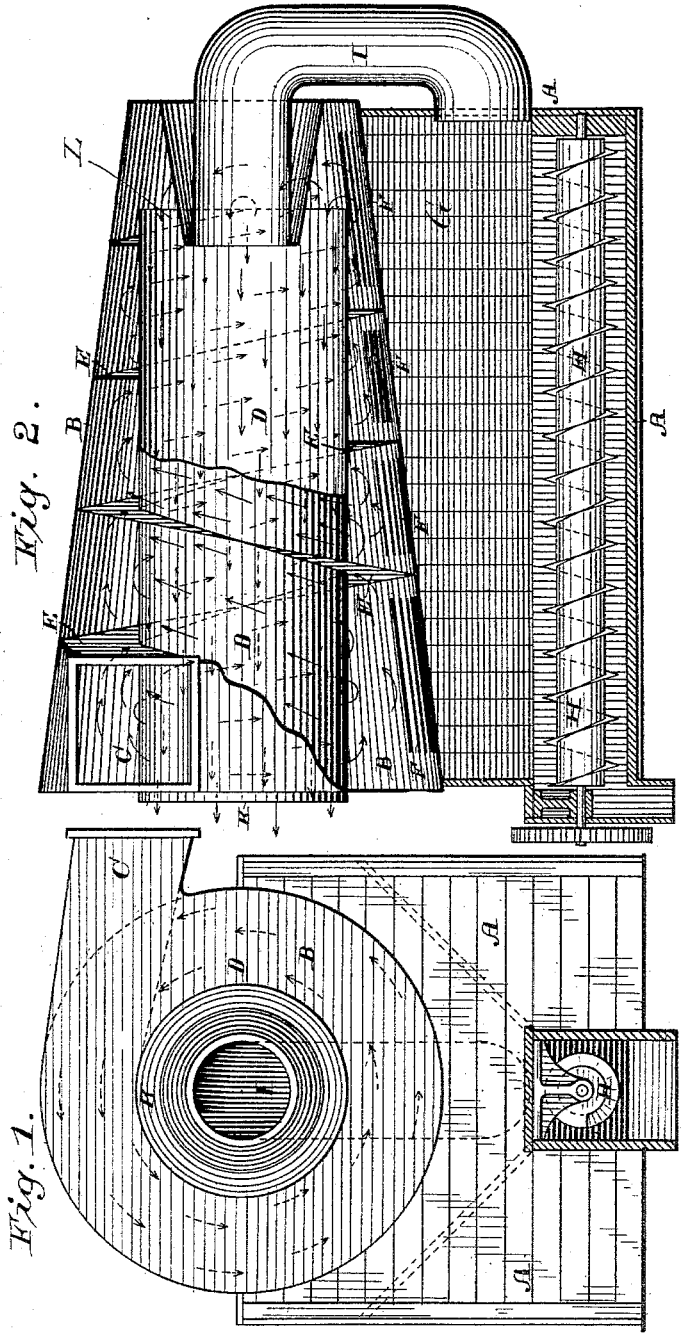
(No Model.)

H. N. POMEROY.

DUST COLLECTOR.

No. 381,639. Patented Apr. 24, 1888.



WITNESSES.

E. A. Newman,
E. M. Newman,

INVENTOR.

Henry N. Pomeroy.

By his Attorneys,
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UNITED STATES PATENT OFFICE.

HENRY N. POMEROY, OF SPARTA, WISCONSIN, ASSIGNOR TO J. A. WARNER, OF SAME PLACE.

DUST-COLLECTOR.

SPECIFICATION forming part of Letters Patent No. 381,639, dated April 24, 1888.

Application filed September 8, 1887. Serial No. 249,128. (No model.)

To all whom it may concern:

Be it known that I, HENRY N. POMEROY, of Sparta, in the county of Monroe and State of Wisconsin, have invented certain new and useful Improvements in Dust-Collectors, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to provide a device for collecting the dust from middlings-purifiers in flouring-mills; and my invention consists in the improved apparatus hereinafter described and claimed.

In the accompanying drawings, Figure 1 is an end view partly in section, and Fig. 2 is a side elevation partly in section.

A indicates a frame or housing in which is secured a conical tube, B, provided with a spout, C. Within this tube is a regular hollow cylinder, D, and between the conical tube and the cylinder D is a spiral partition, E. The conical tube is provided on its lower side with slots F, and below this is a dust-receptacle, G, in the bottom of which is a screw, H, to be rotated by any ordinary application of power for forcing out the collected dust. Leading from the dust-receptacle below to the interior of the cylinder D is a pipe, I. There is an opening at L connecting the space between the hollow cylinder and the conical tube with the interior of the hollow cylinder.

The operation of this apparatus is as follows: The dust-laden blast of air coming from a middlings-purifier enters the spout C and is blown against the inner surface of the conical tube, the spiral partitions continuing the course of the air against the inner surface of the tube along its entire length. This causes the dust to be forced out of the conical slots in the bottom of the tube into the dust-receptacle below. The dust is there deposited and the air, being relieved of it, is forced out of the pipe I into the hollow cylinder D and passes out of the end of the cylinder at K. Part of the air will escape directly into the interior of the hollow cylinder through the opening L without passing down into the dust-receptacle below; but such air as does pass down there will ascend through the pipe I and into the hollow cylinder and escape, as above described.

Having thus described my invention, what I claim is—

The combination of the spout C, the slotted conical tube B, the hollow cylinder D, the spiral partition E between the cylinder and tube, the dust-receptacle G beneath, and the air-pipe I, all arranged and operating substantially as set forth.

In testimony whereof I have hereunto subscribed my name.

HENRY N. POMEROY.

Witnesses:
C. M. MASTERS,
I. H. ADY.