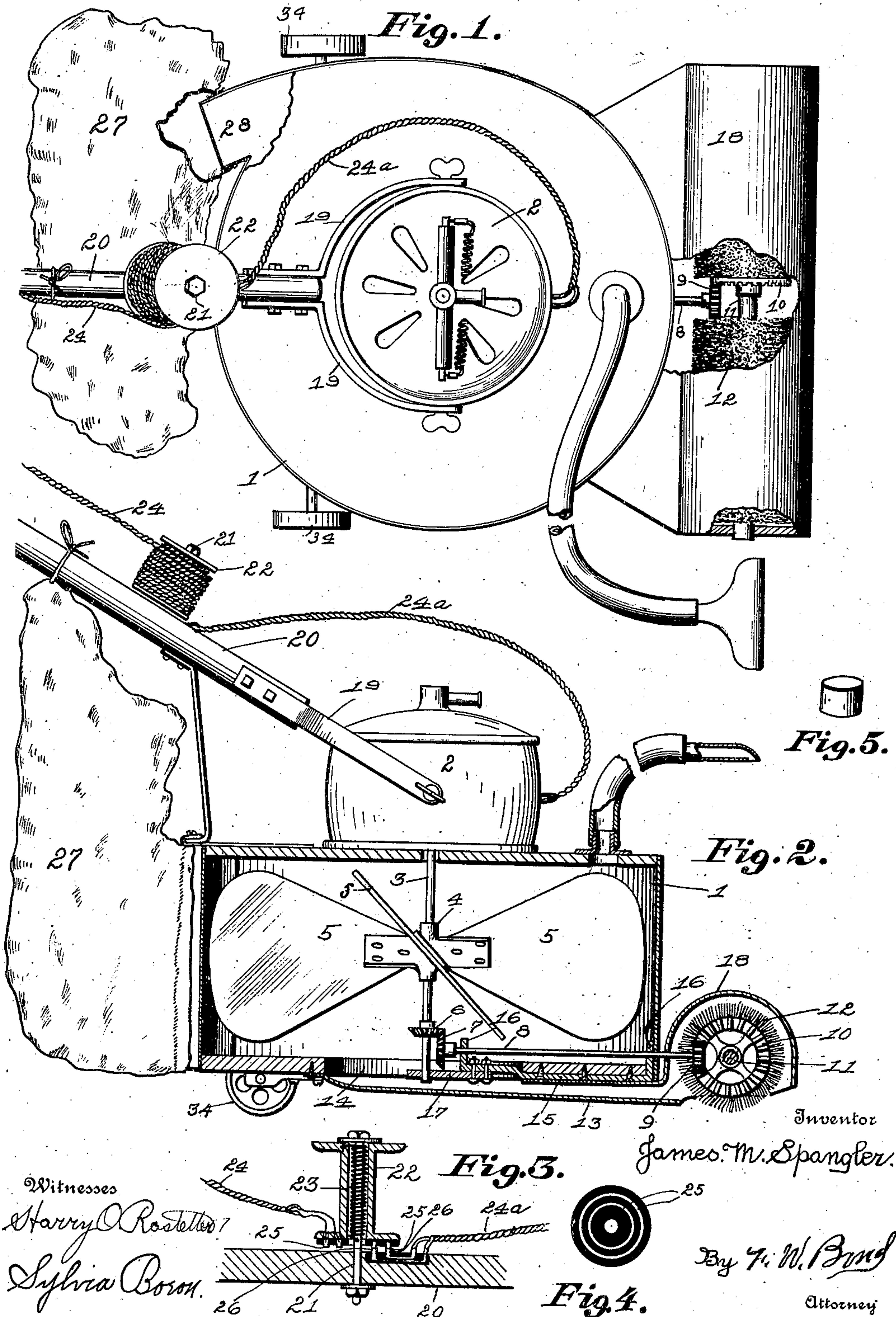


No. 889,823.

PATENTED JUNE 2, 1908.

J. M. SPANGLER.
CARPET SWEEPER AND CLEANER.

APPLICATION FILED SEPT. 14, 1907.



UNITED STATES PATENT OFFICE.

JAMES M. SPANGLER, OF CANTON, OHIO.

CARPET SWEEPER AND CLEANER.

No. 889,823.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed September 14, 1907. Serial No. 392,863.

To all whom it may concern:

Be it known that I, JAMES M. SPANGLER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Carpet Sweepers and Cleaners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the numerals and figures of reference marked thereon, in which—

Figure 1 is a top view showing parts broken away. Fig. 2 is a vertical section of the sweeper proper. Fig. 3 is a section of the spool or reel showing the same connected to the handle and illustrating the contact flanges in proper relationship with reference to each other. Fig. 4 is a bottom or under side view of the reel and its contact flanges. Fig. 5 is a detail perspective view of a cap to cover one of the inlet openings in the casing.

The present invention has relation to carpet sweepers and it consists in the novel arrangement hereinafter described and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the fan chamber or casing, which may be of the form shown and of any desired size, reference being had to convenience in handling. To the casing 1 and preferably to the top is attached the electric motor 2, which motor may be of any desired kind, reference being had to the kind of work designed to be performed. From the motor leads the shaft 3, which shaft is properly journaled, and to the shaft is attached the hub 4, to which hub are attached the fan blades 5, said fan blades being so arranged that a suction will be brought about when a high rotary speed is imparted to the fan blades 5.

To the shaft 3 is attached the beveled gear wheel 6, which beveled gear wheel meshes with the beveled gear wheel 7, said beveled gear wheel 7 being mounted upon the shaft 8, which shaft is located through the bottom or lower portion of the fan-chamber proper and is extended forward and provided with the gear wheel 9, which gear wheel meshes with the gear wheel 10, said gear wheel being securely mounted upon the brush shaft 11 on which shaft is securely mounted the brush 12.

To the bottom or lower side of the fan cas-

ing is secured the plate 13, which plate extends rearward and has its rear edge connected to the bottom of the fan casing proper as best illustrated in Fig. 2. Directly above the plate 13 is located the opening 14, which opening leads into the fan chamber proper. To the bottom or under side of the fan casing proper is attached the plate or bar 15, which plate or bar is provided with the flanges 16, in which flanges the shaft 8 is journaled. To the bar 15 is attached or formed integral therewith the bar 17, in which bar the bottom or lower end of the shaft 3 is journaled. To the fan casing 1 is attached the forward extended housing 18, which housing incloses the brush 12 as best illustrated in Fig. 2.

To the motor casing is attached the yoke 19, to which yoke is attached the handle 20. To the handle 20 is attached the bar 21, which bar carries the reel 22, said reel having located therein the spring 23, one end of which spring is connected to the reel 22, and the opposite end to the bar 21, said spring being so arranged that if the current conducting wires 24 is unwound from the reel, the spring will be contracted thereby storing power in the spring by which arrangement the wires 24 will be automatically wound upon the reel when it becomes slack, it of course being understood that the wires are to lead to any desired source of electric current, which in use may be connected to a common incandescent lamp socket in the usual manner.

For the purpose of providing a means for conducting the current to the motor proper the wires 24^a are provided, and for the purpose of providing proper electric contact the reel 22 is provided with the metal flanges 25, which metal flanges are for the purpose of contact with the flanges 26, thereby providing a means for properly closing the circuit during the time the reel is in rotation in either direction. When the fan blades are rotated by means of the motor, air will be drawn into the fan casing proper in the usual manner, by which arrangement a suction will be brought about and by locating the brush 12 in the position shown, that is to say directly in front of the plate 13, the dust and dirt will be drawn into the fan casing through the opening 14, and conveyed from the fan casing into the sack 27, which sack is supported in elevation by the handle 20, and its bottom or lower end secured to the fan casing 1 in any

convenient and well known manner. The dust or dirt is blown through the passage 28 leading from the fan chamber. Suction is created by reason of the fact that the blades 5 5, are disposed at an angle, and the central disposition of the inlet openings 14, and outlet opening 28.

For the purpose of providing a means for easily moving the sweeper back and forth 10 upon the carpet and floor the sweeper proper may be provided with suitable traveling wheels 34, which wheels may be attached in any convenient and well known manner to the fan casing.

15 Having fully described my invention what I claim as new and desire to secure by Letters Patent, is—

1. In a sweeper, the combination with a casing formed with a centrally disposed 20 opening in its bottom, a bearing extending over the opening, a vertical shaft journaled in the bearing, a fan mounted on the vertical shaft, a flat housing which tapers toward the front and located under the casing 25 which communicates with the centrally disposed opening, said housing extending beyond the casing and formed with an elongated opening in its bottom at the widest portion, a brush mounted in the extended 30 end of the housing adjacent the elongated opening, means communicating with the side of the casing for receiving the dust

laden air, and means for revolving the brush.

2. In a sweeper, the combination with a 35 casing formed with a central opening in its bottom and also formed with an opening in its side, a vertically disposed shaft mounted in the casing, a fan fast on the shaft, a housing located under the casing and extending 40 forward of the latter where it is enlarged and open at its bottom beyond the opening in the casing, the rear of the housing communicating with the opening in the bottom of the casing, a gear on the vertical shaft, a 45 counter shaft extending through the casing, a gear on the counter shaft which meshes with the gear on the vertical shaft, a second gear on the outer end of the counter shaft, a revolving sweeper mounted in the for- 50 ward enlarged portion of the housing, a gear on the sweeper which meshes with the second gear on the counter shaft, and a receptacle communicating with the opening in the side of the casing to receive the dust 55 laden air.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JAMES M. SPANGLER.

Witnesses:

J. A. JEFFERS,
F. W. BOND.