

J. M. SPANGLER.
CARPET SWEEPER AND CLEANER.
APPLICATION FILED JUNE 25, 1908.

1,021,731.

Patented Mar. 26, 1912.

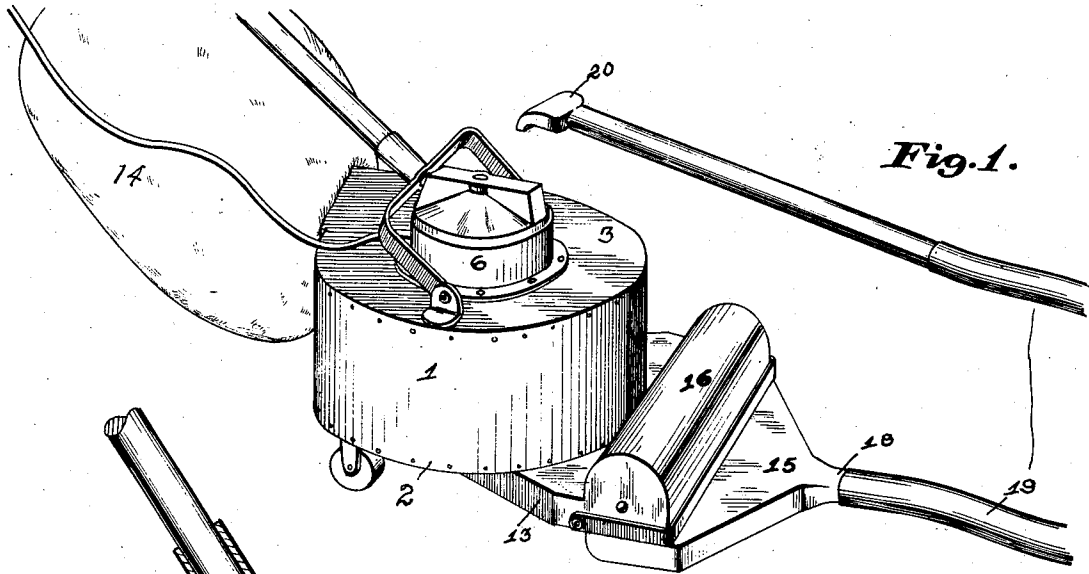


Fig. 1.

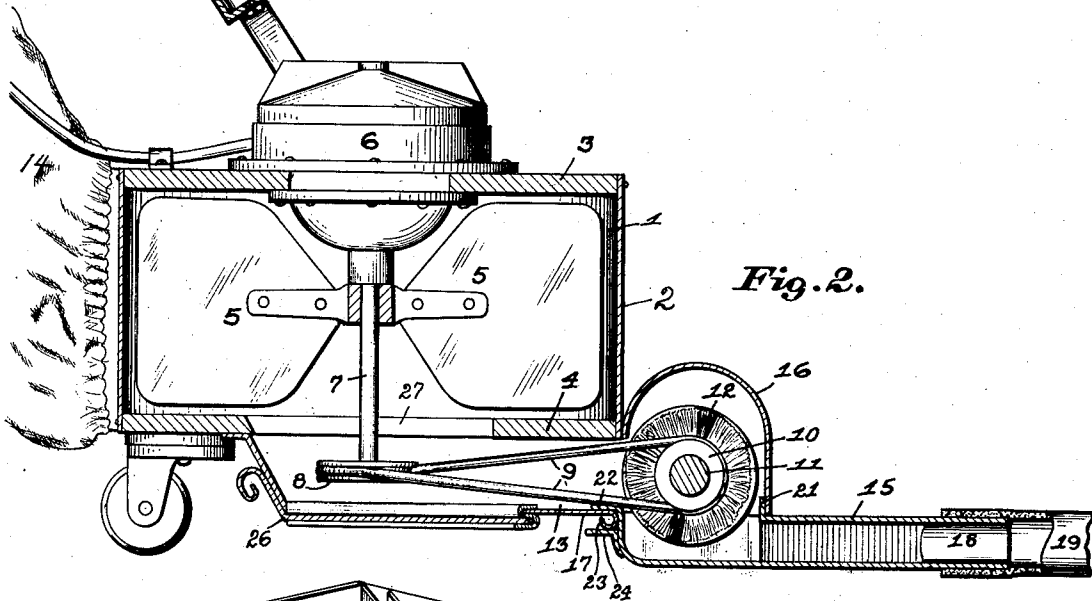


Fig. 2.

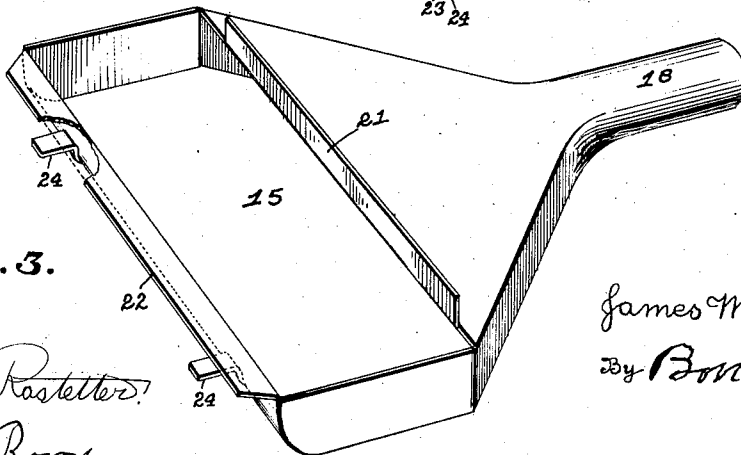


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

JAMES M. SPANGLER, OF CANTON, OHIO, ASSIGNOR TO THE HOOVER SUCTION SWEEPER COMPANY, OF NEW BERLIN, OHIO, A CORPORATION OF OHIO.

CARPET SWEEPER AND CLEANER.

1,021,731.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed June 25, 1908. Serial No. 440,381.

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, of which the following is a specification.

My invention relates to improvements in attachments for carpet sweepers and has special reference to an attachment for suction sweepers whereby such a sweeper may be used as a suction cleaner.

In the art of pneumatic cleaning to which this invention pertains there are two general classes of inventions, the first class comprising those which are self-contained and portable wherein the complete device is moved over the surface to be cleaned and a second class comprising those devices which include a temporarily or permanently stationary suction creating device and a movable suction cleaner nozzle operatively connected to such suction creating device, said nozzle being adapted to be moved over the surface to be cleaned. To the first of these classes belong those carpet sweepers provided with both mechanical and pneumatic cleaning means adapted to co-act, an example of such construction being shown in applicant's United States Patent No. 889,823 issued June 2, 1908.

The principal object of the present invention is to provide an attachment for devices of the first class mentioned whereby to utilize the forceful inrush of air produced by such devices for suction cleaning with a movable pneumatic cleaning nozzle such attachment thus converting a device of the first class, commonly called a suction carpet sweeper into a device of the second class commonly called a suction cleaner.

Further objects will be apparent to those skilled in the art.

The above mentioned objects I preferably attain by the construction illustrated in the accompanying drawings, although the invention may be embodied in other forms, the construction illustrated being chosen by way of example.

In the drawings, Figure 1 is a perspective view of a suction carpet sweeper provided with one of my invented attachments properly arranged and connected. Fig. 2 is a view of the same mostly in vertical section.

Fig. 3 is a perspective view of one of my invented attachments.

Throughout the several views similar reference numerals indicate similar parts.

More specifically describing the construction, the numeral 1 indicates generally the fan casing of the sweeper, a brush casing 16 and a connecting chamber 13 being connected to said fan casing. To the sides 2 of the fan casing are attached the top 3 and the bottom 4. The fan 5 mounted upon the shaft 7 within the fan casing 1 is preferably operated by the motor 6, and is adapted to forcibly draw air through the brush opening of the brush casing 16 through said brush casing, through said connecting chamber 13, through said fan casing, through the opening 27 formed in the bottom 4 and to discharge said air from said fan casing into a dust receiver 14.

Within the brush casing is a brush 12 on a rotatable shaft 11. Upon the shaft 7 is mounted the pulley 8 around which the belt 9 passes and operatively connects said pulley with the pulley 10 mounted on the shaft 11, the brush being thus adapted to be rotated when the fan is rotated.

The details of construction of the parts just named is not claimed herein and need not be more fully described.

Referring now more particularly to the brush opening and the attachment it will be noted that said brush opening is on the underside of the casing 16, the forward edge of said opening being formed by the lower front edge of said casing and the rear edge of said opening being formed by the bead 23 at the forward edge of the bottom part 17 of the connecting chamber. As will be readily understood by those skilled in the art when the carpet sweeper is used as a sweeper the brush 12, projecting downwardly through the brush opening, contacts with the surface to be cleaned producing a brushing thereof, while the forceful inrush of air takes place at and around said brush into said brush opening.

Attention is now directed to the attachment 15. The same consists of a hollow casing provided with the short tube portion 18 providing means for attachment of a flexible hose 19 or its equivalent which hose may be provided with a suction cleaner nozzle 20 of any well known construction. The attachment 15 in addition to the opening in

the tube portion 18 has but one other opening which is a large, transversely disposed opening of dimensions substantially the same as the dimensions of the brush opening in the casing 16. At the forward edge of this opening in the attachment 15 a flange 21, connected to said attachment, extends upwardly, being adapted to be received within the brush opening of the casing 16 and to snugly engage the front edge of said opening. Along the rear edge of the opening in the attachment the outstanding horizontal flange 22 is provided, the same being designed to engage the inner or top side of the rear edge of the brush opening of the casing 16 and to lie immediately on top of the bead 23. Connected to the attachment 15 and spaced below the flange 22 are outwardly extending tangs 24 adapted to snugly engage the underside of the bead 23 when the flange 22 engages the top side of said bead. From this description it will be clearly understood that the attachment may readily be connected to or detached from the sweeper. In attaching the attachment the flange 22 is first arranged on the forward top edge of the bead 23, the attachment being then pushed backwardly to seat the bead 23 firmly between the flange 22 and tangs 24, and the forward end of the attachment is then raised so as to move the flange 21 upwardly within the front edge of the brush opening of the casing 16. The flange 22 and the flange 21 are so spaced from each other that when the attachment is thus connected to the casing 16 there will be sufficient frictional engagement as between said flanges and the edges of the brush opening to prevent accidental displacement in ordinary use. To disconnect the attachment from the sweeper it is only necessary

to press downwardly upon the forward end of the attachment, thereby moving the flange 21 downwardly and out of engagement with the front edge of the brush opening and then draw the attachment forward to unseat the bead 23 from between the flange 22 and the tangs 24.

When the attachment 15 is connected to the sweeper as illustrated in Figs. 1 and 2 the suction produced by the fan will cause an inrush of air into the nozzle 20 and said nozzle may then be used in the manner common in the suction cleaner art, the suction sweeper being thus converted into a suction cleaner properly so called.

I claim:—

1. For a suction carpet sweeper, an attachment consisting of a hollow casing provided with an opening adapted to register with the cleaning intake opening of the sweeper and with means for the attachment to said casing of a suction hose, and means for detachably connecting said casing to the sweeper.

2. For a suction carpet sweeper, an attachment consisting of a hollow casing provided with two openings, one adapted to register with the cleaning intake opening of said sweeper, means for the operative attachment of a suction hose to the casing at the other opening thereof, and said casing provided with portions adapted to frictionally engage the edges of said intake opening for detachably connecting said casing to said sweeper.

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

JAMES M. SPANGLER.

Witnesses:

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