No. 668,800. Patented Feb. 26, 1901.

F. H. KNAPP.

SHADE ADJUSTMENT.

(Application filed July 2, 1900.)

(No Model.)

Fig. 1.

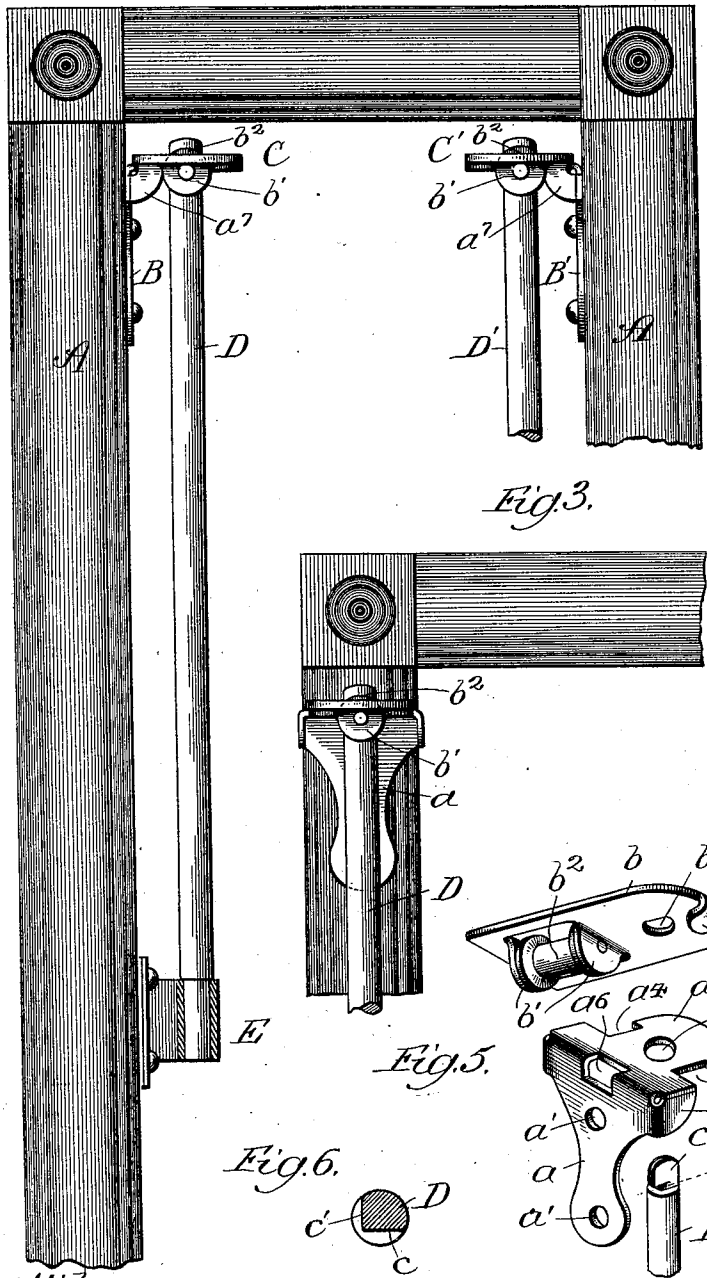

Fig. 2.

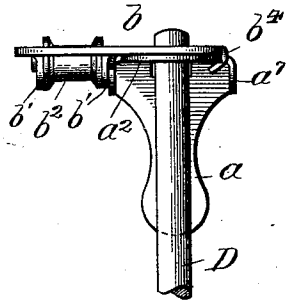

Fig. 3.

Fig. 4.

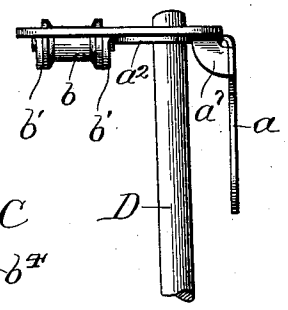

Fig. 5.

Fig. 6.

Witnesses:
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UNITED STATES PATENT OFFICE.

FRED H. KNAPP, OF CHICAGO, ILLINOIS.

SHADE-ADJUSTMENT.

SPECIFICATION forming part of Letters Patent No. 668,800, dated February 26, 1901.

Application filed July 2, 1900. Serial No. 22,342. (No model.)

To all whom it may concern:

Be it known that I, FRED H. KNAPP, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Shade-Adjustments, of which the following is a specification.

My invention relates particularly to shade-adjustments wherein are employed fixed vertically-disposed guide-rods, fixed pulley-brackets, and adjustable shade-roller brackets movable on said guide-rods.

My primary object is to provide improved interlocking guide-rod brackets, pulley-brackets, and guide-rods, producing a cheap and simple construction wherein the guide-rods and pulley-brackets are more firmly held than heretofore.

In the accompanying drawings, Figure 1 is broken view of a window-frame, showing the guide-rods supported in an improved manner with the interlocking brackets in a given position; Fig. 2, a view at right angles to the view in Fig. 1, but showing only one guide-rod and the connected brackets; Fig. 3, a broken view showing the interlocking brackets supported in a different position; Fig. 4, a view at right angles to the view in Fig. 3; Fig. 5, a perspective view illustrating the manner in which the rod, rod-bracket, and pulley-bracket interlock; and Fig. 6, a transverse section through one end of the guide-rod, taken, as indicated, at line 6 of Fig. 5.

Fig. 1 shows the guide-rods supported from the opposed or inner faces of the jamb, while Fig. 3 shows the manner of supporting them from the outer faces or reveals thereof.

A A′ represent window-jambs; B B′, upper guide-rod brackets secured thereto; C C′, pulley-brackets supported by the brackets B B′; D D′, guide-rods interlockingly connected at their upper ends with said brackets, and E, one of the lower guide-rod brackets employed.

Each bracket B and B′ comprises a vertical part a, provided with screw perforations a', and a projecting horizontal part a^2, provided with a rod-receiving perforation a^3 and with lug or hook receiving recesses a^4 a^5 a^6. The bracket is preferably stamped from sheet metal, and the part a is provided with lugs a^7, which when bent at right angles to said part are in position to support or brace the part a^2.

Each bracket C and C′ comprises, preferably, a sheet-metal piece b, having stamped therefrom lugs b', receiving the shaft of a cord pulley or roller b^2, and provided also with a rod-receiving perforation b^3 and a hook or lug b^4. The metal is cut away between the lugs b' to accommodate the pulley, as shown. The perforation b^3 is preferably partially circular, as shown.

Each rod is recessed at its upper end to afford a flat vertical surface c, the cut-away portion corresponding to the filled portion at the perforation b^5. At the lower end of the recess producing the surface c is a horizontal slot c' at right angles to said surface, the upper wall of which slot affords a shoulder which slips over the upper surface of the plate b to lock the parts together. This slot is of just sufficient width to receive the thickness of the plate b.

The lower end of the rod D is shown reduced in diameter where it enters the bracket E. Obviously, however, the rod is supported from the top brackets after the parts are interlockingly joined thereat, so that the reduction in size at E may be omitted, if desired.

In Fig. 2 the parts are shown so adjusted that the lug b^4 engages the recess a^4. The brackets are held in this relation by the rod being inserted from below into the perforation a^3, then turned to register accurately with the perforation b^3, then inserted through said perforation, and finally turned out of registration with said last-named perforation to lock the parts together. In the position of Figs. 1 and 2 the pulley-brackets project from the window-sash, forming outturned lateral projections from the guide-rod brackets. The pulley-brackets may be caused, however, to project toward the sash by causing the lugs b^4 to engage the recesses a^5, in which case the pulley-brackets form virtually-inturned lateral projections on the guide-rod brackets.

In the position of Figs. 3 and 4 the lugs b^4 engage the recesses a^6, and the pulley-brackets project in the same direction as the

horizontal parts a^2, thereby forming virtual elongations or extensions of the guide-rod brackets.

In use the curtain-roller brackets slide up and down on the guide-rods, being adjusted by cords passing over the pulleys b^2 in a well-understood manner.

Minor changes in details of construction within the spirit of my invention may be made. Hence no limitation is intended by the detailed description given, except as appears from the appended claims.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a shade-adjustment, the combination of a guide-rod bracket provided with a horizontal projection, a pulley-bracket supported on said projection, a guide-rod, and interlocking connection between said projection, pulley-bracket and rod, substantially as described.

2. In a shade-adjustment, the combination of a guide-rod bracket provided with a horizontal projection, having a vertical perforation, a pulley-bracket supported on said projection and having a perforation, and a guide-rod having a head entering said perforations and serving to lock the parts together, substantially as described.

3. In a shade-adjustment, the combination of a guide-rod bracket having a horizontal projection, a pulley-bracket adjustably supported on said projection, and a guide-rod interlockingly joined to said brackets and serving to hold the same in correct relationship, substantially as described.

4. In a shade-adjustment, the combination of a guide-rod bracket having a horizontal projection provided with a guide-rod-receiving perforation, a pulley-bracket supported thereon having a non-circular perforation, a lug and recesses on said brackets permitting adjustability, and a guide-rod having a head shaped to enter said non-circular perforation and provided with a shoulder, which serves after insertion and partial rotation to lock the brackets together, substantially as described.

5. In a shade-adjustment, the combination of a guide-rod bracket having a horizontal projection provided with a perforation, a flat sheet-metal pulley-bracket supported thereon and provided with a perforation, a guide-rod provided with a head adapted to enter said perforations, said head and perforations being suitably shaped to permit insertion and partial rotation producing interlocking, substantially as described.

6. The combination of a guide-rod bracket provided with a circular perforation, a pulley-bracket supported thereon and provided with a non-circular perforation, and a guide-rod having a head corresponding in shape to said non-circular perforation and provided with a shoulder which serves, after partial rotation of the rod, to lock the brackets together and support the rod, substantially as described.

7. The combination of a sheet-metal guide-rod bracket having a vertical attaching part and a horizontal projection, brace-lugs being stamped on one of said parts and bent to engage the other part, a pulley-bracket supported on said horizontal part, and a guide-rod connected with said brackets, substantially as described.

FRED H. KNAPP.

In presence of—
D. W. LEE,
A. D. BACCI.