(No Model.)

M. A. HIGGINS.

BOTTOM BAR FOR WINDOW SHADES.

No. 388,041. Patented Aug. 21, 1888.

Fig. 1.

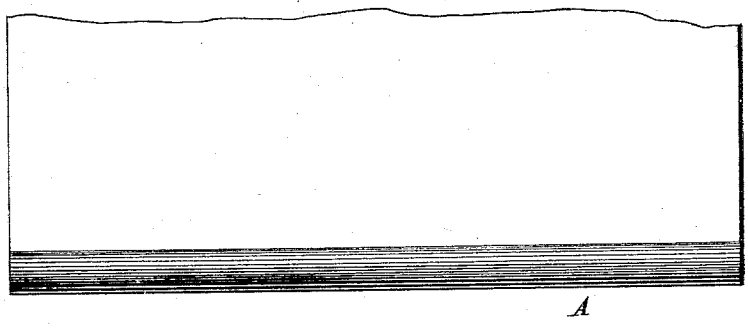
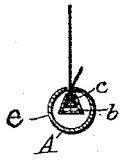


Fig. 2.



Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

MASON A. HIGGINS, OF SUGAR GROVE, ILLINOIS.

BOTTOM BAR FOR WINDOW-SHADES.

SPECIFICATION forming part of Letters Patent No. 388,041, dated August 21, 1888.

Application filed December 22, 1887. Serial No. 258,682. (No model.)

To all whom it may concern:

Be it known that I, MASON A. HIGGINS, of Sugar Grove, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Bottom Bars for Window-Shades or for the Free or Loose End of Curtain-Bars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My improvement relates to the bottom rod or bar and its construction and to its means for applying the same to the loose end of a flexible shade or curtain, the improvements affording not only a ready connection of the parts and facility for easy adjustment to insure that the bottom bar and the shade may hang properly, but also their ready removal, besides allowing a cheapness of construction.

In the drawings, Figure 1 illustrates enough of a shade to illustrate my invention as applied thereto; Fig. 2, one of its interior locking or fastening bars; Fig. 3, a cross-section.

The same letters refer to similar parts in all the figures, and, as will be seen in them all, the shade, cloth, or material is loosely folded, lapped, or doubled around a triangular or annular rod and then placed loosely in a longitudinal dovetailed groove of very much larger cross-section than the rod and made in the bottom or loose bar.

I form from a piece of sheet metal a bar consisting of a tube or hollow cylinder, *b*, angular or triangular in its cross-section, and also a slender rod, *c*, angular in cross-section, but much smaller than tube *b* in its cross-section. Indeed, it need not be even a quarter of its size. This tube has a narrow outlet, mouth, or slit, as shown, and when the rod shall have been inserted lengthwise in this tube it cannot be pulled out of it except by pulling it lengthwise, because the slit or mouth is smaller than the diameter of the rod. The rod *c* is first laid loosely in a doubled or folded end of the cloth, and the bar is then easily and loosely slipped over it endwise, and thus completes the attachment. This insures a firm hold without the need of any other appliances for that purpose, all need of tacks, screws, sewing, adhesive material, or other means heretofore employed in this branch of art being dispensed with for holding the cloth to its bar, the cloth by my invention holding and fastening itself by reason of being lapped or folded, and by then sliding the rod to place in its case or holder. It will now be self-evident that in the act of folding or lapping the cloth on the rod its lap or fold may readily be so controlled as to insure that the bar shall hang perfectly true and horizontal, or that it may be instantly adjusted, if need be, to cause it to hang true by simply altering such lap or fold, and which may be done by slipping off the loosely-held bar, and this can be done without chafing, tearing, or puckering the cloth, because the groove is so large relatively to the rod.

If desired, a part or the whole of the tubular bar *b* may be covered with a sheet-metal tube or tubes, A, having a longitudinal slit therein to permit the cloth to extend through the same.

It will be understood that the angular rod and the cloth are not held by their filling and tightly fitting in the groove, but that any pull on the bar or the mere weight of the bar, or both, will pull and wedge the cloth between the angular edges of this angular bar and the narrowing walls or sides of the tube *b*. Thus the stronger the pull the tighter is the cloth held, whereas, if the rod were round instead of angular, the stronger the pull the more it would roll the rod and set the cloth free.

The rod *c* need not be a continuous one all across the shade, but may be in two or more short pieces, its angular character in conjunction with its small cross-section relatively to that of the groove *b* and its manner of wedging or clamping the cloth at its two opposite sides when pulled allowing of such short pieces of rod. The finishing tube or tubes A may be slipped on or off the tube *b* at will. The smallness of the rod as compared with the groove which receives it adapts my invention for any and every thickness of fabric used for a shade, whereas if the rod were a tight fit only one thickness could be used with it, and even then there would be danger of damaging the fabric when inserting or removing the rod.

I disclaim any construction in which is used a round rod, a tight-fitting rod, or a rod having a side channel to receive a binding-wire for holding the fabric, or any in which the fabric is permanently fastened by stitching or otherwise to the key-rod and which necessarily precludes adjustment or alignment of the fabric.

The ordinary ring-bar, ring, or any other kind of pull may be attached to the bar either at its center or at each side of its center, at option, and the ends of the bar may be embellished by an acorn or other ornament—either wood or metal—by way of finish.

As my improved fastening devices are capable of being readily applied to or removed from the shade by any inexperienced person, and without any tools or extraneous appliances, it will be seen that they afford a valuable article of manufacture and merchandise independently of the shades.

I disclaim a rod having a round or cylindrical cross-section as a means for gripping a loose cloth within a groove, whatever may be the form of such groove; but

I claim—

In combination, the small rod *c*, angular in cross-section, the metallic bar having the much larger and spacious angular chamber *b*, to receive loosely and retain such rod, and the curtain end loosely lapped thereon, and the hollow slitted tube *e*, slipped over such bar, all as shown and described.

MASON A. HIGGINS.

Witnesses:
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