

B. A. Jenkins.

Window Shutter.

N^o 84,124.

Patented Nov. 17, 1868.

Fig. 1.

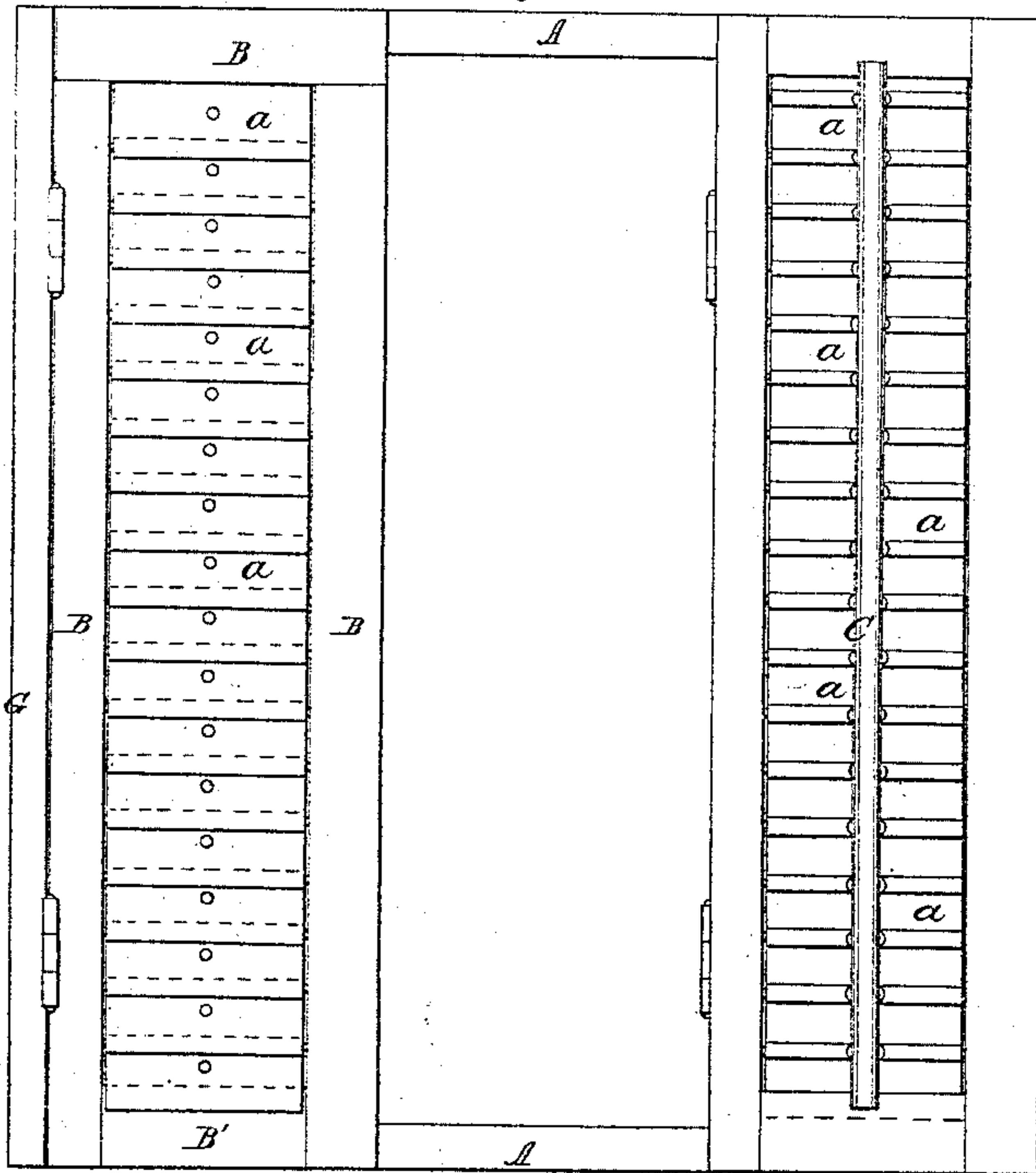


Fig. 2.

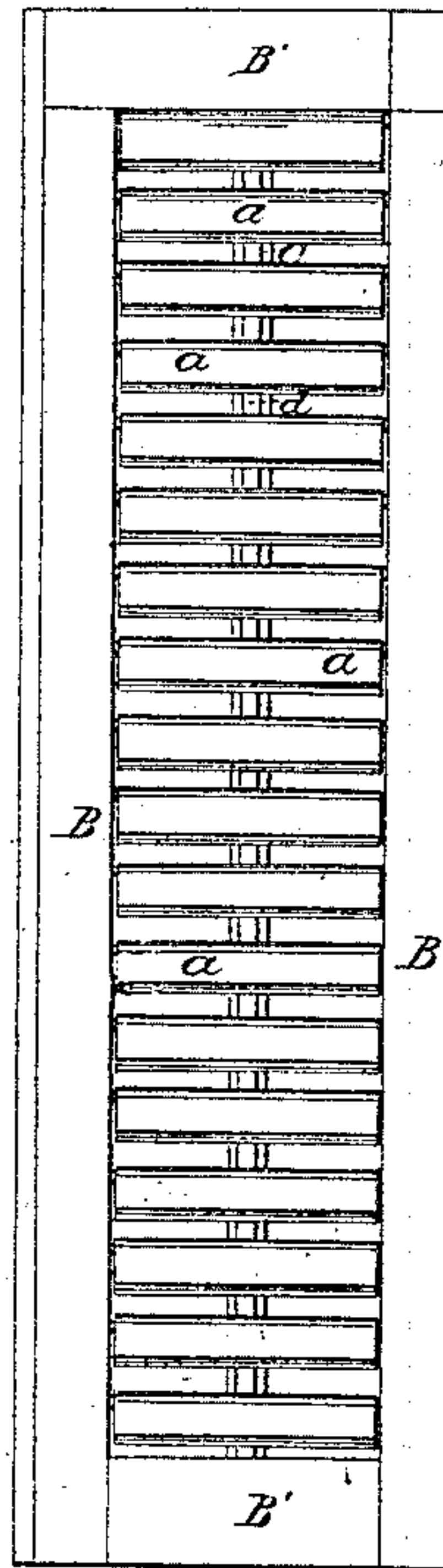


Fig. 4.

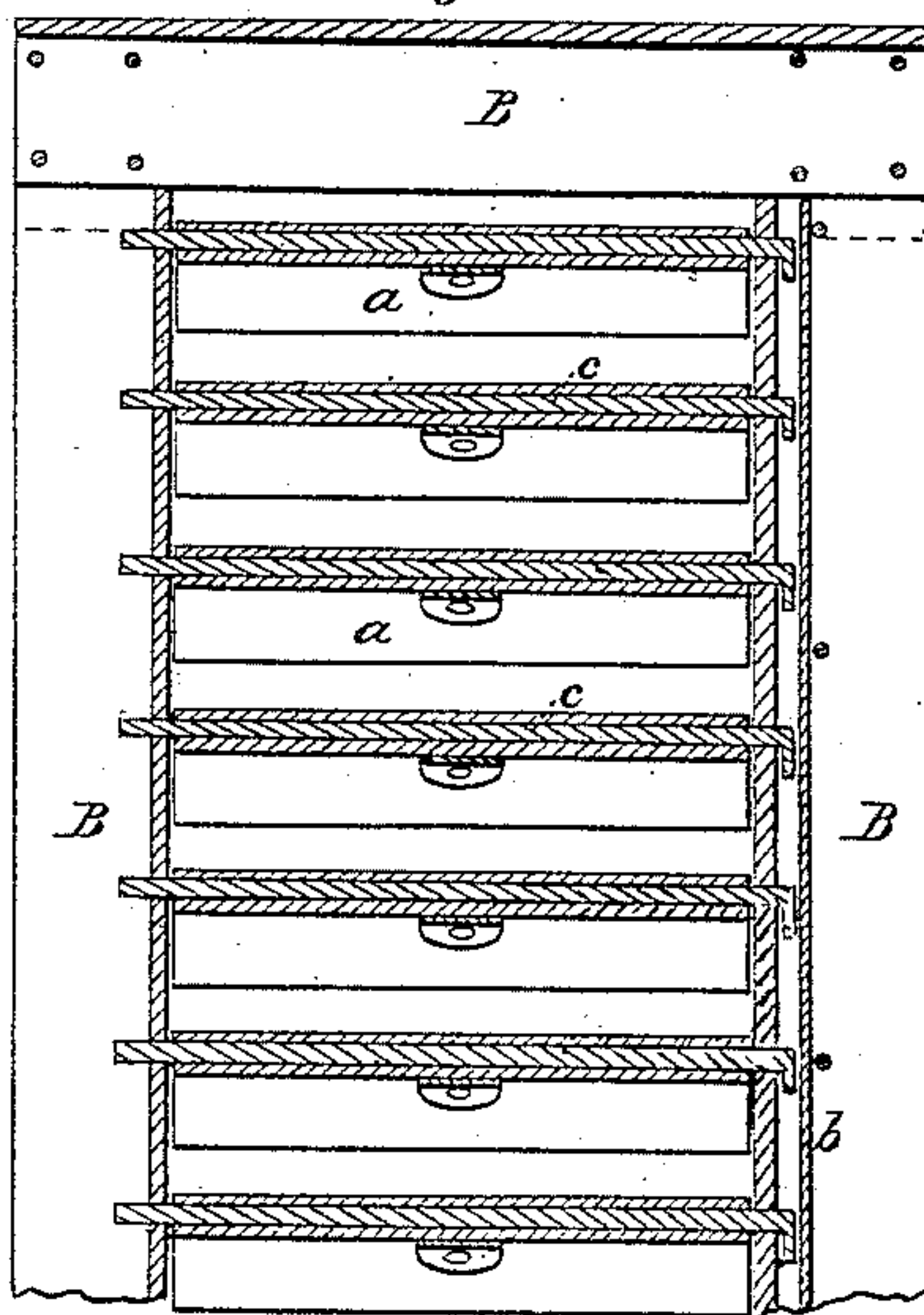


Fig. 3.

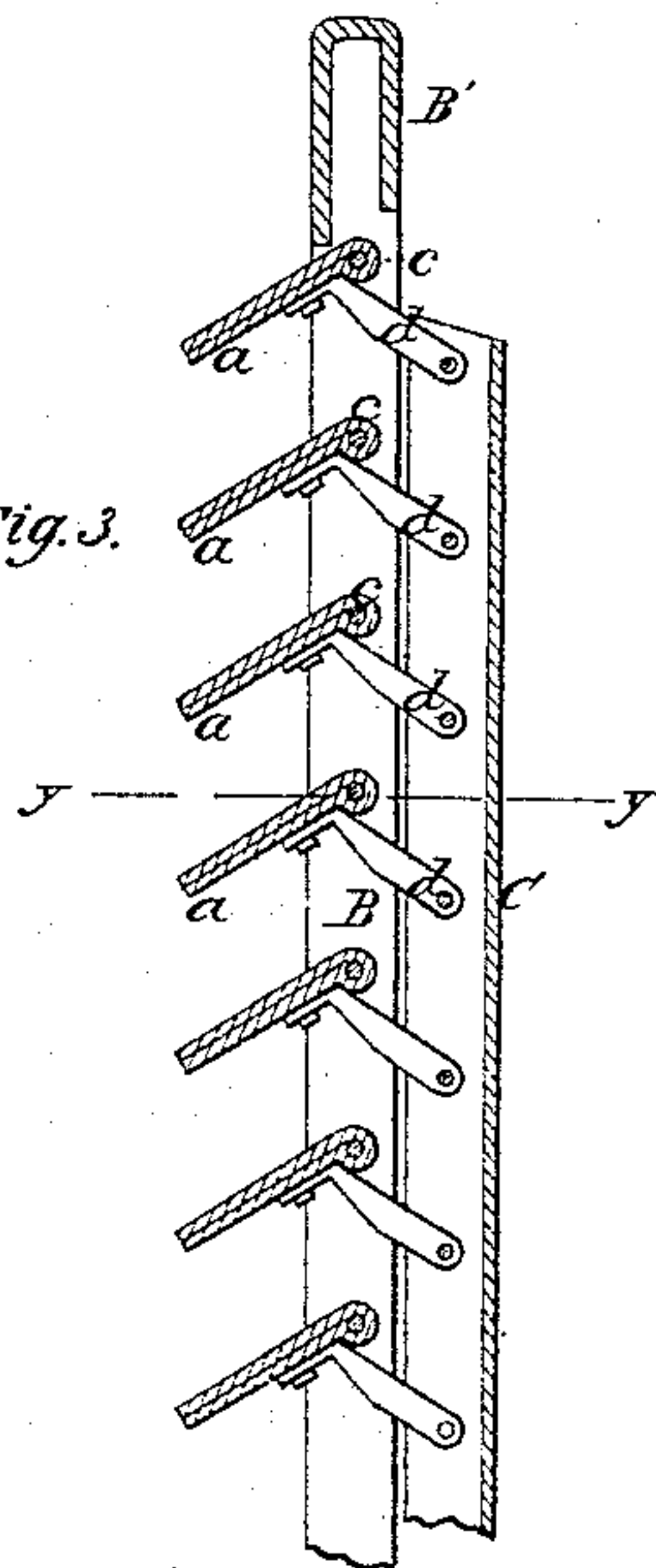
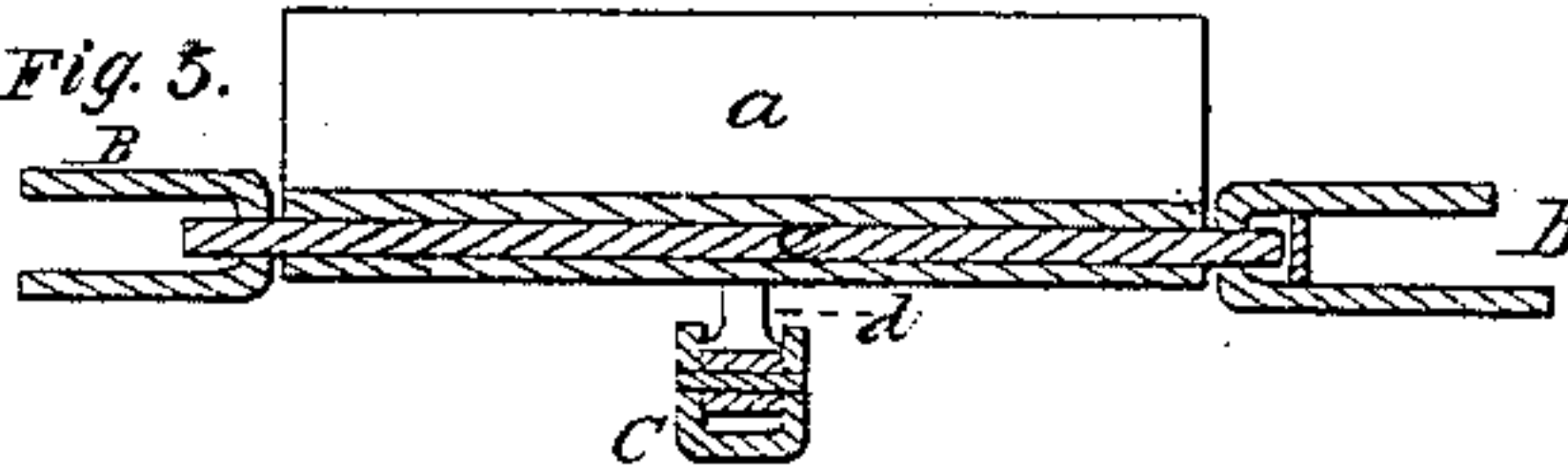


Fig. 5.



Witnesses:
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BENJAMIN A. JENKINS, OF LA CROSSE, WISCONSIN.

Letters Patent No. 84,124, dated November 17, 1868.

IMPROVED IRON WINDOW-SHUTTER.

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, BENJAMIN A. JENKINS, of La Crosse, in the county of La Crosse, and State of Wisconsin, have invented certain new and useful Improvements in the Construction of Shutters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an outside view of a window-frame, showing two of the improved shutters hinged to it, one of which is shut, and the other open.

Figure 2 is a view of the outside of a shutter, showing the movable slats thereof, partly open.

Figures 3, 4, and 5 are sectional views, in detail, showing the construction of the several parts constituting a shutter.

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

The object of this invention is to so construct outside shutters or blinds for windows and doors that they will afford protection to the window-sash and frames in case of a fire in an opposite or adjacent building, and so that they will be fire-proof themselves, and also much stronger and more durable than wooden shutters.

The nature of my invention consists in constructing the frames of shutters, the slats, and the outside facings of the window-frames, of metal plates, bent in such manner as to leave air-spaces for the free circulation of air, and also to afford great strength and stiffness, and, at the same time, lightness, as will be hereinafter explained.

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

The drawings represent shutters for windows, which are constructed with pivoted or movable slats; but, under my invention, shutters may be constructed either for windows or doors, and with movable or fixed slats, as may be required.

Each shutter-frame consists of two upright parallel strips B B, united at their ends, by riveting or otherwise, to the ends of cross-pieces B' B', and each one of said strips is composed of a thick sheet-metal strip, which is bent so that in cross-section it presents the form of the letter U. By thus bending the plates or strips of metal, they are rendered very stiff and strong, and spaces are left for a free circulation of air. In this way, a double-wall fire-proof frame is produced, which will retain very little heat when exposed to a fire, and through which heat will not be readily conducted, on account of the circulation of air between its walls.

In the construction of the frame, I have the disconnected edges of the two walls of each upright strip B outside, and perforate the connected edges thereof, for the reception of rods c c, that serve as pivoted connections for the slats a, as shown in figs. 4 and 5.

Each one of these rods is hooked on one end, which hook serves, in connection with a strip, b, to keep the rod in place. The strip b is fitted between the walls of one of the uprights B of the window-frame, and held in place by rivets passed through this upright.

The slats a, like the strips composing their window-frame, are made of sheet-metal, bent double, so as to

form an eye along the edge of each slat for receiving one of the pivot-rods c through it, when adjusted in place in its frame, as shown in the drawings.

The slats a are made of somewhat thinner metal than that of which the frame-pieces are made, and these slats, like the frame-pieces, may be readily formed by machinery suitably adapted to the purpose.

To the inner side, and at the middle of the length of each slat a, a short arm, d, is riveted or otherwise secured to it, which arm has an eye through one end, for receiving a pivot-pin, that attaches it to the upright rod C, by which all the slats are moved about their respective pivots c. This rod C is made of sheet-metal, bent precisely like the frame-strips B, as shown in figs. 3 and 5.

It will be seen, from the above description, that each one of the slats is double, and has a narrow air-circulating space between its walls or plates, which will prevent such a degree of heat being conducted through such slats as would be liable to set fire to the wood-work of windows.

By reference to fig. 1, it will be seen that the shutters are hinged to facing-strips G, that may be secured in any suitable manner to the window-frame A. These strips are made of thick sheet-metal, doubled, so as to leave an air-space between each, and are designed to afford protection to the window-frame against fire.

I do not confine my invention to window or door-shutters having movable slats, as the slats may be secured rigidly to the edges of the uprights of the shutter or door-frame, so as not to move; nor do I desire to claim broadly a metallic shutter, as shutters for doors and windows have been made of metal before my invention, but not, as I believe, in the manner hereinabove described.

Having described my invention,

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

1. Metal slats a, which, in transverse section, are of a form very similar to the letter U inverted, the leaves of each slat being pressed together, so as to leave an air-space between them, and form an eye just below the arch of the U, to receive and confine the pivot on which the slat is hung, all as herein described and shown.

2. As a new article of manufacture, the metal window-shutter, with its hinging sides, made of U-iron, and its closing sides, of a similar-shaped iron, lapping at the closing edges, said shutter having its slats double, and pivoted to the arch of the U-iron, and also having its bar, which adjusts the slats, made of U-iron, and connected to the slats by iron brackets, all as described.

3. The arrangement of the U-sheet-metal hinging-facing strips G G, in combination with the double slats and U-metal frame, all in the manner described and shown.

4. The pins c, carrying slats a, with bent ends, in combination with the retaining-strip b, as herein described.

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Witnesses:

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