No. 855,433. PATENTED MAY 28, 1907.

M. E. FREEMAN.

PNEUMATIC DUST REMOVER.

APPLICATION FILED AUG. 24, 1905.

Fig. 1

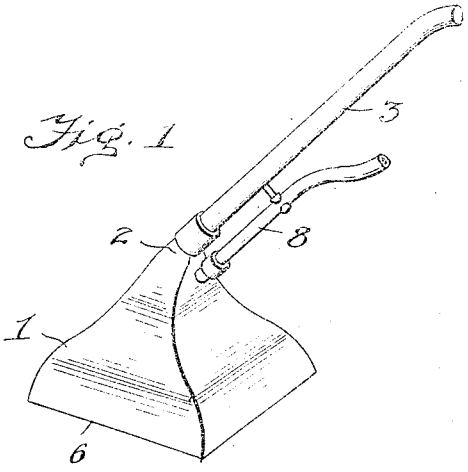


Fig. 2

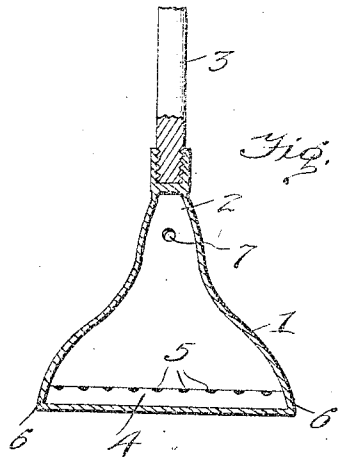


Fig. 3

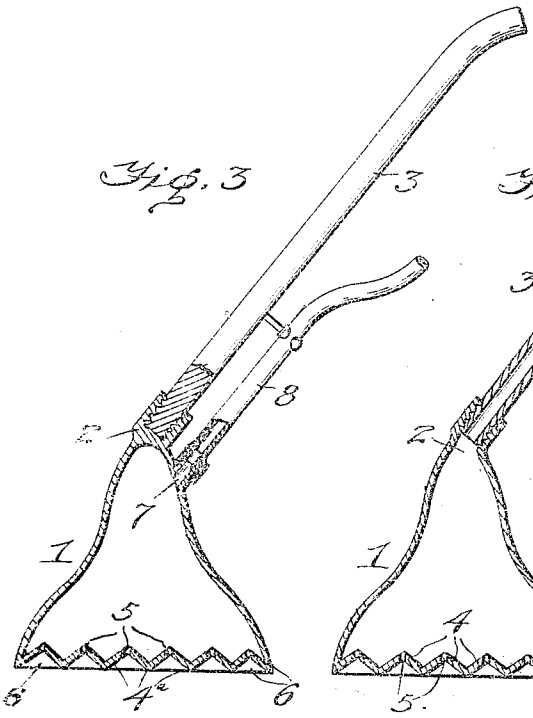


Fig. 4

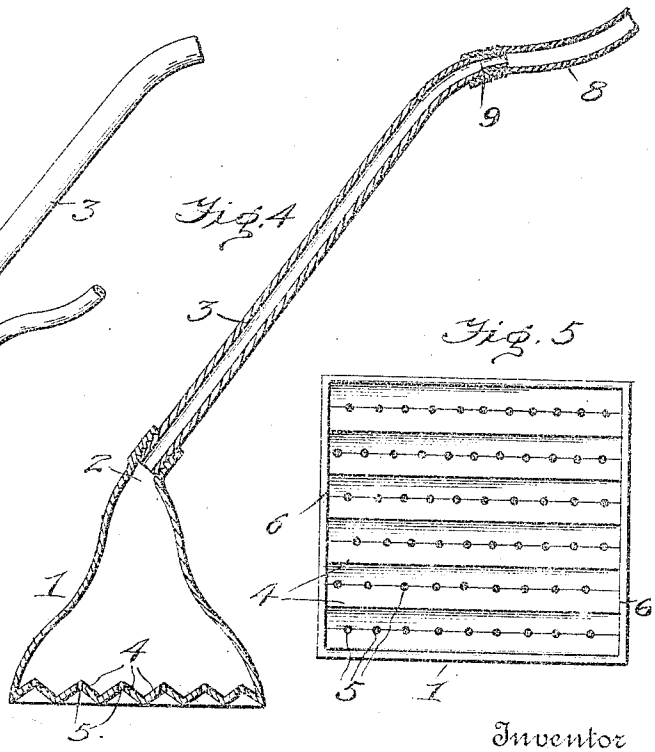


Fig. 5

Witnesses:

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UNITED STATES PATENT OFFICE.

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PNEUMATIC DUST-REMOVER.

No. 855,433. Specification of Letters Patent. Patented May 28, 1907.

Application filed August 24, 1905. Serial No. 275,586.

To all whom it may concern:

Be it known that I, MILES E. FREEMAN, a citizen of the United States, residing at Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Pneumatic Dust-Removers, of which the following is a specification.

This invention relates to improvements in pneumatic dust-removers, and the object thereof is to provide a simple and efficient dust-remover of this character which will be particularly adapted for cleaning carpets without removing the same from the floor.

Other objects are, to provide means whereby the nap of the carpet may be raised to loosen the dirt and dust, and suction applied to the carpet while the nap is raised; and to provide means whereby the dust and dirt removed from the carpet will be conducted and deposited into suitable receptacles for holding the same.

With the above and other objects in view, the invention consists in providing the lower face of the device with one or more depressions having each an aperture or apertures, whereby communication is obtained between said depression or depressions and the interior of the device; also in so constructing the device that the walls bounding said depression or depressions bear against the carpet and cause suction to be applied to that part of the carpet bounded by said walls.

The invention further consists in so constructing the longitudinal walls of said depression or depressions that the nap of the carpet is brushed and the dust disturbed so that the latter will be more readily sucked up into the device; and in certain novel features of construction, combination, and arrangement of parts to be hereinafter described and particularly pointed out in the subjoined claims.

In the accompanying drawings,—Figure 1 is a perspective view of the device. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a vertical sectional view taken at a right-angle to Fig. 2. Fig. 4 is a similar view showing a modified arrangement of the invention. Fig. 5 is a bottom plan view of the hollow-head or box.

Referring to the drawings in detail, corresponding numerals of reference refer to corresponding parts in the several figures.

The reference numeral 1 designates the hollow-head or box, which may be of any suitable shape or form, but which is herein shown in a representative embodiment as rectangular in shape at the bottom and tapering upward on all sides to a narrow end or neck 2, with which may be connected the handle 3.

The bottom of the hollow head or box is provided with one or more transverse depressions 4, in which, or each of which, if more than one depression is provided, I form apertures 5 whereby communication is obtained with the interior of the head or box. In the preferred embodiment of my invention, I provide a series of transversely disposed V-shaped corrugations or ribs 4^a forming depressions having upwardly converging longitudinal walls. At the ends of the depressions, the end walls of the head or box are extended to form flanges 6 having the edges even with the edges of the V-shaped ribs; both the edges of the flanges and said ribs being designed to fit closely and squarely on the carpet to prevent the air, to a certain extent, from being drawn in between the carpet and the head or box. Although the V-shaped ribs are preferable by reason of their effectiveness in raising the nap of a carpet, it is not my intention to confine this invention to any particular form of rib, as a rib other than that illustrated will serve the purpose in some cases. The front and rear transverse ribs form the edges of the front and rear walls of the head and any number of intermediate ribs may be provided. However, by providing a plurality of ribs, and hence a plurality of depressions between them, a more effective device is obtained.

In the upper end or neck of the head or box is formed a discharge opening 7 having a nipple to which is adapted to be connected a suction pipe 8, through which dust and dirt is drawn from the carpet through the apertures 5 and through the head; said dust and dirt passing through the pipe 8 to a suitable receptacle not shown.

If desired the handle 3 may be tubular in form and provided on its outer end with a nipple 9 with which the pipe 8 may be connected, as shown in Fig. 4 of the drawings,

thereby dispensing with a separate coupling for the pipe 8 as shown in the first figures of the drawings.

The necessary suction to draw the dust and dirt from the carpet and through the box 1 and the tubular handle or discharge-pipe 8 may be produced by means of a pump or other suitable apparatus not shown.

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

1. A cleaning device comprising a hollow head provided with a lower bottom wall having a depression therein with ridges arranged at opposite sides of said depression, the edges of said ridges being angular and adapted to bear on the carpet and agitate the nap thereof when the device is moved over a carpet, and said lower wall being provided between the ridges with an aperture communicating with the interior of the hollow head.

2. A cleaning device comprising a hollow head having a lower bottom wall provided with spaced ribs having sharp bearing edges to engage the nap of the carpet and agitate it during the passage of the device thereover, said bottom wall having apertures therein between said ribs communicating with the interior of said hollow head and a suction tube leading from said head.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MILES E. FREEMAN.

Witnesses:
ROBERT H. GEORGE,
JAMES J. FREEMAN.