C. R. THURMAN.

PNEUMATIC CLEANING TOOL.

APPLICATION FILED FEB. 9, 1911.

1,068,713. Patented July 29, 1913.

Fig. 1.

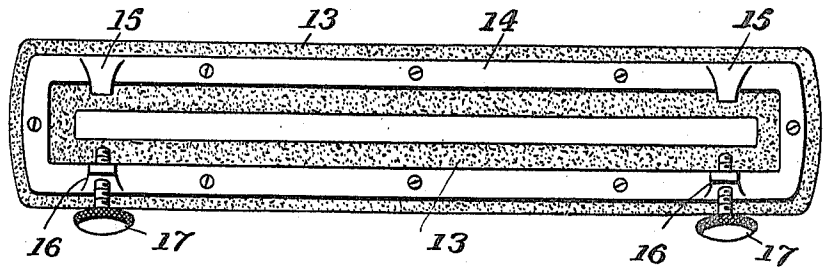


Fig. 2.

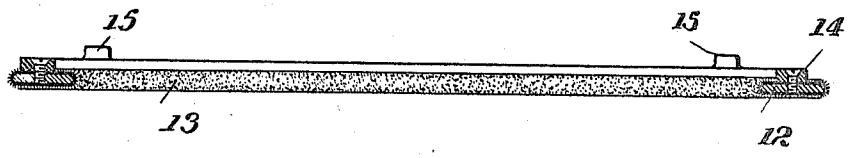
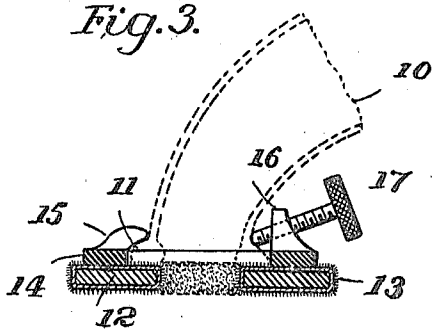


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES R. THURMAN, OF PARNASSAS, VIRGINIA, ASSIGNOR TO ELECTRIC RENOVATOR MANUFACTURING CO., OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

PNEUMATIC CLEANING-TOOL.

1,068,713. Specification of Letters Patent. Patented July 29, 1913.

Application filed February 9, 1911. Serial No. 607,584.

To all whom it may concern:

Be it known that I, CHARLES R. THURMAN, a citizen of the United States, residing at Parnassas, in the county of Westmoreland and State of Virginia, have invented new and useful Improvements in Pneumatic Cleaning-Tools, of which the following is a specification.

My invention relates to cleaning tools of the type very commonly used in connection with pneumatic vacuum cleaning apparatus, and is particularly adapted for use in the cleaning of hard wood floors or the cleaning of other relatively smooth surfaces which are substantially free from small irregularities. While of the particular relation and adaptation stated, however, the tool of my invention is capable of use in connection with other types of surfaces than those stated.

Hard wood floors and similar surfaces frequently have dirt and dust sticking to the floor, this sticking being due either to the character of the dirt and dust or to moisture which may be present. Furthermore owing to cracks and other irregularities in the flooring, it is not possible for a vacuum cleaning tool as ordinarily constructed to make such a connection with the floor as will cause air to pass over the surface being cleaned and into the cracks with such velocity as to dislodge the particles of dust and dirt properly.

It is the object of my invention to produce a tool by which these floors and other surfaces can be readily cleaned by a single sweeping.

In the accomplishment of my invention, I make use of the tool the main body of which is substantially similar to tools heretofore used. I attach to the mouth of this tool however, an extension in the form of a flat plate in which there is an opening of substantially the same extent as the opening in the mouth of the tool. I cover this plate on its engaging side with a fabric consisting of bristles of suitable stiffness woven into a warp and woof of cotton or other material, and projecting therefrom as does the nap of a carpet from its body. Specifically, the fabric which I employ is a cotton fabric having a nap of bristles. Preferably I form this plate as an attachment, in order that the tool body may be used without or with it as desired.

Referring to the drawings in which I have illustrated a specific embodiment,—Figure 1 is a plan view of the attachment of my invention. Fig. 2 is a central longitudinal section. Fig. 3 is a central transverse section.

10 is the main body of the tool which is provided with an air passage of any of the usual forms. Its engaging lips however, instead of being brought to a more or less sharp point are provided with a lateral flanged portion 11. To this flanged portion is attached a plate 12 of hard wood fiber covered with a fabric 13 having the nap of bristles. The plate has a central opening preferably a little larger than the opening in the tool, in order to accommodate the fabric on the inside. The fabric is placed over the working face or surface of the plate 12 and folded at the sides and ends thereof and through the central opening over the back of said plate. The edges of the fabric are then covered by a rectangular clamping plate 14 screwed down to the plate 12 and upon the upturned edges of the fabric, the plate being thus incased in the attached fabric. Projecting from the clamping plate 14 on one side are inturned lugs 15 adapted to fit over the flange 11 on the rear side of the tool, while projecting from the opposite side of the clamping plate are lugs 16, through which extend set screws 17 for engagement with the flange 11. By this means the flat plate may be removably attached to the tool so that it may be used or not used at will.

When the tool of my invention is used on hard wood floors with a bristle fabric of proper texture, the bristles act to sweep the dust and dirt and loosen it so that it may be readily sucked up by the cleaning apparatus. By working the tool back and forth all dust and dirt not in the form of deep stains may be readily removed, and by the use of proper liquids to moisten the end of the tool, even stains may be removed. The nap of the fabric enters cracks and irregularities in the floor and in addition to loosening and sweeping the dirt therefrom, so fills the cracks and irregularities that the tool makes a close contact with the floor, and the vacuum within the tool is sufficient to secure the best action of the tool and excellent cleaning pressure. The suction may be readily varied by variations in the quality and texture of the nap of the fabric, and lastly by proper variations of the texture of this fab-

ric the tool of this invention may be used to polish hard wood floors simultaneously with the cleaning thereof.

What I claim is:

1. An attachment for pneumatic tools comprising a facing member provided with a slot, a cloth facing enveloping said facing member, and a clamping plate connected with said facing member and provided with means for securing the same to the mouth of the pneumatic tool.

2. An attachment for pneumatic tools comprising a plate provided with an opening, a cloth facing enveloping said plate and bounding said opening, and a clamping plate connected with said first mentioned plate and provided with means for securing the same to the pneumatic tool.

3. The combination with a pneumatic cleaning tool having a flanged mouth for engaging a surface to be cleaned, of a facing plate detachably connected with the working surface of said mouth, fabric removably covering said facing plate, and a securing plate for holding the fabric on the facing plate.

4. The combination with a pneumatic cleaning tool having a flanged mouth for engaging a surface to be cleaned, of a longitudinally slotted facing plate detachably connected with said mouth, fabric folded over the outer and inner edges of said facing plate to envelop the same, and a clamping plate removably connected to the back of the facing plate for securing the fabric thereon, said clamping plate being provided with means for attaching the facing plate to the cleaning tool.

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

CHARLES R. THURMAN.

Witnesses:
ALICE A. TRILL,
W. E. SLAUGENHOYT.