A. T. ELFORD.

INSIDE BLINDS.

No. 188,731. Patented March 27, 1877.

Fig. 1.

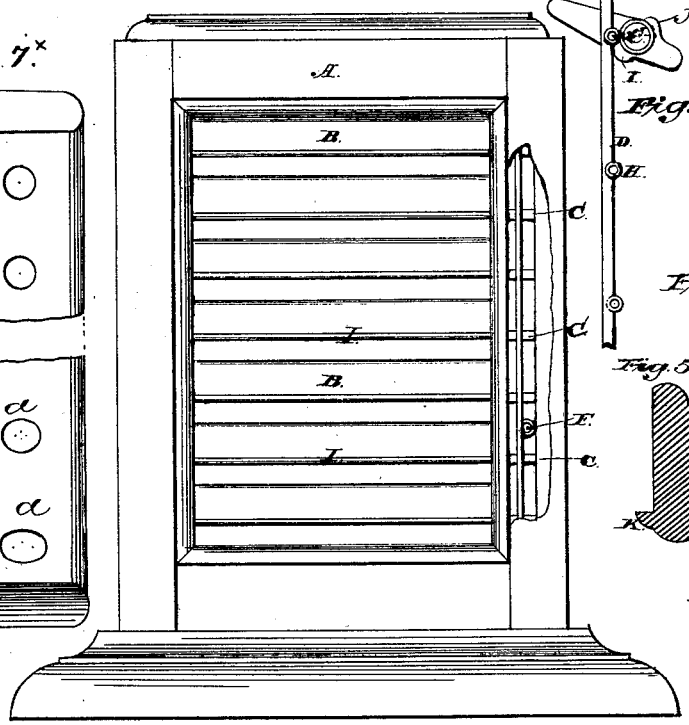


Fig. 7.

Fig. 4.

Fig. 3.

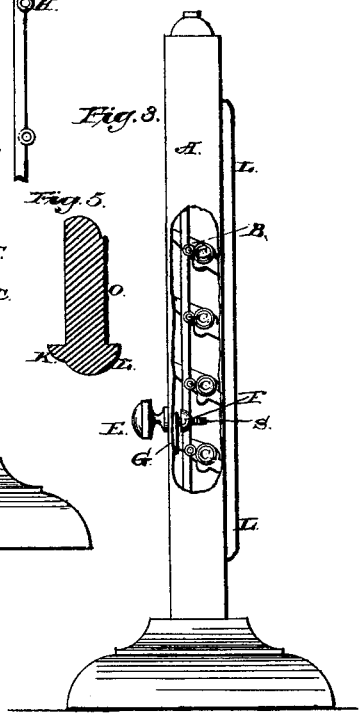


Fig. 5.

Fig. 2.

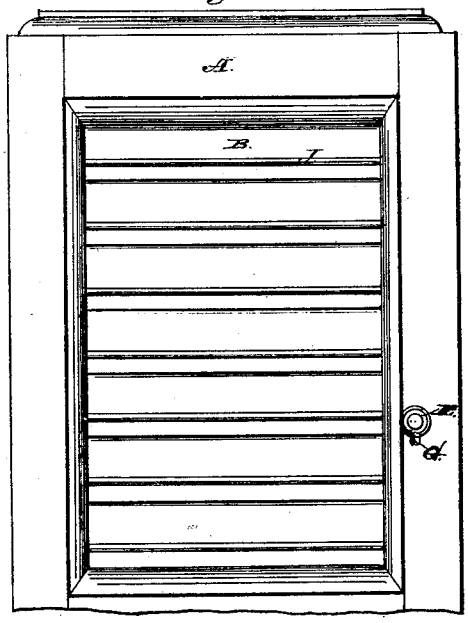
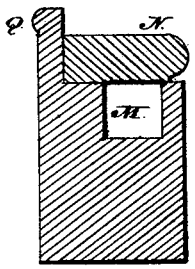


Fig. 7.

Fig. 6.



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UNITED STATES PATENT OFFICE.

ALFRED T. ELFORD, OF OAKLAND, CALIFORNIA.

IMPROVEMENT IN INSIDE BLINDS.

Specification forming part of Letters Patent No. **188,731**, dated March 27, 1877; application filed May 2, 1876.

To all whom it may concern:

Be it known that I, ALFRED TOWNSEND ELFORD, of Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in the Construction and Arrangement of Inside Blinds for Windows, of which the following is a description, reference being had to the accompanying drawing and the letters marked thereon.

Figure 1 is a front elevation, with a section cut to show the action of the blind-slats and their operation by the connecting-rod D, and showing the set-nut F. Fig. 2 is an elevation, showing the opposite side of the blind. Fig. 3 is a side elevation, with a section cut out to show an end view of the blind-slats B, the rod D, with loops H connecting with the tenons or pins C, the set-screw S, and set-nut F, and the knob E. Fig. 4 is a section showing a portion of the connecting-rod D, and the end view of one of the slats. Fig. 5 is a cross-section of the bead-strip O. Fig. 6 shows a section of the side stile of the frame when formed with the bead Q, which with the bead-strip N forms an equivalent for the bead-strip O. (Shown in Fig. 5.) Figs. 7 and 7× show a flat view or face view of the bead-strip, for the purpose of showing the elongation of the mortises *a*, which receive the slat tenons or pins, which elongations are designed to allow the lateral motion sufficient to tighten the set-screw upon the escutcheon.

The following is the construction of the same, the whole being an improvement on my improved blind-stop patented January 12, A. D. 1875, and numbered 158,634.

In the accompanying drawing, A represents the frame; B, the slats; C, the tenons or pins; D, the rod designed to connect and operate the same; E, the knob attached to the rod by means of the nut F and screw S. The escutcheon G forms the bearing for the set-nut F, as well as an elongated opening to allow the stem of the set-screw S to pass through and be moved up and down for the purpose of operating the rod D, thereby operating the slats B. The rod D is round, and made from a common wire by swaging the loops H, and then punching the same to receive the staples which pass through the tenons or pins, as shown by the dotted lines in Fig. 4. The bead J is placed close to the edge of the blind-slat, thus forming a neat ogee finish, and giving a more ornamental appearance to the same. The bead-strip O has the double or ogee bead K L. The bead K is designed to cover the joint or space between the end of the slat and the bead-strip, and the bead L is designed to cover the joint between the bead-strip and the blind-stile.

By this arrangement, when the slats are closed, the direct rays of light are entirely shut out, as will be seen, the bead J cutting off the light that comes through between the slats and the bead-strip O or N. The groove M, in the edge of the stile, is designed to receive the ends of the slat-tenons and allow the operation of the connecting rod D, which operates the slats B.

It will be seen by reference to Fig. 7 that the mortises that receive the slat pins or tenons are gradually increased in elongation as they approach the bottom, commencing five or six mortises above the bottom, thus allowing the set-nut F to be drawn firmly against the escutcheon by means of the set-screw S. The rod D, being connected to every slat by means of the solid loops or rings H, forms a very strong and durable connection.

The advantages of my invention are seen in an increased durability of construction, in a more neat and ornamental construction, and closing all openings, joints, or cracks from admitting direct rays of light.

To effect these objects I have constructed the blind-slat B, having the bead J near the upper surface of the lower edge of the same, to form the ogee finish, as has been shown; also, the bead-strip O, having the double bead K and L to project and cover the joints, as has been shown, and the connecting rod D, with the solid or swaged loops, to link the staples that are attached to the slat-tenons, as shown in Fig. 4 by the dotted lines.

It will be seen by reference to Fig. 6 that an equivalent for the bead-strip O may be had by forming the bead Q upon the side stile by rabbeting and placing the bead-strip N.

I do not broadly claim a wire with loops swaged thereon, and I am aware that sheet metal has been used to form a strip for con-

necting the slats of a window-blind, and for turning the same, thus opening and closing the slats; but I believe that a round wire, with loops swaged and punched thereon, is an improvement upon a flat strip of sheet metal, and also patentable.

Having thus described my invention, I claim—

The blind-slats B having the bead J near the edge, to form the ogee finish and the bead-strip O, having the double bead K and L, and elongated mortises *a*, as set forth and described.

ALFRED T. ELFORD.

Witnesses:
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