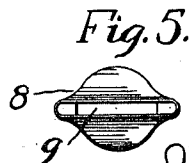
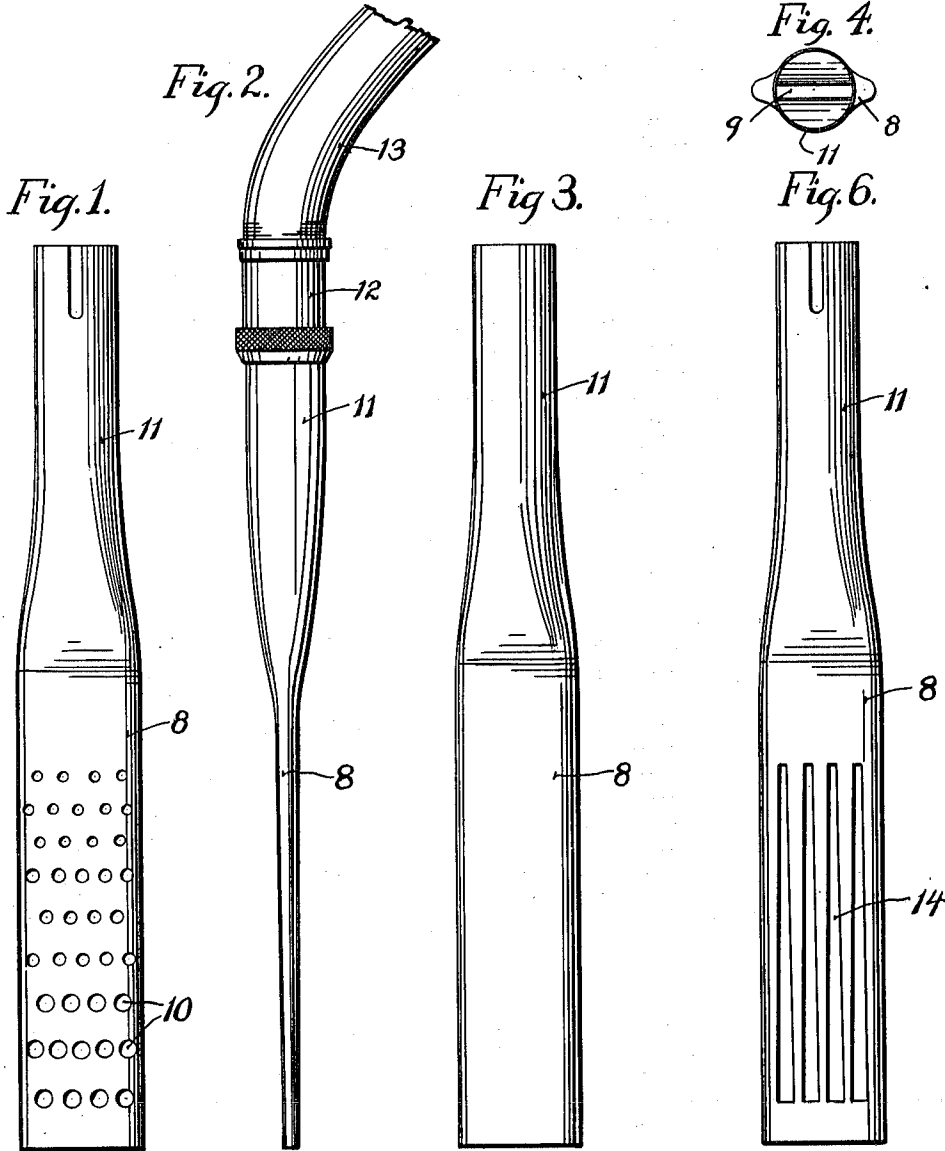


I. H. SPENCER.
PNEUMATIC CLEANING TOOL.
APPLICATION FILED FEB. 24, 1910.

1,053,665.

Patented Feb. 18, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

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PNEUMATIC CLEANING-TOOL.

1,053,665.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed February 24, 1910. Serial No. 545,757.

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 Pneumatic Cleaning-Tool, of which the following is a specification.

My invention relates more especially to the class of tools employed for removing dust, dirt and the like by means of a current of air passing through the tool, and the object of the invention is to provide a device of this class having novel features of advantage and utility.

One form of device embodying my invention and in the use of which the objects sought may be attained is illustrated in the accompanying drawings, in which—

Figure 1 is a view of my improved cleaning tool looking at the flat perforated side. Fig. 2 is an edge view of the same showing a tubular conductor attached thereto. Fig. 3 is a view of the tool looking at the reverse side from that shown in Fig. 1. Fig. 4 is a view of the tool looking at the end to which the hose or tube is attached. Fig. 5 is a view looking at the opposite end of the tool. Fig. 6 is a view of a slightly modified form of tool embodying the invention.

The tool herein illustrated and described is especially applicable for use in removing dust and dirt from recesses and openings difficult of access with ordinary cleaning appliances, the tool being so constructed that it is especially applicable in the cleaning of book shelves and like places, without handling of the books for the purpose, thus enabling the cleaning to be thoroughly and speedily done, the tool being of such shape that it may be readily inserted in the narrow places about the books upon the shelves and racks to enable the dust and dirt to be drawn therefrom by the suction created in the tool. A tool embodying a construction enabling these results to be attained is shown in the drawings herein in which the numeral 8 denotes the body of the tool which is of tubular form and flat and comparatively thin, as shown in Fig. 2 of the drawings. This body may be of any suitable width within the capacity of the apparatus for producing the air currents, and will be of such thickness as to enable

it to be readily inserted between books, at the ends of rows of books upon racks, and over the tops of the books and back of them when located on shelves or racks. The end of this body portion 8 is provided with a mouth 9 of long, narrow proportions, as shown in Fig. 5 of the drawings. Inlets 10 are provided in the flat surface of the tool, these, in the preferred form of construction consisting of perforations, as shown in Fig. 1 of the drawings. These perforations preferably lessen in size from the end of the mouth of the tool inward, in order to enhance the effectiveness of the tool in removing dust, dirt and the like.

The end of the tool opposite the mouth is provided with any convenient means for attachment of a hose or like part to conduct the air currents. In the form of construction herein shown the tool is formed into a shank 11, round in cross-section, and a coupling 12 for attachment of the hose is shown. The opposite face of the tool from that containing the perforations is preferably unbroken and smooth.

In the form of the device shown in Fig. 6 the inlets are in the form of slots 14 through the face of the tool, these slots tapering from a larger width near the mouth to smaller width at the opposite end, the effect, however, being much the same as that of the perforations hereinabove described.

I do not limit my invention and the scope of the following claims to the foregoing illustration and description of the preferred form in which it has been embodied, as the shape of the tool, the location and form of the perforations, and other details may be departed from to a greater or lesser extent without avoiding the invention.

I claim—

1. A cleaning tool having means for attachment to an air tube and including a flat body part having inlets decreasing in size from the end of the tool toward the connection for the air tube and extending through the walls of the flat face of the tool.

2. A cleaning tool having means for attachment to an air tube and including a flat body part having an elongated mouth at its free end and with perforations decreasing in size from the end of the tool toward

the connection for the air tube and extending through the walls of the flat face of the tool.

3. A cleaning tool having a body consisting of a thin flattened tube having means
5 at one end for attachment to an air tube, the flat face of said body having means for flow

of air into the tube decreasing in size from the end of the tube toward the connection for the air tube.

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Witnesses:

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