May 17, 1938. A. ERIKSSON-JONS 2,117,329

SUCTION NOZZLE

Filed June 26, 1936

Fig. 1.

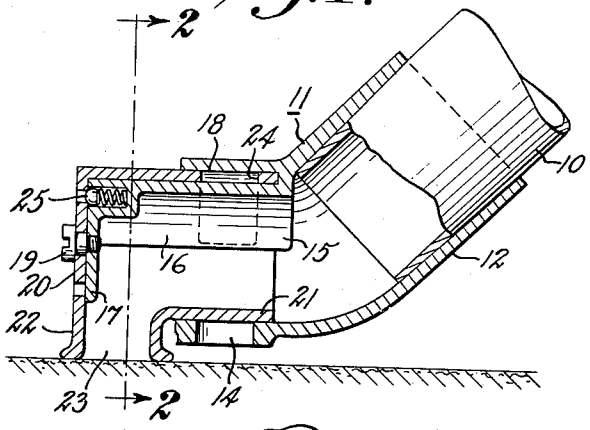


Fig. 2.

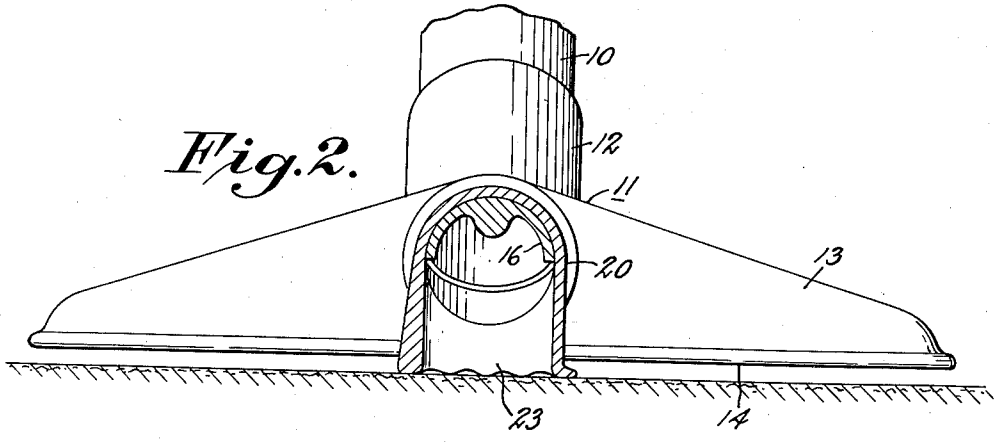
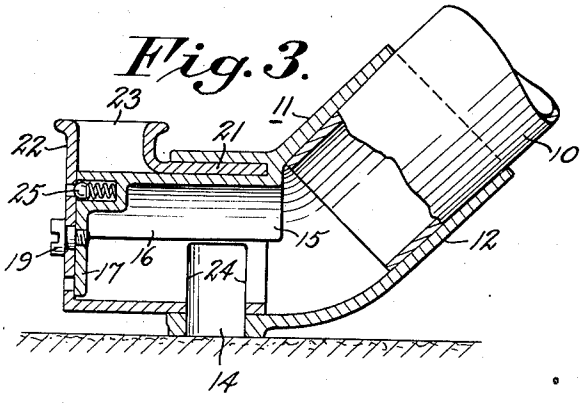


Fig. 3.



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2,117,329

SUCTION NOZZLE

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In Switzerland July 2, 1935

3 Claims. (Cl. 15—155)

My invention relates to suction nozzles for use in connection with a vacuum cleaner and particularly to duplex nozzles provided with openings of different sizes which may be selectively connected to the source of suction. When the larger 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 the larger opening will not pick up, the smaller opening may be brought into use.

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 cross-sectional view of a preferred embodiment of my invention;

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

Fig. 3 is a cross-sectional view similar to Fig. 1 but showing the parts in a different position.

Referring to the figures, reference character 10 designates a conduit by which the nozzle, designated generally by reference character 11, is connected to a source of suction. Conduit 10 is preferably rigid whereby it may serve as a handle for moving the nozzle over the surface to be cleaned.

Nozzle 11 includes a preferably cylindrical portion 12 adapted to receive conduit 10 and an elongated hollow body portion 13 formed with an elongated suction opening 14. An inner wall 15, preferably integral with cylindrical portion 11, includes a semi-cylindrical part 16 and a flat part 17. Semi-cylindrical part 16 forms with cylindrical portion 11, a semi-cylindrical slot 18.

Rotatably mounted on parts 17 by means of a screw 19 is a small nozzle member 20 having a cylindrical portion 21 and a mouth piece portion 22, the latter forming a small suction opening 23. Cylindrical portion 21 is formed with an opening 24 adapted to be aligned to the interior of the elongated portion 13 when the parts are in the position shown in Fig. 3. A spring pressed detent 25 is mounted in inner wall 16 and is adapted to engage recesses formed in small nozzle member 20 in order to retain it in either the position shown in Fig. 1 or that shown in Fig. 3.

The operation of the above described nozzle is as follows:—

With the parts in the position shown in Fig. 1, communication is established between the small suction opening 23 in small nozzle member 20 and the interior of cylindrical portion 11 to which is connected the conduit 10. Consequently, a concentrated flow of air will take place through opening 23, thus enabling the nozzle to pick up either heavy articles or articles which tend to adhere strongly to the surface undergoing cleaning. Mouth piece portion 22 is of sufficient length so that, when in this position, it extends below elongated opening 14 and hence contacts the surface to be cleaned. It will be noted that communication between the elongated opening 14 and cylindrical portion 12 is closed by cylindrical part 21 of the smaller nozzle member 20.

For ordinary cleaning the small nozzle member 20 is rotated in either direction through 180 degrees to the position shown in Fig. 3, thus permitting the elongated opening 14 to come into operative relation with the surface to be cleaned. In this position the small nozzle opening 23 is closed by the inner wall 15, while the elongated opening 14 is connected through the opening 24 in the cylindrical portion 21, whereby air is drawn in through the elongated opening.

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 claims viewed in the light of the prior art.

What I claim is:—

1. A suction nozzle including a hollow body portion formed with a large suction opening and an outlet opening adapted to be connected to a source of suction, and a small nozzle member rotatably mounted in said body portion and formed with a restricted suction opening, said body portion and said small nozzle member being formed with complementary valve structure whereby rotation of said small nozzle member establishes communication selectively between said large suction opening and said outlet opening and between said restricted suction opening and said outlet opening.

2. A suction nozzle including a hollow body portion rigid with respect to a hollow member adapted to be connected to a suction conduit, said body portion being formed with a large suction opening, a small nozzle member rotatably mounted in said body portion and formed with a small suction opening, a cylindrical part formed integral with said small nozzle opening, and an inner semi-cylindrical wall integral with

said body portion, said cylindrical part closing said large suction opening for one position of said small nozzle member, and said inner wall closing said small nozzle opening for another position of said small nozzle member.

3. A suction nozzle including a hollow body portion formed with a large suction opening and an outlet opening adapted to be connected to a source of suction, and a small nozzle member rotatably mounted in said body portion and formed with a restricted suction opening, said small nozzle member having an operative position in which it extends below said body position to contact the floor and to space said body portion from the floor and an inoperative position in which it is removed from the floor, and means for connecting said restricted opening with said outlet opening and closing said large opening when said small nozzle member is in said operative position and for connecting said large opening to said outlet opening and closing said restricted opening when said small nozzle member is in said inoperative position.

ANDERS ERIKSSON-JONS.