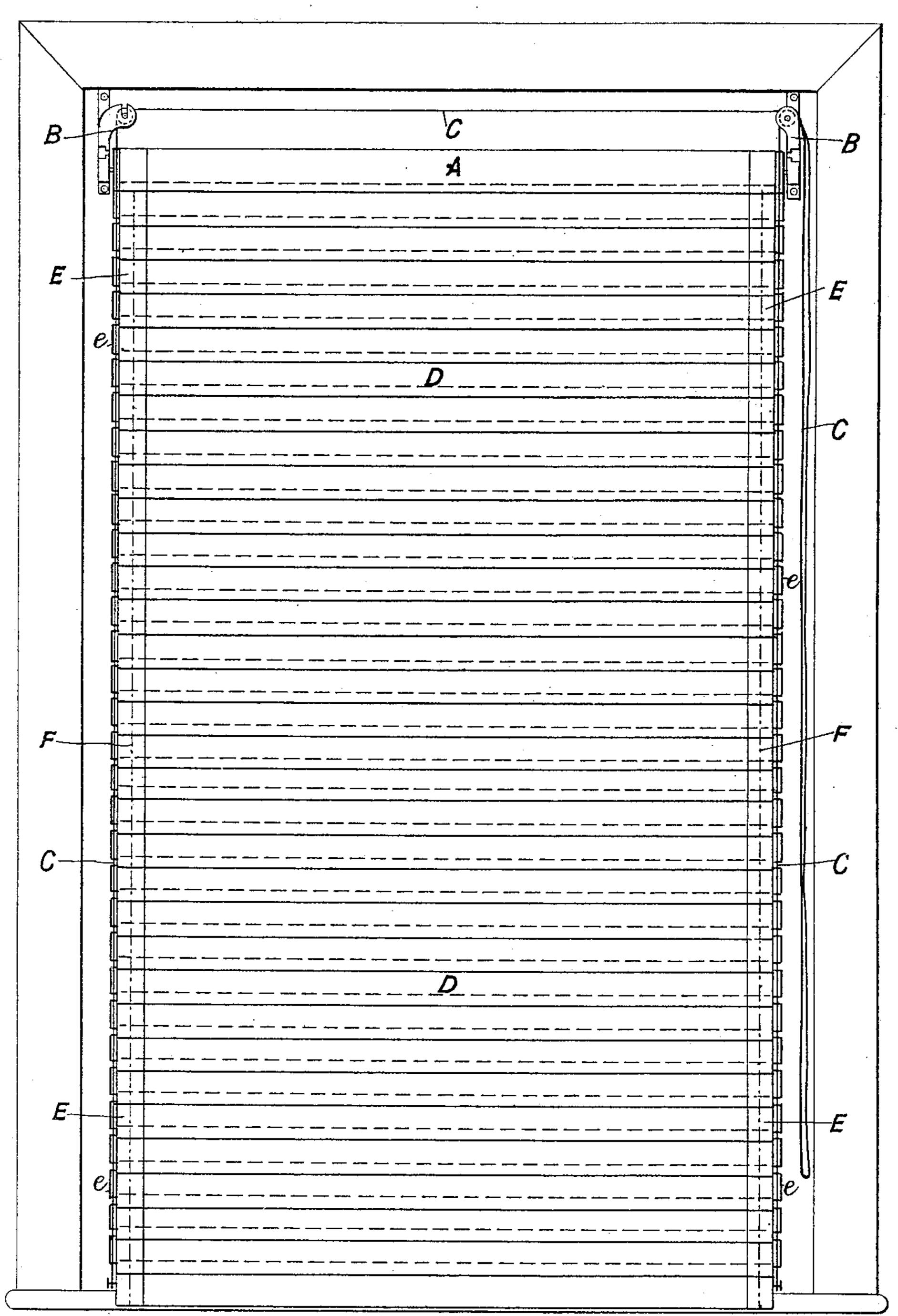
## A. SMITH. VENETIAN BLIND.

No. 405,805.

Patented June 25, 1889.

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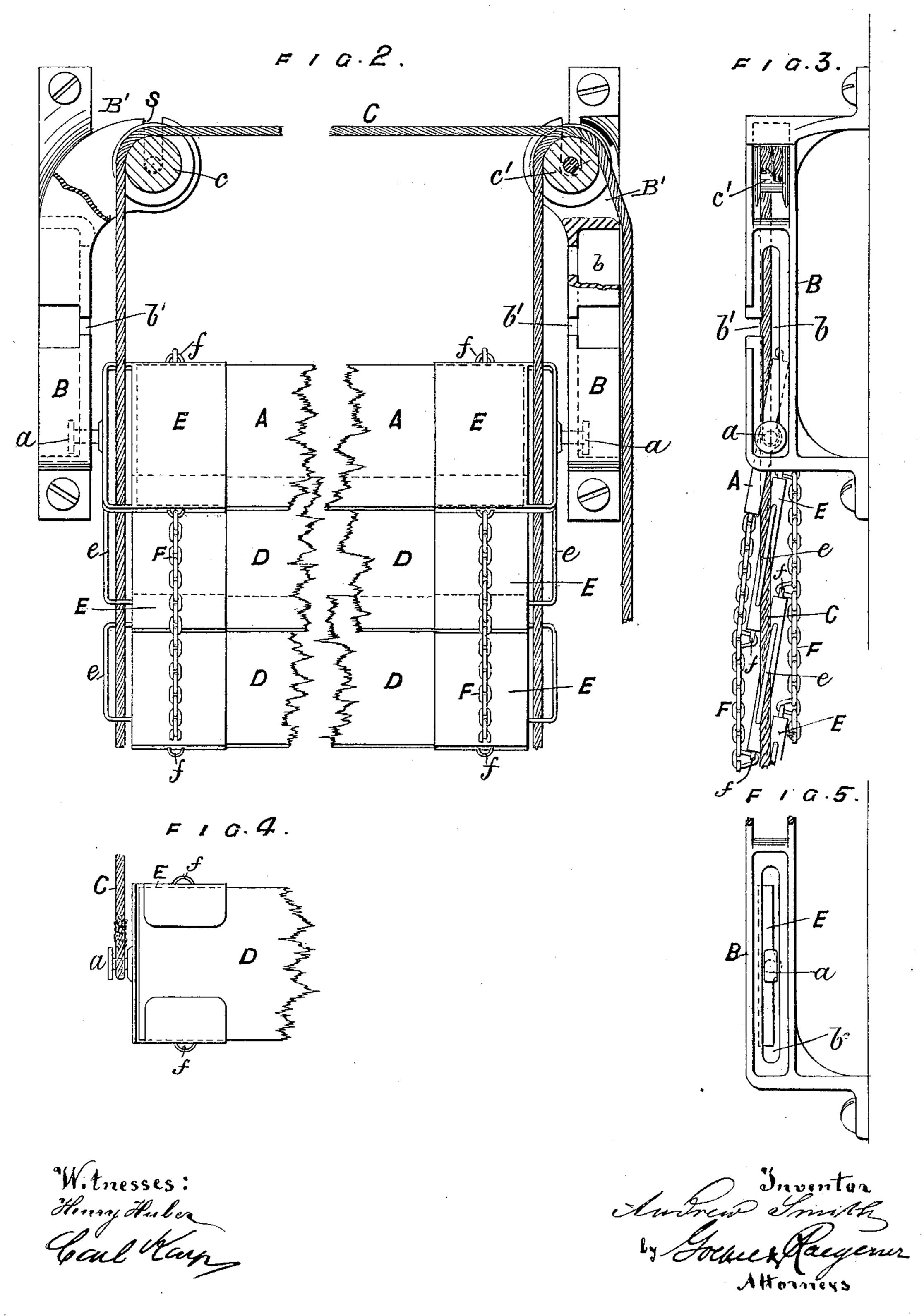
Witnesses. Henry Haber

Surveys Inventor

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## United States Patent Office.

ANDREW SMITH, OF EAST DULWICH, COUNTY OF SURREY, ENGLAND.

## VENETIAN BLIND.

SPECIFICATION forming part of Letters Patent No. 405,805, dated June 25, 1889.

Application filed January 16, 1889. Serial No. 296,528. (No model.)

To all whom it may concern:

Be it known that I, Andrew Smith, clerk, of 57 Ashbourne Grove, East Dulwich, in the county of Surrey, England, have invented new and useful Improvements in Venetian Blinds, of which the following is a full, clear, and exact description.

This invention relates to improvements in Venetian blinds; and it has for its principal object to enable the blind to be removed bodily from the window when required without being dismantled—that is to say, without uncording the laths—and also to enable the blind when drawn up to be raised partly or wholly above the window-aperture, so as not to obscure the top light.

Reference is to be had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a front view of a blind as applied to a window, the blind being in its lowered position and shaded. Fig. 2 shows on a larger scale a front view of the brackets and the ends of three of the laths. Fig. 3 is a corresponding edge view of the laths and brackets. Fig. 4 shows the end of the bottom lath of the blind, to which the lifting-cord is attached. Fig. 5 shows a modification of the brackets.

The same letters of reference indicate like parts in all the figures.

I dispense with the ordinary fixed head or pulley-lath and mount the top or rocking lath of the blind on end pivots or gudgeons, as hereinafter described. These gudgeons are supported in vertically-slotted brackets, so as to be movable up and down therein, and means are provided, as hereinafter described, whereby the gudgeons may be removed from the brackets for the purpose of taking down the blind. The invention comprises improvements in other adjuncts of the blind, the said improvements having the same object in view.

According to my invention the rocking or top lath A of the blind is hung on end gudgeons a, which are supported in brackets B, fixed to or above the window-frame. These gudgeons are placed centrally of the width of the rocking lath A, but are placed in about the plane of the under surface of the lath, so as to be below the plane of the attachment of

the chains, hereinafter referred to, in order that the blind shall have a tendency to assume the "shaded" position, with the laths inclined and close together. This position of 55 the gudgeons is necessary for the reason that, owing to the inequalities of the laths, they will not close properly together when shaded unless the blind has a tendency to occupy the shaded position.

In Fig. 2 the brackets B are vertically slotted, the gudgeons a being received in slots b, the sides of which engage necks formed on the gudgeons, so that while the latter are free to move up and down in the 65 slots endwise motion is prevented.

For the purpose of enabling the blind to be readily put up and taken down without dismounting the brackets, the latter may have a gap or gate b' formed in the front or 70 rear member at an intermediate point in its. length, so as to permit the gudgeons to be readily inserted in or removed from the slots without being liable to accidentally come out when moving up and down therein. These 75 gudgeons form the pivots on which the top lath turns in shading the blind, and they support the weight of the blind by resting on the bottom of the slots in the brackets B when the blind is wholly or partially lowered. 80 In this position the top lath is about level with the top of the window-aperture, and the extent of the rising motion of the gudgeons in their slots is about equal to the height of the space occupied by the laths when wholly 85 drawn up, so that in the latter position the bottom lath may be at about the level of the top of the window-aperture. Instead of providing a gate for the passage of the gudgeons, the latter may have T-heads, as shown 90 in Fig. 5, which are capable of being inserted by turning the rocking lath to the position shown in said figure, (a position which it can never assume in shading the blind,) the Theads of the gudgeons normally lying across 95 the slots b, and so retaining the gudgeons securely in the brackets. To enable the gudgeons to be so inserted, the cap E on one end of the rocking lath A, while fitting tightly, is capable of being slid upon the lath, so as to 100 enable the lath to be shortened sufficiently to admit of the gudgeons being passed between

the two brackets B, and then lengthened in order to engage the gudgeons in the slots of the brackets.

Each bracket B is provided at its upper end above its vertical slot b with a pair of curved arms B', which arms have vertical slots s extending downward from their upper edges, the lower ends of said slots serving as bearings for the journals of the pulleys c c'. The cord C, for raising and lowering the blind, passes over these pulleys. The pulleys are mounted at a sufficient height above the blind to permit the rocking slat thereof to rise to the top of the vertical slots b in the brackets when the blind is drawn up. The blind may be taken down without uncording by removing the pulleys upward through the slots of the bracket-arms.

The laths D are held by their ends in caps 20 or clips E, preferably of sheet metal, and are supported by connecting-chains F, attached to eyes f on the front and rear edges of the caps E, while the cords C pass through eyes or loops e, affixed to the ends of the 25 clips, these loops being sufficiently elongated to permit of the free running of the cords in all positions of the laths. The eyes or loops e and f are made of wire soldered to the clips, except the loops e of the rocking 30 lath, which carry the gudgeons a on their outer side, and are made specially strong for the purpose. The clips hold the laths securely, while permitting of their individual removal, whether for cleaning or for matching in color, without dismounting the chains, clips, and cords.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination, with a Venetian blind, of brackets disposed at opposite sides of the window-casing, both of said brackets being provided with elongated vertical slots in which the gudgeons of the top slat of said 45 blind are vertically movable, and with bearings above said slots, pulleys supported in said bearings, and lifting-cords passing over said pulleys and connected with said blind at opposite ends of the slats thereof, whereby 50 the blind may be vertically adjusted bodily.

2. The combination, with a Venetian blind, of brackets disposed at opposite sides of the window-casing, both of said brackets being provided with elongated vertical slots in 55 which the gudgeons of the top slat of said blind are vertically movable, and with slotted bearings above said slots, detachable pulleys supported in said slotted bearings, and lifting-cords passing over said pulleys and connected with said blind at opposite ends of the slats thereof, whereby the blind may be vertically adjusted bodily.

The foregoing specification of my improvements in Venetian blinds signed by me this 65 28th day of December, 1888.

ANDREW SMITH.

Witnesses:

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