

B. J. Burnett,
House Ventilator.

N^o 50,794.

Patented Nov. 7, 1865

Fig. 1

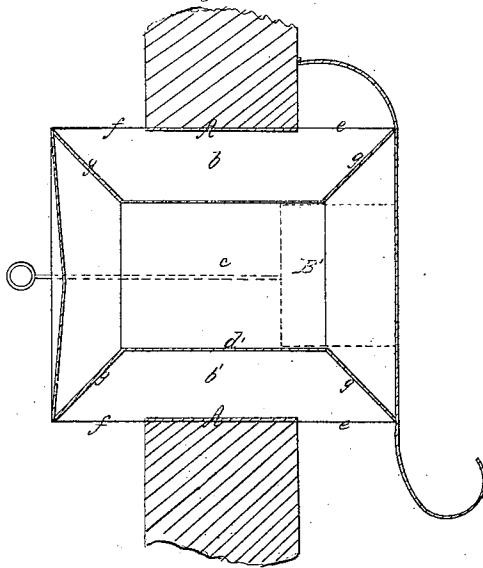


Fig. 2

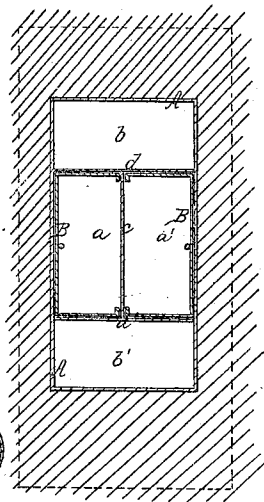
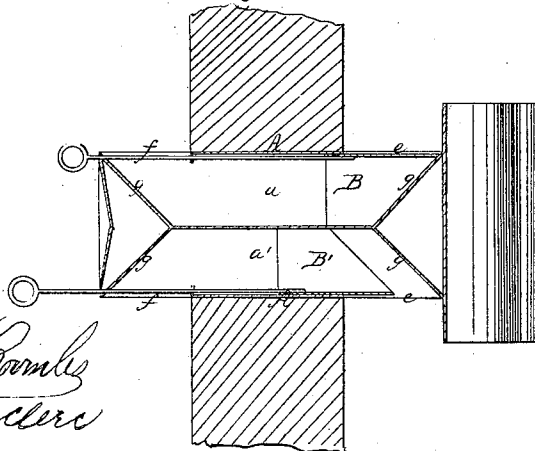


Fig. 3



Witnesses:

J. W. Combs
at test

Inventor.
B. J. Burnett.

UNITED STATES PATENT OFFICE.

B. J. BURNETT, OF MOUNT VERNON, NEW YORK.

VENTILATOR.

Specification forming part of Letters Patent No. 50,794, dated November 7, 1865.

To all whom it may concern:

Be it known that I, BENAJAH J. BURNETT, of Mount Vernon, in the county of Westchester and State of New York, have invented a new and useful Improvement in Ventilators for Houses and other Buildings and Structures; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal vertical section of a ventilator constructed according to my invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to ventilators to be placed in the walls of buildings and other structures. It is desirable in such ventilators that the horizontal trunk or casing which is inserted into the wall should have its transverse section of greater vertical than horizontal dimensions; and this form of transverse section, when the partitions which divide it into separate ducts are arranged diagonally, as described in my Letters Patent No. 49,373, makes two of the ducts with acute angles in their transverse section. Now, it is found in practice that air will not pass freely through passages with acute angles, and therefore, with a view to increase the efficiency of the ventilator, this invention consists in a novel construction and arrangement of the air-ducts and regulating-valves, whereby acute angles are avoided.

A is the outer horizontal trunk or casing of the ventilator, having its transverse section of oblong form, with its height greater than its width. Its longitudinal division into four

ducts, *a a' b b'*, of quadrangular transverse section, is made, as shown in Fig. 2, by means of a vertical central partition, *c*, extending upward and downward a suitable distance above and below the center of the trunk, and two horizontal partitions, *d d'*, one above and the other below the said partition, uniting with the said partition and extending all across the trunk. The four ducts thus formed have each provided in the trunk an opening, *e*, outside of the wall, and an opening, *f*, inside, each duct being a fresh-air duct, to conduct pure air into the building, or serving to conduct the vitiated air out, according to the direction of the wind or to other circumstances upon which currents of air depend. Inside of these openings *e* and *f* there are oblique deflecting plates or surfaces *g g*, to direct the air into and from the ducts.

The regulating-valves B B', which are only shown in the side ducts, *a a'*, are made of the form of three sides of a quadrangle, one side, which fits to the interior of the trunk A, being the actual operating part, and the top and bottom, which extend across the ducts, merely serving as guide-pieces, by the aid of which the valves are guided by the ducts themselves without any specially-provided guides. The top and bottom of the valves are beveled off to fit against the deflecting-plates *g*, inside of the openings *e e*.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction and arrangement of the air-ducts and regulating-valves, substantially as and for the purpose herein specified.

B. J. BURNETT.

Witnesses:

HENRY T. BROWN,
J. W. COOMBS.