

T. B. BAILLIE.
SUCTION CLEANING APPARATUS.
APPLICATION FILED DEC. 2, 1910.

1,069,754.

Patented Aug. 12, 1913.

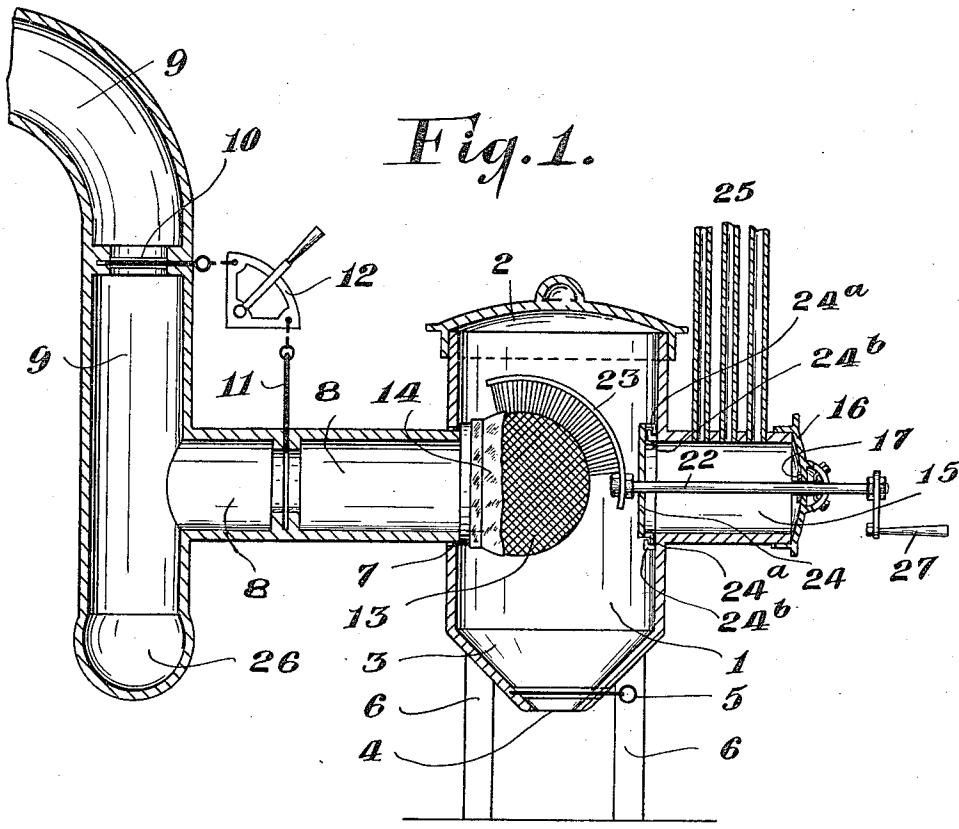


Fig. 1.

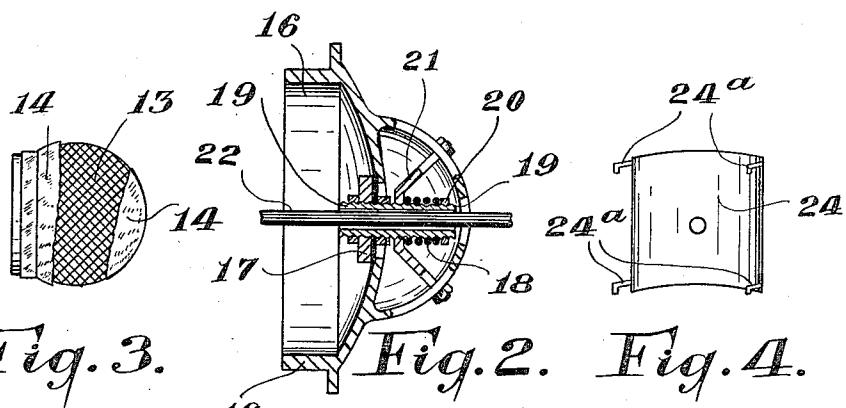


Fig. 3.

16

Fig. 2. Fig. 4.

Witnesses:

H. G. Dieterich
L. Derville.

Inventor:
Thomas Brown Baillie.
By
Neduskin & Fairbanks
Attorneys:

UNITED STATES PATENT OFFICE.

THOMAS BROWN BAILLIE, OF GLASGOW, SCOTLAND.

SUCTION CLEANING APPARATUS.

1,069,754.

Specification of Letters Patent. Patented Aug. 12, 1913.

Application filed December 2, 1910. Serial No. 595,183.

To all whom it may concern:

Be it known that I, THOMAS BROWN BAILLIE, a subject of the King of Great Britain, residing at Glasgow, Scotland, have invented certain new and useful Suction Cleaning Apparatus, of which the following is a specification.

This invention relates to a suction cleaning apparatus which is specially adapted for use in conjunction with a pneumatic cash or transmission service.

Under my invention I provide a simple, and, if desired, portable suction cleaning apparatus which is adapted to be connected with or applied to the suction conduit or tube of a pneumatic cash or transmission apparatus in such manner that the suction in said conduit or tube draws the dust into a dust box or collector from which the same can be discharged.

In order that the invention may be clearly understood I have hereunto appended an explanatory drawing which shows, by way of example, one convenient mode of constructing the apparatus.

On the drawing:—Figure 1 is a vertical section of the apparatus. Fig. 2 is an enlarged section of the air inlet valve. Fig. 3 is a view of the dust screen or filter. Fig. 4 is a view of the baffle plate.

The cleaning apparatus comprises a dust box 1 which may be of cylindrical form and be provided with a removable lid 2 and a conical discharge 3 having its outlet 4 provided with a slide valve 5. The dust box which may be supported on legs 6 or be mounted on a carriage, has an opening 7 through which passes the branch 8 of the suction pipe 9 of the cash system. As shown the pipe 9 and the branch 8 are provided with valves 10, 11, both of which can be operated simultaneously by means of a quadrant 12 or otherwise. Secured on the end of the branch 8 is a globular filter which may be made of braided wire or wire gauze 13 covered with cloth 14. The dust box is also provided with a branch 15 having a removable cover 16 thereon, said cover having an air inlet valve 17 which is held normally closed, see Fig. 2, by a spring 18 on the valve sleeve 19, the tension of the spring being regulated by a nut 20 on said sleeve, the spring bearing at one end against the fixed bracket 21 and at the other end against the said nut. Passed through the valve sleeve 19 is a spindle 22 which carries, at

its inner end, a curved brush 23, said brush bearing on the filter cloth 14. Removably secured at the inner end of the branch 15 is a baffle plate 24, said baffle plate being concave as shown at Fig. 4, and having thereon four hooks 24^a capable of engaging corresponding socket parts 24^b provided on the interior of the box 1. A hole in the said baffle plate serves as a bearing for the spindle 22. Suction tubes 25 are led from the branch 15 to different floors or parts of the establishment and ordinary suction nozzles with flexible tubes can be attached to these tubes 25 when cleaning. The quadrant 12 can be attached to the slide valves 10, 11, by means of the links or in other suitable manner.

The suction from the Roots blower or other suction device of the cash transmission system acts in the pipe 26 and when the valve 10 is closed (so as to cut off the cash connections) and the valve 11 opened, then the suction acts through the branch 8, box 1, branch 15 and tubes 25 and extracts the dust in the usual manner, the dust passing by the baffle plate 24 into the box 1 and being discharged therefrom when the valve 5 is opened. Dust collecting on the filter 13, 14, can be brushed off from time to time by turning the brush 23 by means of the crank handle 27. Should the suction at any time become excessive then the valve 17 automatically opens and supplies air, the action of the valve being regulated by the spring 18.

Having now fully described my invention, what I claim and desire to secure by Letters Patent is:—

1. In combination in a vacuum cleaning apparatus, a dust box, a suction pipe connected therewith, a chamber connected with the dust box, a filter within the dust box, a rotary brush for cleaning the filter, a shaft and means for operating the brush, and a baffle plate extending over the inner end of the chamber, said baffle plate furnishing a bearing for the shaft of the brush, substantially as described.

2. In combination in a vacuum cleaning apparatus a dust box, a suction pipe connected therewith, a chamber also connected with the dust box, a filter within the dust box, a brush for cleaning the filter, a shaft extending through the chamber for operating the brush, a valve controlling an opening in the chamber, a sleeve carrying the

valve and slidably mounted on the brush shaft, and a spring surrounding the sleeve and pressing the same to close the valve, substantially as described.

5 3. In combination, in a vacuum cleaning apparatus, a dust box, a suction pipe connected therewith, a chamber also connected with the dust box, a filter within the dust box, a brush for cleaning the filter, a shaft 10 extending concentrically through the chamber for operating the brush, a valve controlling an opening in the chamber, a sleeve carrying the valve and slidably mounted on the brush shaft, a baffle plate at the inner end

of the chamber between the same and the 15 dust box, said shaft having a bearing in said baffle plate, a bearing for the outer end of the shaft, means for operating the shaft, and a spring surrounding the sleeve and pressing the same to close the valve, sub- 20 substantially as described.

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

THOMAS BROWN BAILLIE.

Witnesses:

GEORGE WOLF BRUCE,
WILLIAM GALL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
