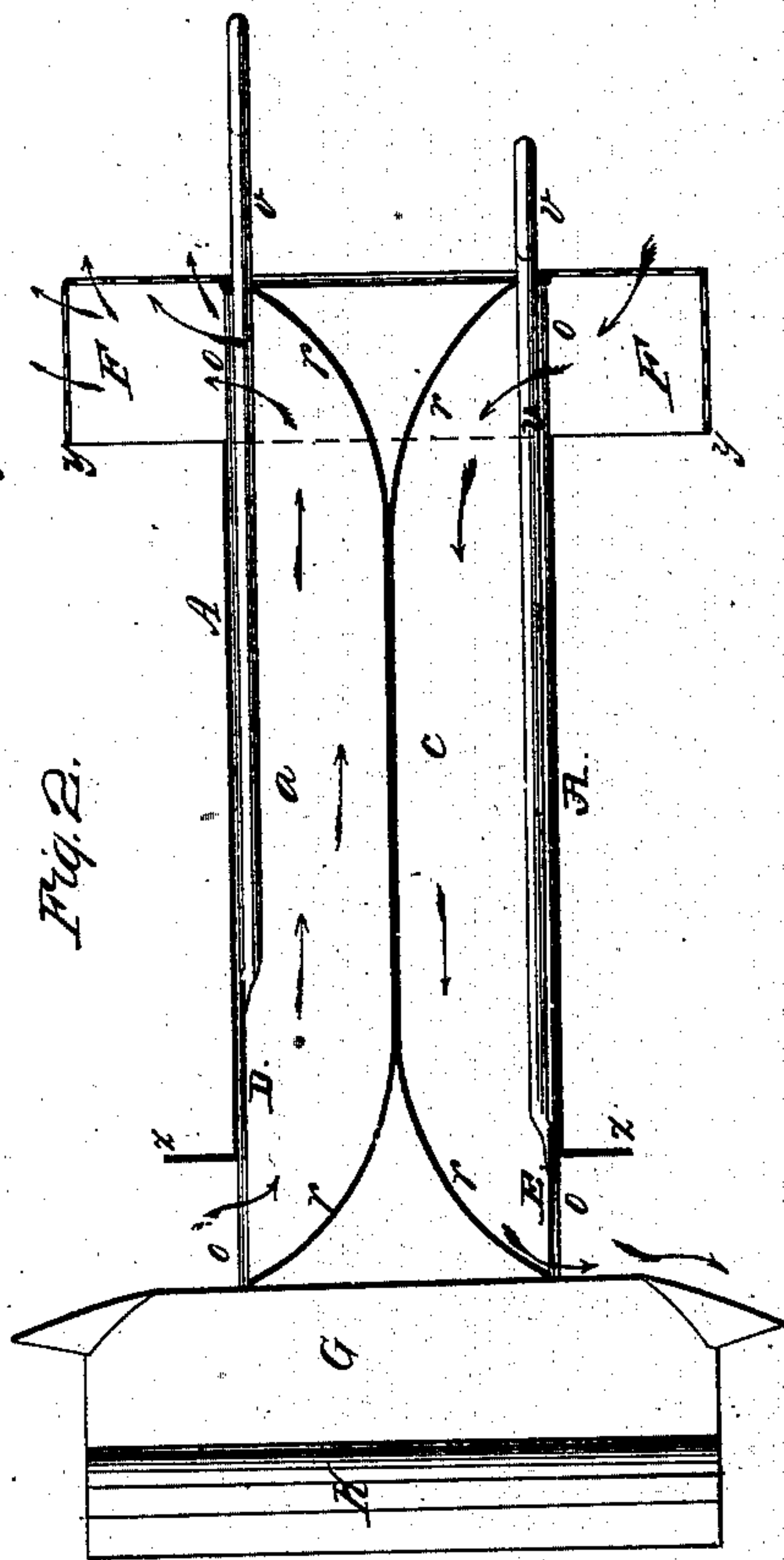
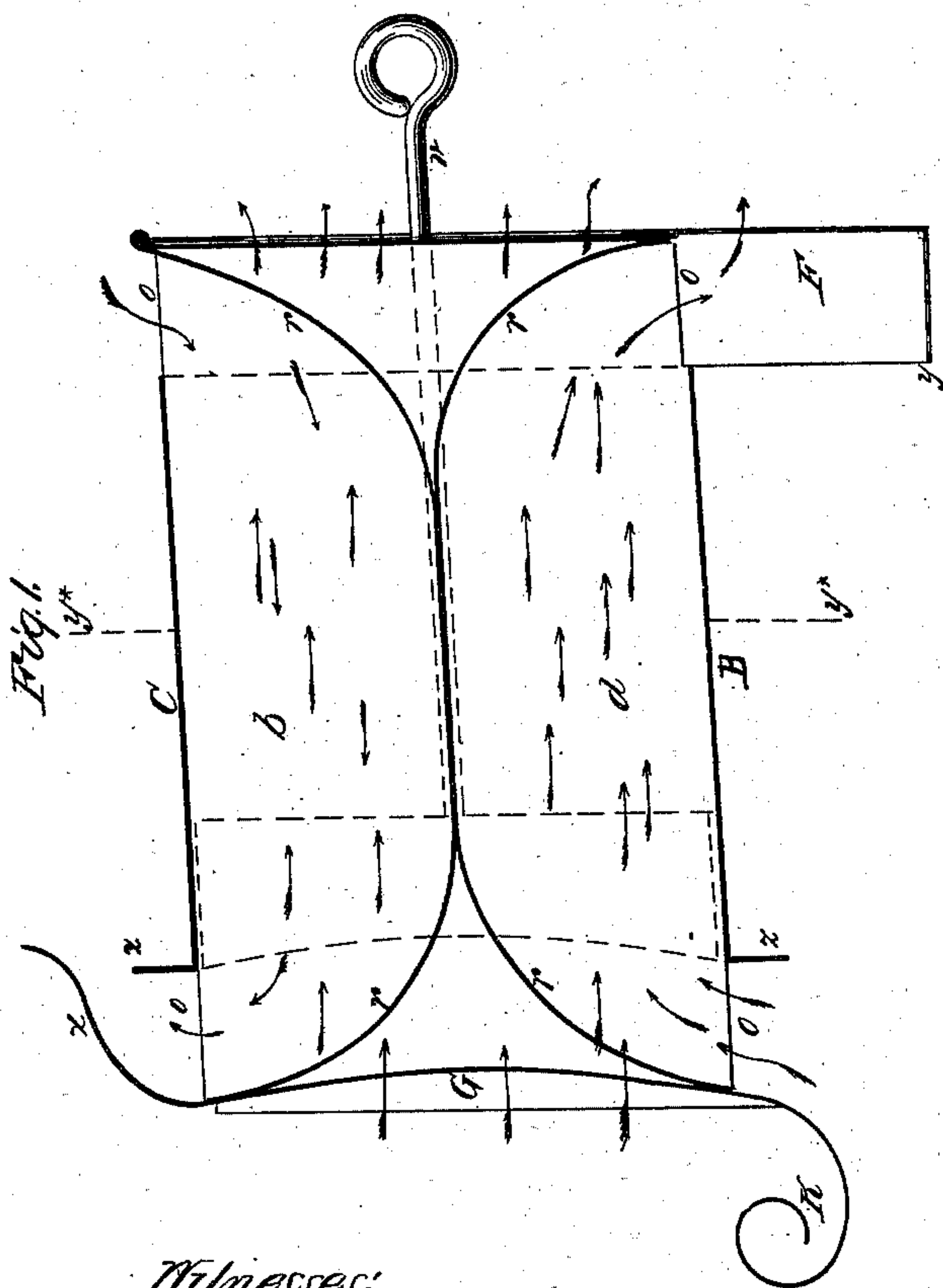
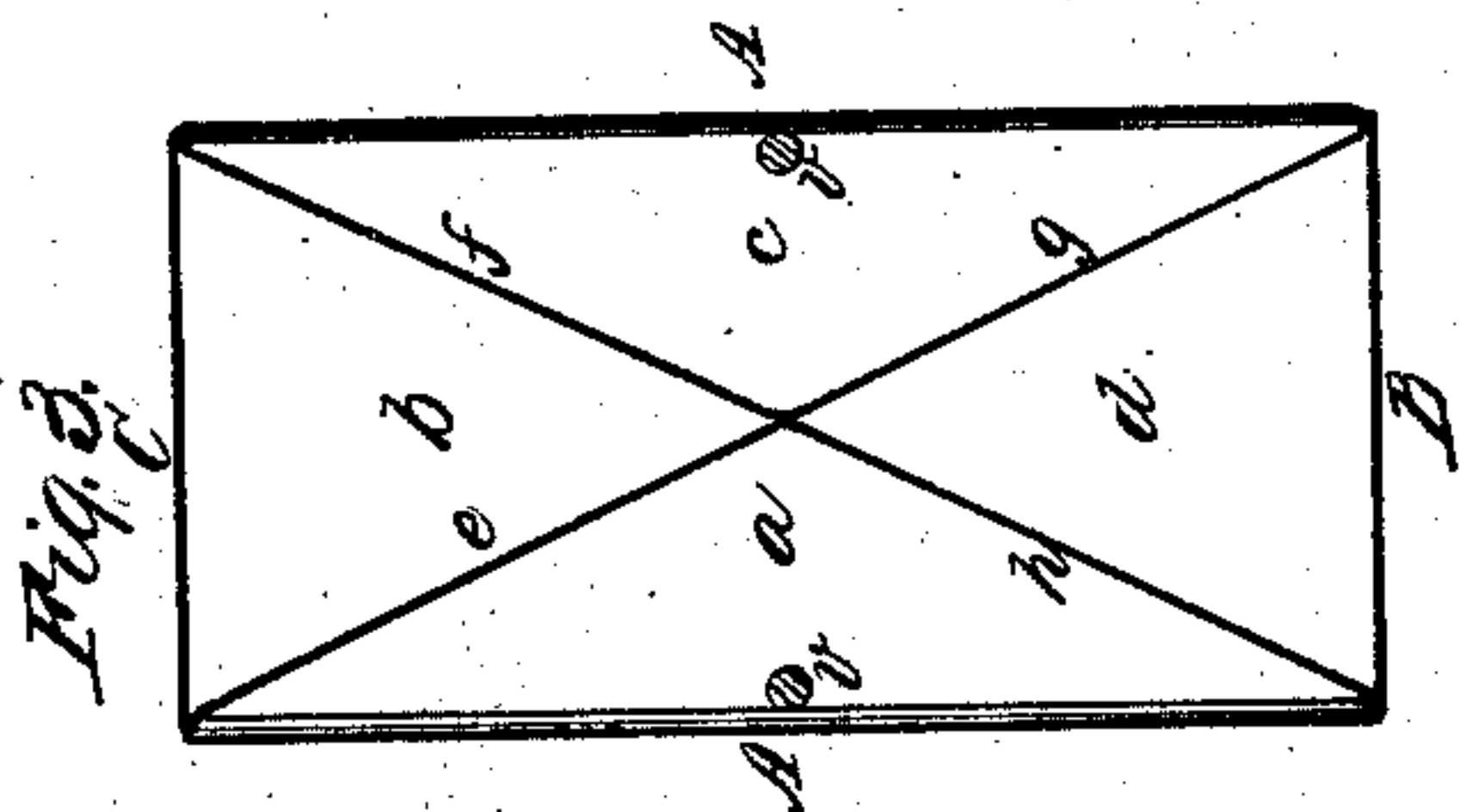


*B. J. Burnett*

*House Ventilator.*

*No. 49,373.*

*Patented Aug. 15, 1865.*



Witnesses:  
*J. W. Coombs*  
*A. Lellerc*

Inventor:  
*B. J. Burnett*



# UNITED STATES PATENT OFFICE.

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

## VENTILATOR FOR HOUSES.

Specification forming part of Letters Patent No. 49,373, dated August 15, 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 certain new and useful Improvements in Ventilators for Houses and other Buildings; 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 through the center of the ventilator constructed according to my invention. Fig. 2 is a central longitudinal horizontal section of the same; and Fig. 3 is a transverse vertical section of the same in the plane indicated by the line  $y^*$   $y^*$  on Fig. 1.

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

The nature of my invention consists in certain improvements, whereby ventilators on the principle of that which is the subject of my Letters Patent dated January 10, 1865, are adapted to the walls of buildings, and provision is made for regulating and distributing the supply of air.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A A are the sides, B is the bottom, and C is the top, of the outside casing of the ventilator, which is made of a certain length to correspond with the thickness of the wall into which it is to be inserted, and is made of sufficient size, according to the room or building which is to be ventilated. This casing is divided diagonally into four triangular compartments or air-ducts,  $a b c d$ , by the partitions  $e f g h$ , radiating from the center to the four corners, as seen in Fig. 3. The said partitions extend beyond the ends of the casing, and the air-ducts  $a b c d$  are closed longitudinally by means of a square piece of a proper size being fastened to the ends of the partitions, thus causing the openings for the ingress and egress of the air to be located at the sides, the top, and the bottom, near the ends of the ventilator, as seen at  $o$ , Figs. 1 and 2. In each end of the said air-ducts a curved deflector,  $r$ , Figs. 1 and 2, is placed to fill up the square corner, and thus to encourage the ingress and egress of the air.

D and E are slide-valves for the purpose of

closing or partly closing the outer openings, and thus preventing air from passing through or to regulating the quantity. Although in the drawings there are but two valves shown, yet a valve may be placed in each one of the air-ducts. The said valves are operated from within the house by means of rods  $v$ , Fig. 2.

This ventilator is placed into the wall either horizontally or slightly inclined, and in such manner that the openings  $o$ , on one end of the ventilator will be outside the building, the flanges  $z$  of the casing to be tight against the wall, and the openings on the opposite end of the ventilator will be inside of the building.

The outer end of the ventilator is provided with a shield, G, which is curved above the upper outer opening toward the wall, so as to prevent the rain from entering into the said opening, yet at the same time air may pass freely through it sidewise. The shield G flares outward and curls up at the lower part,  $k$ , for the purpose of encouraging or assisting the air to enter.

The end of the ventilator which is inside of the building is provided with an air-distributor, F, consisting of a perforated box projecting sidewise, and at the bottom of the ventilator, and it may likewise be made to project at the top. This distributor is attached to the ventilator by means of a hinge, so that it can be turned up, if it be required, or may be attached to it by any other suitable means. This distributor will break up any sudden gust of wind which might enter the ventilator, and cause the air to be spread or distributed by having it pass through the perforations.

The ventilator may be made of quadrangular, circular, or polygonal form.

The process of ventilation will be in the following manner: When the wind or fresh air enters through one compartment of the ventilator into the building a counter-current of heated or vitiated air will escape through the opposite compartment of the ventilator, and vice versa, and in this way a continual ventilation will be going on unless the ventilator should be closed by the valves, as hereinbefore described.

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

1. The combination, with a ventilator constructed, arranged, and applied as described, of the regulating valve or valves, operating

substantially as and for the purpose herein fully described.

2. The air-distributor F, in combination with the air-ducts *a b c d* and deflectors *r r*, substantially as and for the purpose herein specified.

3. The shield G, extended over the upper

outer opening, *o*, and deflector *r*, and open at the sides, substantially as and for the purpose herein set forth.

B. J. BURNETT.

Witnesses:

J. W. COOMBS,

G. W. REED.