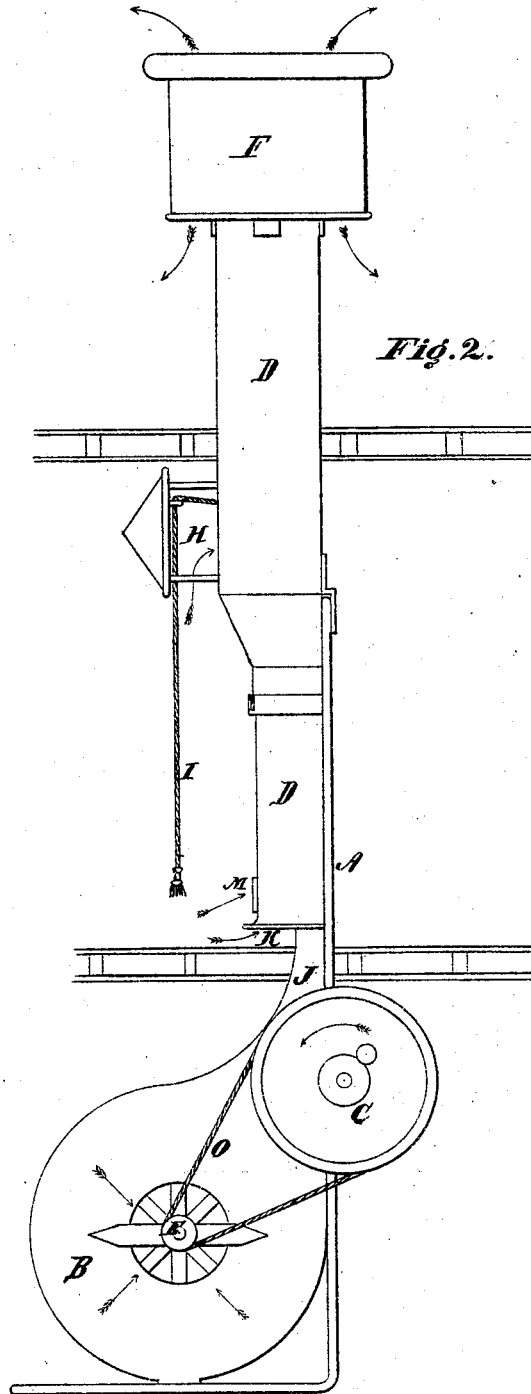
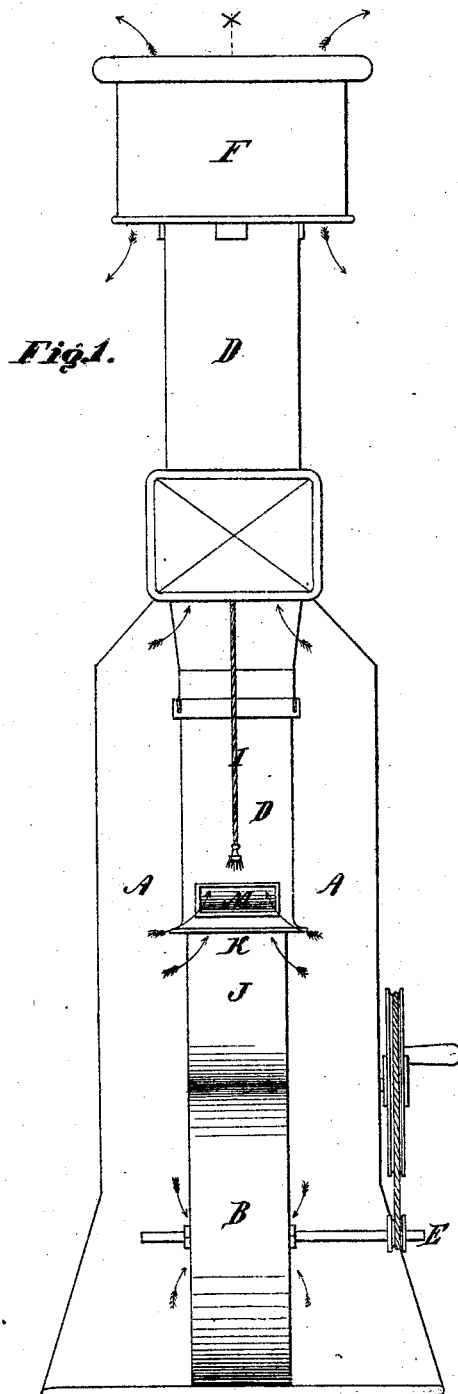


H. A. GOUGE.

Ventilators.

No. 116,049.

Patented June 20, 1871.



Witnesses.

W. J. Reeds
S. A. Banks

Inventor.

Henry A. Gouge.

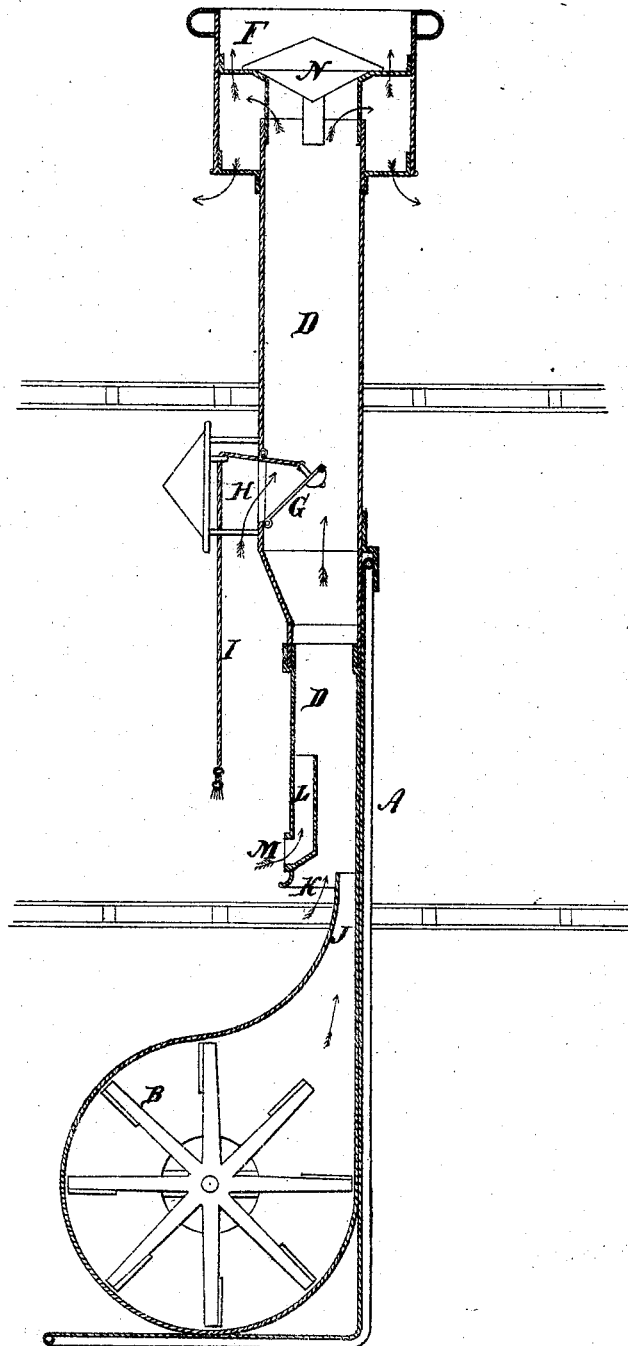
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Fig. 3.



Witnesses.

W. J. Reid,
Chas. A. Banks.

Inventor.

Henry A. Gouge.

UNITED STATES PATENT OFFICE.

HENRY A. GOUGE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN VENTILATORS.

Specification forming part of Letters Patent No. 116,049, dated June 20, 1871.

To all whom it may concern:

Be it known that I, HENRY A. GOUGE, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Ventilating Apparatus, of which the following is a specification:

My invention relates to the combination of a blower operated by steam or other motive power and a ventilating-tube or flue in such a manner that, when the said blower is in operation, a jet of air is directed through a small tube into the open lower end of the ventilating-tube or flue, which will, by its issuing force, induce a current of air into the flue from the apartment to be ventilated.

Figure 1 is a front elevation of the apparatus embodying my invention. Fig. 2 is an elevation, showing that side of the apparatus which is at the right hand in Fig. 1. Fig. 3 is a vertical section, showing those parts of the apparatus which are at the left hand of the line *x*, drawn vertically upon Fig. 1.

A is the back of the apparatus, used, in this case, to sustain the parts, and represents the wall and floor of an apartment in which the apparatus may be placed. B is the blower, which is operated by the pulley-crank C through the medium of the cord O over the small pulley E, and should be turned in the direction indicated by the arrow on the pulley-crank C. D is the ventilating-tube or flue, which is made larger wherever an opening is made into it. F is the weather-cap, which, while it permits free egress for the air from the flue, has a deflector, N, which prevents the entrance of wind, rain, snow, or any effect of a storm. The tube or flue D is provided with a door, G, by which the

amount of air taken from the apartment through the opening H is regulated, and in the drawing is shown to be open, and may be closed by means of the card I.

When the blower B is in operation a current of air is forced through the blower-tube J into the open end of the ventilating-flue D. Between the tube J and the flue D a space is left, marked K, and into this space K a current of air is induced by means of the issuing force of the jet of air from the tube J. This current and jet, uniting in their ascent, form a partial vacuum in passing the small tube L, Fig. 3, and thus another current of air enters the flue D through the opening M. The three currents, ascending as one, are made to induce still another current of air from the apartment through the opening H, a partial vacuum being formed by the passage of air behind the open door G. The air is ultimately discharged at the weather-cap.

I do not desire to be restricted to the use of one small blower to each ventilating-flue, but hold the right, where more than one flue is used, to make one blower answer for all by conducting a tube, J, from the blower to each flue.

I claim as my invention—

The combination of the blower B and the ventilating-flue D, and the arrangement of the tube J, substantially as and for the purpose hereinbefore set forth.

HENRY A. GOUGE.

Witnesses:

W. I. REID,
L. A. BANKS.

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