

# PATENT SPECIFICATION



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219,017

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## COMPLETE SPECIFICATION.

### Improvements in or relating to Suction Cleaning Apparatus.

I, JOHAN PETTER JOHANSSON, of Enköping, Sweden, Director, subject of the King of Sweden, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to an improvement in suction cleaning apparatus of the kind which are provided with handles made from tubes and comprise a casing, and a power driven fan enclosed therein, the invention being characterised by the fact that the handle-tube communicates with the open air, as well as with the casing at the suction- or pressure-side of the fan.

By this arrangement it is possible to carry away the air from the fan for instance at the upper end of the handle and not, as hitherto, through a plurality of apertures at the lower part of the casing. This has the advantage that the escaping air is prevented from blowing against the floor and setting dust thereon in motion.

Another advantage consists in that the air escaping at the upper end of the handle can be used for blowing purpose, as may be desirable in cleaning narrow openings and other not easily accessible places.

In the accompanying drawing a constructional form of the invention is illustrated in three different working positions in Figures 1, 2 and 3.

1 is the casing with the suction-pipe-piece 2, the dust collecting bag 3, the fan 4 and the motor 5. 6 is the tubular handle which at its lower end communicates with the casing at the pressure side of the fan, see Figure 2. At the upper end the handle 6 is open and formed as a pressure-pipe-piece 7 of the same shape and size and direction as the suction-pipe-piece 2, whereby the same hoses,

pipes and brushes and the like may be arranged on the pressure pipe piece as on the suction-pipe-piece.

In Figure 1 the suction cleaning apparatus is arranged in a usual manner, a pipe 8 with a brush 9 being fixed at the suction-pipe-piece 2. The air is drawn in through the pipe 8 and passes through the fan to the rear end of the casing, where the air arrives into the handle pipe 6 and flows through the same and finally the air escapes into the open air at the upper end of the handle. 10 is a perforated cap which may be removably attached on the pressure pipe piece 7 of the handle-tube, when the pressure pipe piece does not carry any hose, pipe or the like.

Figure 2 illustrates the suction cleaning apparatus when used for blowing. As shown a pipe or a hose 8 is arranged on the pressure pipe piece 7, while the cap 10 is arranged on the suction pipe piece.

In Figure 3, finally, a third method is shown, because the suction cleaning apparatus simultaneously is used for suction as well as blowing purpose, and this may be very useful when carpets are to be cleaned. In such a case the blowing pipe 11 is bent in such a manner that the air is blown out immediately at that place, where the suction through the brush 9 or the like takes place.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. Improvements in suction cleaning apparatus of the kind which are provided with handles made from tubes and comprise a casing and a power driven fan enclosed therein, characterised by the fact that the handle-tube communicates with the open air, as well as with the

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casing at the suction- or pressure-side of the fan.

2. Suction cleaning apparatus according to Claim 1, characterised by the fact that the handle-tube communicates with the air at one extremity thereof and communicates with the suction or pressure side of the fan at the other extremity.

3. Suction cleaning apparatus according to Claim 1 or Claim 2, characterised by the fact that the handle in its free end is shaped in the same manner as a suction-pipe-piece on the casing or the lid of the suction cleaning apparatus, whereby those hoses or the like which are to be connected to the suction-pipe-piece, also may be connected to the handle.

4. Suction cleaning apparatus according to Claims 1—3, characterised by the fact that the free end of the handle is closed by a perforated cap or the like

which may be removed when the hose or other implements are to be coupled to the handle.

5. Suction cleaning apparatus according to Claim 3, characterised by the fact that the free end of the handle and the suction-pipe-piece on the casing or the lid have the same direction, whereby the suction cleaning apparatus is to be carried in a similar manner when used for blowing and suction in a certain direction.

6. The improved suction cleaner substantially as hereinbefore described with reference to the accompanying drawing.

Dated this 11th day of July, 1924.

HASELTINE, LAKE & Co.,  
28, Southampton Buildings, London, 40  
England, and  
15, Park Row, New York, N.Y., U.S.A.,  
Agents for the Applicant.

[This Drawing is a reproduction of the Original on a reduced scale]

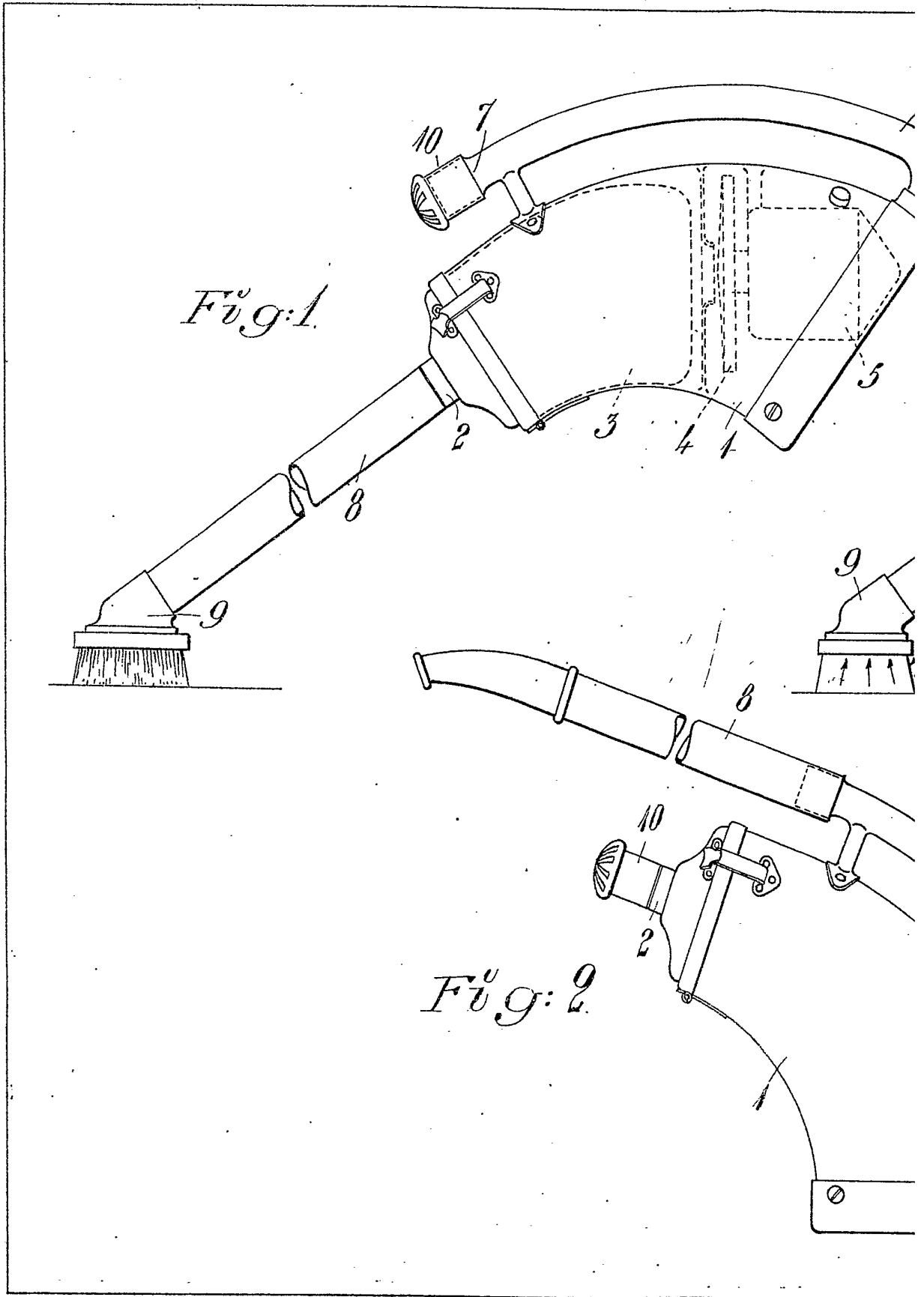
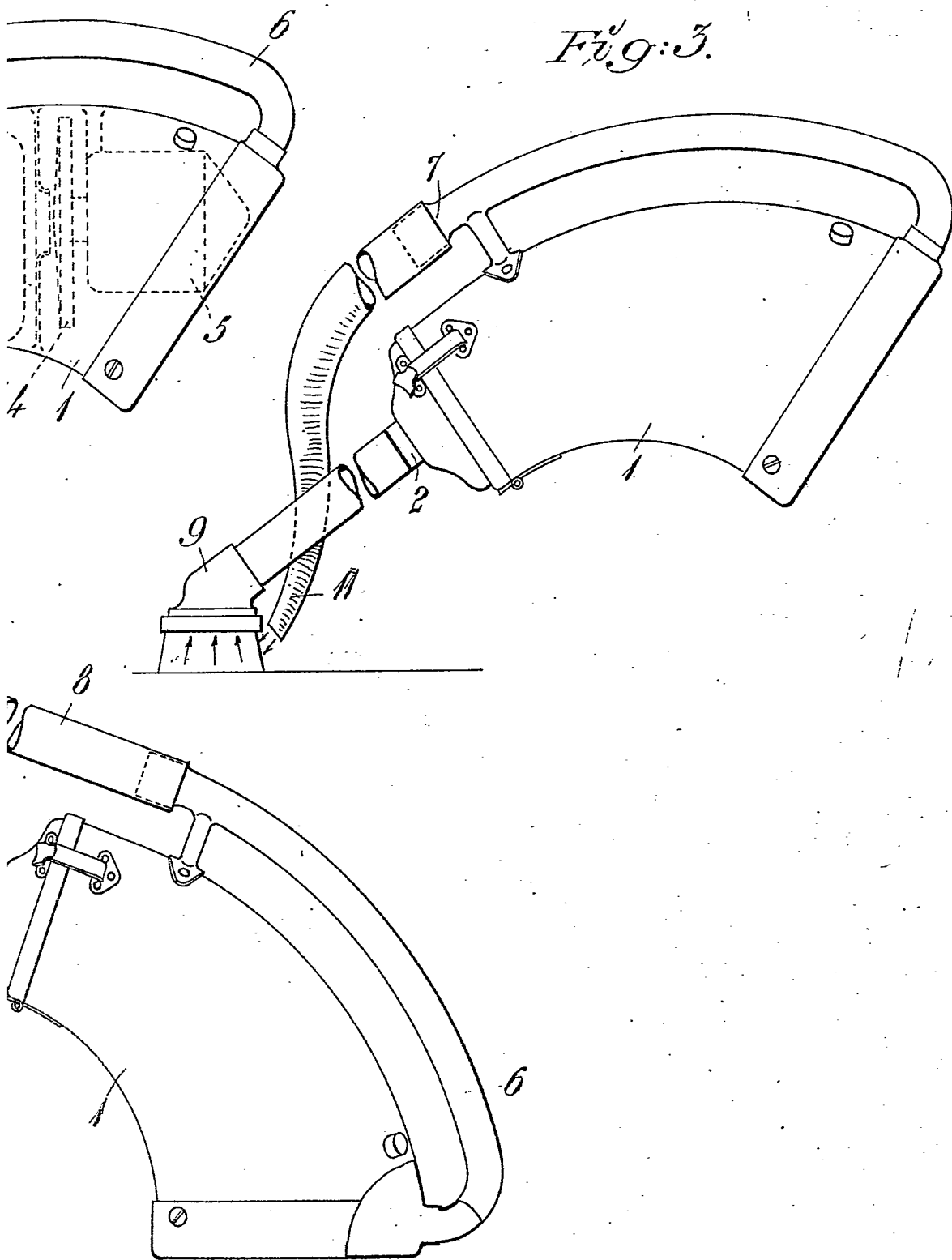


Fig. 3.



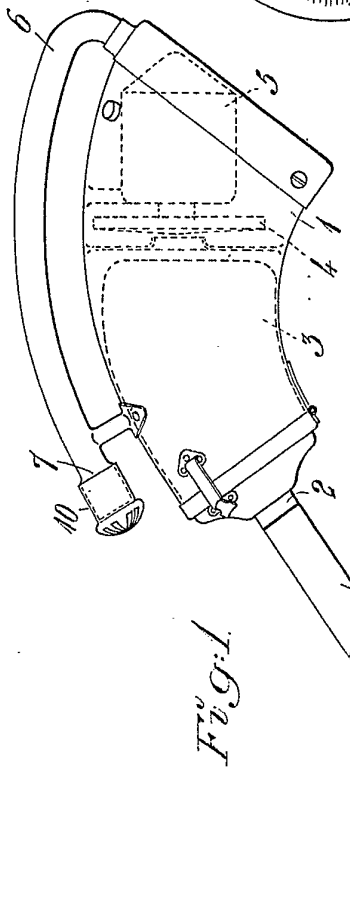


Fig. 1.

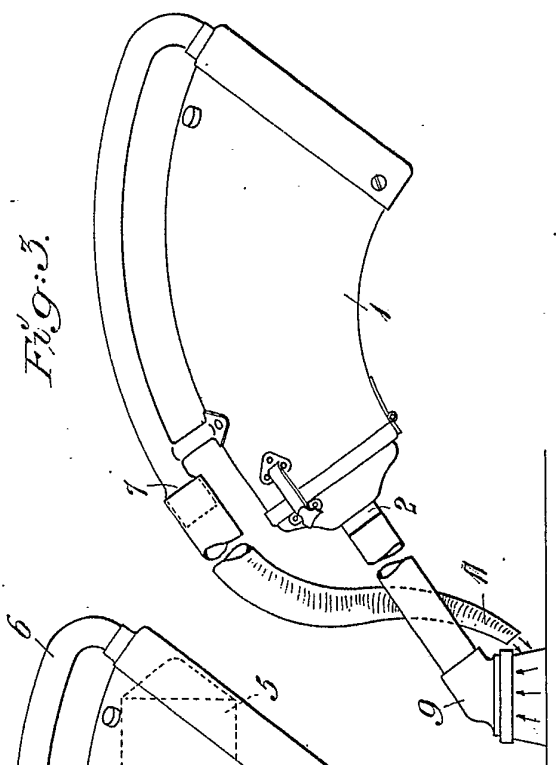


Fig. 3.

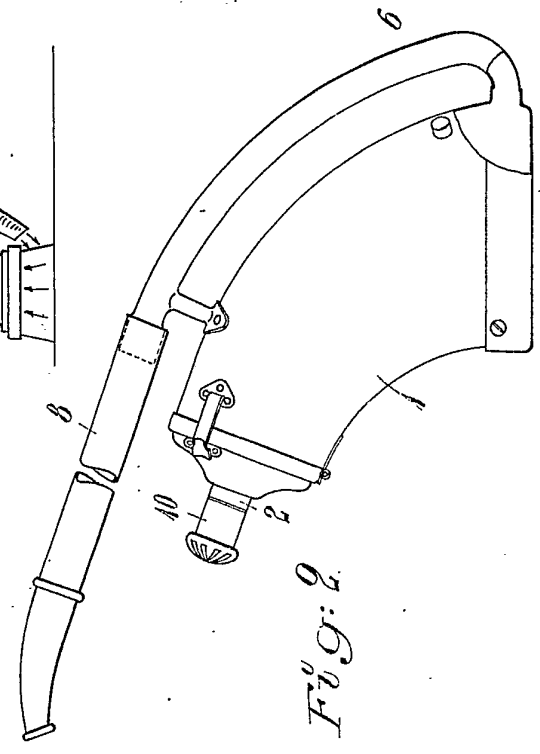


Fig. 2.

[This Drawing is a reproduction of the Original on a reduced scale]