

A. T. NOE.
EXHAUST OR SUCTION NOZZLE.
APPLICATION FILED SEPT. 21, 1907.

955,897.

Patented Apr. 26, 1910.

Fig. 1.

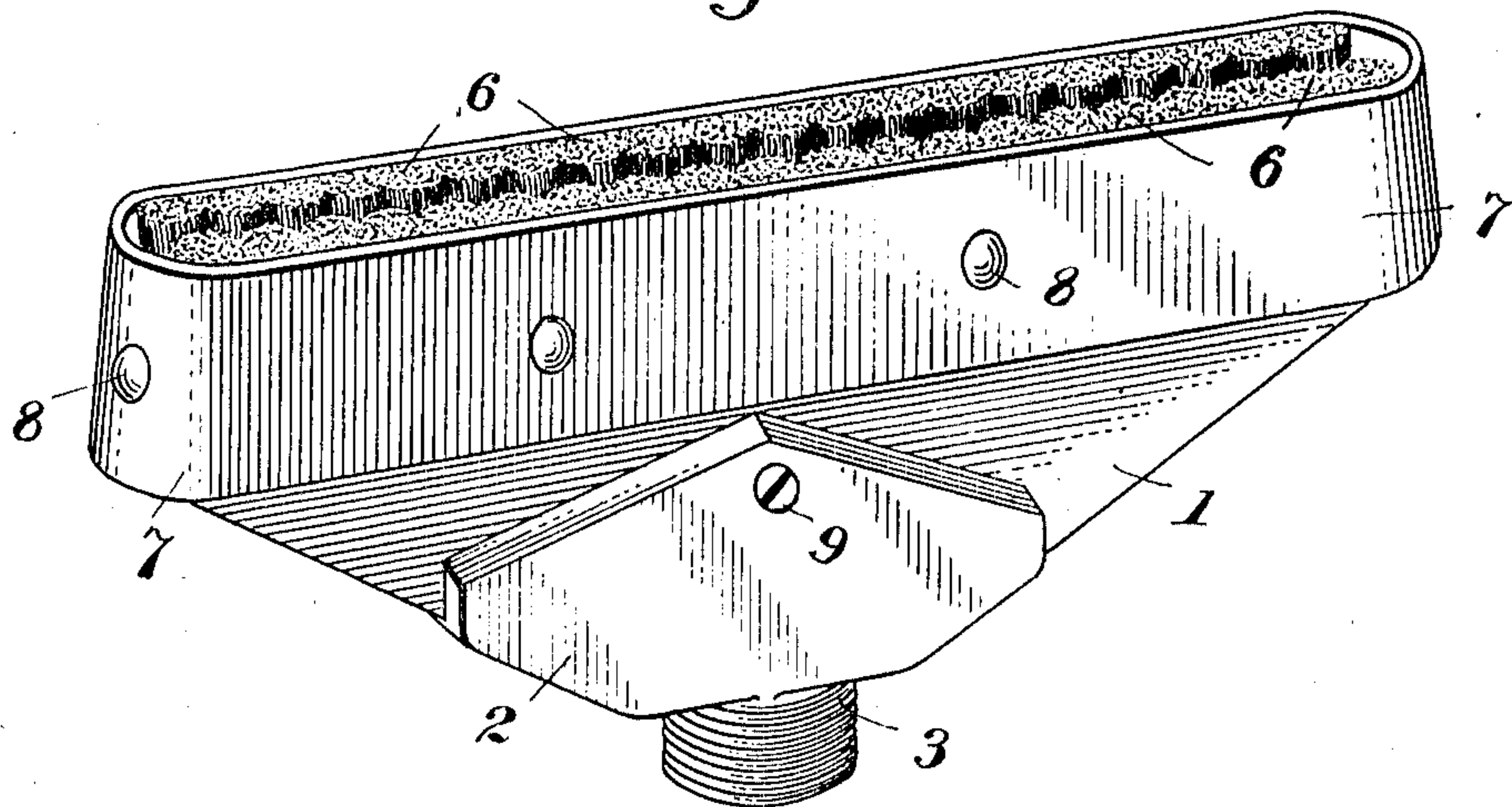


Fig. 2.

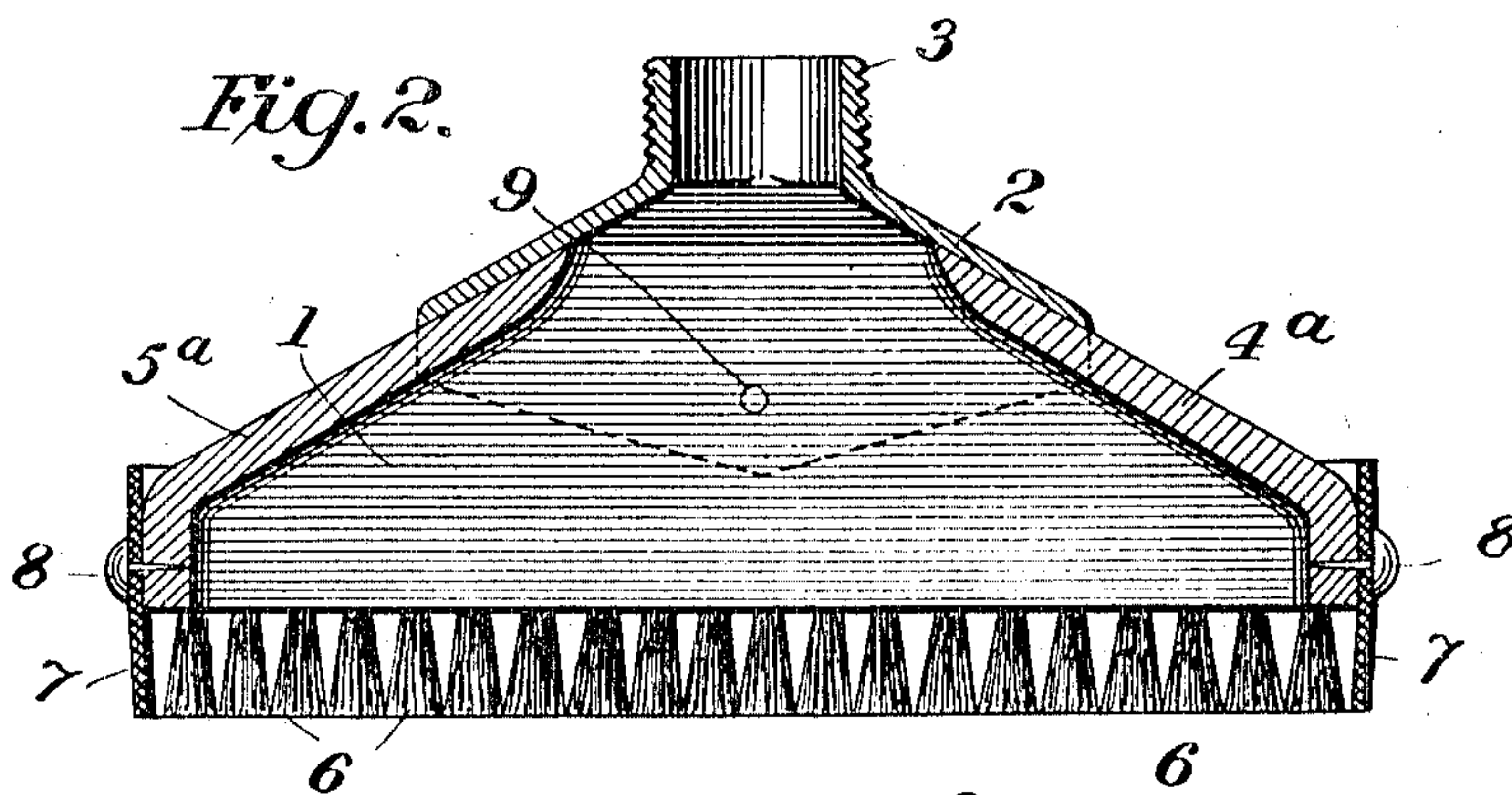
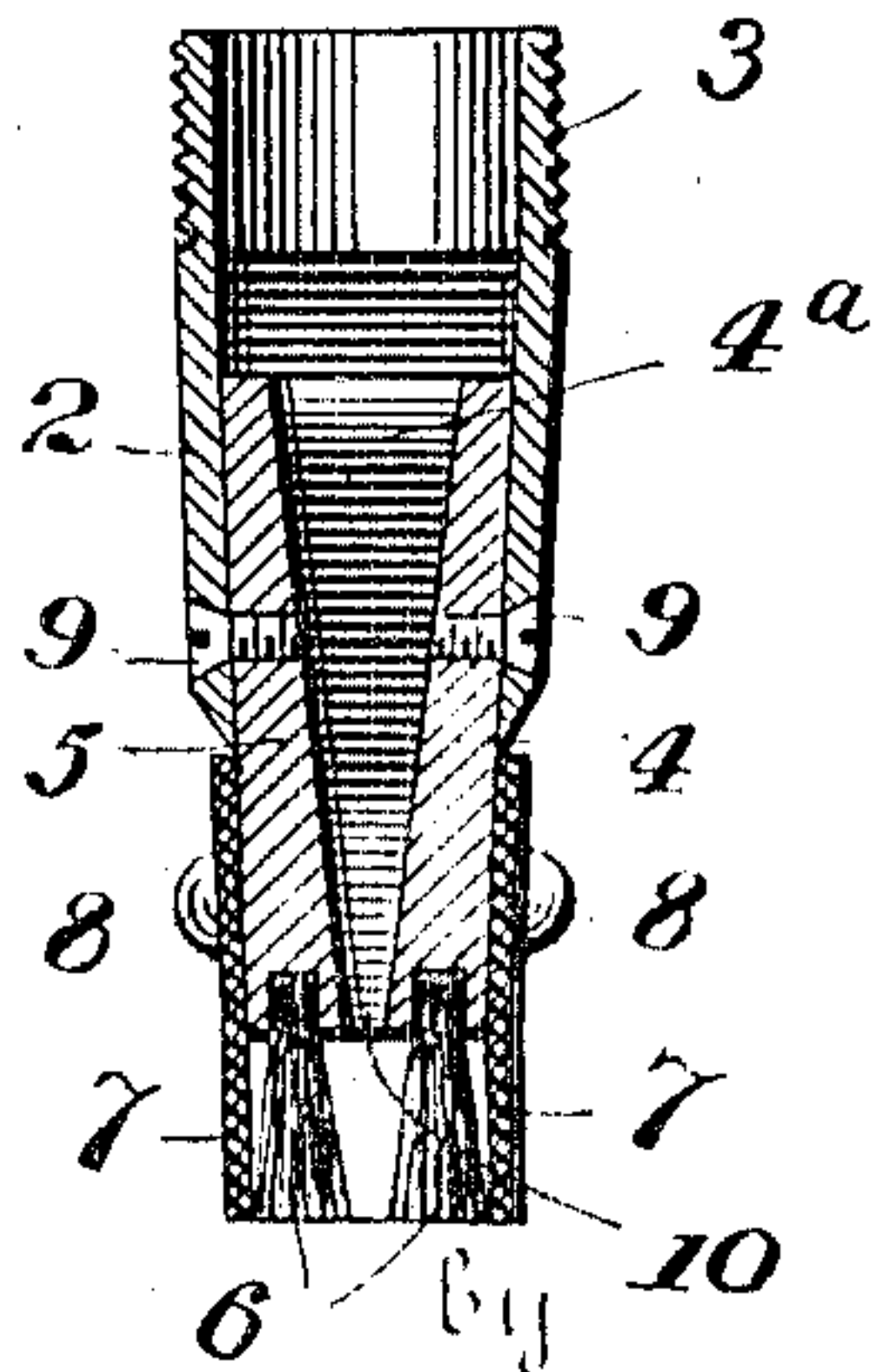


Fig. 3.



Witnesses
J. G. Stinkell
J. Hanson Boyden.

Inventor
Amon T. Noe.
Charles H. Hight
Attorneys

UNITED STATES PATENT OFFICE.

AMON T. NOE, OF PARNASSUS, PENNSYLVANIA, ASSIGNOR TO ELECTRIC RENOVATOR MANUFACTURING COMPANY, OF PITTSBURG, PENNSYLVANIA.

EXHAUST OR SUCTION NOZZLE.

955,897.

Specification of Letters Patent.

Patented Apr. 26, 1910.

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To all whom it may concern:

Be it known that I, AMON T. NOE, a citizen of the United States, residing at Parnassus, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Exhaust or Suction Nozzles, of which the following is a specification.

My invention relates to exhaust or suction nozzles, and more particularly to devices of this character of a type adapted for use in connection with pneumatic cleaning or renovating apparatus.

The primary object of my invention is to provide a device of this character which can be effectively used to remove dust from irregular surfaces, such as moldings, bric-a-brac, etc., in a highly efficient manner.

A further object of the invention is to provide a suction nozzle which can be freely used on finely finished walls, furniture, etc., without fear of injuring the same.

With the above and other objects in view, my invention consists in the construction and arrangement hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved nozzle; Fig. 2 is a central longitudinal section thereof; and Fig. 3 is a central transverse section of the same.

In pneumatic cleaning systems as now employed, it is the common practice to provide a power-driven suction fan or pump, in connection with some suitable type of dust collector, and from such apparatus, to extend a flexible hose, the end of which is fitted with any desirable form of suction nozzle. By moving this nozzle about over floors, walls, or furniture, the dust is drawn into the same, and carried, by means of the flexible hose, to the dust collector.

Referring to the drawings in detail, my improved nozzle comprises a hollow tapering body portion 1, fitted to a metallic cap 2, provided with a screw-threaded sleeve 3, or other suitable means for attachment to a flexible hose, or pipe.

The body portion 1 preferably consists of a pair of side members 4 and 5, attached to the cap 2, as by screws 9, and a pair of curved, tapered, end members 4^a and 5^a, secured between said side members. Thus a hollow chamber is formed, having along its lower edge a central slot 10. On each side

of this slot is arranged a row of tufts or bristles 6, thus forming a brush, one of said rows being set into the lower edge of each of said side members 4 and 5. Secured to the lower part of the body of the nozzle, and embracing said brush, is a flexible wall or curtain 7. As shown, this curtain comprises a continuous band of india-rubber, or other flexible, impervious material, secured to the body by means of tacks 8. It will be noted that this curtain closely hugs the body 1, and the brush, and is of such width that its lower edge lies substantially in the plane of the end of the bristles. It will thus be observed that when resting flat on a plane porous surface, such as a carpet, the curtain causes the air to be drawn in through the carpet, and therefore results in drawing the dust out of the same.

If used to clean upholstery, or other irregular surfaces, such as moldings and the like, the curtain 6 prevents air leaking in through the brush, where it would be useless, and compels it to rush in close to or through the surface being cleaned. This is due to the fact that the curtain being flexible, readily conforms to the contour of the surface against which it rests, and effectively excludes the air.

When used against a flat, impervious surface, such as a wall, the nozzle is slightly tilted, thus leaving a narrow crack along one side, while owing to the flexibility of the curtain, the air is practically excluded from all other points. Too much stress cannot be laid upon this feature, as the efficiency of these nozzles depends entirely upon preventing the entrance of air from all points other than the immediate point from which it is desired to remove the dust. It is obvious that brush nozzles if constructed with rigid walls, cannot accomplish this result, especially on irregular surfaces.

It will also be noted that there are no rigid parts whatever around the lower edge of my improved nozzle, and therefore the same may be moved freely over furniture and fittings without danger of marring them.

It will thus be seen that I have provided a very efficient and useful nozzle, and it is thought the numerous advantages thereof will be readily appreciated by those skilled in the art.

Having thus described my invention, what

I claim as new and desire to protect by Letters Patent is:—

1. A suction nozzle comprising a relatively long and narrow hollow body portion 5 having an elongated slit in the lower end thereof which leads into said hollow body, tufts of bristles projecting from the lower end of the hollow body and disposed along opposite sides of said slit, a flexible impervious curtain surrounding said tufts of bristles, the ends of the bristles and the lower edge of the curtain lying in substantially the same plane, and a hollow sleeve projecting from the said body portion.

15 2. A suction nozzle comprising a hollow body portion having provision along its lower edge for the entrance of dust laden air, bristles mounted in said body portion adjacent said air entrance, and a flexible impervious curtain surrounding said bristles, 20 the ends of the bristles and the lower edge of said curtain lying in substantially the same plane.

3. A suction nozzle comprising a hollow body portion having a slit along the lower 25 edge thereof, bristles adjacent said slit, and a flexible, impervious curtain surrounding said bristles, the ends of the bristles and the lower edge of said curtain lying substantially in the same plane. 30

4. A suction nozzle comprising a hollow body portion of tapering form, having a narrow slit along its lower edge, a row of tufts of bristles disposed along each side of said slit, and a flexible, impervious curtain 35 secured to said body portion, and embracing said bristles, the ends of said bristles lying in substantially the same plane as the lower edge of said curtain.

In testimony whereof I have affixed my 40 signature in presence of two witnesses.

AMON T. NOE.

Witnesses:

A. H. KAUFMAN,
C. L. LIVINGSTON.