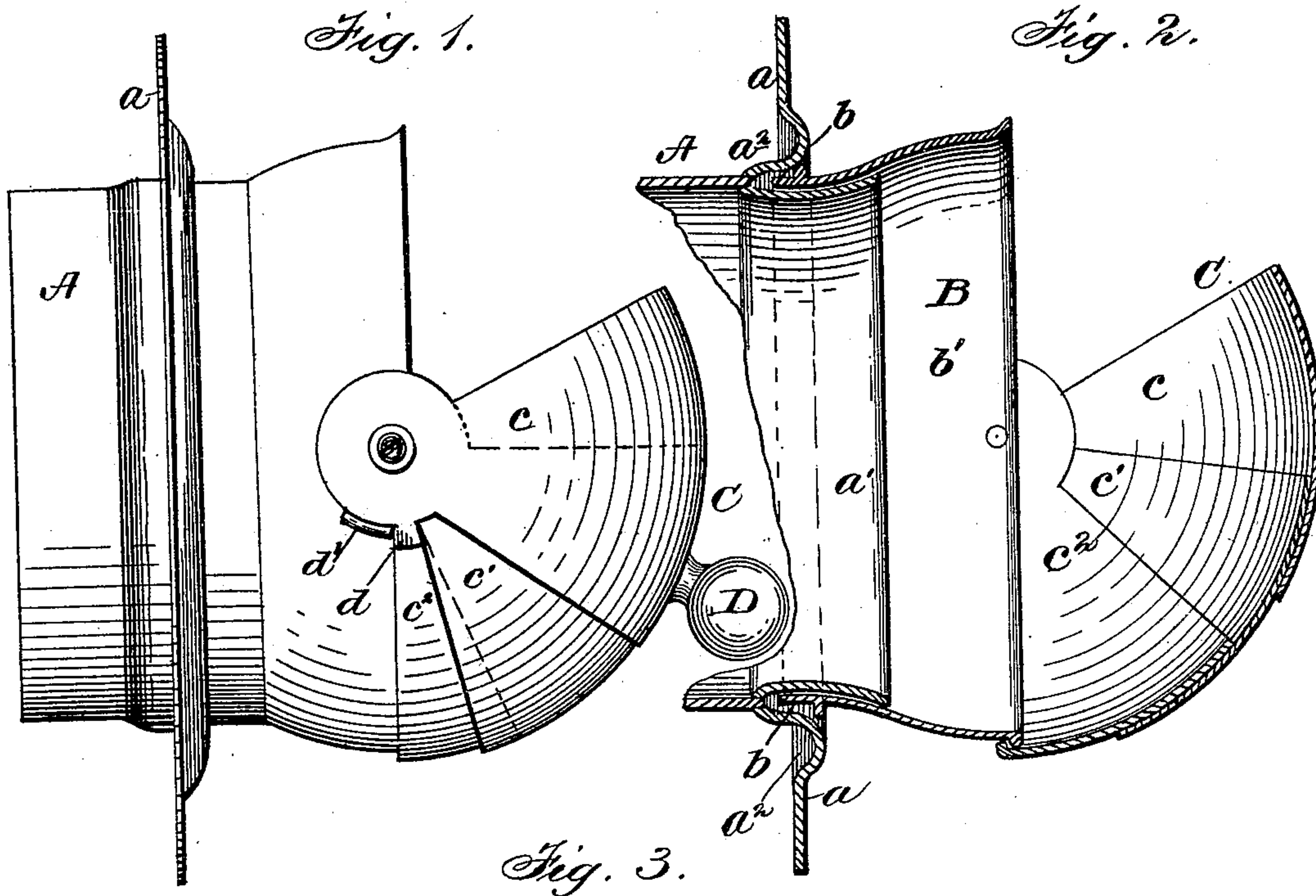


(No Model.)

J. McCREERY.  
OUTLET GATE FOR VENTILATORS.

No. 583,501.

Patented June 1, 1897.



Witnesses  
Frank L. Ouraud.  
A. Williams Jr.

Inventor  
Joseph McCreery,  
per W. H. Singleton,  
Attorney



# UNITED STATES PATENT OFFICE.

JOSEPH MCCREERY, OF TOLEDO, OHIO.

## OUTLET-GATE FOR VENTILATORS.

SPECIFICATION forming part of Letters Patent No. 583,501, dated June 1, 1897.

Application filed October 28, 1896. Serial No. 610,307. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH MCCREERY, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have  
5 invented certain new and useful Improvements in Outlet-Gates for Ventilators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to  
10 which it appertains to make and use the same.

This invention relates to an attachment to be applied to a system of ventilation.

The object of the invention is to produce an outlet or a gate which is so adjustable that  
15 air in variable amounts may issue at different angles.

The invention consists in an outlet gate or nozzle which is axially revoluble and is provided with a hood or cover made of several  
20 pieces or segments.

In the annexed drawings, Figure 1 represents a side view of the device, the hood being partially open. Fig. 2 is a vertical section taken through Fig. 1. Fig. 3 is a front  
25 or face view of the device closed.

In the accompanying drawings the letter A represents a cylindrical sleeve for attaching the device to the end of the air-pipe, and such sleeve may have a flange  $a$  to give it a  
30 finish. Within the flange  $a$  the sleeve A is provided with a lip  $a'$ . Over the exterior of this lip  $a'$  and within a swell  $a^2$  of the flange  $a$  is loosely placed the inner edge  $b$  of the outlet-gate B. The outer edge of the lip  $a'$  is  
35 swelled outward so that the inner end of the gate B is securely held by the lip  $a'$  from separation from the sleeve A. The outlet-gate B is loosely held by the lip  $a'$ , so that the outlet-gate B is revoluble about its axis  
40 on the lip  $a'$ .

The outlet-gate B consists of two portions, the rigid main portion  $b'$  and the hood C. The hood C consists of several segments  $c$   $c'$   $c^2$  of substantially the same shape and size, but  
45 overlapping one another, so that they may be folded together. These segments are hinged at their ends to the portion  $b'$  of the outlet-gate at the opposite ends of a diameter. At one end the segments  $c$  and  $c'$  are provided  
50 with lugs  $d$   $d'$ , which taking against the edges of the under segments limit the closing move-

ment of the segments  $c$  and  $c'$ . The segment  $c^2$  is provided with a rim which catches against a rim of the portion  $b'$  when the segments are moved so as to close the outlet. The several  
55 segments  $c$   $c'$   $c^2$  are fitted closely upon one another and are both opened and closed by frictional contact with one another. The segment  $c$  is provided with a handle D.

As will be noticed the outlet-gate when  
60 closed is globular in form, the hood completing the globular formation. The portion  $b'$ , which is a part of this globular formation, is made rounded for a special purpose. It will be noticed that the area of the cross-section  
65 of the mouth of the portion  $b'$  is greater than the area of the cross-section of the narrowest portion or the throat of the sleeve A. The dotted line in Fig. 1 shows the position of the outer edge of the segment  $c'$  of the hood C  
70 when such hood is half-open. When the hood is in this position, the opening in the outlet-gate is quadrant-shaped. When the air is forced through the outlet, the latter being  
75 opened, as indicated, the air is not forced in a straight line, but at an angle. Now by enlarging the outlet-gate beyond the size of the throat of the sleeve, the air, though forced at an angle, will pass out with greater volume,  
80 as though ejected in a straight line.

With a device such as described air in variable quantities may be admitted into an apartment at variable angles, or it may be completely shut off at any given outlet-gate.

Having described my invention, what I  
85 claim is—

1. An outlet gate or nozzle, which is axially revoluble and is provided with a hood or cover made of several movable pieces or segments,  
90 as set forth.

2. An outlet gate or nozzle, which is axially revoluble and is provided with a hood or cover made of several movable pieces or segments,  
95 all of the segments but one being provided with limiting-lugs, as set forth.

3. An outlet gate or nozzle, which is axially revoluble and is provided with a hood or cover made of several movable pieces or segments  
overlapping one another, as set forth.

4. The combination of the sleeve, A, provided with a lip,  $a'$ , with the outlet-gate, B,  
100 consisting of a rigid main portion,  $b'$ , loosely

held on the lip,  $a'$ , and the hood, C, consisting of several pieces or segments pivoted to the portion,  $b'$ , as set forth.

5 The combination of the sleeve, A, with the hood, B, consisting of a main portion,  $b'$ , and a hood, C, the area of the cross-section of the mouth of the portion,  $b'$ , being greater than the area of the cross-section of the nar-

rowest portion or the throat of the sleeve, A, as set forth. 10

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH MCCREERY.

Witnesses:

SAM. A. DRURY,  
W. H. SINGLETON.