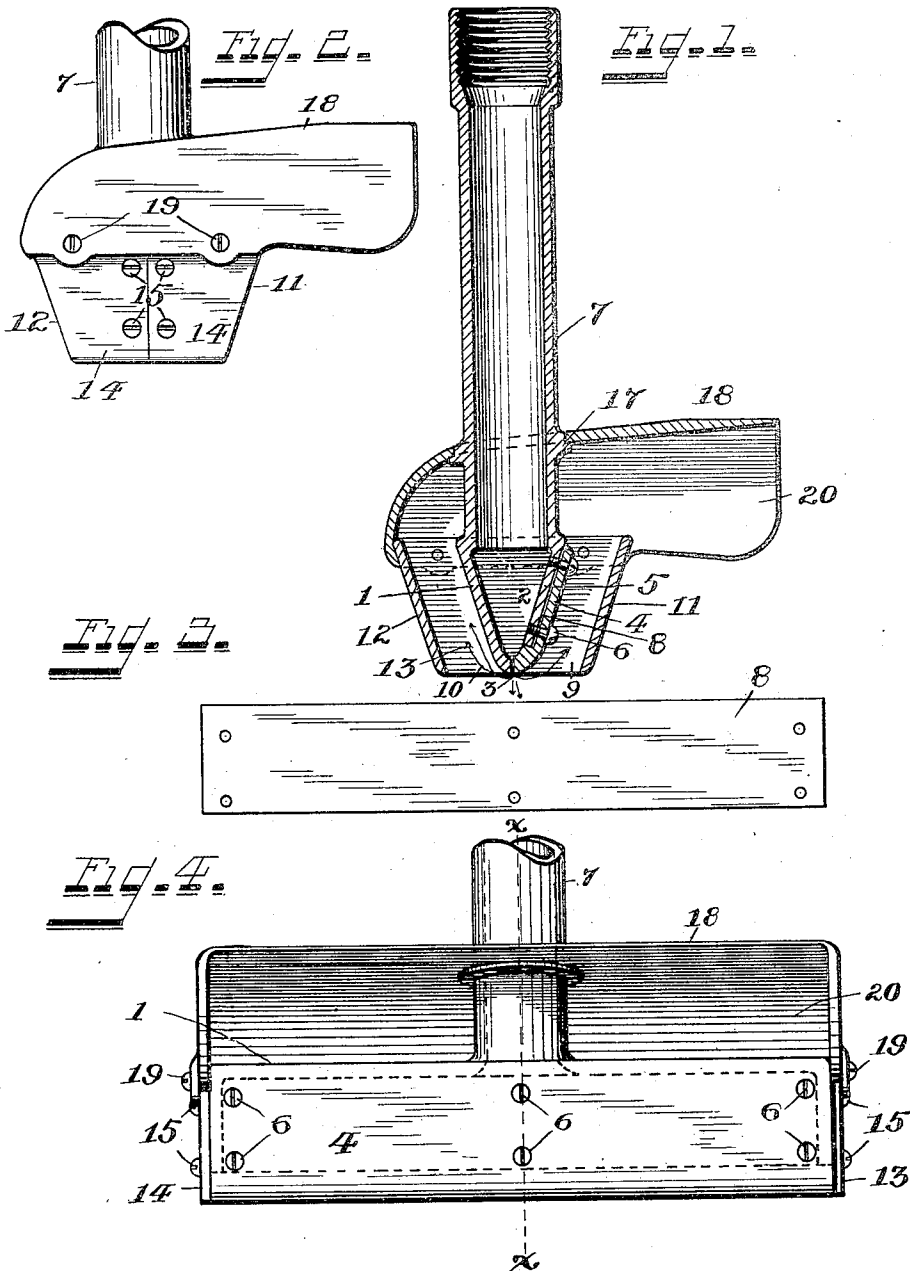


No. 838,943.

PATENTED DEC. 18, 1906.

C. W. E. BOEGEL.
CARPET CLEANING DEVICE.
APPLICATION FILED FEB. 15, 1906.



Witnesses.
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UNITED STATES PATENT OFFICE.

CARL W. E. BOEGEL, OF LIMA, OHIO.

CARPET-CLEANING DEVICE.

No. 838,943.

Specification of Letters Patent.

Patented Dec. 18, 1906.

Application filed February 15, 1906. Serial No. 301,137.

To all whom it may concern:

Be it known that I, CARL W. E. BOEGEL, a citizen of the United States, residing at Lima, in the county of Allen and State of Ohio, have invented certain new and useful Improvements in Carpet-Cleaning Devices, of which the following is a specification.

My invention relates particularly to means for dislodging and discharging dust and other impurities from carpets, rugs, and the like.

The object of my invention is to provide a simple, convenient, effective, and durable device to obtain these results.

My invention consists of a nozzle provided with an air-chamber having an air-outlet extending along its lower edge and outlet-passages leading upwardly on each side from said air-outlet to a discharge-outlet, in means for adjusting the size of the air-outlet, and in the parts, construction, combination, and arrangement of parts, as herein set forth and claimed.

In the drawings which serve to illustrate my invention, Figure 1 is a transverse vertical section on a line corresponding to *xx* of Fig. 4. Fig. 2 is an end elevation. Fig. 3 is a side view of a spacing device comprising a strip of material used to produce the air-outlet. Fig. 4 is a side elevation of the device shown in Fig. 1 looking toward the left with the outer wall of the adjacent outlet-passage removed and a part of the air-inlet tube broken away, the dotted lines indicating the air-chamber and air-space in the tube.

I prefer to construct the device substantially as follows: An elongated nozzle 1, having an air-chamber 2 and provided at its lower part with an elongated air-outlet 3, adapted to be varied in size by an adjustable plate 4, secured to the wall 5 of the air-chamber by means of screws 6, is formed upon the lower end of an air-inlet tube 7. A spacing device 8, comprising a strip of material, preferably paper, of a thickness to correspond with the width of the air-outlet desired, is inserted between the wall 5 and adjustable plate 4 to form the air-outlet 3. Outlet-passages 9 and 10, leading from the air-outlet 3 to a discharge-outlet, through which the dirt and other impurities to be removed from the carpet are conveyed by the air-blast, are formed upon each side of the air-chamber 2 by its side walls, tapering side walls 11 and 12 extending upwardly from the bottom and vertical end walls 13 and 14 secured to the end walls of

the nozzle 1 by means of suitable fastenings 15. The air-inlet tube 7 is provided with an external flange 17, which forms a rest and support for a hood 18, placed thereon and secured to the end walls 13 and 14 by means of suitable fastenings 19 to form a discharge-outlet 20, communicating with the outlet-passages 9 and 10. The lower edges of the tapering side walls of the outlet-passages are on substantially the same plane as the lower extremity of the elongated air-outlet of the nozzle and are formed thin and smooth to engage the nap of the carpet to raise it to its normal position, thus dislodging and freeing the dirt and other impurities and permitting the ready discharge of the greater part thereof through the outlet-passages by means of an air-blast, while a smaller part thereof is thereby forced below a perforated floor by the pressure of the air through the carpet as the nozzle is being pushed upon the carpet alternately in opposite directions.

The movements of the nozzle back and forth upon the carpet should be repeated as often as may be necessary to remove all the extraneous matter. As the impurities pass upward and out of the device through the hood and downward through the carpet exhaust-fans (not shown) draw and carry them out of the room, thereby cleaning the carpet perfectly.

The operation of the device is preferably as follows: Place the carpet or other fabric to be cleaned upon a woven-wire or other perforated or open floor in a room provided with exhaust-fans to carry off the dust and other impurities. Attach the handle of the nozzle to a flexible air-tube communicating with an air-compressor. Place the nozzle upon the carpet in an upright position. Apply the compressed air, which will pass into the air-chamber 2 and out of same through the air-outlet 3 in the directions indicated by the arrows. Move the nozzle slowly upon the carpet alternately in opposite directions over the same surface until it has been cleaned and then repeat the same operation on the remaining surface. Preferably the device is first applied to the upper surface and then to the lower surface, and so on, treating each side alternately as often as may be necessary to thoroughly clean the carpet, usually it being sufficient to treat the face side twice and the under side or back once.

The compressed air is conveyed directly

from the air-compressor to the nozzle through a tube of uniform diameter and distributed from the elongated air-chamber directly to the carpet without encountering any friction
5 caused by reducing the size of the air-passage, such as stop-cocks or reducers, until it enters said air-chamber, which communicates directly with the carpet, thereby discharging the air with great force.

10 The hood 18 has its discharge-outlet 20 on the side adjacent the exhaust-fan and away from the operator, who is thereby protected from inhaling the impurities which are removed from the carpet, thus rendering the
15 device perfectly sanitary.

This device is adapted and intended for use in stationary carpet-cleaning plants provided with the necessary exhaust, open floorwork, and compressed-air supply, but may
20 be used without the open floorwork with less efficient results.

My device is more especially adapted for cleaning heavy carpets—such as moquettes, Brussels, velvets, and Axminsters—but may

also be used for cleaning all kinds of lighter 25 materials.

I claim—

In a carpet-cleaning device, a nozzle comprising downwardly-converging sides and vertical ends, inclosing an elongated tapering
30 air-chamber and having an air-outlet extending along the bottom of the chamber, side walls forming, with the sides of the nozzle, outlet-passages, each of said side walls having vertical ends adapted to take and fit over
35 the ends of the nozzle, screws adapted to take through the ends of the side walls and nozzle respectively, and a hood secured to one of said side walls and to the respective ends and extending upwardly over said outlet-pas-
40 sages and projecting to one side of said nozzle, all substantially as and for the purposes set forth.

CARL W. E. BOEGEL.

Witnesses:

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