

W. E. Ward.
Window Shutter.

N^o 11,311.

Patented Jul. 11, 1854.

Fig: 1.

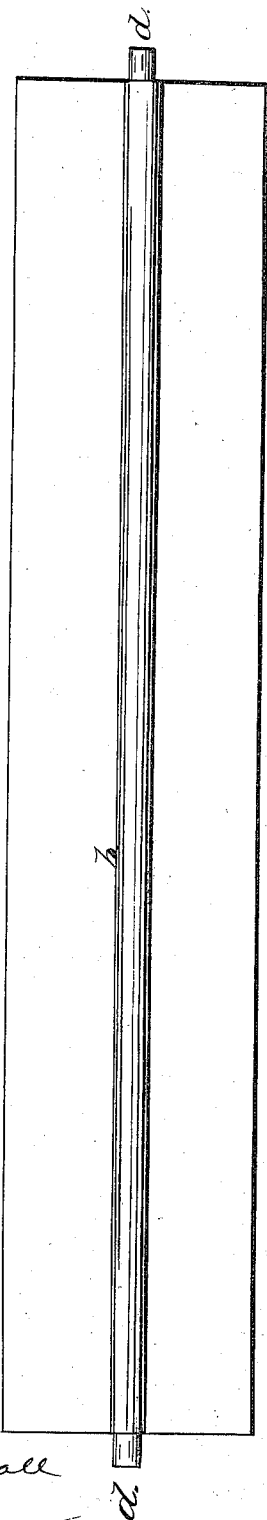


Fig: 2.

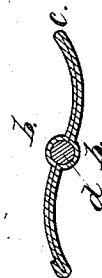


Fig: 4.

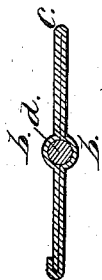
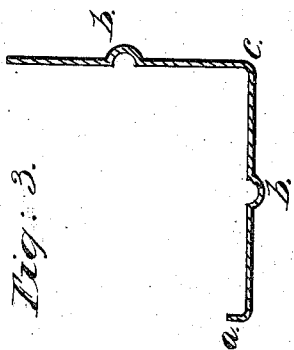


Fig: 3.



Witnesses:
Edmund Percival
Jesse W. Lonsbury

Inventor:
W. E. Ward

UNITED STATES PATENT OFFICE.

WILLIAM E. WARD, OF PORT CHESTER, NEW YORK.

MODE OF MANUFACTURING IRON SLATS FOR WINDOW-BLINDS.

Specification of Letters Patent No. 11,311, dated July 11, 1854.

To all whom it may concern:

Be it known that I, WM. E. WARD, of Port Chester, Westchester county, New York, have invented a new and useful Manufacture of Iron Slats for Window-Blinds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a face view of a blind slat on my improved plan; Fig. 2, an end view thereof; Figs. 3 and 4, end views of the iron partly bent, preparatory to the completion thereof.

The same letters indicate like parts in all the figures.

My said invention consists in making the slat of sheet iron doubled and bent throughout its entire length in the direction of its cross section from near the middle toward each edge, curved in opposite directions and with a bead in the middle and on both faces to inclose a wire which forms the journals at both ends by which it is connected with the frame and on which it turns.

I take a piece of Russia or other sheet iron of the length of the intended slat, and of little more than the intended width, and by suitable tools or means, bend one edge as at *a*, Fig. 3, along the entire length. At one quarter of the width from each edge, I roll or swage a semi-circular bead *b*, extending the whole length, and I bend the sheet of iron at *c*, midway between the two beads *b*, *b*, and lap them together as at Fig. 4, so that the two beads *b*, *b*, shall come together inclosing a rod or wire *d*, which projects at each end to form the journals. I then lap the bent edge *a*, over the other edge, and then, finally, by means of rollers or swages, or other suitable means I bend the two

halves in opposite directions from the bead *b*, in the middle toward each edge and throughout the entire length, so that each half, in the cross section, will be the segment of a circle, or nearly so, the entire cross section representing a figure approximating to the letter **S** with the end curves cut off.

By this mode of manufacture I am enabled to produce cheap fire proof slats, for Venetian blinds, which, for the weight, will be of greater strength than any heretofore made; having greater stiffness longitudinally and transversely, and with strong journals at each end by which they can be connected with the frame so that they can turn therein, and presenting smooth round edges. The reversed curves of the two halves; the hollow cylinder formed by the two semi-circular beads, with the wire axle inside, and the bending over of the two edges, will give to the whole, an amount of strength to resist burglary, never before presented by Venetian blinds of any manufacture, while at the same time the weight of material and cost of manufacture will be comparatively slight.

What I claim as my invention and desire to secure by Letters Patent is—

The herein described manufacture of Venetian blind slats made of sheet iron, of two thicknesses in one piece, with both edges bent entirely over, the two halves of the width bent or curved in opposite directions and with a semi-circular bead on each face, inclosing a wire the ends of which form journals, the whole, substantially as specified, constituting the new manufacture.

W. E. WARD.

Witnesses:

ELLMORE BURDSALL,
JESSE WM. LOUNSBURY.