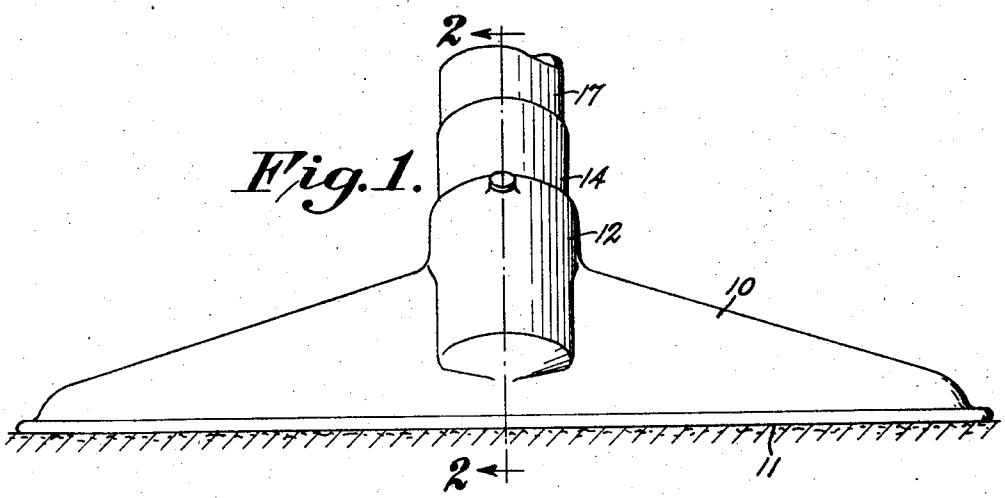
Jan. 13, 1942. L. J. F. ELL 2,269,447

SUCTION NOZZLE

Filed June 26, 1936

Fig. 1.



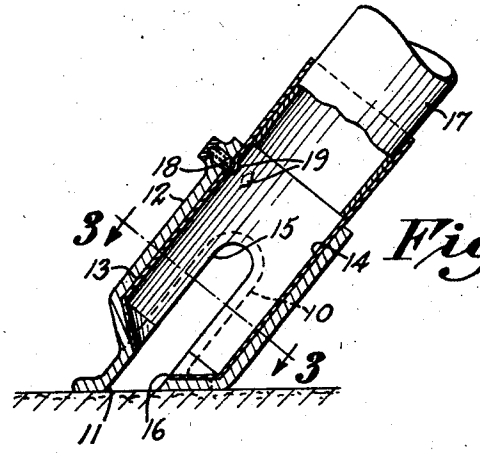
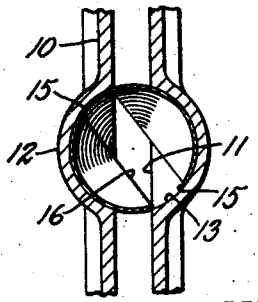


Fig. 2.

Fig. 4.



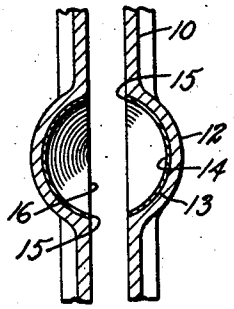


Fig. 3.

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Patented Jan. 13, 1942

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UNITED STATES PATENT OFFICE

2,269,447

SUCTION NOZZLE

Lars Johan Faith Ell, Stockholm, Sweden, assignor to Electrolux Corporation, Dover, Del., a corporation of Delaware

Application June 26, 1936, Serial No. 87,389
In Switzerland July 2, 1935

1 Claim. (Cl. 15—155)

My invention relates to suction nozzles for use in connection with a vacuum cleaner and particularly to a duplex nozzle provided with a large opening and having a valve member which may be selectively positioned so as to obtain a substantially uniform flow of air through the entire length of the nozzle opening, or so as to obtain a concentrated flow restricted substantially to a small portion of the nozzle opening. When the entire opening is in use it will cover a larger surface, thereby increasing the speed of cleaning. However, if a concentrated suction is desired in order to remove dirt which air flowing through the entire opening will not pick up, a more concentrated flow through the restricted portion may be obtained.

The objects and advantages of my invention will be apparent from the following description considered in connection with the accompanying drawing which forms part of this specification, and of which:

Fig. 1 is a front view of a preferred embodiment of my invention;

Fig. 2 is a cross-sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a cross-sectional view of a portion of the device taken on the line 3—3 of Fig. 2; and

Fig. 4 is a view similar to Fig. 3, but with certain parts in a different position.

Referring to the figures, reference character 10 designates a hollow nozzle body defining a lower elongated suction opening 11. Integral with the central part of body 10 is a cylindrical portion 12, which provides a cylindrical bore 13 which extends within the body to the bottom thereof, as is apparent from Fig. 2. The hollow body is thus divided by the central bore into two laterally extending elongated branches which communicate with opposite sides of the bore. Rotatably mounted within bore 13 is a cylindrical valve member 14 formed with diametrically opposed ports 15 which may be brought into registry with the elongated branches, and an open lower end 16 permanently in communication with the central part of the elongated suction opening. A conduit 17 is adapted to be connected to a source of suction and is receivable within valve member 14. A spring pressed detent 18 engages angularly disposed recess 19 in the valve member for retaining it in either of two different positions.

In the position of the parts shown in Figs. 2 and 3, it will be seen that ports 15 in the opposite sides of valve member 14 are in alignment with the interior of the lateral branches of the nozzle body 10, wherefore a substantially even flow of air into the nozzle body through the entire length of the elongated opening 11 is obtained. However, if a concentrated flow of air is desired, conduit 17 is rotated in order to rotate valve member 14 to the position shown in Fig. 4. In this position the ports 15 in the sides of the valve member are closed and consequently the only opening is through the slot 16 in the bottom of the valve member. Therefore, all of the air must pass through this restricted opening, thus producing a concentrated flow of air at this point.

While I have shown and described one more or less specific embodiment of my invention it is to be understood that this has been done for purposes of illustration only, and that the scope of the invention is not to be limited thereby, but is to be determined by the appended claim viewed in the light of the prior art.

What I claim is:

In a suction nozzle, a hollow body having fixed structure forming a centrally located cylindrical bore and laterally extending elongated hollow branches providing an elongated undivided and continuous suction opening, said bore having lateral openings affording communication between said branches and said bore, a cylindrical valve member having a bottom port and oppositely disposed side ports rotatably mounted in said body portion, said valve member being rotatable between a position in which said ports establish communication between said outlet and all portions of said elongated suction opening and a position in which the sides of said valve member restrict the area of said suction opening which is in communication with said outlet to substantially that defined by the bottom port of said valve member, and a suction conduit engaged and rotatable with said valve member whereby turning of the conduit effects rotation of the valve member.

LARS JOHAN FAITH ELL.