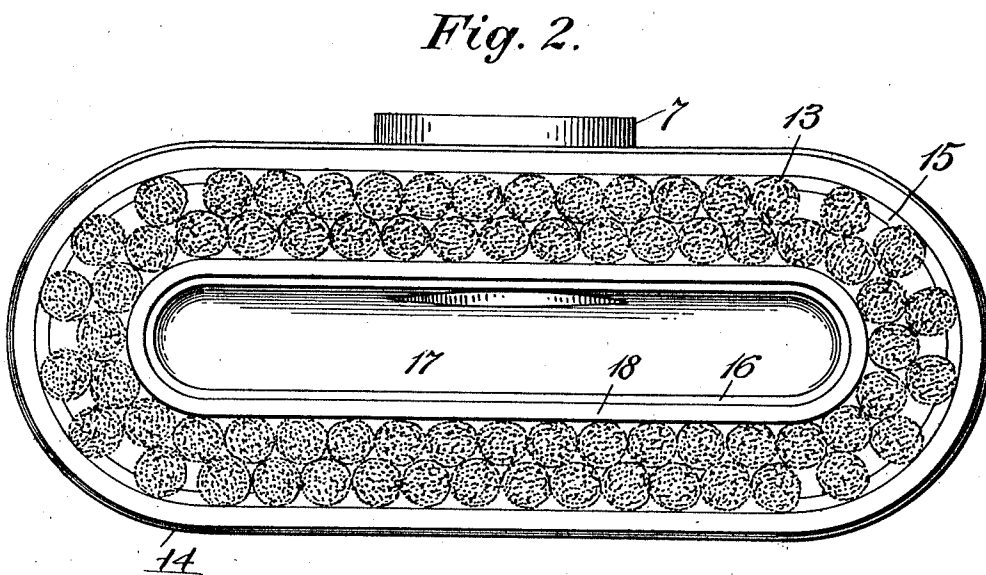
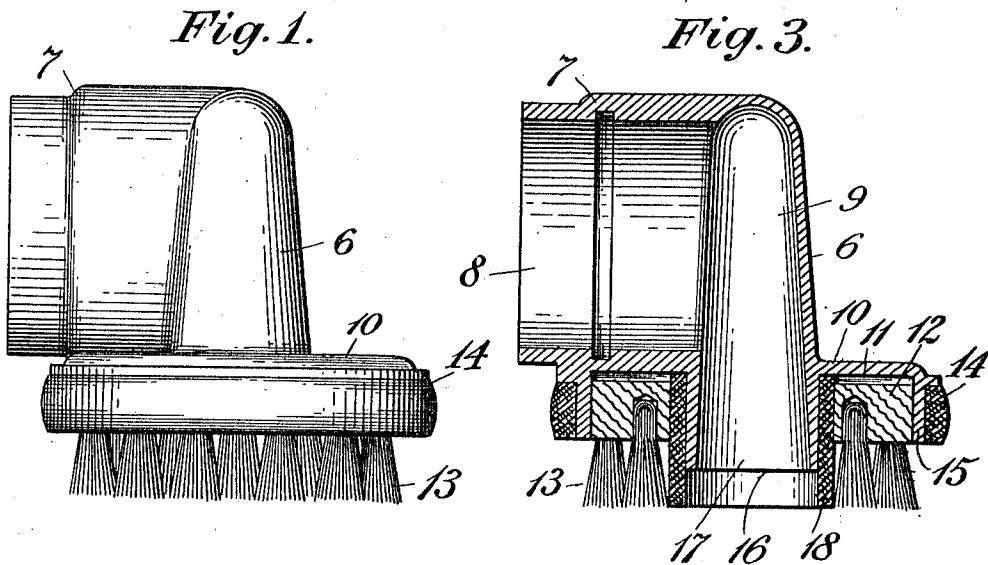


I. H. SPENCER.
CLEANING TOOL.
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1,021,010.

Patented Mar. 26, 1912.



WITNESSES:

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CLEANING-TOOL.

1,021,010.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed January 27, 1908. Serial No. 412,710.

To all whom it may concern:

Be it known that I, IRA H. SPENCER, a citizen of the United States, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented a new and Improved Cleaning-Tool, of which the following is a specification.

My invention relates to the class of cleaning tools more especially adapted for use in connection with pneumatic cleaning, and the object of my invention is to provide a tool of this class having numerous novel features of advantage and utility. A form of tool in the use of which this object may be attained is illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation of a tool embodying my invention. Fig. 2 is a bottom view of the same. Fig. 3 is a view in central transverse section through the tool.

In the use of pneumatic cleaning tools prior to my invention it has been found difficult to thoroughly remove the dust and dirt from certain structures as linoleum, oilcloth and the like, such surfaces after having been cleaned having a dusty appearance. I have found by experiment that by using a comparatively smooth fibered mouth-piece this dirt and dust may be thoroughly removed so that such surfaces as linoleum, oilcloth and the like after having been cleaned will be free from this dusty appearance. It is desirable that such a tool may also be constructed to be used in connection with a brush in which case the flexible fiber mouth-piece should project to a point near the outer end of the bristles. It is therefore important that the parts shall be so constructed and arranged that the suction through the tool will not cause the comparatively thin, flexible mouth-piece to collapse and be drawn inward, thus obstructing the intake opening.

I have provided a tool in which the flexible fibrous mouth-piece is maintained in approximately its normal form, such a structure being illustrated in the accompanying drawings, in which the numeral 6 denotes the head of the tool having a neck 7 to which a nipple, hose or like part may be connected. This neck has an opening 8 leading into a chamber 9 in the head. A shoulder 10 is formed extending about the lower portion of

the head and in this shouldered part a recess 11 is formed. A base 12 of any suitable material is secured within this recess, and extending into this base are the bristles 13 of a brush which are secured in any ordinary manner. A buffer 14 extends about the outer surface of the flange 15 which partially forms the recess.

Within the recess 11 is located a support 16. A mouth 17 opens from the chamber 9, this mouth forming an intake opening for the flow of air into the tool and through the structure. The support 16 extends completely about the mouth 17 and is extended to a point to thoroughly support a mouth-piece 18. This mouth-piece is formed of leather or other suitable fiber, the edge of the mouth-piece being located approximately in the plane of the brushing surface of the bristles of the brush. This mouth-piece should extend some distance beyond the support forming the mouth proper in order that it may work effectually for the purpose intended, and the support 16 is projected within this mouth-piece to a distance to sufficiently support the mouth-piece from collapse under the pressure exerted by the air used for cleaning purposes.

The mouth-piece 18 is constructed of leather or other similar suitable material in order that a surface may be thoroughly cleaned by the rubbing contact. In order to produce the best results this mouth-piece is made comparatively flexible. The intake opening or mouth, in order to dispose of the water, dirt, etc., is of comparatively large area and there is, therefore, a tendency to collapse the mouth-piece and cause it to obstruct the opening into the tool. The support 16 is therefore extended downward to a point somewhat close to the edge of the mouth-piece, in order to prevent such collapse, so that satisfactory results shall be produced in the cleaning operation.

While the support 16 is shown and described as being continuous and extending completely around the mouth, it is not essential to the invention that it shall be so formed.

The brush may be easily removed for the purpose of interchange or renewal and the mouth-piece may also be easily and quickly removed for like purpose, the construction of the parts including the leather mouth-

piece providing means for frictionally holding both the brush and said mouth-piece in place.

I claim—

- 5 1. A head having a chamber and a projection extending from the side of the head and having an opening into said chamber, a flange surrounding the lower side of the head, a support projecting from within said
10 flange, and a mouth-piece secured within said flange and extending about said support.
- 15 2. A head having a chamber with an outlet therefrom and an intake opening thereto, a shoulder formed upon the head and having a recess, a brush base located within said recess and with bristles extending therefrom, a mouth-piece located within an opening in the brush base, and a support for
20 the mouth-piece projecting from the head within said mouth-piece but terminating short of the edge thereof.
- 25 3. A head having a chamber with an outlet therefrom and an intake opening thereto, a shoulder formed upon the head and having a recess, a support integrally formed with said head and projecting through said recess, a mouth-piece surrounding said support and with its edge projecting beyond
30 the edge of the support, and a brush base having bristles and located within said recess.

4. A head having a chamber with an outlet therefrom and an intake opening, a support extending about said intake opening, a
35 flange extending about the head at a distance from the support and forming a recess, a mouth-piece of flexible fibrous material located against said support and projecting beyond its edge, and a brush removably secured within said recess between the
40 mouth-piece and flange.

5. A head having a chamber and a projection extending from the side of the head
45 said projection having an opening into said chamber, a flange extending around the lower side of the head, a support projecting from the head within said flange, a mouth-piece removably secured within the flange and about said support, and a brush secured
50 between the mouth-piece and the flange, said brush and mouth-piece being frictionally held in place.

6. In combination with a suction-head
55 having an intake-opening, a brush disposed about said intake opening, and a wiper band interposed between the brush and the intake opening and located adjacent to said opening, substantially as set forth.

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Witnesses:

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