

J. J. SMITH.
PNEUMATIC DUST COLLECTOR.
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1,122,039.

Patented Dec. 22, 1914.

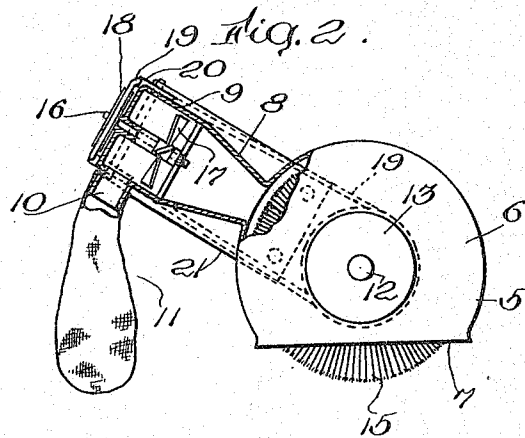
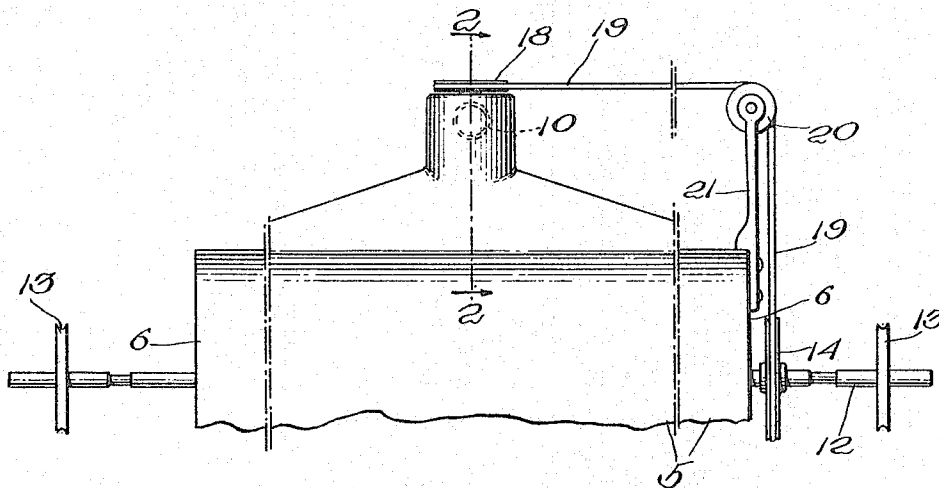


Fig. 1.

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UNITED STATES PATENT OFFICE.

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PNEUMATIC DUST-COLLECTOR.

1,122,039.

Specification of Letters Patent.

Patented Dec. 22, 1914.

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To all whom it may concern:

Be it known that I, JOSEPH J. SMITH, of New York, in the county of New York and State of New York, have invented certain
5 new and useful Improvements in Pneumatic Dust-Collectors, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

10 This invention has reference to improvements in pneumatic dust collectors for the strippers of carding engines.

One object of the invention is to provide a simple and efficient pneumatic dust collector for the stripping devices of fiber carding engines which is adapted to be moved
15 from one carding engine to another and is adapted to be driven from the carding engine.

20 Other objects of the invention will appear from the following description.

The invention consists in such novel features of construction and combination of parts as shall hereinafter be described and
25 pointed out in the claims.

Figure 1, represents a view in elevation of the improved pneumatic dust collector parts thereof being broken away. Fig. 2, represents a sectional view of the same taken
30 on line 2—2 Fig. 1.

Similar characters of reference designate corresponding parts throughout.

In carrying this invention into practice, in its preferred form, I construct the casing, in its preferred form, I construct the casing
35 5 having the ends 6, 6 and the mouth 7 and furnished with the extension 8 having the fan chamber 9 furnished with the outlet 10 to which is attached the dust and fiber receiving bag 11 usually of comparatively
40 loose mesh textile material. In bearings of the casing ends 6, 6 is journaled the brush shaft 12 having the pulleys 13, 13 and 14 and the stripping brush 15. The fan chamber 9 has the rotatable shaft 16 furnished
45 with the fan 17 and the pulley 18 which latter is driven by the belt 19 operating over the pulley 14 of brush shaft 12 and guided by the guide pulleys 20, 20 mounted on the member 21 of casing 5.

50 In operation casing 5 is adapted to be placed on and sustained by the frame of the carding engine to be stripped with brush 15 in contact with the doffing roll of the

carding engine and the pulleys 13, 13 are operated by belts in any well known manner from pulleys appertaining to the carding engine. During the operation the cotton or other fiber is taken from the doffer roll of the carding engine by the brush 15 while the fan 17 operated by belt 19 directly
55 60 from the pulley 14 of the brush roll shaft, draws in air and the dust arising from said stripping operation and delivers said air and dust through the outlet 10 to the bag 11.

This device may readily be moved by
65 hand from one carding engine to another and is efficient in collecting dust arising from the card stripping operation which dust, under ordinary conditions, would pass to the atmosphere and be breathed in by the
70 operatives.

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

1. A dust collector of the nature described comprising a longitudinal brush casing having at one side a mouth and provided with a radially extending fan chamber; a fan having a shaft journaled at the axis of said fan chamber and having exteriorly of said chamber, a pulley, a dust receptacle sustained by said fan chamber, a brush having a shaft journaled in the ends of said brush casing and having at one end a pulley, a belt operating on said respective
75 80 85 pulleys, and means for guiding said belt intermediate said pulleys.

2. A dust collector of the nature described comprising a casing having a longitudinal mouth and an outlet located at a point intermediate the length of said casing and having a dust receptacle, a shaft journaled in said outlet and having a fan and a drive pulley, a brush shaft journaled in the ends of said casing and having a brush operating within the casing, a series of pulleys on said brush shaft, a belt operating over one of said pulleys of the brush shaft and over the pulley of said fan shaft, and means for guiding said belt over the end of said
90 95 100 casing.

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