

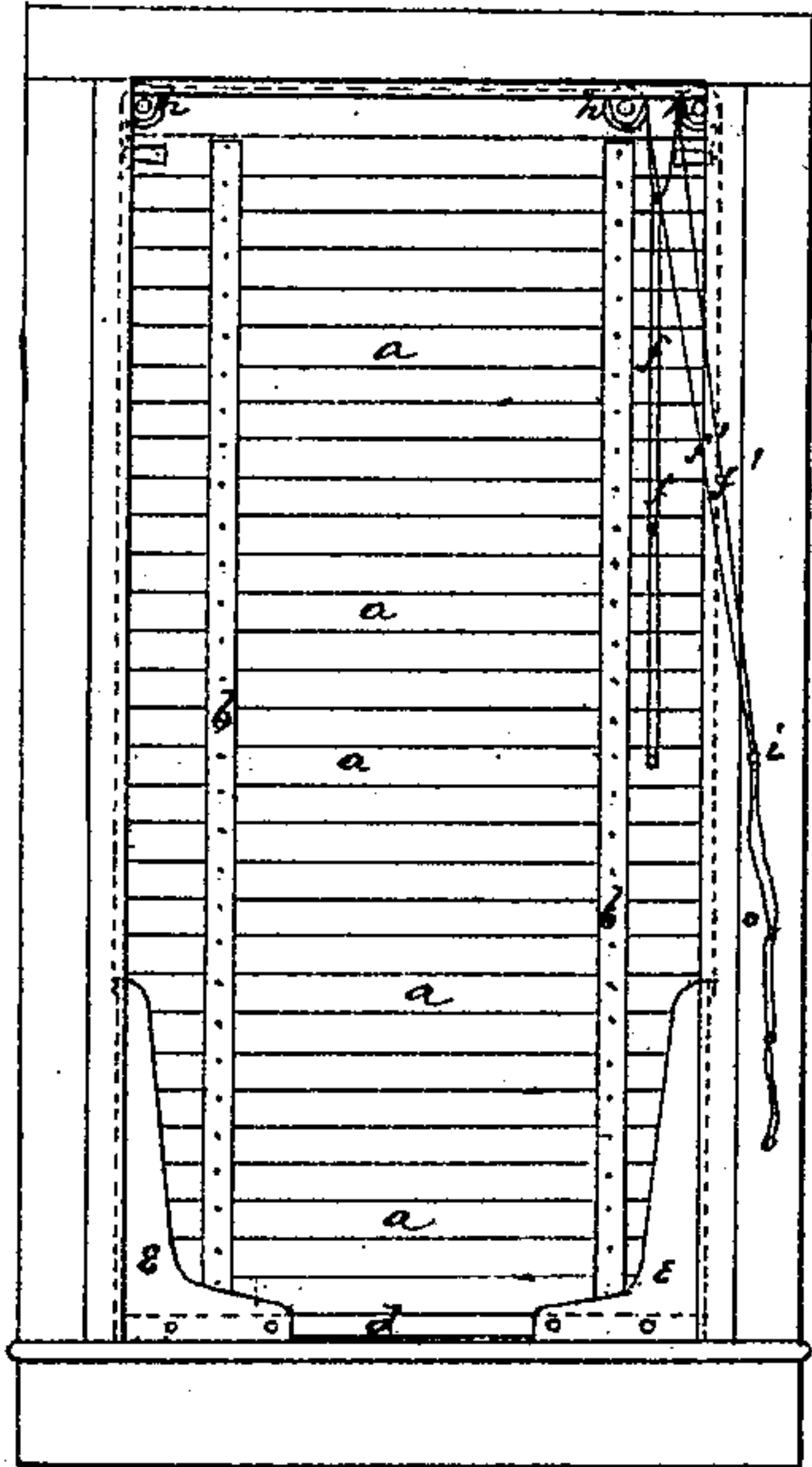
*A. W. Porter,*

*Window Shade.*

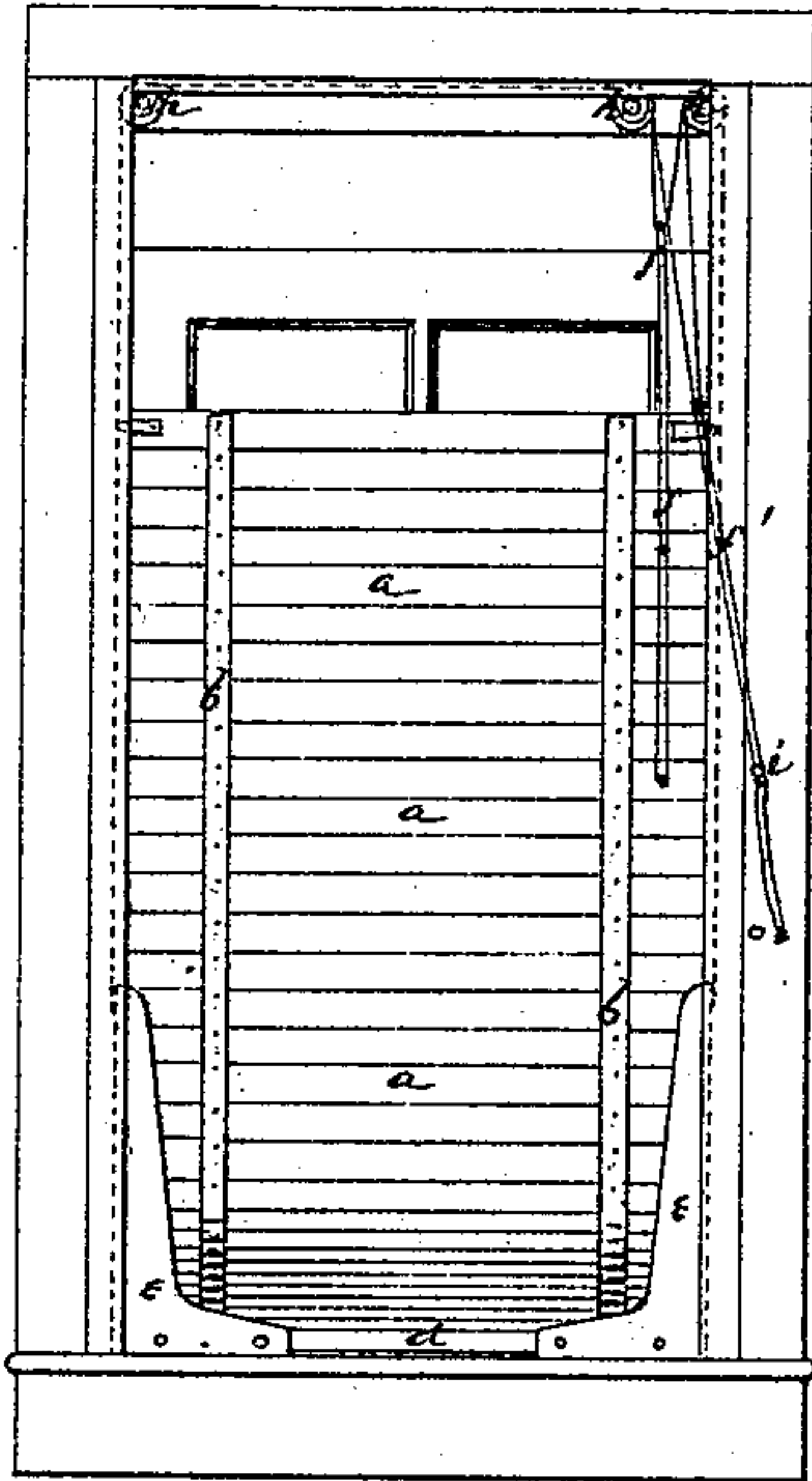
*No. 110,787.*

*Patented Jan. 3. 1871.*

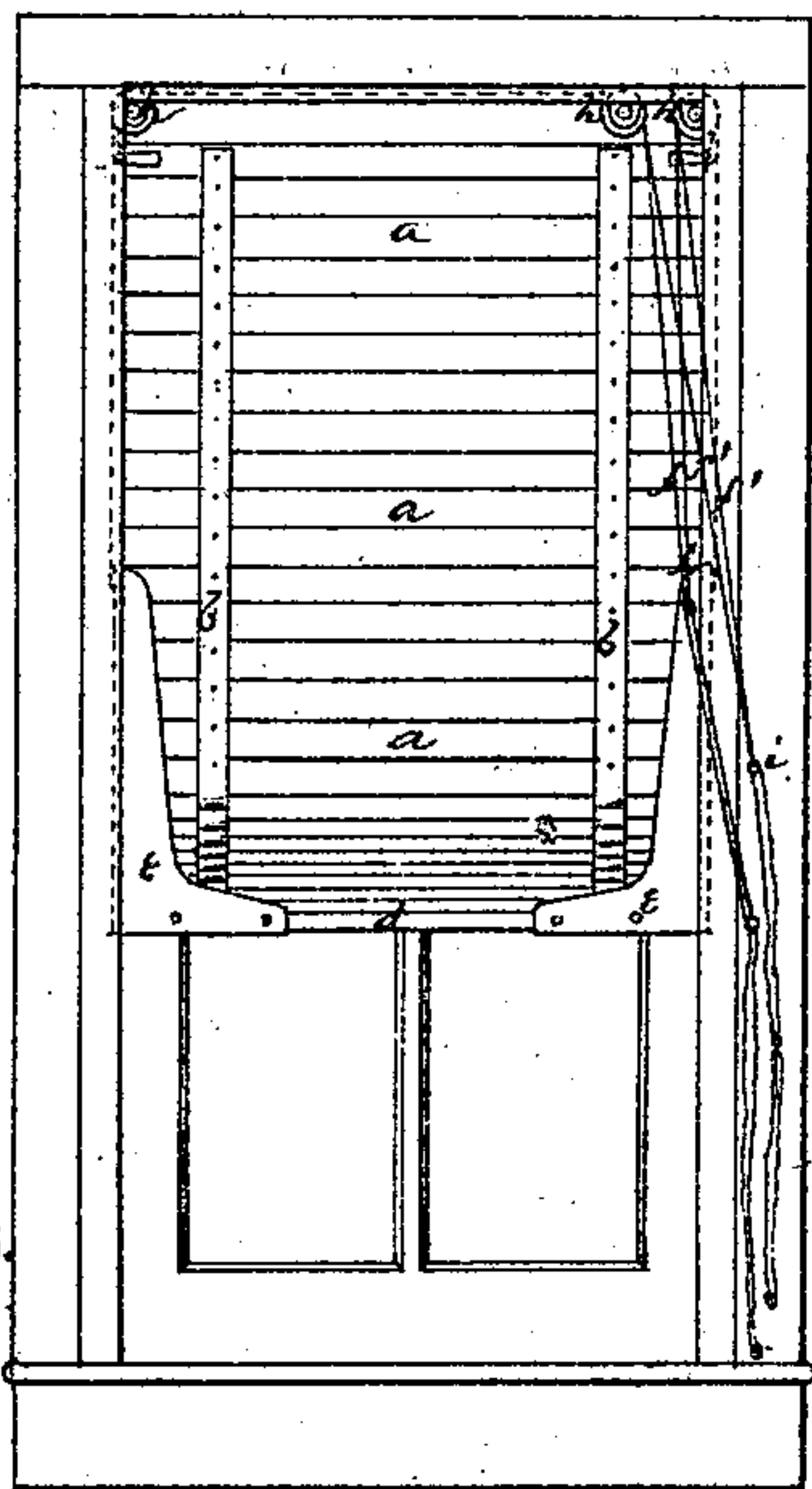
*Fig. 1.*



*Fig. 2.*

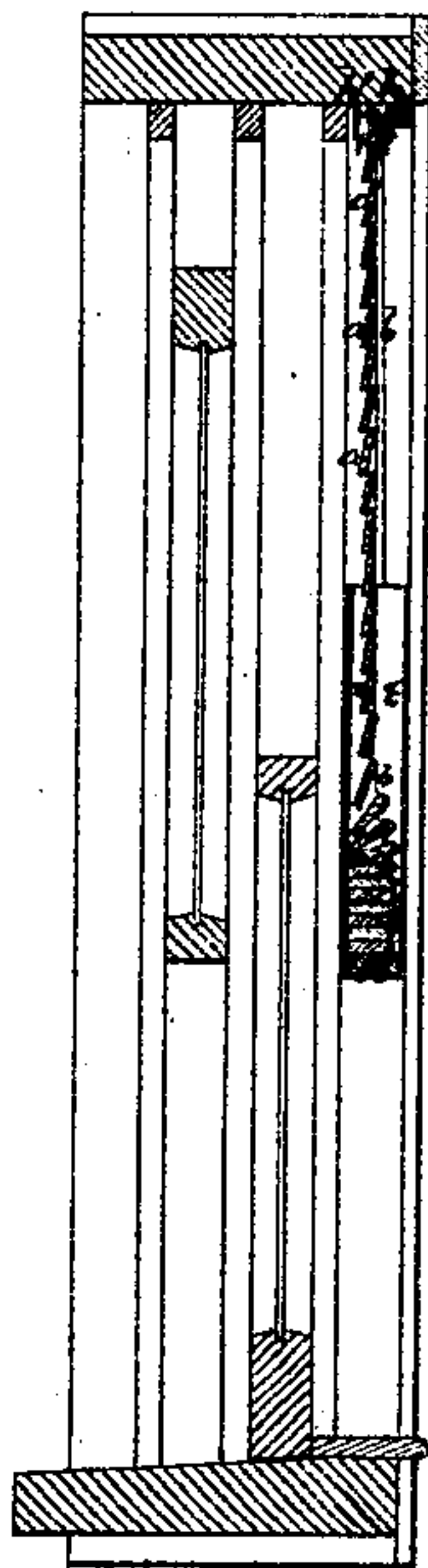


*Fig. 3.*



Witnesses.

*Fig. 4.*



Inventor.

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 *Jas. C. Hutchinson*

*Amel W. Porter*  
*per Alexander Mason*  
*att'y.*



# United States Patent Office.

ANSEL W. PORTER, OF UNION CITY, INDIANA.

Letters Patent No. 110,787, dated January 3, 1871.

## IMPROVEMENT IN WINDOW-SHADES.

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, ANSEL W. PORTER, of Union City, in the county of Randolph and in the State of Indiana, have invented certain new and useful Improvements in Window-Shades; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a window-shade, which can be raised from the bottom or lowered from the top at will, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a front view, showing the shade entirely covering the window;

Figure 2 is a similar view, showing the shade lowered from the top;

Figure 3 is also a front view, showing the shade raised from the bottom; and

Figure 4 is a transverse vertical section through the center of fig. 3.

My shade is composed of a series of horizontal slats, *a a*, connected by straps, *b b*, in a certain manner that will be presently described.

The lower ends of these straps *b b* are attached to a bar, *d*, at the ends of which are secured flanged pieces, *e e*, forming a kind of box, of such height that all the slats may be contained therein when folded together.

To the upper ends of the flanged end-pieces *e e* are attached cords, *f f*, which pass upward over pulleys, *h h*, in the upper part of the window-frame, said cords being afterward connected together.

Other cords, *f' f'*, are attached to the ends of the uppermost slat *a*, and pass over pulleys, *h' h'*, placed immediately in rear of the pulleys *h h*.

These cords are also connected together, and, being hooked onto a pin or hook, *i*, on the side of the window-frame, hold the entire shade up to the top of the window, as shown in fig. 1. By loosening the cords *f' f'* from the hook *i*, the shade may be lowered from the top so as to admit light from the top of the window, and also admit air, if the upper sash is lowered, as shown in fig. 2.

By the use of the cords *f f* the shade can be raised from the bottom to any height desired.

It is, of course, understood that one or more suitable hooks or pins must be provided, to which the

cords *f* or *f'* are to be attached, for holding the shade in any desired position.

In either case, whether the shade is lowered from the top or raised from the bottom, the slats fold into the box *d e*, and the movement in either direction can be executed with the utmost rapidity without danger of entangling, or in any way injuring the slats.

In place of pins or hooks for fastening the cords, I may provide a spring at any suitable point on the window-frame, under which the cords may be slipped and held so as to support the shade at any height desired.

The shade need not necessarily be made to cover the entire window. It may be made in sections, each section covering a portion of the window, and provided with its own rigging, so as to operate independently of the other, thus dispensing with the expensive inside shutters.

For the proper working of my shade it is necessary to connect the slats in a peculiar and particular manner, which is as follows:

The lower edge of each slat overlaps the upper edge of the slat immediately below it, and the straps are attached to the slats near their upper edges. In inch-slats the straps should be attached about one-eighth of an inch from the upper edge.

When the slats are arranged and connected in this manner they will fold up very readily as a book, for which reason I have given it the name of a "book-shade."

Having thus fully described my invention,

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

1. A window-shade, composed of slats connected by straps or equivalents, when said straps are attached to the slats near the upper edge, and the lower edge of each slat overlaps the upper edge of the adjoining slat, substantially as herein set forth.

2. In combination with a window-shade composed of slats and straps, or equivalents, in the manner described, the box *d e*, constructed and arranged substantially as and for the purposes herein set forth.

3. The within-described "book-shade," constructed as described, so as to be lowered from the top, and raised from the bottom at will, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of December, 1870.

ANSEL W. PORTER.

Witnesses:

C. L. EVERT,

EDM. F. BROWN.