Jan. 17, 1939. E. EDSTRÖM 2,143,845

SUCTION NOZZLE

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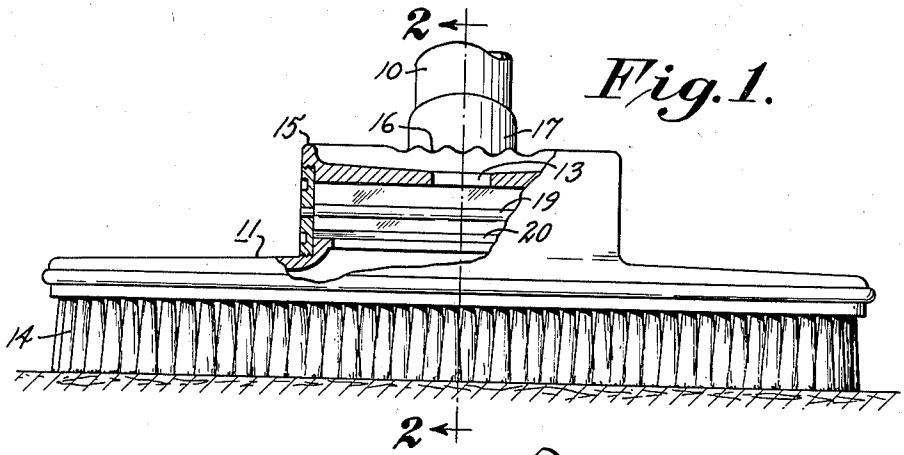


Fig. 1.

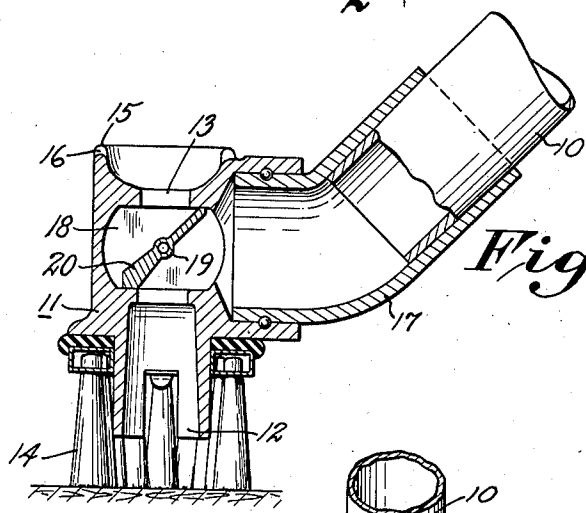


Fig. 2.

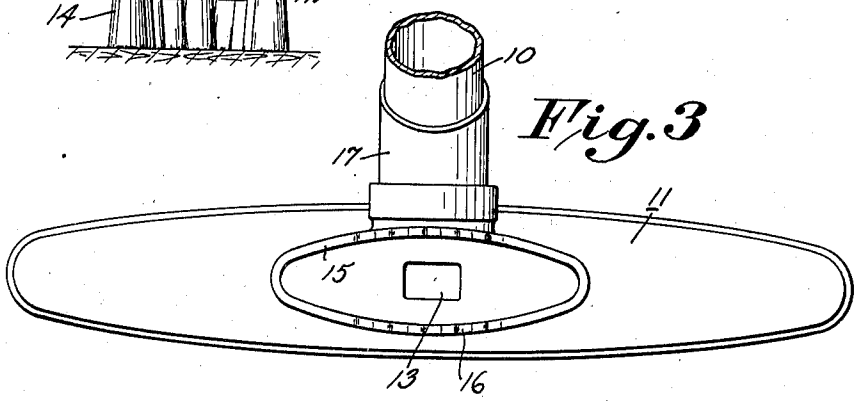


Fig. 3

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SUCTION NOZZLE

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Application June 26, 1936, Serial No. 87,396
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2 Claims. (Cl. 15—158)

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 front view partially in cross-section 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 top view of the device shown in Figs. 1 and 2;

Referring to the figures, reference character 10 designates a conduit adapted to be connected to a source of suction and to act as a handle member for manipulating the nozzle. The nozzle 11 includes a hollow body formed with an elongated suction opening 12 on one side thereof and a restricted suction opening 13 on the other side thereof. If desired, brush bristles 14 may be arranged around elongated opening 12 and a rim 15 formed with grooves 16 may be arranged around opening 13.

The nozzle 11 is rotatably mounted on one end of a nipple 17, the other end of which is adapted to receive conduit 10. By rotation of the nozzle about the nipple either the elongated opening 12 or the restricted opening 13 may be brought into contact with the surface to be cleaned. Within nozzle member 11 there is formed a valve chamber 18 communicating with the suction opening 12, the suction opening 13, and nipple 17. A valve member 19 is rotatably mounted within valve chamber 18 and is adapted to establish communication between either of the nozzle openings and the nipple while cutting off communication with the other nozzle opening. Thus, in the position of the parts shown in Fig. 2, air is drawn in through elongated opening 12, through the valve chamber 18 into the nipple 17.

When it is desired to utilize the restricted opening 13, the nozzle is rotated through 180 degrees so as to bring the restricted opening against the floor. This rotation of the nozzle automatically changes the position of valve chamber 18 by virtue of the fact that the valve chamber is unbalanced about its pivot. The part 20 of the valve member to the left of the pivot, as seen in Fig. 2, is heavier than the part on the other side of the pivot, whereby the part 20 will always be in the lowest position possible. Consequently, when the nozzle 11 is turned over to bring the restricted opening 13 in contact with the floor, the valve member 19 will shift its position so as to establish communication between the restricted opening 13 and the interior of nipple 17.

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 purpose 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 member adapted to be connected to a source of suction, a hollow nozzle body rotatably mounted on said member and formed with a large suction opening on one side and a small suction opening on another side, said body being rotatable to bring either of said openings into a lower operative position on a substantially horizontal surface to be cleaned, and a pivotally mounted valve element for selectively establishing communication between said openings and said member, said valve element being unbalanced about the pivot so as to automatically establish communication between said member and whichever of the openings is in said lower operative position and to close the other opening.

2. A suction nozzle for cleaning the upper side of a substantially horizontal surface including a hollow nozzle body having an outlet connection adapted to be connected to a source of suction, said body being formed with a suction opening on one side and a dissimilar suction opening on another side, and a pivotally mounted valve element for selectively establishing communication between said openings and said outlet connection, said valve element being unbalanced about the pivot so as to rotate with respect to the nozzle body when the latter is turned over, to thereby automatically establish communication between said outlet connection and whichever of the openings is in operative relationship with the upper side of said surface and to close the other opening.

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