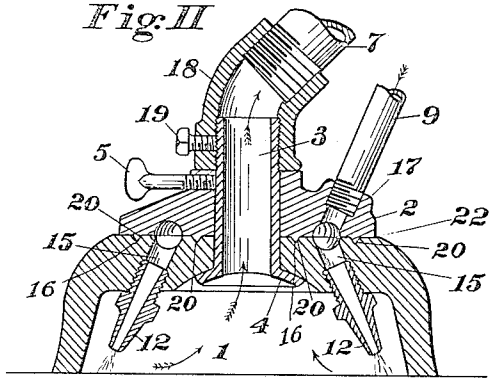
No. 787,388. PATENTED APR. 18, 1905.

A. E. MOORHEAD.

CARPET CLEANING APPARATUS.

APPLICATION FILED JUNE 15, 1904.

Fig. II



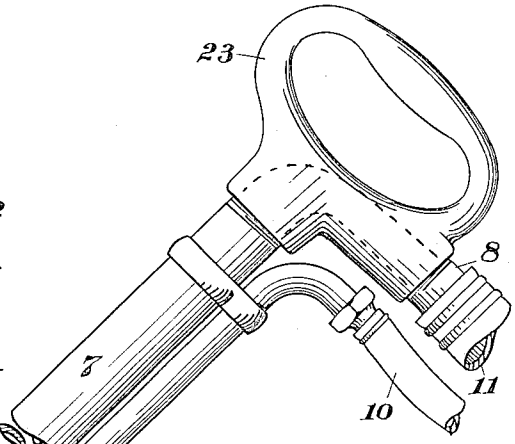


Fig. I

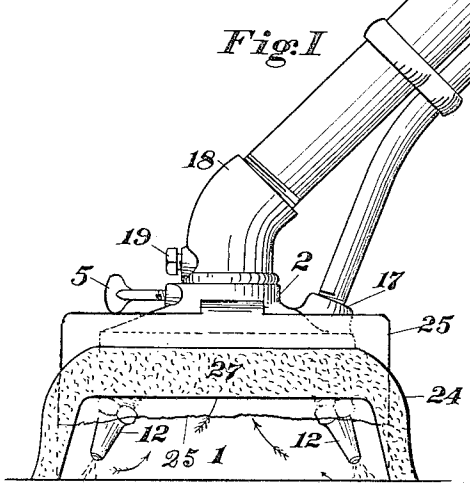


Fig. III

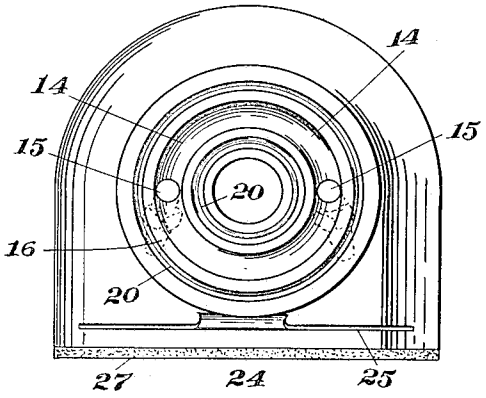
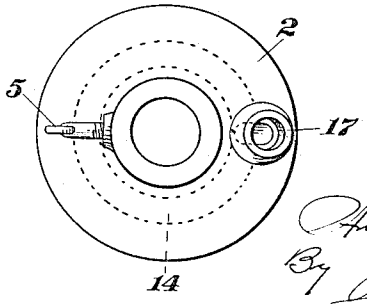


Fig. IV



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No. 787,388. Patented April 18, 1905.

UNITED STATES PATENT OFFICE.

ALBERT E. MOORHEAD, OF OAKLAND, CALIFORNIA.

CARPET-CLEANING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 787,388, dated April 18, 1905.

Application filed June 15, 1904. Serial No. 212,718.

To all whom it may concern:

Be it known that I, ALBERT E. MOORHEAD, a citizen of the United States of America, residing at Oakland, county of Alameda, and State of California, have invented certain new and useful Improvements in Carpet-Cleaning Apparatus; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in carpet-cleaning apparatus whereby certain useful and novel results are attained, as hereinafter set forth, and illustrated by the drawings that form a part of this specification.

My improvements consist in a movable and swiveling collecting-chamber adapted to be moved over a carpet by a hollow impelling-stock and handle that forms also a conduit for the dust and dirt removed and by which is supported a high-pressure air-pipe to supply the required force for loosening and raising the dust and dirt to be removed and means of introducing air at high pressure to jets within the movable collecting-chamber and in other features hereinafter more fully described and explained.

The objects of my invention are to provide improved means for cleaning carpets quickly and efficiently without removing them from the floor, which shall reach the corners and confined places as well as the main spaces.

Referring to the drawings, Figure I is a side view of one of my improved carpet-cleaning devices; Fig. II, a partial vertical section through the operating parts of the same. Fig. III is a plan view of the collecting-chamber; and Fig. IV, a plan or top view of the main plate, to which the swiveling collecting-chamber is attached.

The collecting-chamber 1, which constitutes the main member of the devices, is made of a curved form at one side and straight on the other side, as shown in Fig. III, the straight side being adapted to follow along corners in contact with base-boards or other perpendicular surfaces against which the edges of the carpets abut. This chamber 1 is arranged to swivel on the plate 2, being held loosely in contact therewith by a tube 3, having a flanged or expanded head 4, said tube being held in the plate 2 by a screw 5, as shown in the section Fig. II. Two conduits or pipes 7 and 9 for air communicate with this collecting-chamber 1, the one, 7, acting as a suction or exhausting pipe by connection with the tube 3, the nipple 8, and hose 11. Said pipe also forms a handle and operating-stem for the device, as shown in Fig. I. The other pipe or conduit, 9, under pressure communicates from an air-supply hose 10 to the discharge-nozzles 12 in the chamber 1 and is supported on the stem or pipe 7, as shown in Fig. I. Communication through the swiveling joint at 22 is by means of an annular passage 14, formed in the parts 1 and 2, as shown in Fig. III and indicated by dotted lines in Fig. IV, from which ports or passages 15 extend to the nozzles 12. The pipe 9 is screwed into a nipple 17 on the part 2, and the stem or pipe 7 is secured in the part 18, which latter is screw-threaded on tube 3 and held from turning by a clamp-screw 19.

The parts 1 and 2 are held concentric by the annular ribs 16 and grooves 20, that fit revolubly one into the other. These also form an approximate seal against the escape of air through the joint 22 between the parts 1 and 2, as shown in Fig. II, by reason of the increased contacting surface which they afford.

In operating the hose 11 is connected with a receiver in which a partial vacuum is maintained, and the hose 10 is connected to some source of air under pressure. The operator then by means of the handle 23 pushes the device over the surface of a carpet, the nozzles 12 delivering impinging jets of air that loosen and raise dust or dirt of any kind, which is instantly drawn through the hollow stem 7 and discharged through the hose 11 outside of the room or building into a closed receptacle for final removal.

When the edges of the carpet are to be cleaned, the flat side 24 of the chamber 1 fits against a base-board or other perpendicular surface, and a slide 25 is raised to open this side of the collecting-chamber 1, as shown in Fig. I, so the dust and dirt are drawn in lat-

erally from corners. A covering of fibrous material 27 prevents walls or furniture from abrasion by rubbing. This material 27 also forms a packing to prevent ingress of external air to the chamber 1.

The nozzles 12 are two in number, so as to come close to corners, and are preferably set in an oblique position, as shown, so they will impinge close up to the shutter 25, as indicated in Fig. I. These nozzles are set at some distance above the surface of the carpet, as shown in Fig. II, to permit the compressed air to expand as it leaves the nozzle before it impinges on the carpet-surface, thereby increasing its area of action and also its efficiency in removing the foreign matter.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a carpet-cleaning device, a portable collecting-chamber, a handle swiveled thereupon, means for supplying air under pressure in said chamber, and for withdrawing the air therefrom, said chamber having a flat open side, and a sliding gate to close said side, substantially as specified.

2. In a carpet-cleaning device, a portable collecting-chamber, a handle swiveled thereupon, having a passage therein for the outgoing air-current, an air-pipe for supplying air under pressure to said chamber, and a plurality of outwardly-inclined nozzles for directing the air-currents against the places to be cleaned, substantially as specified.

3. In a carpet-cleaning device, a portable collecting-chamber, a handle swiveled thereupon, having a passage therein for the outgoing air-current, an air-pipe for supplying air under pressure to said chamber, said chamber having a flat open side, with a sliding gate to close the same, and inclined nozzles in said chamber for directing the air-currents against the places to be cleaned, substantially as specified.

4. In a carpet-cleaning device, a portable collecting-chamber having a flat top provided with annular grooves, a swivel-plate on said top with annular ribs fitting said grooves, said swivel-plate and top being provided with communicating passages for admitting air into said chamber, a guiding-handle secured to said swivel-plate, provided with an outlet-conduit for air from the chamber through said handle, swivel-plate and top, and inclined nozzles within said chamber in communication with said air-inlet passages, for directing the air-jets upon the surface operated upon, substantially as specified.

5. In a carpet-cleaning device, a portable collecting-chamber having a flat top provided with annular grooves, a swivel-plate on said top having annular ribs fitting said grooves, said swivel-plate and top being provided with inlet-ways for air through the same, and also with matched channels in each forming an annular passage for air in communication with said inlet-ways, and terminal nozzles within the chamber in communication with said inlet-ways, for directing the air-jets against the surface to be cleaned, said swivel-plate and top being also provided with a central outlet-passage from the chamber through them for delivery of mingled air and dust, substantially as specified.

6. In a carpet-cleaning device, a portable collecting-chamber having a flat top with a swivel-plate mounted thereon, said top and swivel-plate being provided with matching annular ribs and grooves, and also with a central outlet air-passage from the chamber through them; said swivel-plate and top being also provided with air-inlet passages to the chamber, in communication by means of matching grooved channels in each to form an annular air-passage, terminal nozzles in the chamber in communication with the said air-inlet passages, and a guiding-handle attached to said swivel-plate, substantially as specified.

7. In a carpet-cleaning device, a portable collecting-chamber having a flat top, with a swivel-plate mounted thereon, said top and swivel-plate being provided with interlocking guiding-ribs and grooves on the contacting surfaces thereof respectively, and also with an outlet air-passage through the center thereof from the chamber, means for introducing air under pressure to said chamber through said swivel-plate and top, and terminal nozzles within the chamber for directing the air upon the surface operated upon, said chamber having a flat open side with a sliding gate for closing the same, substantially as specified.

8. In a carpet-cleaning device, a portable collecting-chamber, having a guiding-handle swiveled thereupon, means for exhausting air and dust from said chamber, a pipe for conveying air under pressure into said chamber, and a terminal nozzle within said chamber, in communication with said pipe, set oblique to the bottom plane of the chamber, for directing the air-jet against the surface operated upon at the proper angle, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT E. MOORHEAD.

Witnesses:
ELMER WICKES,
HENRY C. DROGER.