

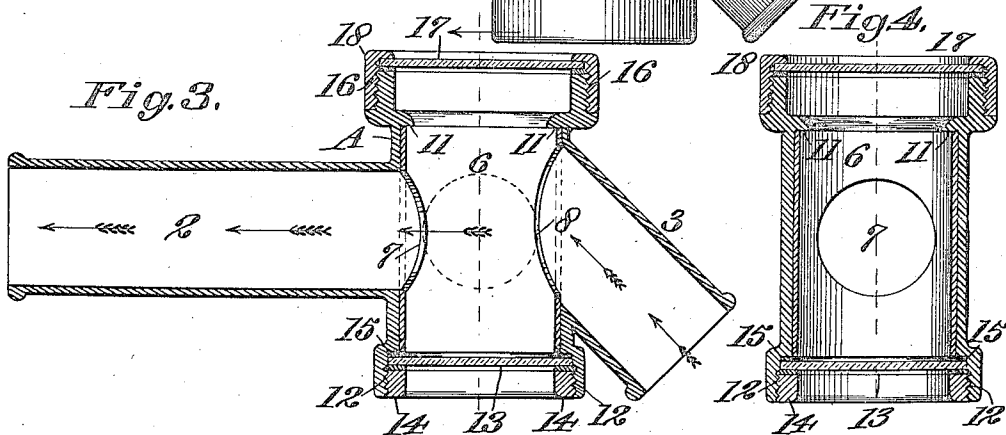
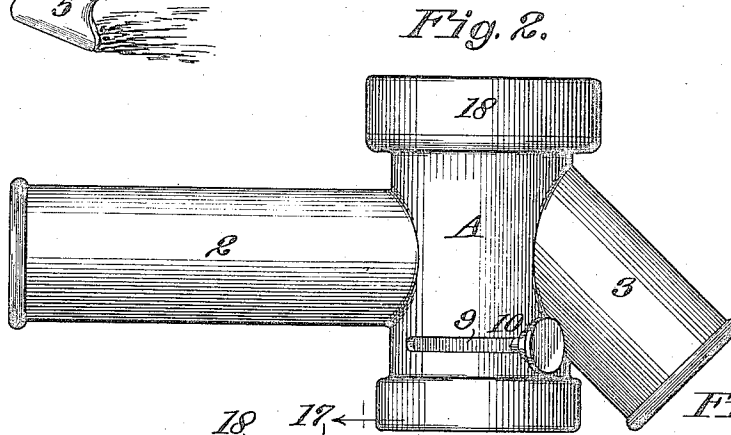
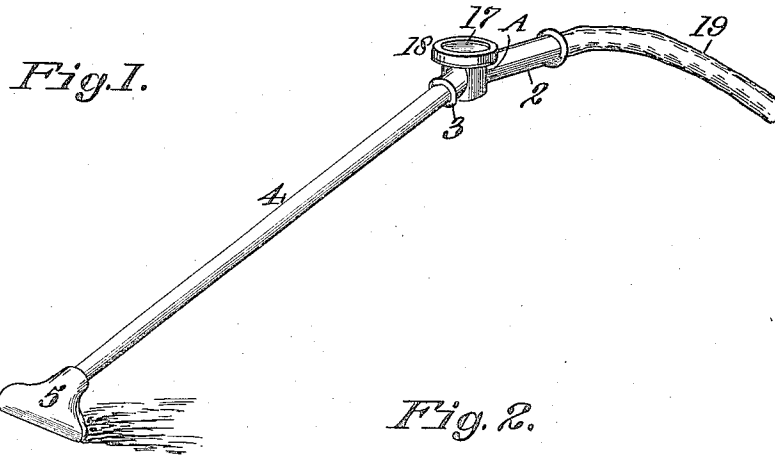
E. L. B. ZIMMER.

AIR CONTROL AND SIGHT ATTACHMENT FOR VACUUM CLEANER TOOLS.

APPLICATION FILED MAR. 23, 1914.

1,124,575.

Patented Jan. 12, 1915.



WITNESSES:

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ERNEST L. B. ZIMMER, OF OAKLAND, CALIFORNIA.

AIR CONTROL AND SIGHT ATTACHMENT FOR VACUUM-CLEANER TOOLS.

1,124,575.

Specification of Letters Patent.

Patented Jan. 12, 1915.

Application filed March 23, 1914. Serial No. 826,636.

To all whom it may concern:

Be it known that I, ERNEST L. B. ZIMMER, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Air Controls and Sight Attachments for Vacuum-Cleaner Tools, of which the following is a specification.

This invention relates to improvements in an air control and sight attachment for vacuum cleaner tools.

The objects of the invention are, first, to provide a simple form of valve which can be easily and quickly operated by the user; second, to provide a sight attachment through which the condition of the air may be easily observed; and, third to so construct the casing in which the valve and sight attachment are mounted that it will serve as a handle and connection to which the suction hose and cleaner tools may be attached.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view showing the application of the invention. Fig. 2 is a side elevation of the valve casing. Fig. 3 is a central vertical section through same. Fig. 4 is a vertical cross section through the valve and casing.

Referring to the drawings, A indicates a casing having a hose connection 2 formed on one side and an angularly disposed tubular extension 3 on the opposite side to which a tube 4 and suction shoe 5 may be attached. Turnably mounted within the casing is a sleeve valve 6, having openings 7 and 8 formed therein which are adapted to register with the hose and tube connecting openings of the casing respectively. One side of the casing is slotted, as at 9, and suitably secured to the sleeve member, and projecting through the slot, is a headed projection 10 by which the valve may be turned to bring the openings 7 and 8 into and out of register with respective inlet and outlet openings formed in the casing. The upper end of the casing has formed interiorly thereof an annular shoulder 11 which limits the upward movement of the valve, and the lower end of the casing is slightly enlarged and internally threaded, as at 12, to form a seat for a cir-

cular glass section 13 and a nut 14; a suitable form of washer 15 being interposed between the glass and the end of the valve to secure the valve in position with relation to the shoulder 11. The extreme upper end of the casing is similarly slightly enlarged and externally threaded, as at 16, to form a seat for a circular glass disk 17 and a lock nut 18. The purpose of the sight openings thus formed, together with the operation of the several connected parts will be as follows: Referring to Fig. 1, when the operator is cleaning a carpet or similar article, it is only necessary to turn the valve into the open position through the medium of the headed projection 10. This will permit the air and dust to enter the suction shoe 5 and pass through tube 4, valve 6 and hose 19. The operator only passes the suction shoe over the carpet until this appears to be cleaned. This has heretofore had to be determined more or less by guess work and the appearance of the carpet. The sight openings formed in the casing can in this instance be used by the operator to determine the condition of the air. The operator will, therefore, continue the operation until the air passes through the valve perfectly free from dust and any guess work in connection with determining whether or not the carpet, or like article, has become perfectly clean is entirely eliminated.

The device does not only form a casing for the valve, with sight attachment, but also serves the function of a handle which may be held in the hand of the operator. It also serves as a connection for the suction hose and extension tube 4. It, furthermore, permits the operator to open or close the suction without dropping the tool and running over to the wall connection to open or close the valve.

While the device has been particularly described for use in connection with vacuum cleaners and the like, it is obvious that it will prove of equal importance in connection with sand blasting, spraying trees, painting woodwork, calcimining and similar purposes.

A device constructed as here shown is simple in construction and efficient in action, as it provides instant access to the valve, and this in turn is so constructed that it opens or closes both casing openings at once, thus providing against leakage and loss of air at this point.

The materials and finish of the several parts of the mechanism are such as the experience and judgment of the manufacturer may dictate.

5 Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In an apparatus of the class described, a casing, a valve turnably mounted in the casing, inlet and outlet openings formed in the casing controlled by said valve, an axial opening formed in the valve, and sight openings formed in the casing above and below said axial opening, said sight openings 15 having a greater diameter than said valve so as to permit observation of the entire valve under working conditions.

2. In an apparatus of the class described in combination, a cylindrical casing, a valve 20 turnably mounted in said casing, a shoulder formed in said casing above said valve and forming a bearing for one end of the valve, inlet and outlet openings formed in the casing controlled by said valve, an axial opening formed in the valve seats formed in said casing above and below said valve, trans-

parent members mounted in said seats, and means for clamping said members in position.

3. In an apparatus of the class described 30 in combination, a casing, a valve turnably mounted in said casing, a shoulder formed in the casing above said valve to form a bearing for one end thereof, inlet and outlet openings formed in the casing and controlled by said valve, an axial opening 35 formed in the valve, seats formed in said casing above and below said valve, transparent members mounted in said seats, means for clamping said members in position, a slot formed in the side of the casing, 40 and a projection formed on the valve, and extending through said opening, said projection being adapted for partial rotation concentrically of the casing. 45

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ERNEST L. B. ZIMMER.

Witnesses:

L. M. McDougall,
H. G. Johnston.