(No Model.)

# A. N. WOLF.

## DUST COLLECTOR FOR FLOUR MILLS.

No. 251,330. Patented Dec. 20, 1881.

Fig. 1.

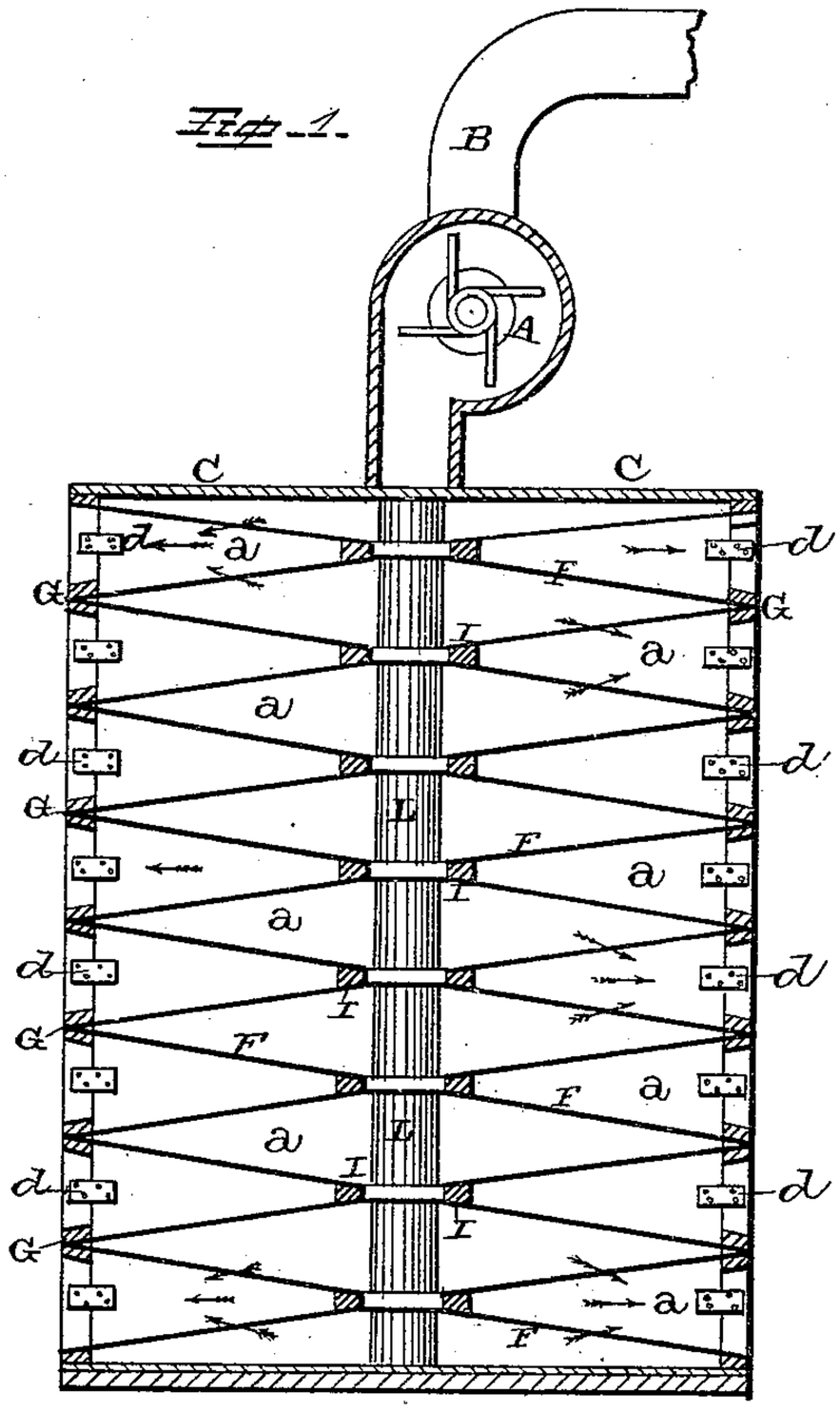



Fig. 2.

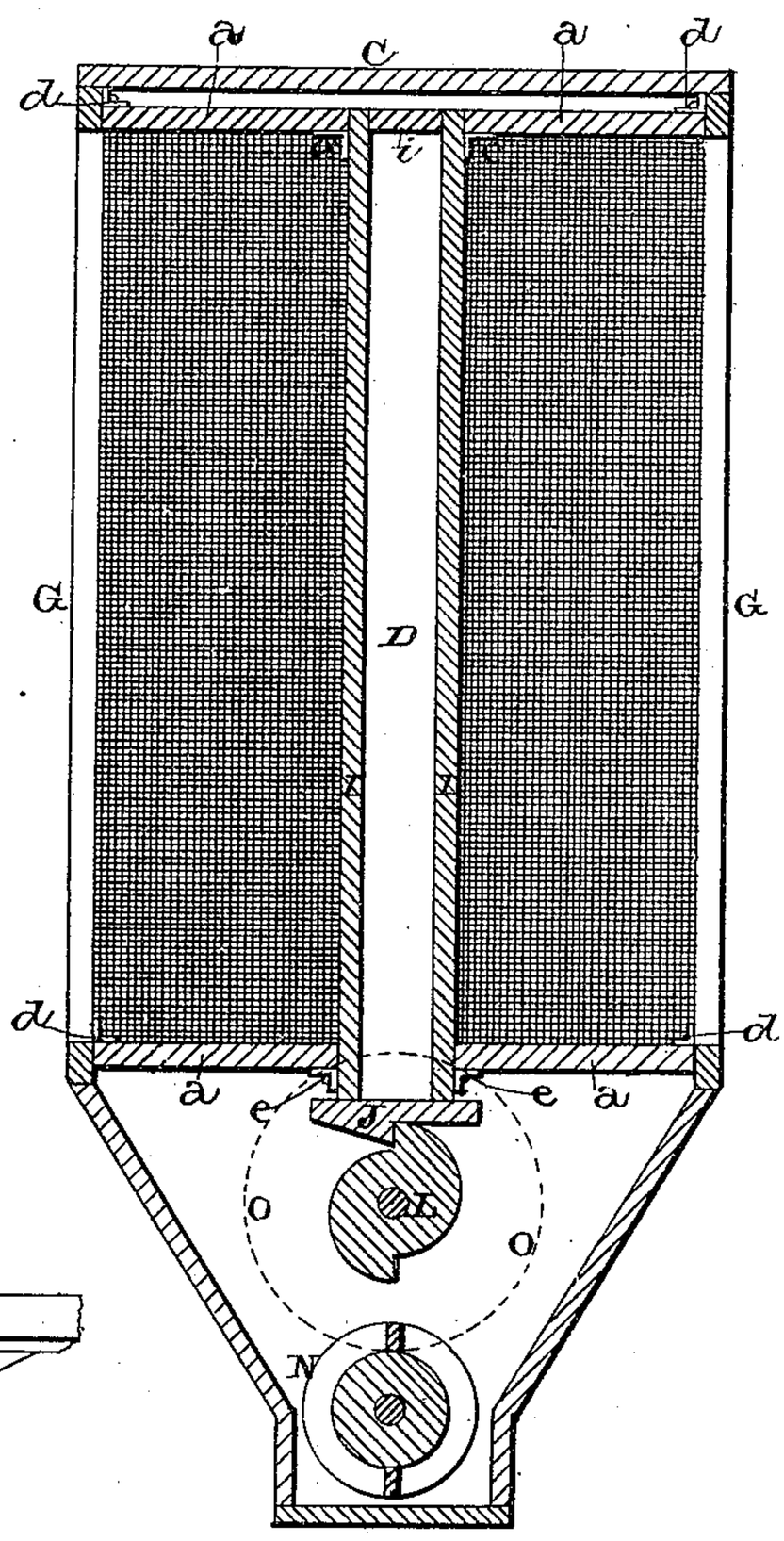
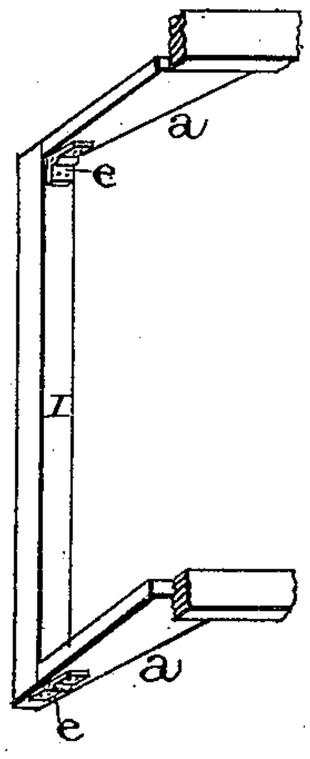



Fig. 3.




Witnesses.

W. H. Mortimer.

A. C. Fiskadden

Inventor

A. N. Wolf.

per

F. A. Lehmann,

Atty.

# UNITED STATES PATENT OFFICE.

ABRAHAM N. WOLF, OF ALLENTOWN, PENNSYLVANIA.

## DUST-COLLECTOR FOR FLOUR-MILLS.

SPECIFICATION forming part of Letters Patent No. 251,330, dated December 20, 1881.

Application filed December 29, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, A. N. WOLF, of Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Dust-Collectors for Flour-Mills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in dust-collectors for flouring-mills; and it consists in the combination of the vertical screens, which are arranged in pairs, with vertically-moving rods, to which the inner ends of the screens are fastened, and a means for jarring the screens so as to shake off the dust. It further consists in the arrangement and combination of parts which will be more fully described hereinafter.

The object of my invention is to arrange a large number of vertical muslin screens together in a frame and upon opposite sides of the central air-passage, so that the air will readily pass through the screens, leaving the dust behind, and thus collect the dust more rapidly than has heretofore been done, and with much less trouble.

Figure 1 is a horizontal section taken through a machine embodying my invention. Fig. 2 is a vertical section of the same. Fig. 3 is a perspective of one of the screen-frames.

A represents the suction-fan, which is connected by the pipe B with the grinding-stones or purifier, and which fan blows the dust-laden air into the center of the dust room or frame C, which has the air-passage D extending all the way through it. Upon each side of this passage are arranged a series of muslin-covered frames, F, which are placed angling toward each other, as shown in Fig. 1. The outer ends of these screens are fastened together in pairs by the two vertical stationary rods G, and then the ends of each diverge, so as to leave a wide vertical opening for the air to freely enter between them. The dust-laden air passes along the passage D and in between each pair of the screens and freely escapes, leaving the dust behind adhering to the muslin. The inner ends of the screens are secured in any suitable manner to the vertical rods I, which are connected together in pairs by means of the inclined and shouldered pieces J at their lower ends and simple straight cross-pieces *i* at their upper ones. These vertical rods are connected by means of the hinges *e* with the horizontal boards *a*, which close the upper and lower ends of the screens, and which boards are connected to the frame C at their outer ends by means of the hinges *d*.

Passing through the center of the lower part of the frame C is the shaft L, which is provided with a cam or cams for each shouldered connecting-piece J. These cams are so arranged upon the shaft that the screens are alternately raised and then dropped downward, so as to shake the adhering dust from the sides of the screens. Any other suitable devices may be used for jarring the screens. As the dust drops from the screens it falls into the bottom of the frame and is carried by the conveyer to the discharge. This conveyer is driven by a wheel, O, (shown in dotted lines,) upon the end of the shaft L, or in any other suitable manner.

Having thus described my invention, I claim—

1. In a dust-collector, the combination of the screens F, arranged in pairs, and the vertically-movable rods I, said screens having their inner ends attached to the rods, with a means for jarring the frames, substantially as shown.

2. The combination of the vertical rods I and screens F, the inner ends of the said screens being attached to said rods, with the boards *a*, hinges *d e*, the frame C, and a means for jarring the dust from the screens, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of December, 1880.

ABRAHAM N. WOLF.

Witnesses:

C. SAVIN HUBER,

GEO. W. HOFFMAN.