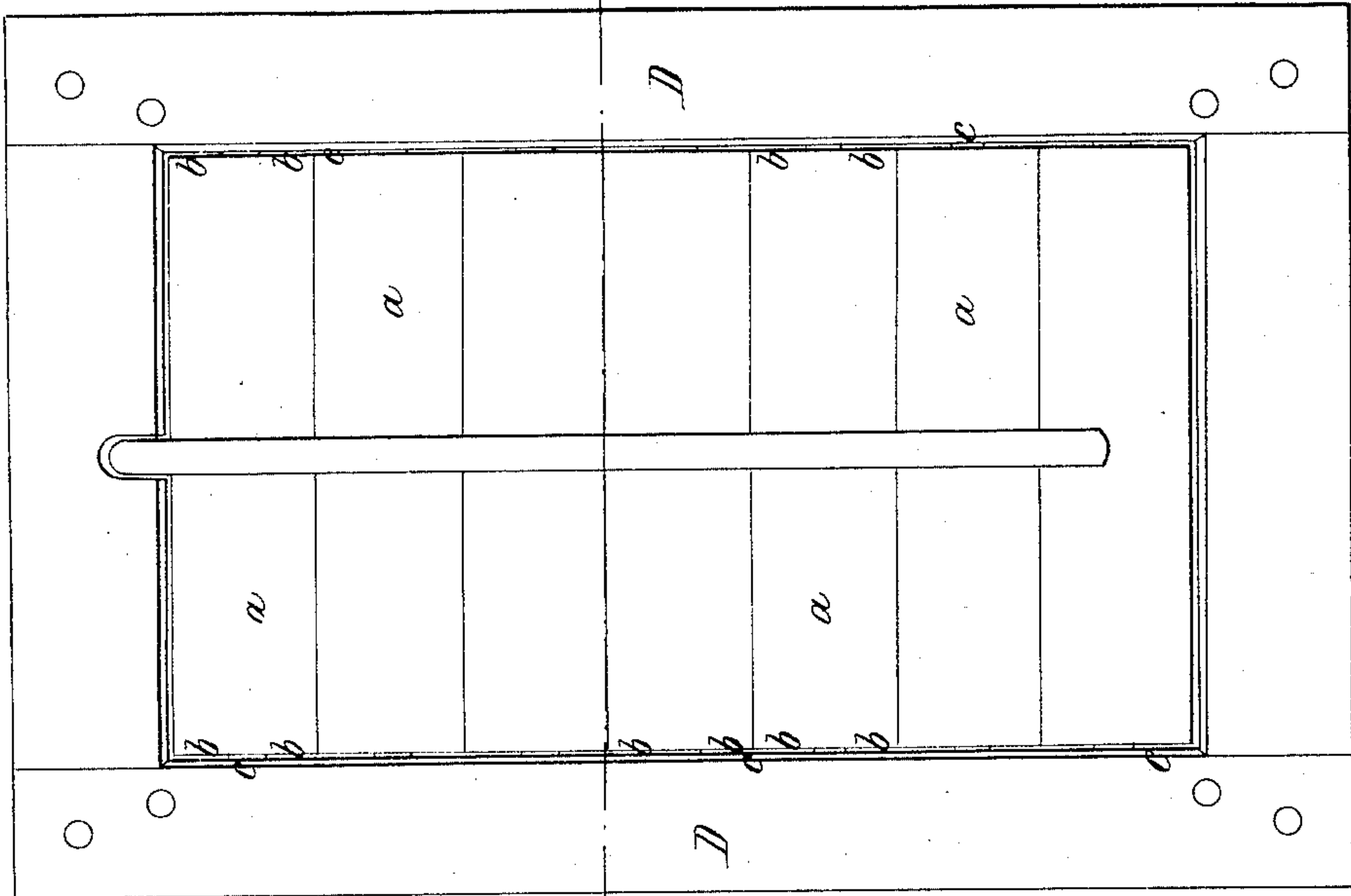


*Smith & Loonis*

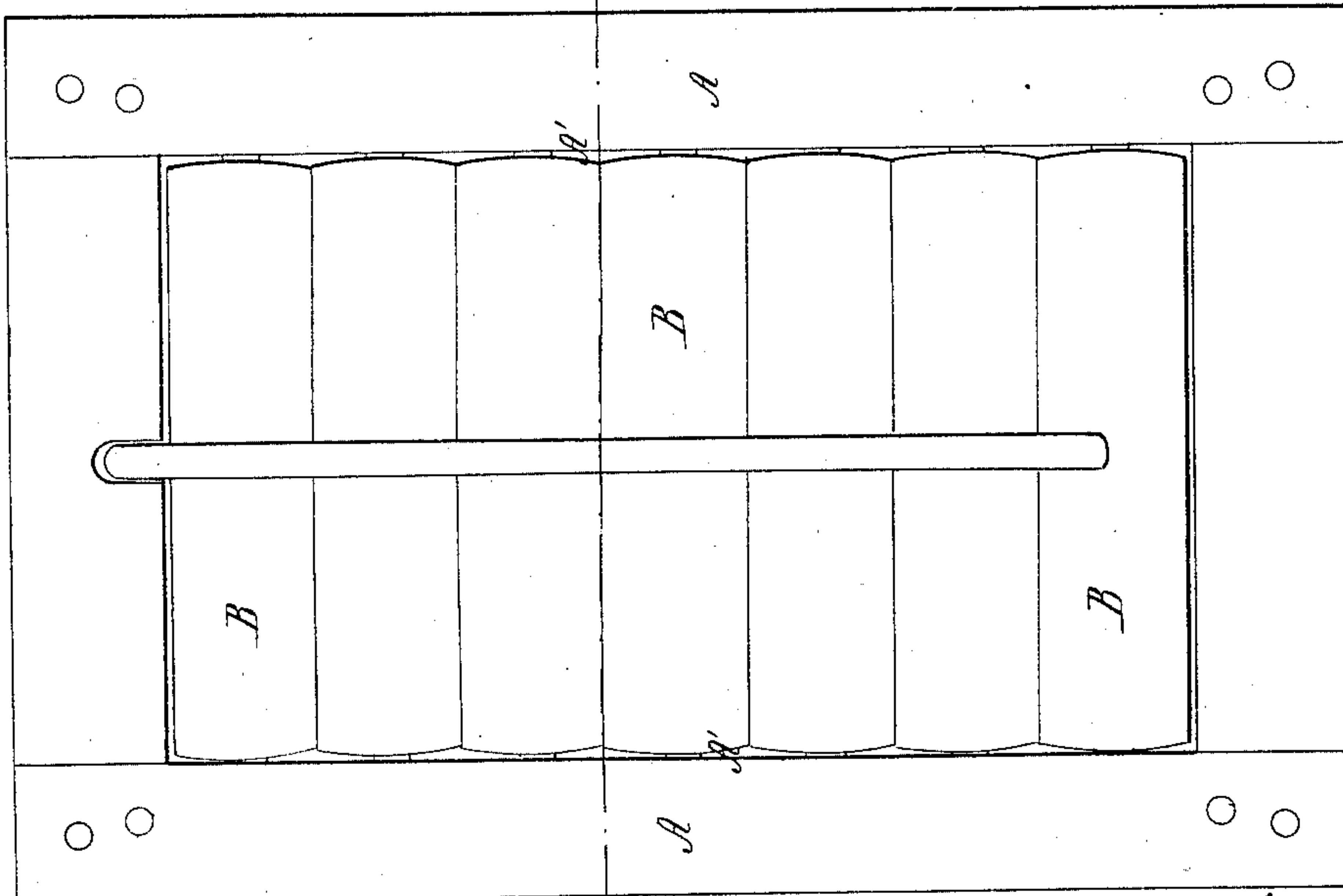
*Window Shutter*

*N<sup>o</sup> 67,363.*

*Patented Jul. 30, 1867.*

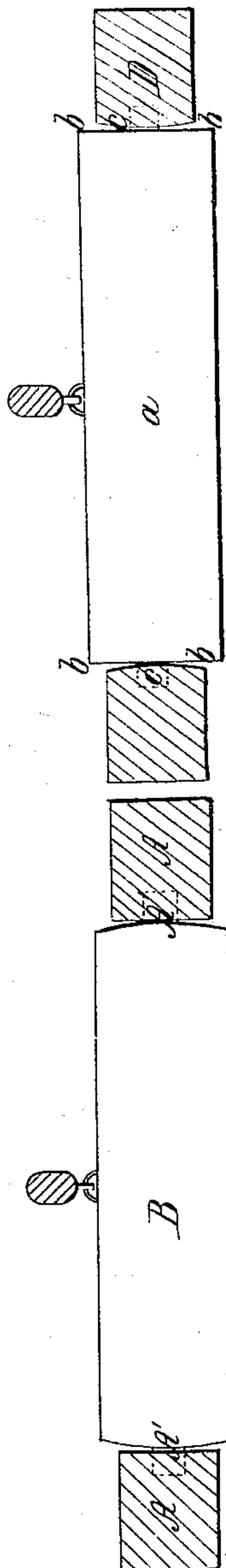


*Fig. 3*



*Fig. 1*

*Fig. 4*



*Fig. 2*

*Witnesses;  
R. Y. Campbell  
Edw. Schoppe*

*Inventors;  
Smith & Loonis  
By Mason French &  
Lawrence  
Their Attorneys*

# United States Patent Office.

HIRAM SMITH AND THOMAS J. LUMIS. OF NORWICH, CONNECTICUT.

*Letters Patent No. 67,363, dated July 30, 1867.*

## IMPROVED WINDOW-BLIND.

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

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, H. SMITH and T. J. LUMIS, of Norwich, in the county of New London, and State of Connecticut, have invented an Improved Window-Blind; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an inside view of the old form of window-blind.

Figure 2 is a horizontal section of the same.

Figure 3 is an inside view of our improved blind.

Figure 4 is a horizontal section of the same.

This invention is an improvement in the construction of window-blinds having movable slats. It consists in constructing the blind in such manner as to make closely-fitting joints between the ends of the pivoted slats and the inner edges of the stiles, and at the same time to provide for allowing the slats to work freely, as will be hereinafter described.

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

In the accompanying drawings we have represented two of the old forms of window-blinds, in order to facilitate us in the description of our improved blind. It will be seen that the inner edges A' of the stiles A are made square, or at right angles to the longitudinal edges of the slats B. These edges of the stiles being made square, it is necessary to chamfer the ends of the slats B on both sides of their respective tenons, for the purpose of allowing of the opening and closing of these slats without having them rub and bind at their ends. One objection to the chamfering of the slats B is the leaving of openings between their ends and the stiles when the slats are closed, as shown in fig. 1. Another objection to the chamfered slats B is that they cannot be conveniently made by the most improved slat-tenoning machinery. In figs. 3 and 4, of the accompanying drawings, an invention is illustrated whereby the above-mentioned evils are remedied. The slats *a a*, in these figures, are constructed with square shoulders *b b* on their ends; that is to say, the ends of these slats are at right angles to their longitudinal edges and axes of motion. In order to employ such slats, we round the inner edges of the stiles D D, as shown at *c c* in fig. 4, so as to leave the centre of each edge along the axes of the tenon holes therein—the highest point and the only point which is allowed to touch the ends or shoulders of the slats. By this mode of construction, the ends of the slats will not rub nor bind against the stiles, in the act of opening or shutting these slats, notwithstanding the fact that closely-fitting joints are formed at the ends of the slats when closed, as shown in fig. 3.

Instead of rounding the inner edges of the stiles, to expose very little abutting surface, the same result may be produced by beading the edges of the stiles, or bevelling said edges, so as to leave those portions thereof which are in line with the slat tenons the highest. In some cases the beading or moulding of the inner edges of the stiles will be preferred, as this will give a neat appearance to the blinds, and, at the same time, prevent the slats from binding or working hard.

It will be clearly seen that if the ends of the slats are curved, and the edges of the stile straight or square, or not reduced, wind and light-spaces will exist when the slats are closed. The drawings, figs. 1 and 2, show these defects very plainly, while the drawings, figs. 3 and 4, show these defects remedied by our invention.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The construction of movable blind-slats, with square shoulders *b b*, in combination with stiles, which are constructed with rounded or reduced edges, substantially in the manner and for the purposes described.

HIRAM SMITH, [L. s.]  
THOMAS J. LUMIS. [L. s.]

Witnesses:

WEBSTER PARK,  
A. F. PARK.