

(No Model.)

2 Sheets—Sheet 1.

A. DOBSON.

CLEANING ATTACHMENT FOR DUST COLLECTORS.

No. 542,875.

Patented July 16, 1895.

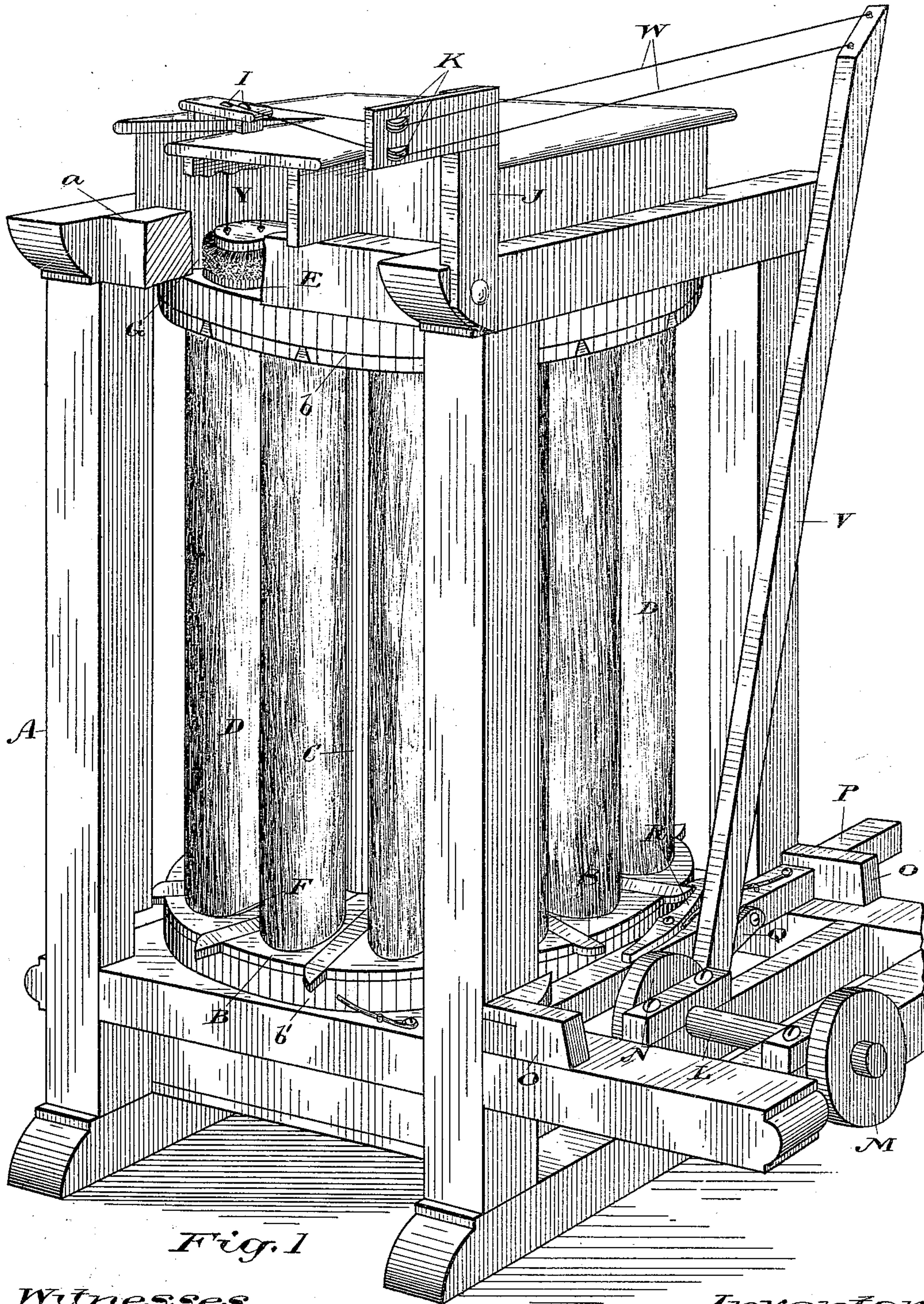


Fig. 1

Witnesses
J. B. Camm
Donald B. Ridout

Inventor
A. Dobson
by C. R. Riches
his attorney

(No Model.)

2 Sheets—Sheet 2.

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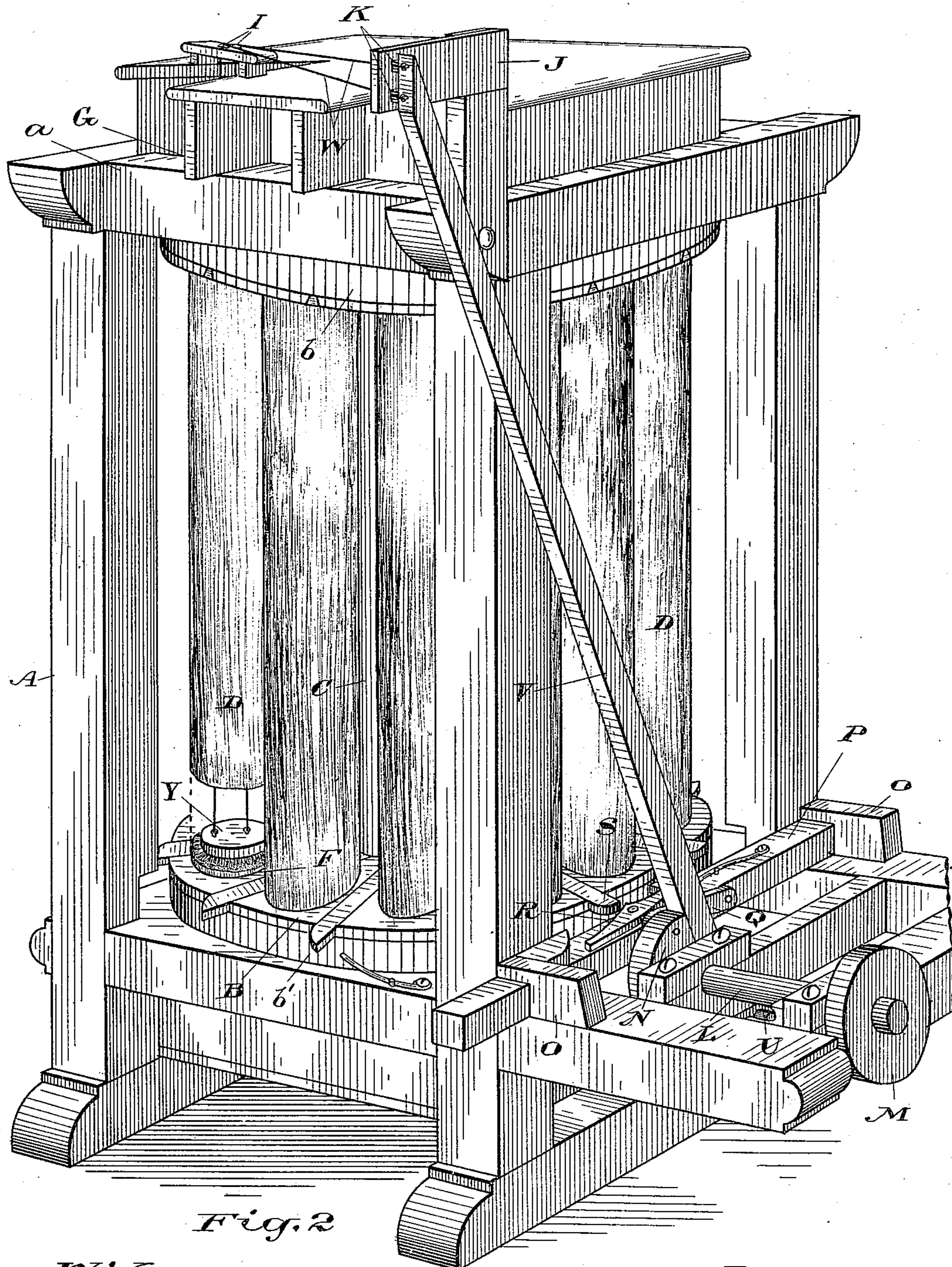


Fig. 2

Witnesses

J. E. Cameron
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Inventor
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UNITED STATES PATENT OFFICE.

ALEXANDER DOBSON, OF BEAVERTON, CANADA.

CLEANING ATTACHMENT FOR DUST-COLLECTORS.

SPECIFICATION forming part of Letters Patent No. 542,875, dated July 16, 1895.

Application filed March 7, 1895. Serial No. 540,845. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER DOBSON, of Beaverton, in the county of Ontario and Province of Ontario, Canada, have invented certain new and useful Improvements in Cleaning Attachments for Dust-Collectors; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to a device which will automatically, on each revolution of the driving-shaft, lower a brush from the top to the bottom of the dust-collecting tube and automatically lift it out of the tube before the next partial revolution of the cylinder; and the invention consists of a revolving cylinder having a series of dust-collecting tubes, a brush adapted to be automatically lowered and raised through each of the tubes during the revolution of the cylinder, a rocking lever operated by a cam on the driving-shaft to respectively lower and raise the cleaning-brush, the whole device being hereinafter more fully set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view showing the brush raised. Fig. 2 is a perspective view showing the brush lowered.

Like letters of reference refer to like parts throughout the specification and drawings.

Mounted in the frame A is the dust-collecting cylinder B, consisting of a head *b* and a base *b'*, connected by a post C, revolvably mounted in the top and bottom of the frame A. Removably connected to the head *b* and base *b'* are a series of dust-collecting tubes D, and formed through the head *b* for each of the dust-collecting tubes is an opening E, while formed through the base *b'* for each of the dust-collecting tubes D is a similar opening F. It might here be stated that both ends of the tube being cleaned by the brush are entirely cut off from the current of air. The upper end of the tube in the act of being cleaned opens into a recess formed through the top of the apparatus, while the lower end of the tube is above a solid portion of the frame, in order that the brush can successfully clean the tube without any hinderance from the dust blowing back.

Formed through the top *a* of the frame A is an opening G, corresponding in size and shape with the openings E through the head *b*.

Mounted on the top *a* of the frame A above the opening G is a bracket in which are mounted two pulleys I, and mounted on the side of the top *a* is a vertical arm J, in which are mounted two pulleys K. The arm J is on the same side of the frame A as the main driving-shaft.

Mounted in the lower part of the frame A is the main driving-shaft L, on the outer end of which is mounted the main driving-pulley M, and on the inner end of which is mounted a semicircular-shaped cam N. Mounted on the lower part of the frame A, and arranged one at each side thereof, are two brackets O, and sliding through the brackets O is a reciprocating lever P. Connected to the side face of the cam N is one end of a pitman Q, while to the opposite end of the pitman Q is connected the lever P. The revolution of the cam N causes the reciprocating movement of the lever P. Mounted on the top of the lever P is a spring-operated dog R, which engages with the ratchet-teeth S on the base *b'* of the cylinder B and causes the partial revolution of the cylinder B on each revolution of the main driving-shaft L and N. Mounted on a spindle U, connected to the lower part of the frame A, is the lower end of a rocking lever V, while to the upper end of the rocking lever V are connected two cords W, which pass over the pulleys K, and to the opposite end of the cords W is connected the cleaning-brush Y.

The operation of the machine is as follows: The brush Y is arranged to pass through the opening G in the top *a* and the opening E in the head of the cylinder B into the dust-collecting tube D, which at the time is vertically below the opening G, the weight of the brush drawing the rocking lever V from the position shown in Fig. 1 into the position shown in Fig. 2 and descending to the bottom of the dust-collecting tube. The revolution of the cam N in the direction indicated by arrows moves the rocking lever back into the position shown in Fig. 1 and the movement of the lever into this position lifts the brush Y above the head of the cylinder.

By the use of my device the dust is automatically cleaned from the inside of the dust-collecting tubes during the revolution of the cylinder.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. A cleaning attachment for dust collectors consisting of a brush arranged to move automatically through each of the dust collecting tubes, and mechanism for moving the brush through one or more of the tubes on each partial revolution of the dust collecting cylinder, substantially as specified.
2. A cleaning attachment for dust collectors consisting of a brush arranged to be moved through each of the dust collecting tubes during the revolution of the dust collecting cylinder, the driving shaft, a cam on the driving shaft, a rocking lever arranged to be moved by the cam, and a connection between the end of the rocking lever and the brush whereby the brush is raised and lowered during the movement of the said arm, substantially as specified.
3. In a dust collector the combination of the dust collecting cylinder, consisting of a series of dust collecting tubes, a driving shaft, a cam mounted on the driving shaft, a rocking lever

adapted to be operated by the revolution of the cam, a brush, cords connected to the brush and to the rocking lever, substantially as specified.

4. In a dust collector the combination of an intermittently revolving dust collecting cylinder, composed of a series of dust collecting tubes, means for closing off the current of air from one of the tubes on each partial revolution of the cylinder, a cleaning brush adapted to be lowered and raised through the said tube, a driving shaft for the dust collector, a cam mounted on the driving shaft, a rocking lever adapted to be operated by the cam, cords connected to the rocking lever and to the brush whereby the brush may be raised during the return movement of the rocking lever, substantially as specified.

Beaverton, 27th day of February, A. D. 1895.

ALEXANDER DOBSON.

In presence of—

FRANK MADILL,
G. R. PROCTOR.