W. H. BETTS.

Window-Screen.

No. 213,091 Patented Mar. 11, 1879.

Fig. 1.

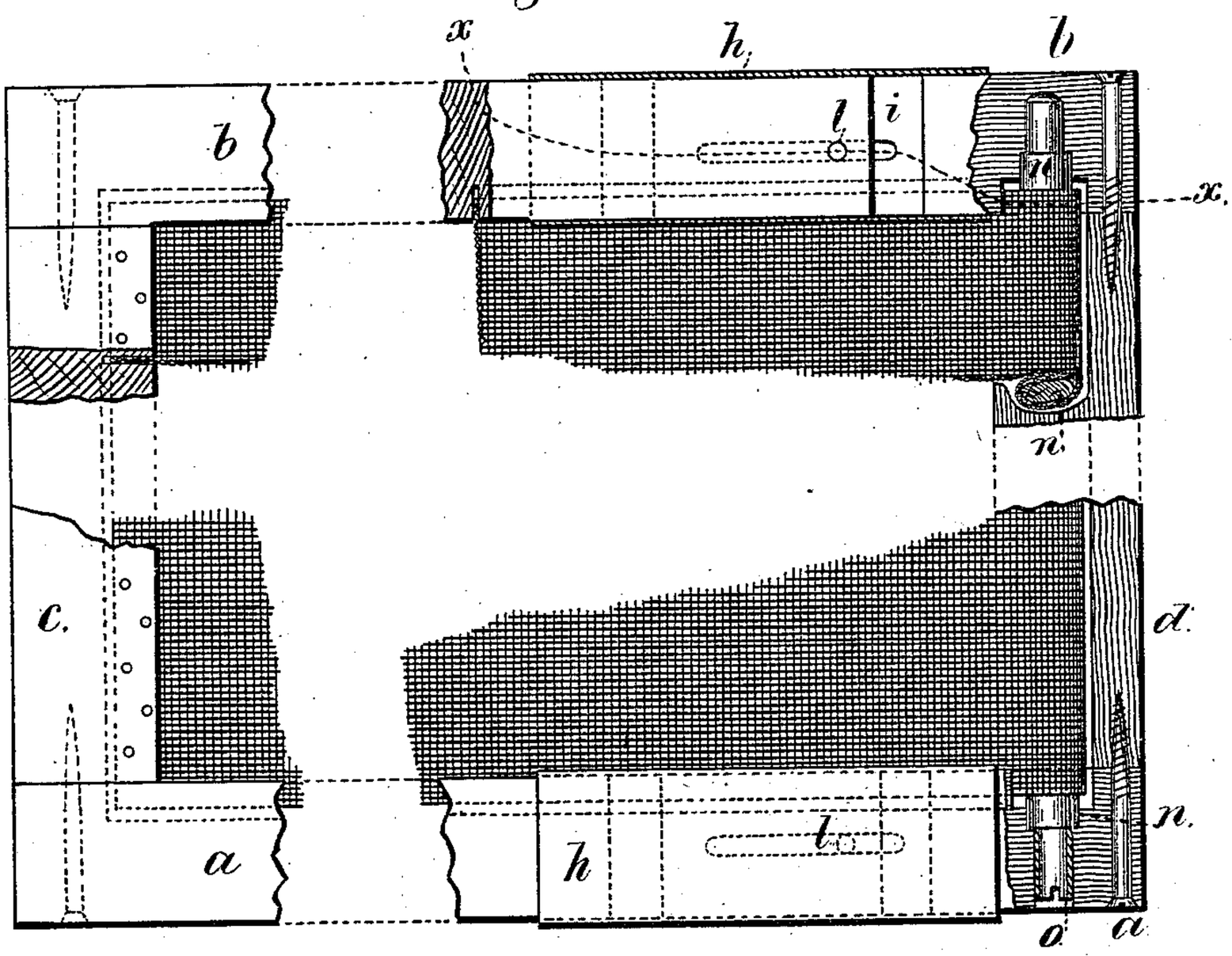
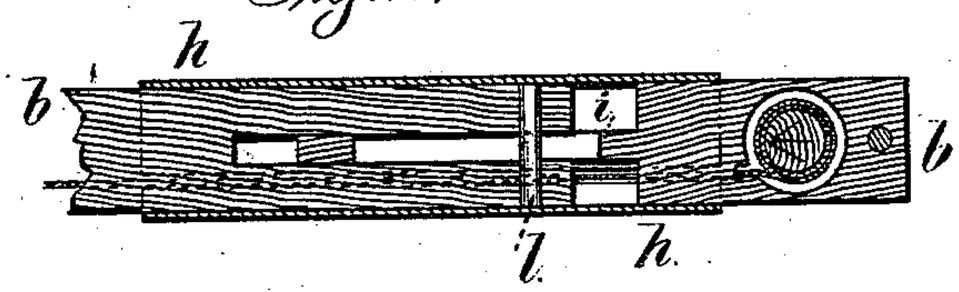


Fig. 2.



Witnesses

Chas H. Smith

Geo. T. Pinckney

Inventor.

William H. Betts.

per Lemuel W. Serrell

Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. BETTS, OF PLAINFIELD, NEW JERSEY.

IMPROVEMENT IN WINDOW-SCREENS.

Specification forming part of Letters Patent No. **213,091,** dated March 11, 1879; application filed January 28, 1878.

To all whom it may concern:

Be it known that I, WILLIAM H. BETTS, of Plainfield, in the county of Union and State of New Jersey, have invented an Improvement in Netting-Frames for Windows, of which the following is a specification:

Netting-frames for windows are often made of a convenient height for placing between the sill and the bottom of the sash when raised; but as the window-frames vary it generally becomes necessary to have the frames made of a width to fit such windows. This causes considerable expense, and prevents the netting being changed to suit a different width of window.

In some instances the frame has been adjustable in width, and the netting has been wound upon a roller that is adjacent to one of the vertical sides of the frame. There is a space, however, between the roller and the frame that may admit insects, and the roller is visible.

My invention relates to the combination, with an extensible netting-frame, of a roller contained within one of the uprights of the frame, and upon which the surplus wire or other netting material is wound, so that the netting can be drawn tight, or adapted to the width to which the netting-frame is expanded or contracted.

The roller in my frame is concealed, and the netting passes from the same through a vertical slot in the frame.

In the drawings, Figure 1 is an elevation representing the four corners of a netting-frame, with one of the vertical sides in section; and Fig. 2 is a sectional plan at the line *x x*, Fig. 1.

The bottom rail, *a*, top rail, *b*, and side slats, *c* and *d*, are of any desired width and thickness, and the netting-frame itself, as a whole, is adapted to the average size of the largest windows, and can be contracted so as to suit narrower widths of windows, the height of the netting-frame remaining unaltered. This is accomplished in the following manner:

The top rail, *b*, and bottom rail, *a*, are each made in two parts, one part having a tongue, *i*, passing into a groove or slot in the end of the other part of the rail, as represented in Fig. 2, and by dotted lines in Fig. 1, there being a slot in the tongue *i* and a cross-pin, *l*, to limit the extent to which the frame may be enlarged or contracted; and in order to cover up the openings that arise in the frame between the respective extension portions, I make use of the sheet-metal cases *h*, that are of a size to fit tightly such bars, the edges of the metal coming at each side of the netting, which is stretched within the frame, its edges being secured in saw-cut grooves in the inner surfaces of such frame, except where the tongues are made in the extensible frame, and at the vertical portion *d* of the frame, where there is a hole bored through the frame of a size to receive the roller *n* and the netting that is wound upon the same when the frame is contracted to its smallest capacity.

It is to be understood that the netting passes to the roller through a saw-cut groove in the frame-piece *d*, and the end of the netting is secured to the roller by tacks.

The journals of the roller *n* are in the top and bottom rails, *b a*, and one of such journals is provided with a slot, *o*, across its end for a screw-driver, by means of which the roller can be rotated to slacken or loosen the netting. The journal should be strengthened by a thin metal tube driven upon it.

The frame is secured together at the angles in any suitable manner. I have shown screws for this purpose.

I claim as my invention—

1. The combination, with the extensible netting-frame, of the roller *n*, said frame being provided on one of its vertical sides with a cavity to receive said roller, and with a vertical slot, through which the netting passes across to the opposite side of the frame, as specified.

2. A netting-frame having a vertical cavity in one of its vertical sides, and a saw-cut or slot on the inner side of said vertical part, in combination with a netting and roller, the same being introduced within the frame, and provided with means for revolving the roller, as set forth.

Signed by me this 25th day of January, A. D. 1878.

WM. H. BETTS.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.