W. F. WEGNER.

ROTARY BRUSH.

APPLICATION FILED MAY 15, 1908.

922,225.

Patented May 18, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

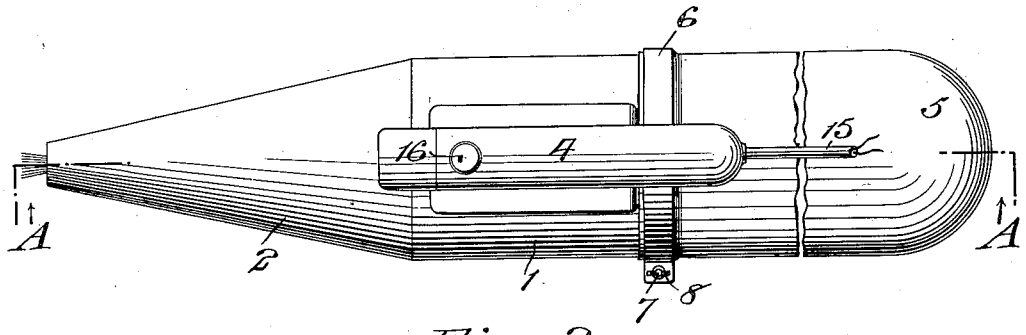


Fig. 2.

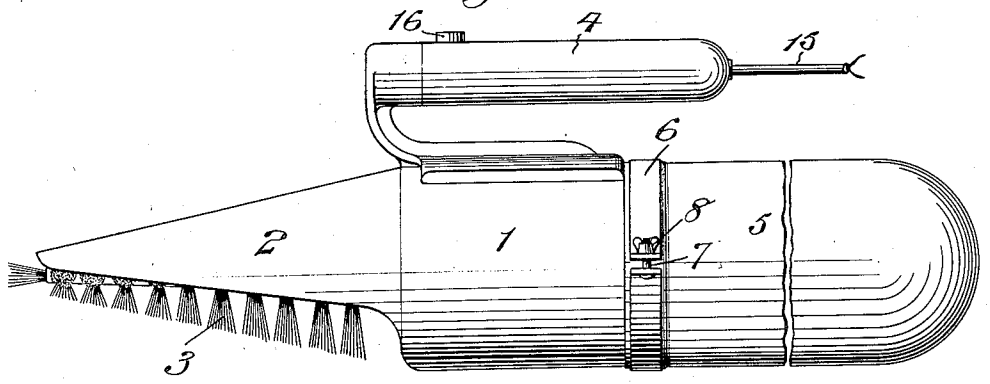
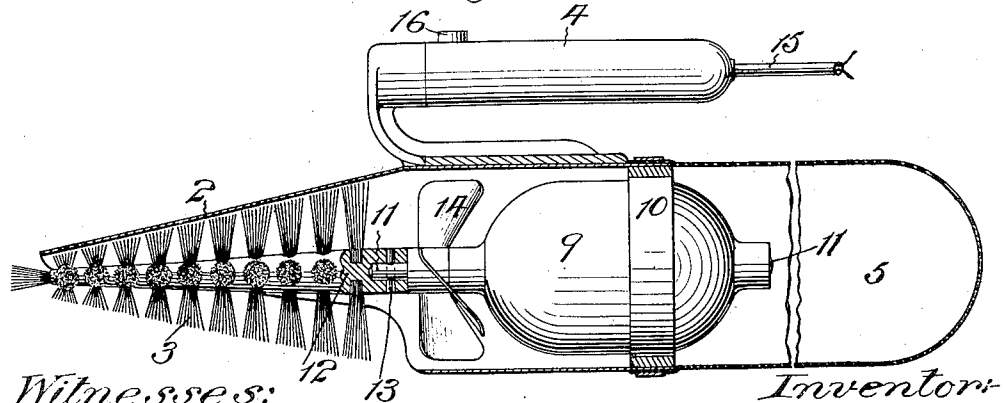


Fig. 3.



Witnesses:

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2 SHEETS—SHEET 2.

Fig. 4.

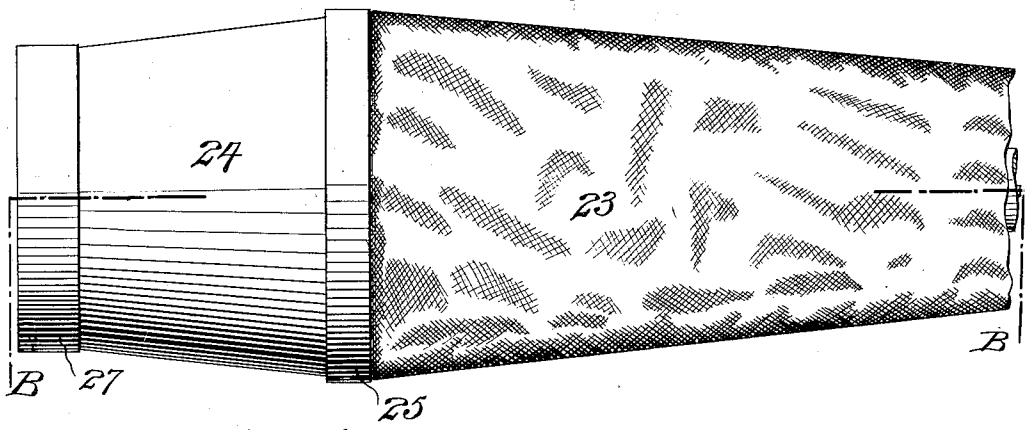


Fig. 5.

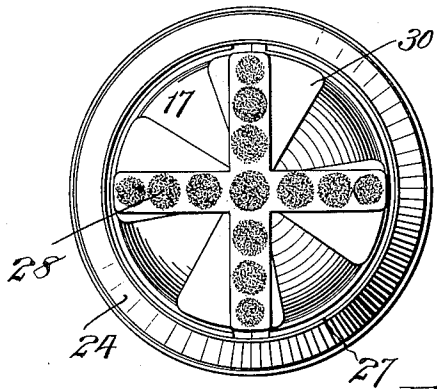


Fig. 4a.

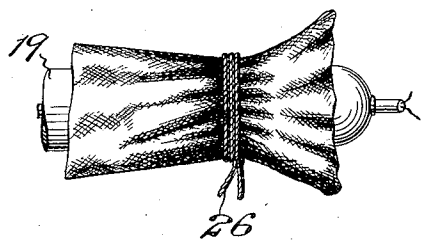
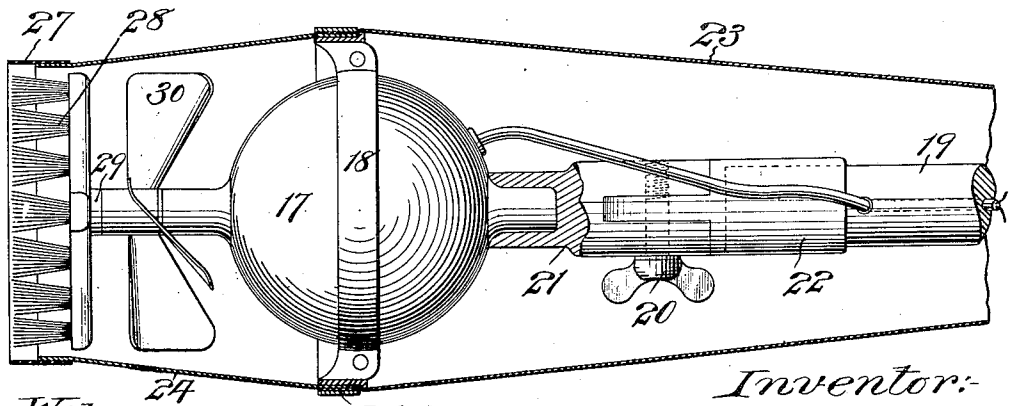


Fig. 6.



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UNITED STATES PATENT OFFICE.

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ROTARY BRUSH.

No. 922,225. Specification of Letters Patent. Patented May 18, 1909.

Application filed May 15, 1908. Serial No. 433,044.

To all whom it may concern:

Be it known that I, WILLIAM F. WEGNER, a citizen of the United States, and resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Rotary Brushes, of which the following is a specification.

The object of my invention is to provide a portable motor-driven rotary brush having a fan driven by the motor arranged to suck the dust and dirt into a receptacle from which the accumulated dust and dirt may be removed at pleasure.

Practical embodiments of my invention are represented in the accompanying drawings in which,

Figure 1 represents one form of the rotary brush in top plan, an intermediate portion of the receptacle being broken away; Fig. 2 is a side view of the same, Fig. 3 is a longitudinal central section taken in the plane of the line A—A of Fig. 1, looking in the direction of the arrows; Fig. 4 is a partial outside view of a second form of rotary brush; Fig. 4ª is a partial outside view of another portion of the same, showing the means for closing the receptacle, Fig. 5 is a front end view of the brush, and Fig. 6 is a section taken in the plane of the line B—B of Fig. 4.

In the form shown in Figs. 1 to 3 inclusive, the cylindrical body portion of the brush casing is denoted by 1, from which extends a conical portion 2 arranged to partially surround the tapered rotary brush 3, leaving a portion of the same exposed for contact with the surface to be engaged by the brush. A handle 4 is provided. A receptacle 5 for receiving the dust and dirt from the brush is removably secured to the rear end of the cylindrical portion 1 of the casing, in the present instance by means of a clamping ring 6 having its ends engaged by a bolt 7 and thumb nut 8. The electric motor is denoted by 9 and is rigidly clamped in a frame 10 within the casing with its shaft 11 in alinement with and secured to the stock 12 of the tapered brush, in the present instance by a cross pin 13. Intermediate the brush stock and the motor casing, I provide a suction fan 14 the blades of which are arranged in such a direction that when the fan and brush are rotated by the motor, the dust and dirt swept up by the brush will be sucked into the casing and forced rearwardly into the receptacle 5. This receptacle 5 is made of some porous material such for instance, as cheesecloth so as to permit the escape of the air therethrough without permitting the escape of the dust and dirt. The wires for controlling the operation of the motor may be laid into the handle, as shown at 15, and the usual switch button 16 may be provided within easy reach of the operator.

In the form shown in Figs. 4 to 6 inclusive, the electric motor 17, which is clamped rigidly to its frame 18 within the casing, has secured thereto a pole handle 19 of considerable length. This pole is preferably removably secured by providing a thumb screw 20 which passes through a socket 21 carried by the motor and a socket 22 carried by the pole handle. In this form the wires for controlling the operation of the motor may pass along within the pole handle 19, as shown. The receptacle 23 for the dust and dirt is made of some flexible porous material, such for instance, as cheesecloth, and is, in this instance, permanently secured to the casing 24 by a ring 25 and its rear end may be closed by a suitable cord 26 arranged to fasten the end of the flexible porous receptacle snugly around the pole handle 19. In this form the casing 24 is of slightly tapered form and is provided at its front end with a yielding ring 27 of rubber or other suitable material. The brush 28 in this form is arranged with its bristles projecting from arms radiating from the shank 29 of the brush which is secured to rotate with the motor shaft and the rotary fan 30. The operation of the fan in this rotary brush is the same as in the first form described in that it sucks the dust and dirt raised by the brush into the casing and forces it past the motor into the flexible porous receptacle 23.

What I claim is:

1. In an article of the character described, a casing, a motor rigidly supported therein, a rotary brush and a rotary fan both carried by the motor shaft, and a dust and dirt receiving receptacle secured to the casing.

2. In an article of the character described, a casing, a motor rigidly supported therein, a rotary brush and a rotary fan both carried by the motor shaft and a dust and dirt receiving receptacle of porous material secured to the casing.

3. In an article of the character described,

a casing, a motor rigidly supported therein, a rotary brush and a rotary fan both carried by the motor shaft and a dust and dirt receiving receptacle of porous material removably secured to the casing.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this fourteenth day of May, 1908.

WILLIAM F. WEGNER.

Witnesses:
F. GEORGE BARRY,
C. S. SUNDGREN.