E. GREEN.

WINDOW-BLINDS.

No. 185,100. Patented Dec. 5, 1876.

Fig. 1.

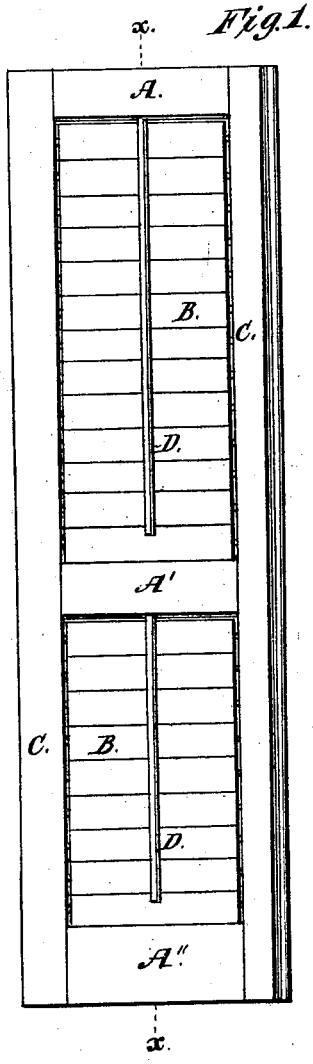

Fig. 2.

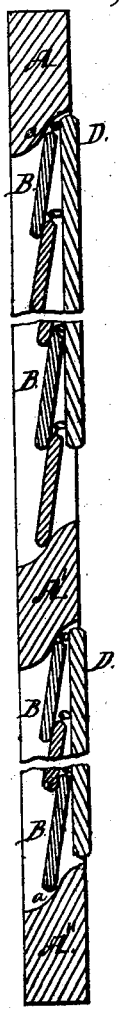

Fig. 3.

Witnesses:

Geo. A. Sturgeon

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UNITED STATES PATENT OFFICE.

ELMER GREEN, OF NORTH EAST, PENNSYLVANIA.

IMPROVEMENT IN WINDOW-BLINDS.

Specification forming part of Letters Patent No. **185,100**, dated December 5, 1876; application filed August 14, 1876.

To all whom it may concern:

Be it known that I, ELMER GREEN, of North East, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Window-Blinds; and I do hereby declare the following to be a full, clear, and exact description thereof.

The nature of my invention consists in tapering the holes in which are pivoted the slats of a window-blind, and also in tapering the tenon of the slats, as hereinafter more fully described.

My device is shown in the accompanying drawing, as follows:

Figure 1 is an elevation view of a blind containing my improvements. Fig. 2 is a vertical and cross section through the same; and Fig. 3 is a horizontal section through the same.

The letters of reference indicate parts, as follows:

A A′ A″ are the cross-rails. B B are the slats; *b*, the gudgeons of the slats; C C, the inner vertical rails. D is the rod for turning the slats.

By reference to Fig. 2 it will be seen that the cross-rails A, A′, and A″, are finished on the edge that comes in contact with the slats with a rabbet, *a*, which, as shown in the drawing, is ogee-shaped; but any sloping or rectangular cut will do, but I prefer the ogee-shape, as it is more ornamental. The objects of these rabbets are to form a lap for or with the slat, and also to form a water-shed on the upper side of the rails A′ A″, and on the under side of the rails A A′ it forms, besides the lap, a recess for the end of the slat-turning rod D.

I believe that a lap has been heretofore formed by placing a piece of a slat at an angle across the length of the rail, against which the slats would shut when closed.

The advantage of my mode of construction is that the stuff for the rails can be run out in long lengths with the rabbet on. In fact, I secure a lap for the slats without any extra work at all. The advantage of a water-shed at the points named is considerable, as it prevents the water standing on the rail, from whence, especially after the blinds have become weather-worn, it is soaked into the joints and hastens the decay and destruction of the blind. As blinds are now made, a recess for the slat-turning rod D has to be cut out of the rail at the proper place, so the slats can close tight. By my construction this is obviated, as the rabbet serves that purpose. Thus considerable labor is saved.

Another feature of my invention is the form of the rabbet on the inner or vertical rail or stile C. All blinds join in the center of the window by a rabbet-joint, but I believe a rectangular rabbet is used, and when the blind is swollen in wet weather they often refuse to close, and it is necessary to set the faces of the rabbets together and then draw both blinds in at once. This strains the hinges, and sometimes breaks them. Then, in dry weather, when the blind is shrunk, the joint is too open. To obviate these difficulties, I use at this place on the blind, an ogee-rabbet. (See Fig. 3.) With this form of rabbet the blinds will always shut easily and closely.

Another feature of my invention consists in making the holes in which the slats are pivoted tapering or conical shaped, (see Fig. 3,) and also forming the gudgeons of the slats correspondingly and of a proper length, so the bearing will be on the point of the gudgeon.

The object of this form of construction is to bring the bearing in so far that paint getting into the holes will not stick the slat so it cannot be turned. Besides, the holes being tapering, as shown, paint or water getting in will run back out, while in a straight hole it will stay there and make trouble. Another object or result of this form of hole and place of bearing is economizing the amount of stuff used in making the slats.

When the hole is straight the tenon is straight, and to make the tenon of sufficient size to insure proper strength the slats must be thicker than necessary. But having the bearing at the point of the tenon there is no necessity of the tenon being round, except at the point; so I can get the necessary strength by widening the tenon at the base, and thus I make a slat of much thinner stuff, and find I save nearly one half of the material.

What I claim as my invention is as follows:

1. A window-blind slat, having a conical

tenon, in combination with a stile, having a conical hole for the said tenon, said arrangement being for the purpose of giving a bearing to the tenon at its inner end, and for the other purposes set forth.

2. A window-blind consisting of the cross-rails A A′ A″, constructed as set forth, inner vertical rail C, rabbeted with an ogee-rabbet, slats whose tenon has a tapering, pointed, or conical form, and the holes in which said slats are pivoted tapering in form, the whole constructed and arranged to operate substantially as described.

In testimony whereof I, the said ELMER GREEN, have hereunto set my hand.

ELMER GREEN.

Witnesses:

FRANCIS PETER LIEBEL,

JNO. K. HALLOCK.