E. M. KENT.

VACUUM CLEANING TOOL.

APPLICATION FILED MAR. 25, 1913.

1,099,141.

Patented June 2, 1914.

Fig. 1.

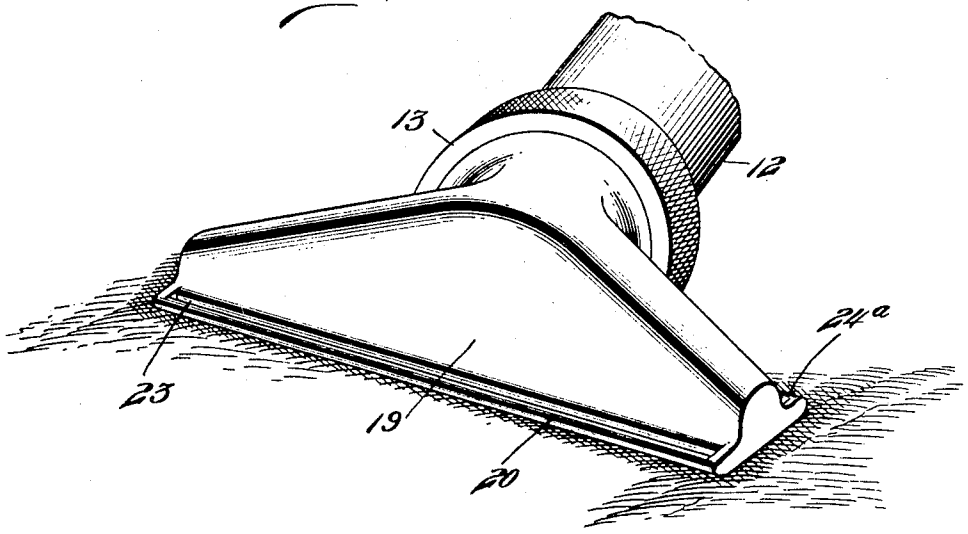
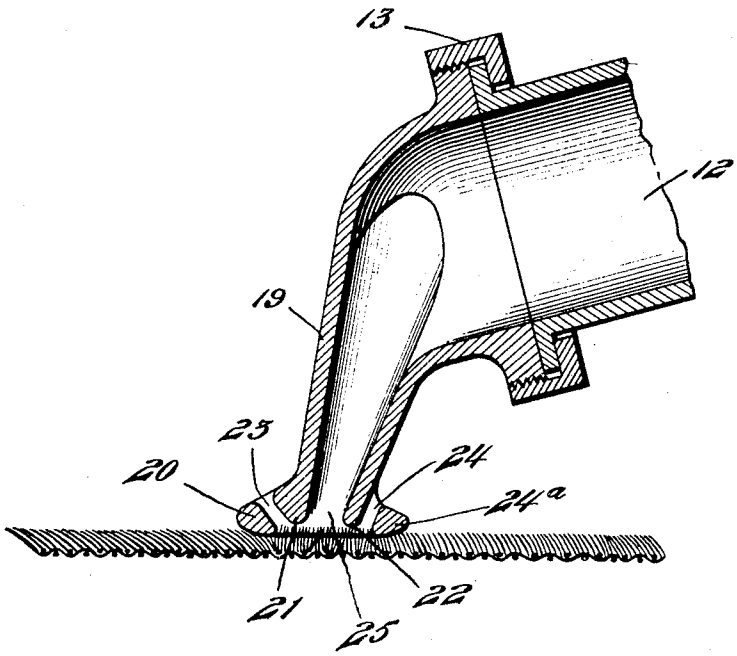


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

EUGENE M. KENT, OF ROME, NEW YORK, ASSIGNOR OF ONE-THIRD TO FAY T. KENT AND ONE-THIRD TO GORDON E. KENT, OF ROME, NEW YORK, AND ONE-THIRD TO BERT. M. KENT, OF WASHINGTON, DISTRICT OF COLUMBIA.

VACUUM CLEANING-TOOL.

1,099,141. Specification of Letters Patent. Patented June 2, 1914.

Original application filed September 24, 1912, Serial No. 722,141. Divided and this application filed March 25, 1913. Serial No. 756,765.

To all whom it may concern:

Be it known that I, EUGENE M. KENT, a citizen of the United States, and resident of Rome, county of Oneida, State of New York, have invented certain new and useful Improvements in Vacuum Cleaning-Tools, of which the following is a specification.

This invention relates to vacuum cleaning apparatus and more particularly to tools for cleaning carpets, rugs, etc.

This application is a division of my prior application No. 722,141, filed September 24, 1912.

Some of the objects of the invention are to provide a tool adapted to permit a more or less uniform flow of air, and in which the nap of the carpet, through which the air is passing, is perfectly free and not held down by the tool, so that the air will agitate the nap and so loosen and lift the fibers thereof that it can penetrate to the warp with sufficient force to remove any dirt or dust which may have accumulated thereon.

Other objects and the features of novelty will be apparent from the following description taken in connection with the accompanying drawings in which—

Figure 1 is a perspective view of a tool embodying the invention, and Fig. 2 is a central vertical section of the same.

Referring to the drawings, 19 indicates the usual elongated casing or body having an air inlet 25 in the lower side thereof adjacent the surface to be cleaned. A suction pipe or tube 12 is connected with the upper part of the casing in any suitable manner as by the threaded collar 13, this collar permitting the casing to swivel or oscillate on the pipe as the tool is moved to and fro over the surface to be cleaned.

A shoe having front and rear walls 20 and 24ª, respectively, surrounds the lower end of the casing 19 and is preferably formed integral therewith or otherwise fitted thereto at its ends. The shoe rests on the carpet or surface to be cleaned, as clearly shown in Fig. 2, and supports the casing 19 with the lower edges 21 and 22 of the latter slightly above the carpet or surface. The front wall 20 of the shoe is spaced from the casing to provide a downwardly directed air inlet 23 which extends substantially the full length of the casing. This air inlet may be of any suitable cross-section. The rear wall 24ª of the shoe is similarly spaced from the rear wall of the casing to provide the air inlet 24 which also extends substantially the full length of the casing. It will be observed that the inlets 23 and 24 are in downwardly converging relation and the air currents entering through these inlets are made to unite in a rising current which flows through the casing inlet 25.

In the operation of the tool it is moved over the carpet or surface to be cleaned and the air, being drawn through the inlets 23 and 24 into the interior of the casing 19, by the suction in the pipe 12, will be projected with considerable force against the surface being cleaned, directly below the lower edges 21 and 22 of the walls of the casing, and thoroughly scour the surface and carry away the dirt therefrom. When the tool is used on a carpet or rug having a nap or pile, as indicated in Fig. 2, the distance between the front and rear walls 20 and 24ª of the shoe permits the nap under the casing 19 to be free so that the currents of air through the inlets 23 and 24, in striking the carpet, will penetrate to the warp thereof and in rising to the inlet 25, will lift up the nap and so loosen and agitate it that the dirt clinging thereto will be removed and the dirt accumulated on the warp may be readily carried up through the nap by the air. As the tool moves over the carpet the walls of the shoe smooth out the nap and the carpet is given a bright, sleek appearance.

Having thus described my invention what I claim is:—

1. A vacuum cleaning tool comprising a casing having a long narrow inlet slot in its lower side, a suction pipe connection, a shoe fixed to the casing and provided with means in the front and rear of said slot adapted to engage the surface to be cleaned and support the lower edges of the front and rear walls of the casing slightly above said surface whereby air passages are provided beneath the casing walls, said means being spaced respectively from the front and rear walls of the casing and forming with the casing walls downwardly directed air passages adapted to supply air to the casing inlet from opposite sides of the latter.

2. A vacuum cleaning tool comprising a

casing having a long narrow inlet slot in its lower side, a suction pipe connection, a shoe fixed to the casing and provided with front and rear walls adapted to engage the surface to be cleaned and support the lower edges of the front and rear walls of the casing slightly above said surface whereby air passages are provided beneath the casing walls, said front and rear walls of the shoe being spaced respectively from the front and rear walls of the casing to provide relatively converging downwardly directed air inlets adapted to supply air to the casing inlet from opposite sides of the latter.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE M. KENT.

Witnesses:
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