

(No Model.)

2 Sheets—Sheet 1.

B. D. STEVENS.

SLIDING BLIND, SHUTTER, OR SCREEN.

No. 342,715.

Fig. 1. Patented May 25, 1886.

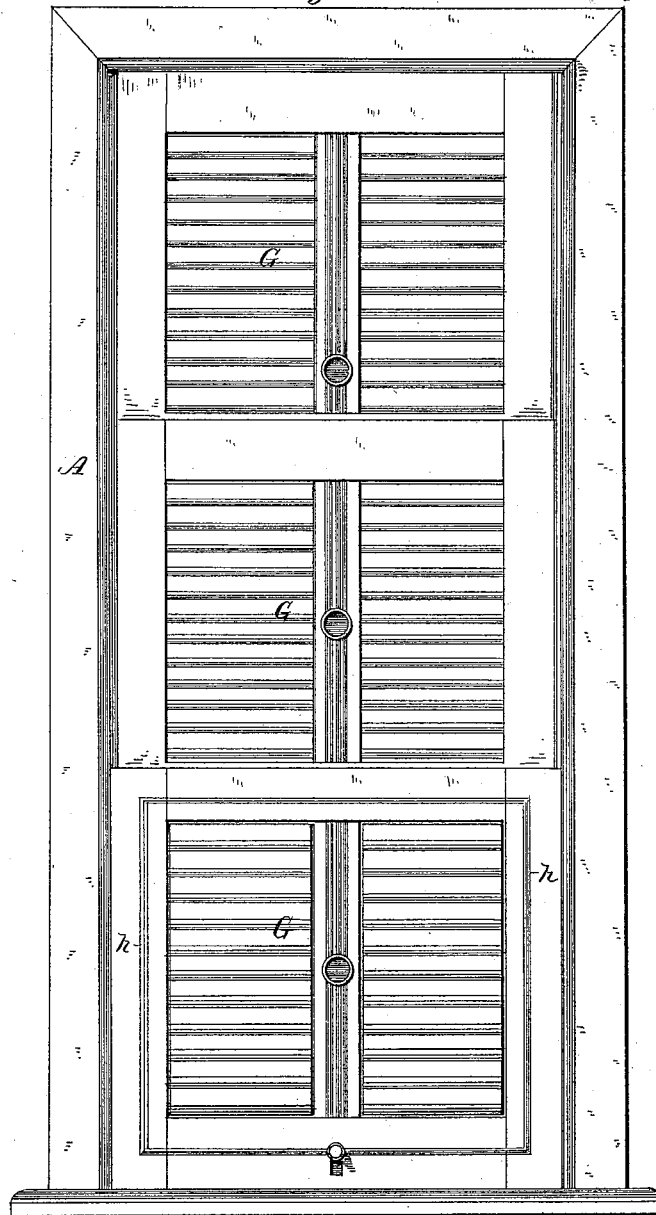
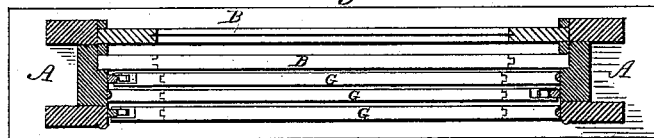


Fig. 2.



witnesses:
N. H. Low
E. A. Dick

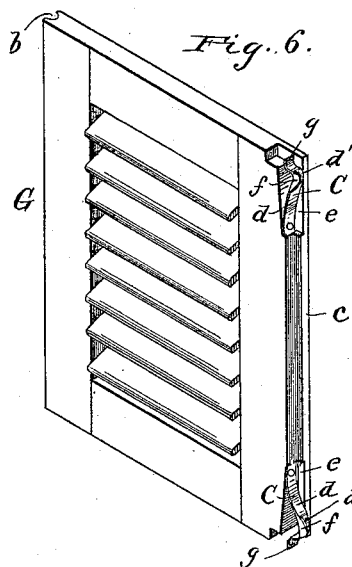
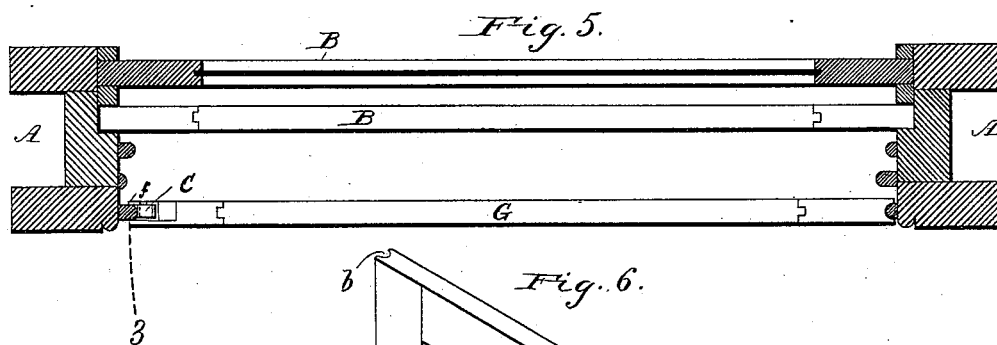
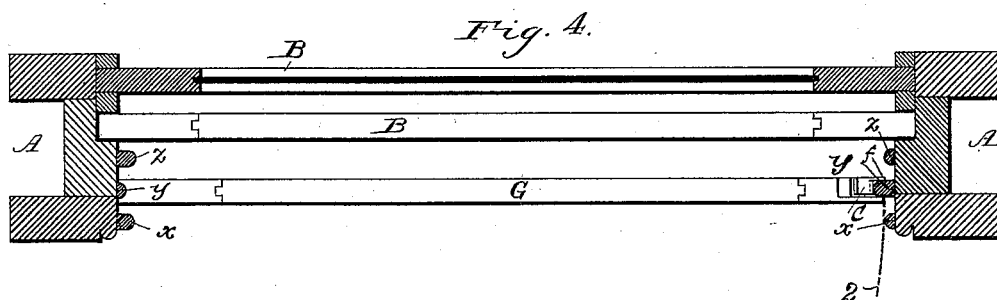
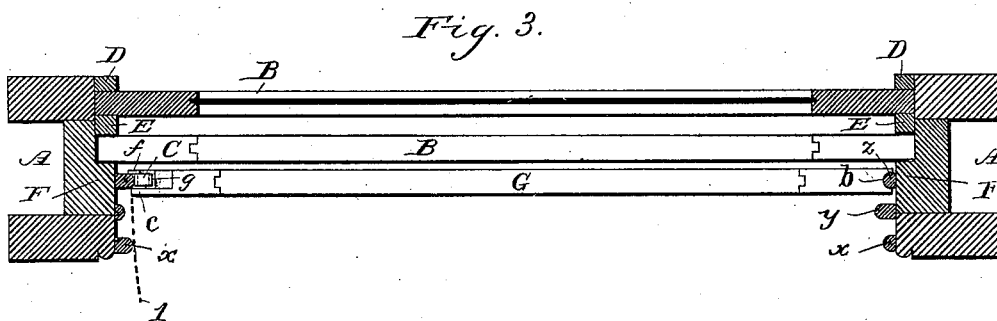
Inventor:
Bey. D. Stevens
by Maxwell Sailer
his attorney

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Bey. D. Stevens
by Marshall Baker
his attorney

UNITED STATES PATENT OFFICE.

BENJAMIN D. STEVENS, OF BURLINGTON, VERMONT, ASSIGNOR OF ONE-HALF TO THEODORE S. PECK, OF SAME PLACE.

SLIDING BLIND, SHUTTER, OR SCREEN.

SPECIFICATION forming part of Letters Patent No. 342,715, dated May 25, 1886.

Application filed March 23, 1886. Serial No. 196,248. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN D. STEVENS, of Burlington, in the State of Vermont, have invented certain new and useful Improvements in Sliding Blinds, Shutters, or Screens, of which the following is a specification.

My invention relates to blinds, shutters, or screens composed of a plurality of sections which can slide up and down independently of one another, being for this purpose arranged in parallel vertical ways on or in the window or other part to which they may be applied. It is my object to so arrange these sections that any one of them can at any time be applied to or removed from its ways without interfering with the others or necessitating the removal of any portion of the frame in which the blind is supported and moves.

Various ways have heretofore been suggested for rendering sliding blind-sections removable. In one instance of which I have knowledge it has been proposed to rabbet the blind-jamb in such manner that the width of the recesses for receiving these several blind-sections shall regularly decrease from the interior face of the window-casing to the sash. This plan, however, necessitates removable stop-beads between the recesses, and also the use of blind-sections each of a different width from the others. My invention, on the other hand, does not involve the use of any stop-beads at all interposed between adjoining sections, and permits the use of sections all of the same width. The other instances of which I have knowledge the blind-sections have been held in grooved strips or jambs, (which have also, in one instance, formed stops for the inner window-sash,) the grooves being separated by stops, which may taper on their outer edge to a point, so as to bring the adjoining faces of the sections close together, and the sections have had on one edge bearing-springs, by compressing which the section might be moved laterally far enough to bring its other edge out of the groove. One trouble, among others, with such arrangement is, that as the sections run in grooves they are liable to stick, and the operation of removing the section involves its bodily movement in a lateral direction far enough to carry its other edge throughout its whole length out of the groove.

In my improved blind the sections do not run in grooves, but they run on beads. They can be, and in practice are, of the same width. The beads are so arranged that each alternate bead on each jamb projects inwardly beyond its fellow, and each projecting bead on the one jamb is set opposite to a bead on the opposite jamb, which does not project so far. In other words, supposing there to be three pairs of beads, there will be the same distance between the two beads of each pair; but each pair will be set a little to one side with respect to the pairs preceding and following it. In conjunction with this arrangement of beads, I make use of blind-sections provided on one edge with retractible spring-holders, by which they are held in place substantially in the manner indicated in my Letters Patent No. 333,565, of January 5, 1886.

The nature of my invention and the manner in which the same is or may be carried into effect will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is a front elevation, and Fig. 2 is a horizontal section, of a blind embodying my improvements. Figs. 3, 4, and 5 are similar sections on enlarged scale, representing, respectively, the outer, middle, and inner blind-sections in place. Fig. 6 is a perspective view of one of the sections.

In the drawings, A is a window-frame. B B are the window-sashes. D, E, and F are the outside stops, meeting-strips, and inside stops, respectively. All of these parts are of any ordinary or suitable construction.

The sectional sliding blind represented in the drawings is in this instance composed of three sections, G. Each section moves and is held upon its own set of guides, consisting of vertical and parallel beads, the three sets of which are lettered *x y z*, respectively. The beads are secured to the interior opposite faces of the inside stops, F, or of the window-frame, and are set close enough together to bring the blind-sections into as close contiguity as possible without absolutely touching one another. The outer faces of the beads are rounded or convex in cross-section, to form a smooth, convenient bearing for the blind-sections. The sections are formed substantially as in my Letters Patent hereinbefore referred to—that is

to say, with a longitudinal rounded groove, *b*, in one edge to fit one of the guide-beads, and on the other edge with a guide-rib, *c*, and retractible spring-holders *C*, between the fins *f* of which and the rib *c* the opposite bead is received. The spring-holders represented are of the same construction as those described in my said Letters Patent, each consisting of a spring-strip, *d*, set in a recess, *e*, in the blind, and provided with a pressure-face, *d'*, a fin, *f*, and a thumb or finger piece, *g*, and I prefer in practice to use such holders; but obviously the construction of the same can be varied without departing from my invention, what is essential being holders (which, preferably, are spring-acting) which embrace the bead on one side of the window-frame in such manner as to hold the blind thereto, and can be retracted far enough to be disengaged from the bead. As one obvious equivalent, for instance, the guide-rib *c* might be dispensed with, and the spring-holder might be provided with fins *f*, one on each side. I much prefer, however, to use the rib *c*.

Returning now to the beads *x y z*, it will be noted that each pair is set laterally or a little to one side of the one that precedes and follows it. Thus the inner pair, *x*, and outer pair, *z*, are exactly alike as to position, while the center pair, *y*, are set to one side of the two just named, the bead *y* on one side of the window projecting inwardly beyond the two beads *x z* on that side, while on the opposite side of the window the beads *x y* project inwardly a corresponding distance beyond the intermediate bead, *y*. By reason of this arrangement of the beads in conjunction with blind-sections provided with retractible holders I am enabled with ease to remove and replace any one of the blind-sections at will without disturbing its fellows, at the same time preserving sections of equal width, for, as will be seen by reference to the drawings, the beads *x* are separated by precisely the same interval which separates the beads *y* or the beads *z*. If, for instance, it be desired to take out the middle section, all that is needed is to draw back the holders *C* far enough to allow their fins to clear the bead *y*, and then by swinging the section on the opposite bead *y*, as a pivot, it can be readily removed, as shown by the curved dotted line 2, which indicates the path of movement of the free edge of the section, the inner bead, *x*, adjoining this edge being set sufficiently back or to one side of the bead *y* to allow the rib *c* of the section to clear it; and in like manner either one of the other sections can be removed and replaced, as indicated by the curved dotted lines 1 and 3, respectively. This facility of removal and replacement renders it feasible to use interchangeable sections of various kinds, such as

solid or shutter sections, screen or wire-gauze sections, &c.

One of the sections—the inner one—is provided with pivoted or roller slats operated by a toothed slide on the frame of the section, which engages partial gears on the tenons of the slats, in the manner set forth in my Letters Patent dated April 13, 1886. The opening in the blind-frame containing these pivoted sections is surrounded by a molding or beads, *h*, of any suitable ornamental pattern, which may be formed on or made separate from and then nailed on the frame, as customary in wood-working. The slats, however, are pivoted in the frame, and not in the beads or molding *h*.

It will be noted that the retractible holders of the middle blind-section are on the edge opposite that on which the holders are placed in the outer and inner sections, this being necessary, because if the holders were on the other edge the sections could not be removed, as will be apparent from a consideration of the drawings.

It is manifest that a greater or less number of sections than that shown in the drawings may be employed without departing from my invention. It is also manifest that instead of having the pairs of guide-beads set alternately to opposite sides of one another, as represented in the drawings, they can be set all to one side—that is to say, the middle pair, *y*, can be set to one side of the pair *x*, as shown in the drawings, and the outer pair can be set in the same direction a step to one side beyond the pair *y*, and so on.

Having now described my invention and the manner in which the same is or may be carried into effect, what I claim herein as new is—

1. The combination of the window-frame, sliding blind-sections provided on one edge with a guide-rib and retractible holders, and beads forming guides on which the blind-sections move up and down, each pair of beads being set off to one side of the pair which adjoins it, as and for the purposes hereinbefore set forth.

2. Guide-beads arranged relatively to one another in the manner indicated, in combination with the blind-sections sliding thereon, and constructed and arranged so each section shall be susceptible of disengagement from that one of its guide-beads which projects inwardly beyond the bead or beads adjoining it, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 22d day of March, 1886.

BENJN. D. STEVENS.

Witnesses:

EWELL A. DICK,
MARVIN A. CUSTIS.