

W.C. Betts,

2. Sheets, Sheet 1.

Ventilator.

No. 102,478.

Patented May 3, 1870.

Fig. 1

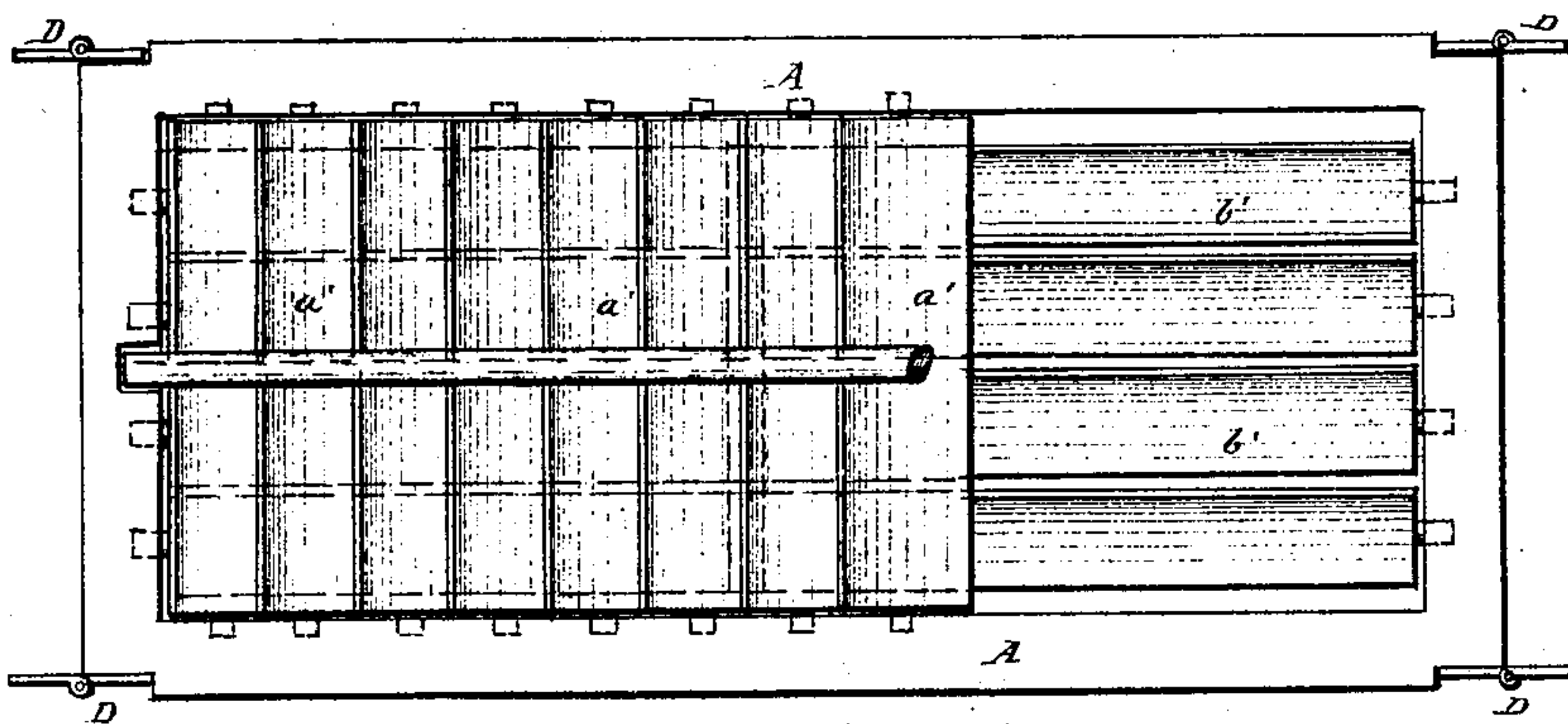
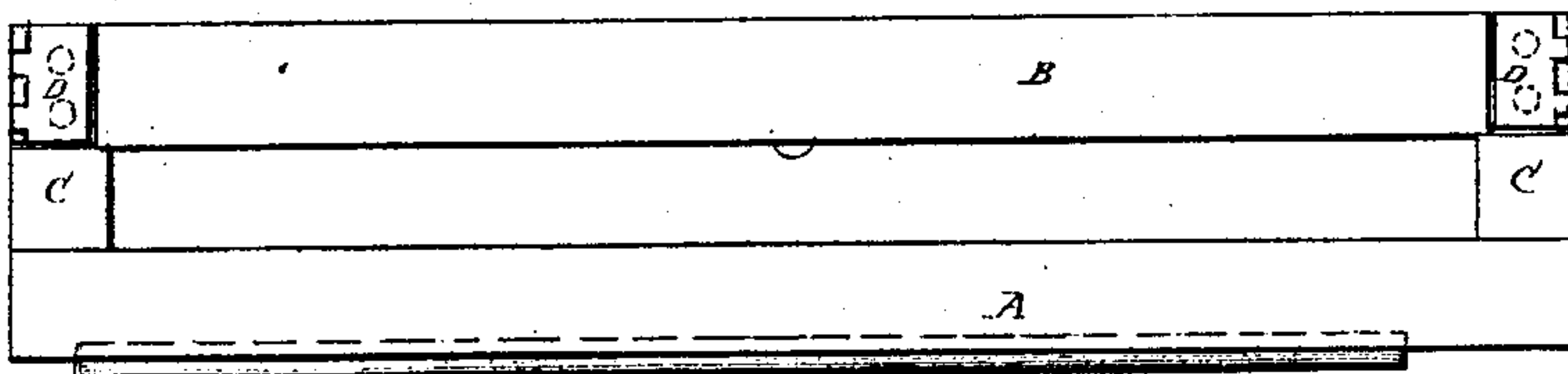


Fig. 2



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W.C. Betts,

2. Sheets, Sheet. 2

Ventilator.

No. 102478.

Patented May 3, 1870.

Fig. 3

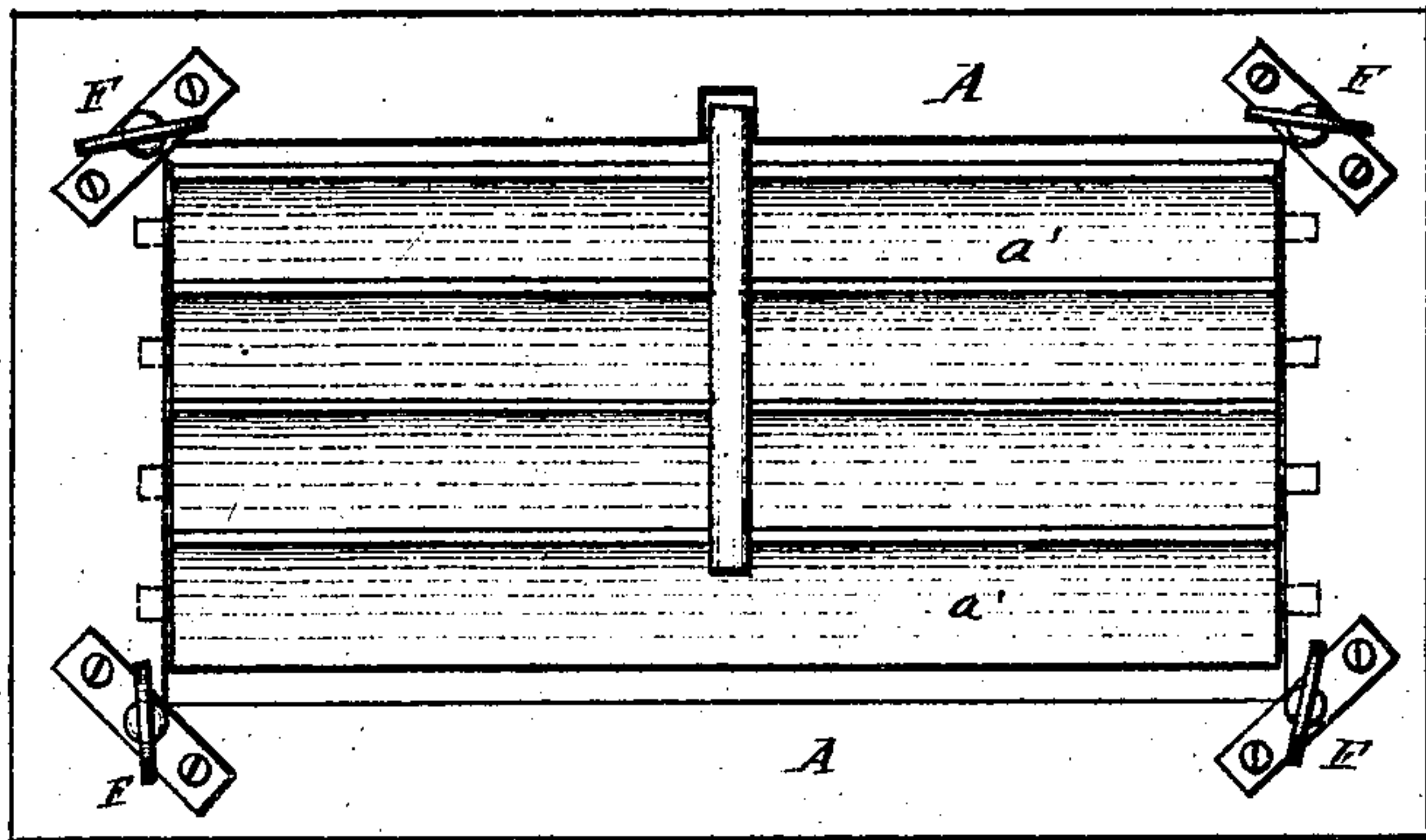
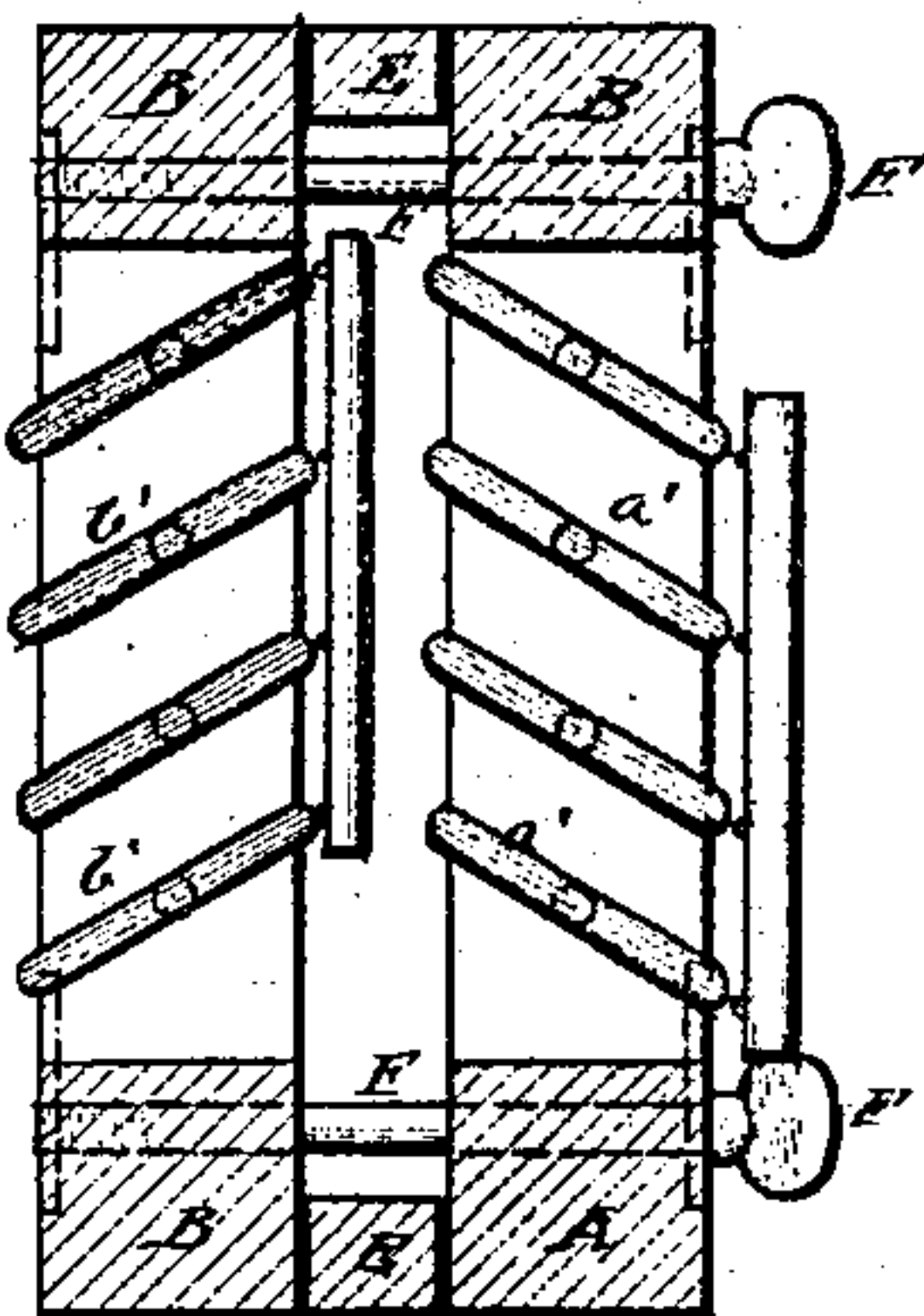


Fig. 4.



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United States Patent Office.

WILLIAM C. BETTS, OF BROOKLYN, NEW YORK.

Letters Patent No. 102,478, dated May 3, 1870.

VENTILATOR FOR WINDOWS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM C. BETTS, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Ventilators for Windows, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1, Sheet I, is a front view of my improved ventilator, part being broken away to show the construction.

Figure 2, Sheet I, is a top view of the same.

Figure 3, Sheet II, is a front view of a modified form of the same.

Figure 4, Sheet II, is a detail vertical cross-section of fig. 3.

My invention has for its object to furnish a simple, convenient, and detachable ventilator for attachment to openings in the windows, doors, or walls of a room, to remove the impure air and introduce fresh air in such a way that no injurious currents will be established, and which may be adjusted to adapt it to different conditions of the atmosphere; and

It consists in the combination with each other of two frames, provided with pivoted slats, whether the slats of the inner frame be vertical or horizontal, to adapt them for insertion in an opening in a window, door, or in the wall or walls of the room to be ventilated, as hereinafter more fully described.

A and B represent the two frames, the dimensions of which must correspond with the size of the openings in which they are to be placed.

In ordinary cases the ventilator is designed to be placed in the upper or lower part of the window, in openings formed by raising or lowering the sashes. In this case the two frames A B should be permanently secured to each other at a little distance apart by the interposition of narrow strips C between the ends of the two frames A B, leaving a narrow space between the top and bottom bars of the said frames, as shown in fig. 2. The frames A B, in this case, are made of such a length as to fit between the sides of the window-casing, in which position they are secured by raising or lowering the sash against the outer frame B, and by means of hinged or sliding catches D, which enter the sash-grooves of said casings.

In the outer or weather frame B, the slats *b'* should be horizontal, but the slats *a'* of the inner frame A may be vertical, as shown in figs. 1 and 2, or horizontal, as shown in figs. 3 and 4.

The former construction I prefer for the ventilator

for the ingress of the air, as it divides up the currents of the entering air better, and enables them to be thrown laterally in either direction, and thus avoids exposure to the direct and uninterrupted currents of air by parties sitting directly in front of the window.

The latter construction I prefer for the ventilator for the egress of the air, as it enables the inner slats to be adjusted to facilitate the escape of the impure air from the room, the slats *a'* being adjusted into the position shown in fig. 4, when the impure air passes out as it rises; but, should the impure air first rise to the ceiling, and thence pass out through the ventilator, the slats *a'* should be adjusted into the position shown in fig. 3, to enable the said impure air to pass out more freely.

By reversing the device shown in fig. 1, (so that the vertical slats shall be on the outside,) it may be used to facilitate the egress of vitiated air by turning the slats laterally in accordance with the direction of the wind, since the latter will cause a current of air to flow from the room more or less forcibly.

If desired, a pane of glass may be removed from a window-sash, the frames A B made of such a size as to just cover the square of the sash, from which the glass has been removed, placed one upon the outer and the other upon the inner side of the sash, and clamped to each other and to the sash E by clamping thumb-screws F, passing through the inner frame A, and screwing into the outer frame B, said screws passing along the inner sides of the sash-bars E, as shown in figs. 3 and 4.

These ventilators are especially designed for windows, but may be placed in openings in doors, or in the wall or walls of the room, according to the circumstances of the case.

For the proper ventilation of the room, at least two ventilators should be used, and they should be placed upon the opposite sides of the room, and adjusted as the circumstances of the case may require.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The combination with each other of two parallel frames, A B, provided with pivoted slats *a' b'*, whether the slats of the inner frame be vertical or horizontal, to adapt them for insertion in windows, doors, or in openings in the wall or walls of the room to be ventilated, substantially as herein shown and described, and for the purpose set forth.

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