June 16, 1925. 1,541,804

E. R. FIELD

BRUSH ATTACHMENT FOR VACUUM CLEANING TOOLS

Filed Feb. 13, 1922

Fig. 1.

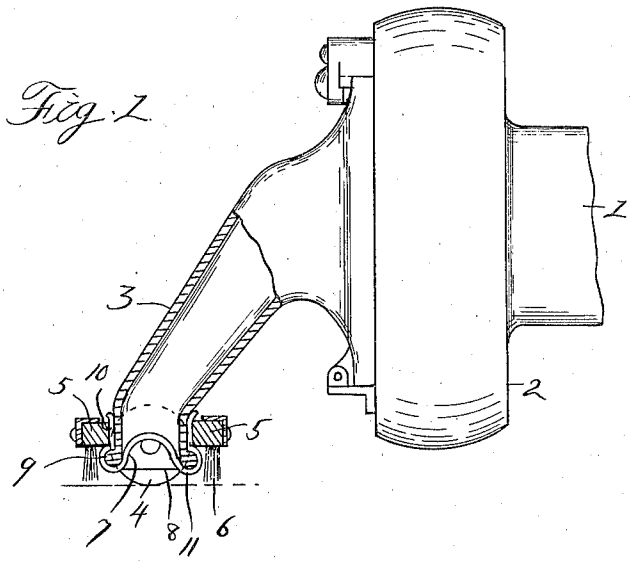


Fig. 2.

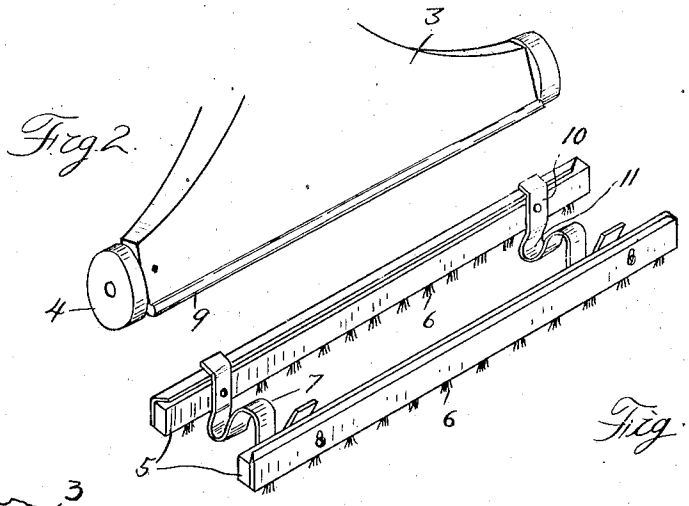


Fig. 3.

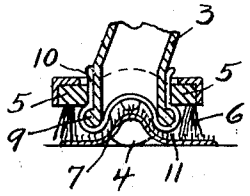


FIG. 4.

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UNITED STATES PATENT OFFICE.

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BRUSH ATTACHMENT FOR VACUUM CLEANING TOOLS.

Application filed February 13, 1922. Serial No. 536,022.

To all whom it may concern:

Be it known that I, EGBERT R. FIELD, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Brush Attachments for Vacuum Cleaning Tools, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to vacuum cleaning tools particularly of that type in which the suction tool is directly connected to the motor and fan casing and it is the object of the invention to provide a brush attachment at the mouth end of the suction tool which greatly facilitates the removal of the dirt from the article such as a rug, carpet, etc. being cleaned. With this as well as other objects in view, the invention resides in the novel features of construction and combinations and arrangements of parts as more fully hereinafter set forth.

In the drawings:

Figure 1 is a vertical central section through a portion of a vacuum cleaner embodying my invention;

Figure 2 is a perspective view of a portion of the suction tool with the brush attachment removed;

Figure 3 is a similar view showing the detached brush attachment;

Fig. 4 is a vertical section of the lower portion of the nozzle, showing the position assumed by the article being cleaned.

The vacuum cleaner has the motor casing 1, the fan casing 2, and the suction tool 3, and its forward end is supported by the rolls 4 at opposite ends of the suction tool.

For the purpose of securing more effective cleaning of articles with my suction tool, the brush bristles of my brush attachment are positioned in immediate proximity to the opposite sides of the suction tool mouth and the portion of the article being cleaned between the bristles, which engage the article, may be drawn into the mouth to more thoroughly open out its body. In detail, the brush attachment comprises the parallel brush bars 5 having the depending bristles 6 and the connections 7 extending between the opposite ends of the brush bars and bent to embrace the elongated mouth 8 of the suction tool. 9 are parallel ribs at the lower end of the suction tool and at the front and rear of the mouth. Each of the connections 7 has the end portions 10 extending upwardly in engagement with the sides of the suction tool and to which the brush bars 5 are secured above the ribs 9 so that the depending brush bristles 6 extend in immediate proximity to the outer sides of these ribs. For detachably securing the brush attachment to the suction tool, each connection is bent at 11 to hook over the ribs 9. In operation, the suction produced by the fan of the vacuum cleaner tends to draw the portion of the article being cleaned between the brush bristles upwardly into the mouth of the suction tool as shown in Figure 4, so as to open up the nap of the body portion of the article whereby the dirt upon the base 12 of the article may be drawn upwardly into the tool 3 more readily. In order to permit of this operation taking place, while at the same time to limit the extent to which the portion of the article may be drawn into the tool 3, the portions of the connections 7 between the ribs 9 are curved upwardly into the mouth.

Thus, it is seen that with my brush attachment the bristles extend in immediate proximity to the outer sides of the ribs and the upwardly curved central portions of the connections permit of that portion of the article located between the bristles being drawn into the mouth of the tool so that the body of the article is opened out and more completely exposed to the air being drawn into the tool. Furthermore, the connections between the ends of the cross bars, being resilient, form spring clips for detachably securing the brush attachment to the suction tool.

What I claim as my invention is:

In a vacuum cleaner, the combination with a suction tool having a mouth, of a brush attachment including a clip having an inverted substantially U-shaped portion extending upwardly into said mouth to permit a portion of the article being cleaned to be drawn upwardly into said mouth, and having portions at the ends of the U-shaped portion aforesaid embracing opposite sides of said mouth, and a brush upon one side of the mouth secured to one of the last-mentioned portions of said clip.

In testimony whereof I affix my signature.

EGBERT R. FIELD.