

(No Model.)

T. BURY.  
VENTILATOR.

No. 462,652.

Patented Nov. 3, 1891.

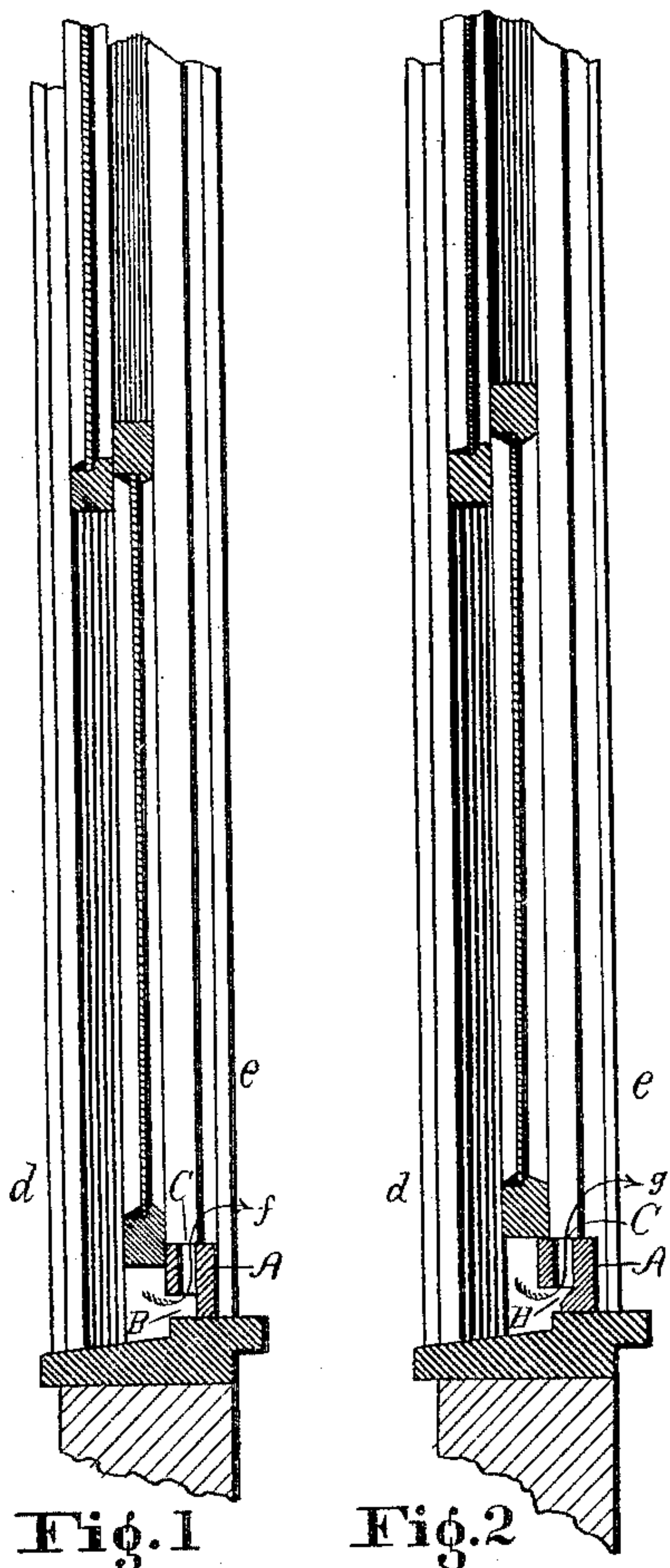


Fig. 1

Fig. 2

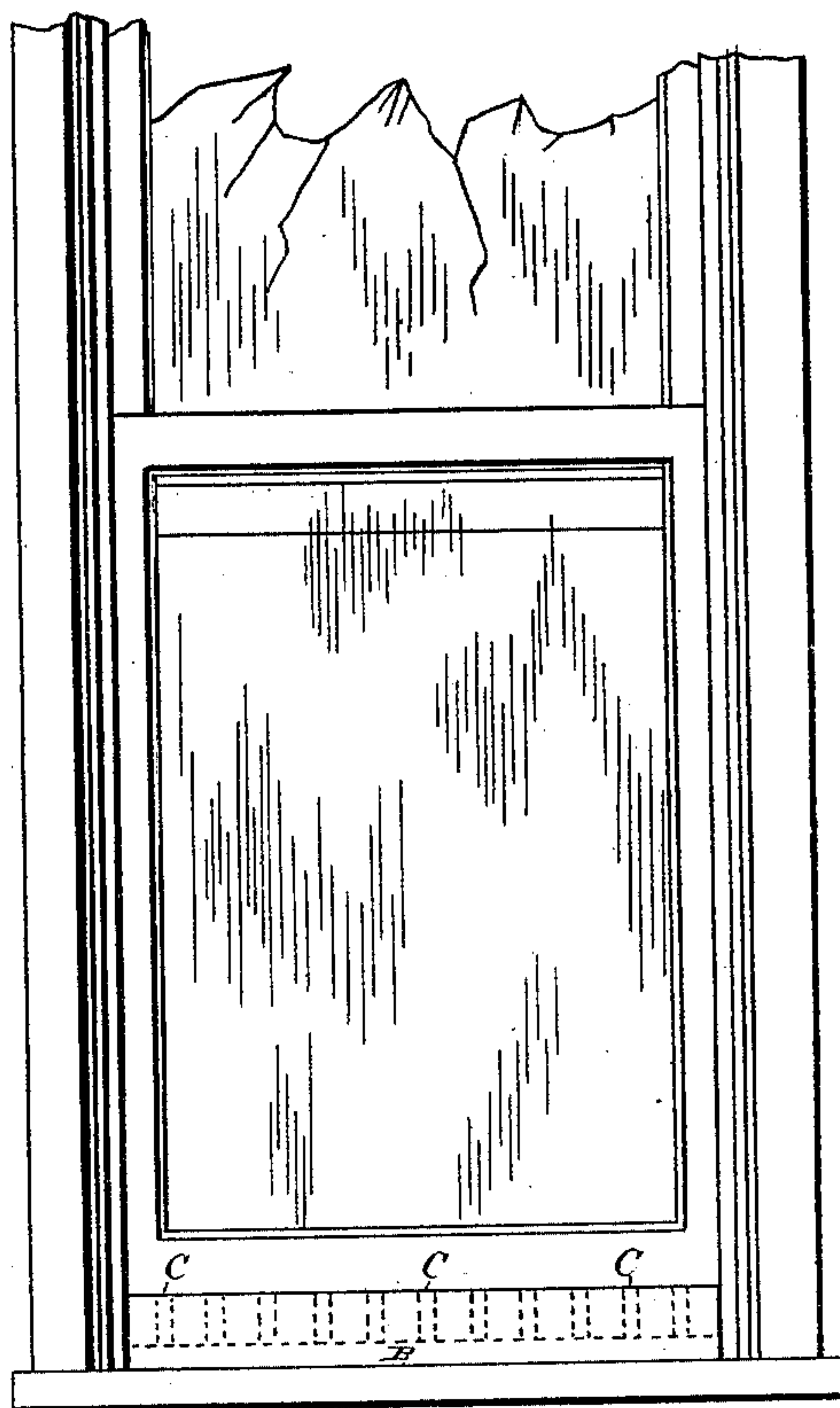


Fig. 3

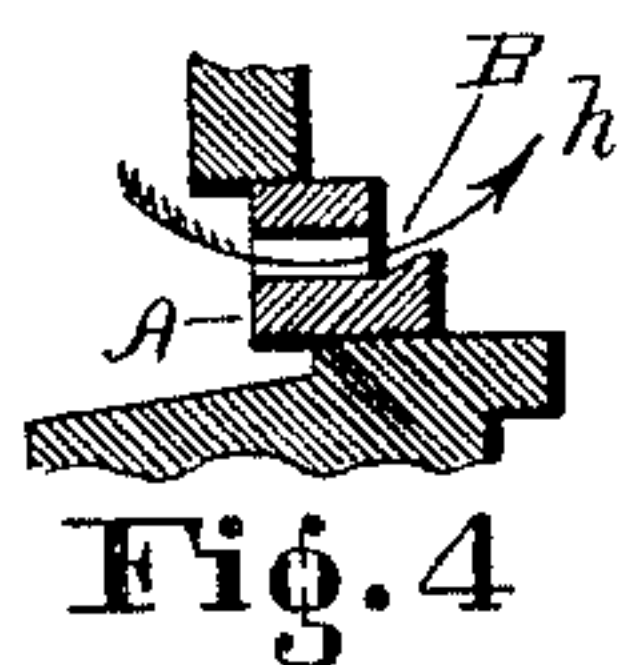


Fig. 4

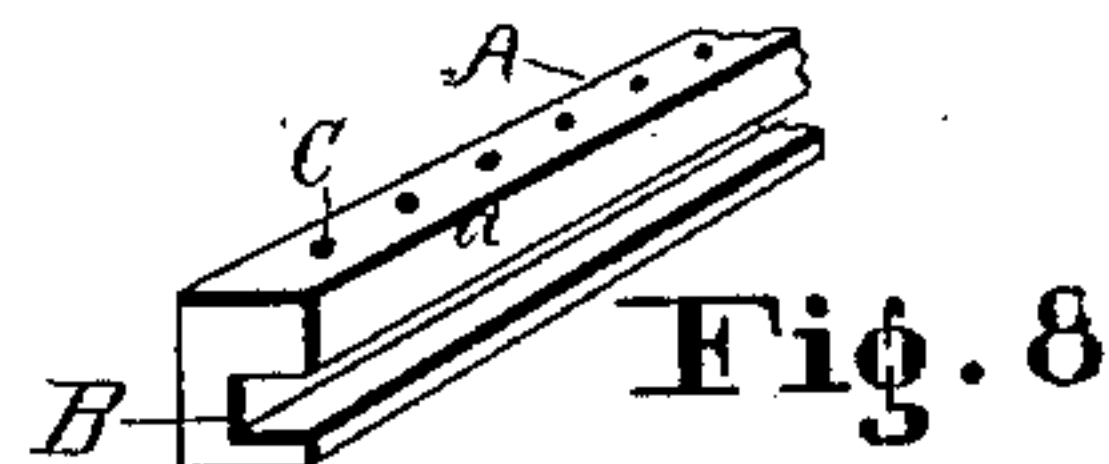


Fig. 8

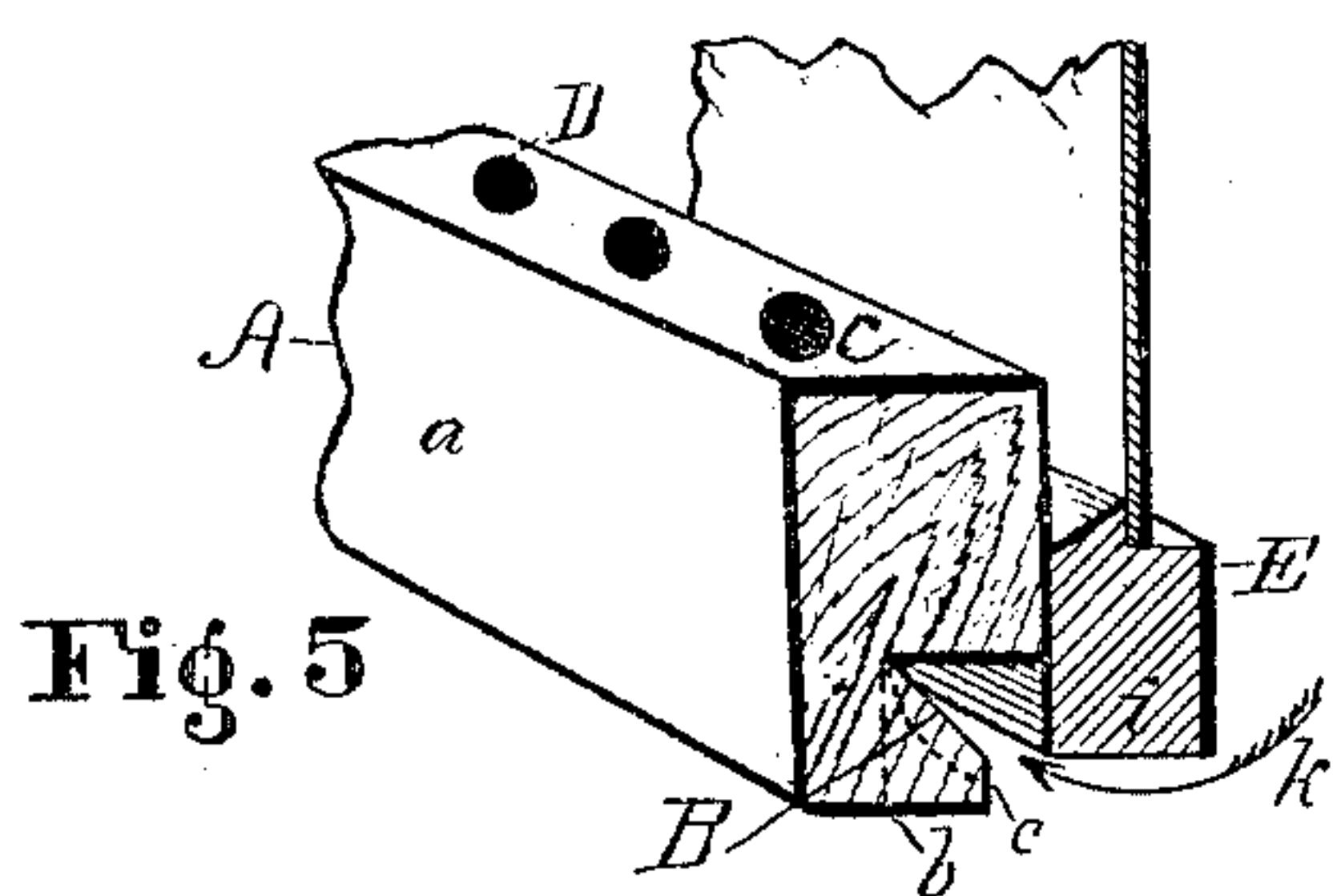


Fig. 5



Fig. 6

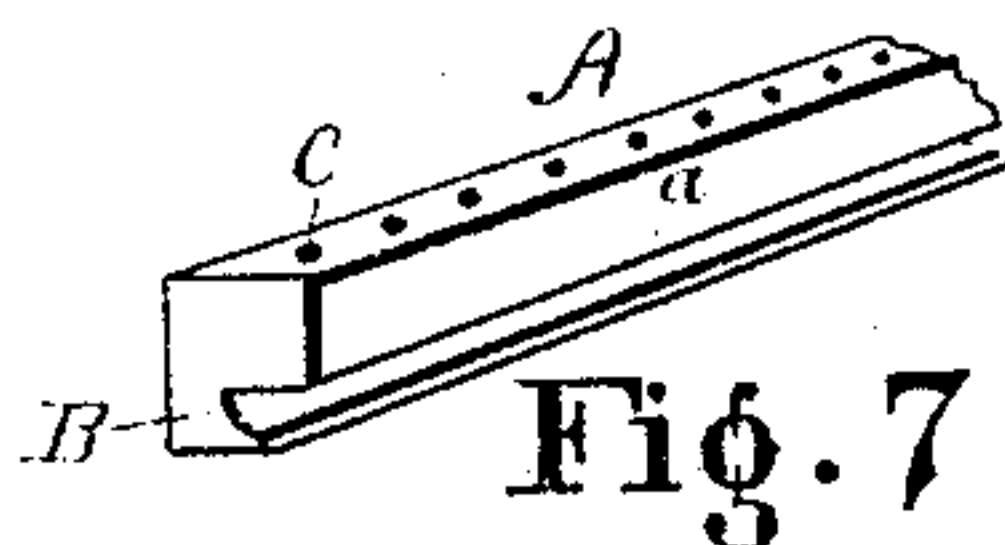


Fig. 7

WITNESSES  
H. A. Biddle  
L. E. Fish

INVENTOR  
T. Bury  
W. H. Burdick  
Att'y



# UNITED STATES PATENT OFFICE.

THEODORE BURY, OF CLEVELAND, OHIO.

## VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 462,652, dated November 3, 1891.

Application filed March 5, 1890. Serial No. 342,810. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE BURY, a citizen of the United States, and a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Ventilators, of which the following is a full and complete description.

The construction and arrangement of said ventilator render it applicable to windows and other various required places.

That the said invention may be fully seen and understood, reference will be had to the following specification and annexed drawings.

Figure 1 is a vertical transverse section of a window and casing, showing the ventilator in connection therewith. Fig. 2 is also a vertical transverse section showing the window in a different position with the ventilator in connection therewith. Fig. 3 is an inside view of a window, showing the position of the ventilator. Fig. 4 is a detached section. Fig. 5 is an enlarged detached section of the ventilator and part of the window. Fig. 6 is a top view of the ventilator, a horizontal transverse section of the casing and window in connection; Figs. 7 and 8, views in section of the ventilator perspective.

Like letters of reference refer to like parts in the drawings and specifications.

The ventilator A consists of the piece *a*, made of wood or other suitable material, in one or more parts, a part of which is rabbeted out, as shown at B in Figs. 1, 2, 4, and 5. Said groove or rabbet may be at right angles, as shown in Fig. 1 and by dotted line *b*, Fig. 5, or curved, as indicated by the dotted line *c*, Figs. 5 and 7. The elongated space B or groove can be also of an acute or rectangular form, as seen in Figs. 5 and 8. The lower part of the ventilator forming the extension indicated by the lines *c*, Figs. 5 and 8, is preferably extended under the vertical line of the sash, whereby the ventilator will be more securely held in position, as shown, by the weight of the sash upon it or near the outer edge than without the said extension indicated, which may avoid fastening the ventilator to the window-frame, that it may be readily moved. A series of holes or openings C, Figs. 1, 2, 3, and

5, pass through the ventilator from the top to the longitudinal opening or rabbet B, as shown in the drawings. The holes C are arranged in open relation with the longitudinal space B, formed by the said groove or rabbet. It will be seen that when the ventilator A is placed in a window, as shown in Figs. 1, 2, and 3, the air from the outside *d* will pass through the groove and then up through the holes C into the interior *e*, as noted by the arrows *f* and *g*, Figs. 1 and 2. Should it be necessary to admit the air in a horizontal direction into the room, the position of the ventilator is to be changed or reversed, as shown in Fig. 4. The air will then be admitted into the room or apartment in the direction of the arrow *h*, caused by the deflection of the air resultant from the groove and holes in the ventilator.

The amount of air admitted through the ventilator is regulated by the lower rail *i* of the window-sash, as shown in Fig. 5. This sash E of the window can be raised or lowered in close contact with the outer side of the ventilator, so that it will open or close more or less of the elongated groove B, thereby controlling induction-currents of air through the ventilator to the interior.

The upper terminals of the holes C are preferably covered with wire-gauze, or the equivalent thereof, to prevent the ingress of insects, dust, cinders, &c., through the ventilator. The wire-gauze D is placed over the upper ends of the holes, as shown in Fig. 5, to facilitate cleaning out the meshes thereof also. The said wire-gauze may be placed over the lower part of the holes, but not with as good results, as they would be liable to choke up and difficult to clean out.

The ventilator A may be fitted in tight contact with the window-casing, as shown at *j j*, Fig. 6, or may form an integral part of window-frames used for various purposes with a groove, rabbet, or elongated opening B, essentially as shown in the improvements herein described and claimed.

By means of the elongated groove or space the ventilator is adapted to various places and conditions, especially in close positions where the air is obstructed and confined, as the extended groove or opening at the terminals of

the holes C, as shown, admits of the external air passing through the holes freely and unconfined into the interior. The groove is readily made by ordinary carpenters' tools.  
5 Hence it requires no special arrangement of mechanism. The groove is easily cleaned out from dust, dirt, cinders, &c., and admits of the holes C being conveniently done also, whereby the air-passages are prevented from  
10 being obstructed.

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

1. A reversible ventilator consisting of the piece *a*, having a series of holes C on one side  
15 thereof and an elongated space or opening formed by a longitudinal groove or rabbet arranged in open relation with the terminals of said holes, whereby the air passes from the exterior to the interior in different directions,

according to the position of the ventilator, 20 constructed substantially as set forth.

2. The reversible ventilator A, having a series of holes C in open connection with an opening formed by a longitudinal groove or rabbet B, in combination with a window frame 25 and sash with the lower rail thereof arranged in connection with the opening, whereby the air is admitted and controlled in its passage into a room from the exterior, in the manner and by the means substantially as described 30 and shown.

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

THEODORE BURY.

Witnesses:

L. B. BURRIDGE,  
W. H. BURRIDGE.