

J. F. LACOCK.
VACUUM CLEANING APPARATUS.
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943,424.

Patented Dec. 14, 1909.

Fig. 1.

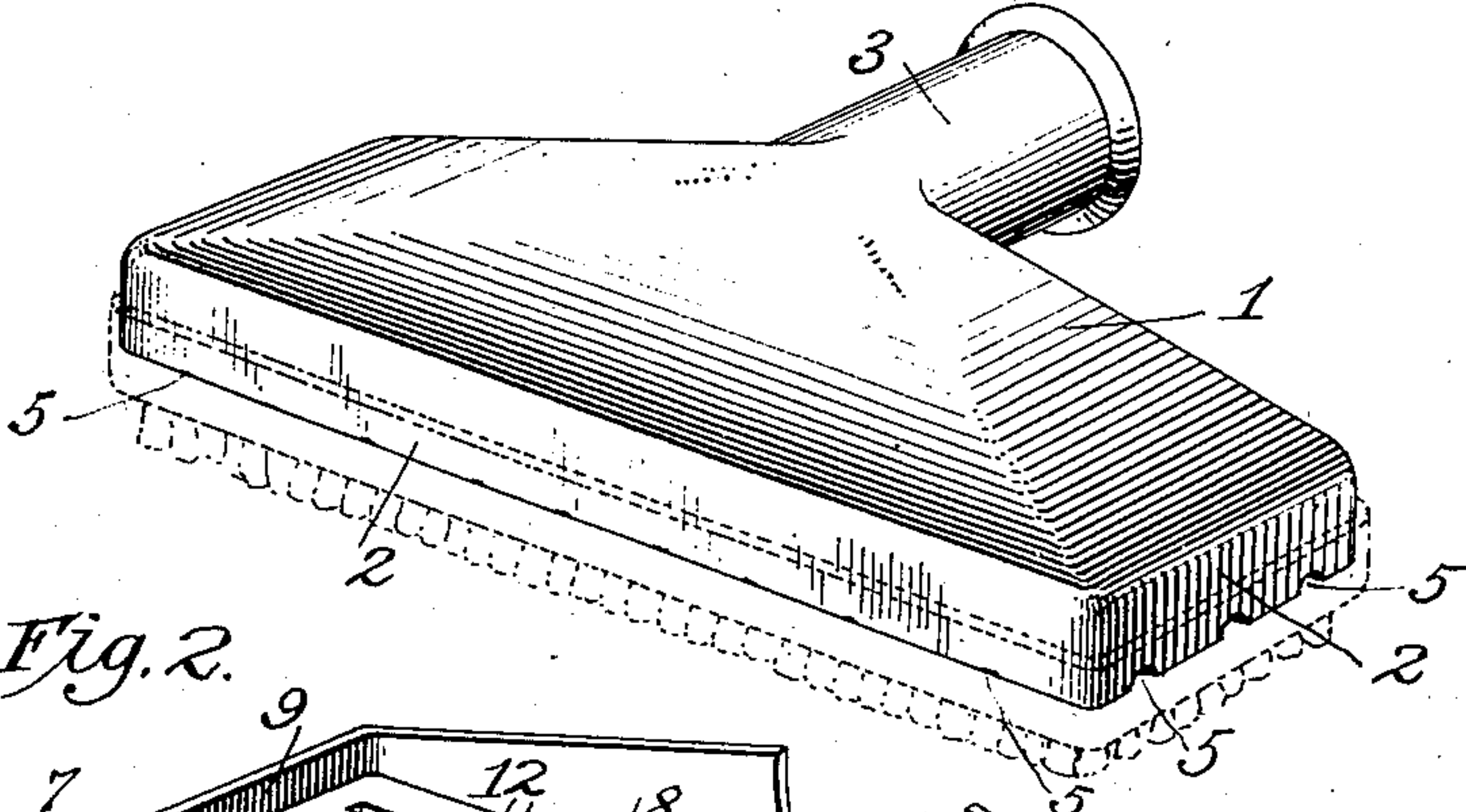


Fig. 2.

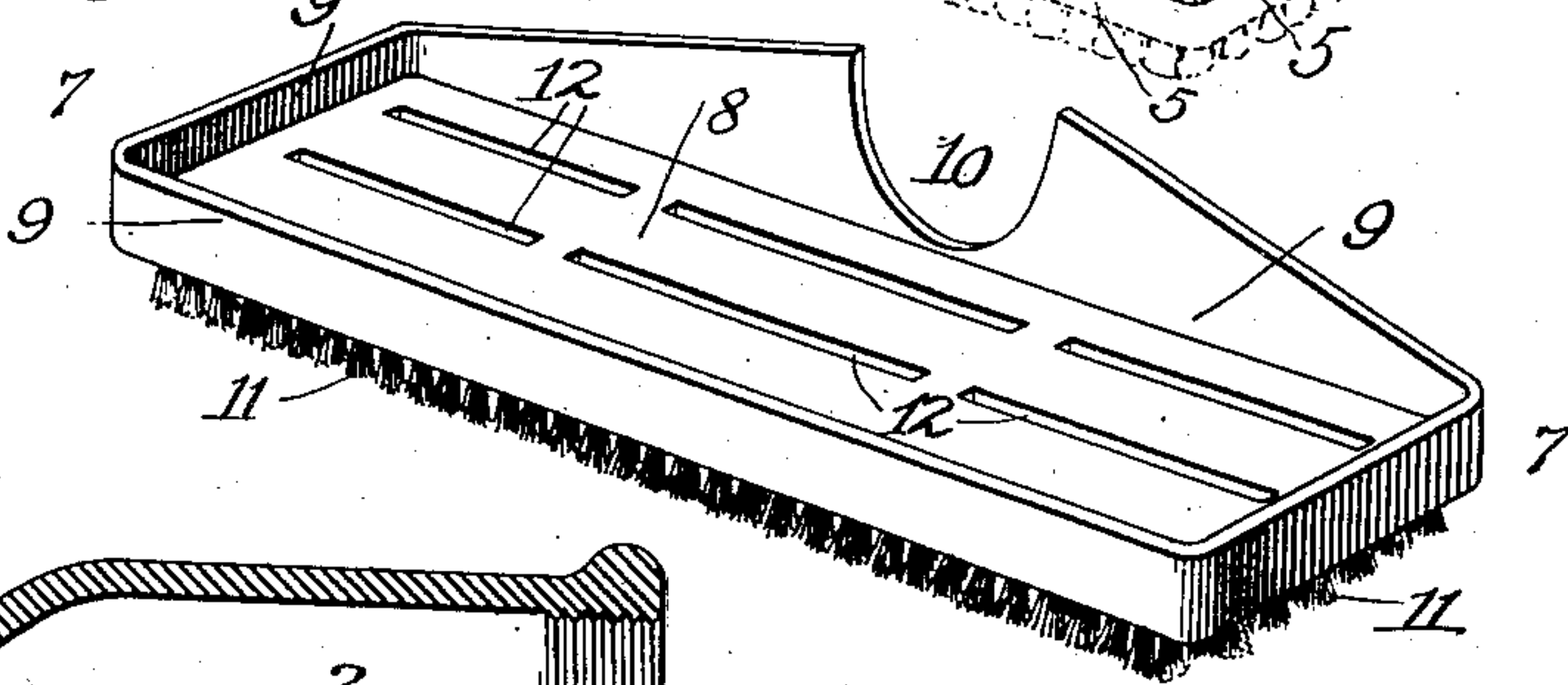


Fig. 3.

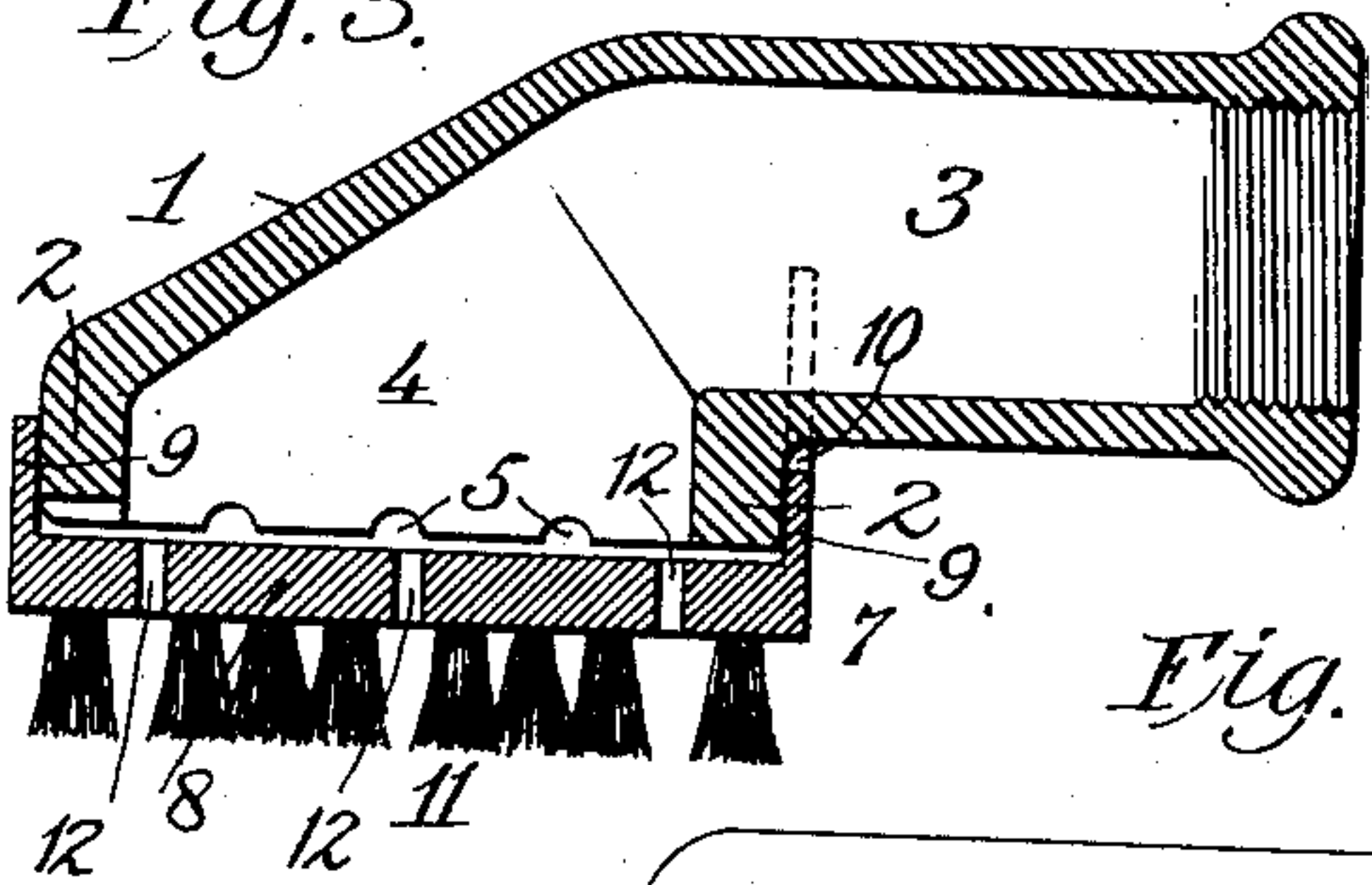
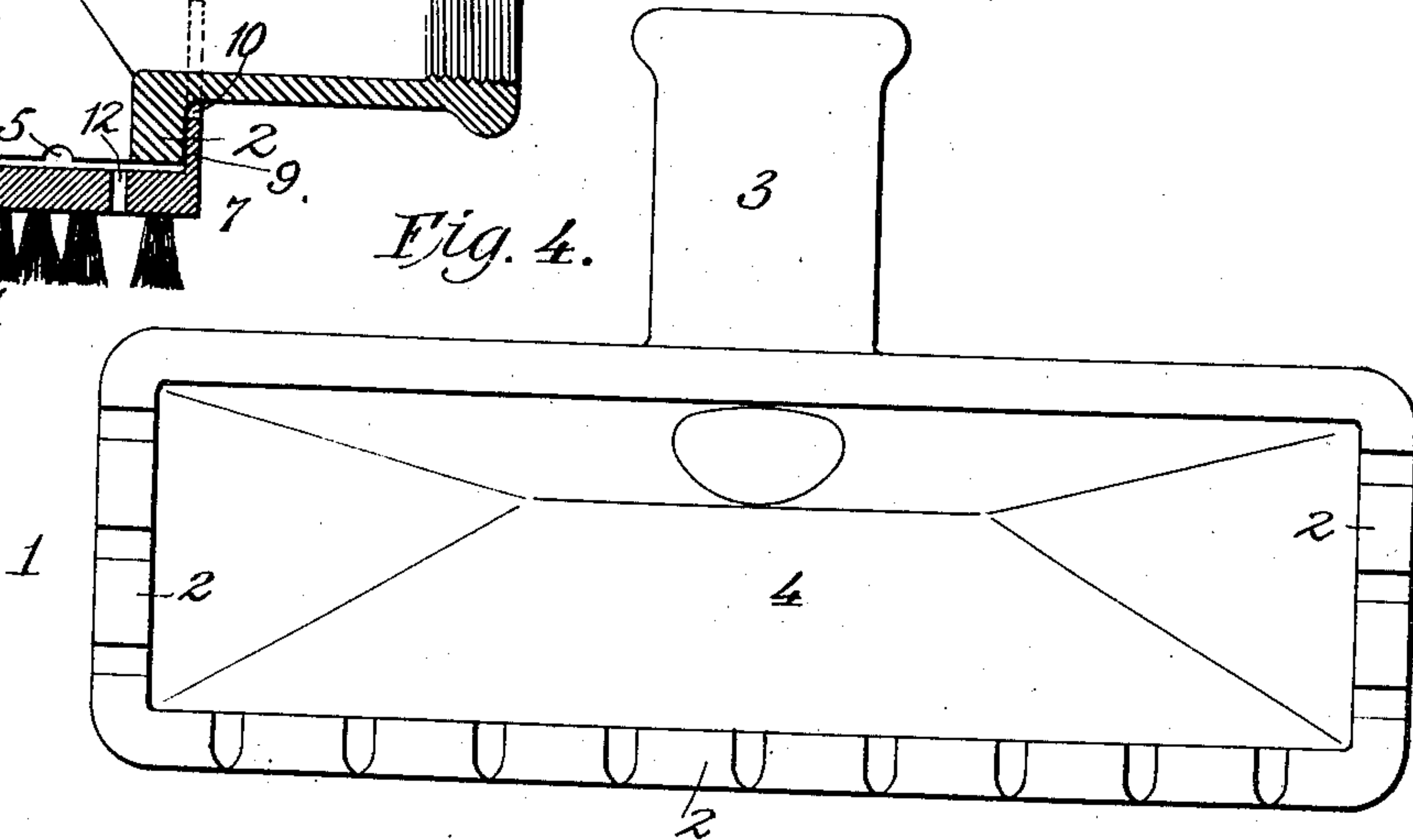


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN F. LACOCK, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO VORTEX VACUUM COMPANY, A CORPORATION OF MASSACHUSETTS.

VACUUM CLEANING APPARATUS.

943,424.

Specification of Letters Patent.

Patented Dec. 14, 1909.

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To all whom it may concern:

Be it known that I, JOHN F. LACOCK, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Vacuum Cleaning Apparatus, of which the following is a specification.

This invention relates to suction cleaning apparatus; and has for its object to provide an improved nozzle used in connection with a brush for sweeping up dust or dirt, which latter is drawn into the nozzle through suitable apertures formed in the back of the brush and deposited in a receptacle forming a part of the suction apparatus of the machine. The nozzle itself is of the general type described in my application Serial No. 484,006, and no specific claim is herein made thereto.

The construction and arrangement of the nozzle and its attendant brush are simple and efficient, the parts being so arranged that the brush may be attached to the nozzle by frictional contact alone, thus enabling it to be readily detached.

With these and other objects in view the invention consists of the novel construction, combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which--

Figure 1 is a perspective view of the nozzle, with the brush shown in position by dotted line; Fig. 2, a perspective view of the brush; Fig. 3, a central cross section of the nozzle with the brush attached; and Fig. 4 an underside view of the nozzle.

Similar reference numerals are used to indicate like parts in all the figures.

The numeral 1 indicates the body of the nozzle, here shown as rectangular in shape, and formed with a downwardly projecting flange 2. Instead of being a rectangular flanged body, it may be of any other suitable shape.

The top of the nozzle inclines upwardly from the ends and one side toward a tubular neck 3 which projects from the other side for the attachment thereto of a flexible

tube or hollow handle. If a hollow handle be employed the suction tube will be secured to its outer end and lead to any approved type of exhaust apparatus. The walls of the nozzle are relatively thin and inclose a chamber 4 open at the bottom and leading to the tubular neck.

The downwardly projecting flange 2 which rests on the surface to be cleaned is provided with a plurality of transverse slots 5, Fig. 4, which, when the device is in operation, admit air from without into the chamber 4.

The nozzle 1 may be used alone—as set forth in my said other application—for removing dust and dirt by holding the flange 2 against the surface or article to be cleaned and starting the suction apparatus, thereby producing a partial vacuum in the pipe and the chamber 4 which causes the dust and dirt to be drawn into a receptacle forming a part of the suction apparatus (not shown). Through the notches 5 the air, circulating around the outside of the flange 2, more or less dust laden, is drawn into the chamber 4 of the nozzle thus preventing any particles from escaping into the surrounding atmosphere. My present invention, however, generally consists in the combination of a nozzle and a brush, and when it is desired to use one in connection with a suction nozzle, the brush herein described is employed. It is formed with a flat head 8 provided with a surrounding upstanding flange 9 of such size and shape as to fit tightly over the flange 2 of the nozzle. A portion of the brush flange 9 is removed, as at 10, to admit the tubular neck 3 of the nozzle. The bristles 11 of the brush are preferably attached to the head in longitudinal rows. Between the rows or groups of rows of bristles are slots 12 cut through the head 8 to admit dust laden air to the chamber 4 of the nozzle. The brush is a useful adjunct in places where dirt has hardened and suction alone fails to detach it. The brush can be quickly placed in position and as easily removed.

Having thus described my invention, I claim:—

5 A suction nozzle comprising a chambered body having a depending flange surrounding the same, and a tubular outlet, combined with a removable brush head having an upstanding flange adapted to fit over the depending flange of the nozzle, said brush head being provided with rows of bristles, and slots disposed in parallel relation to

said rows of bristles, and between the same, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

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JOHN F. LACOCK.

Witnesses:

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