

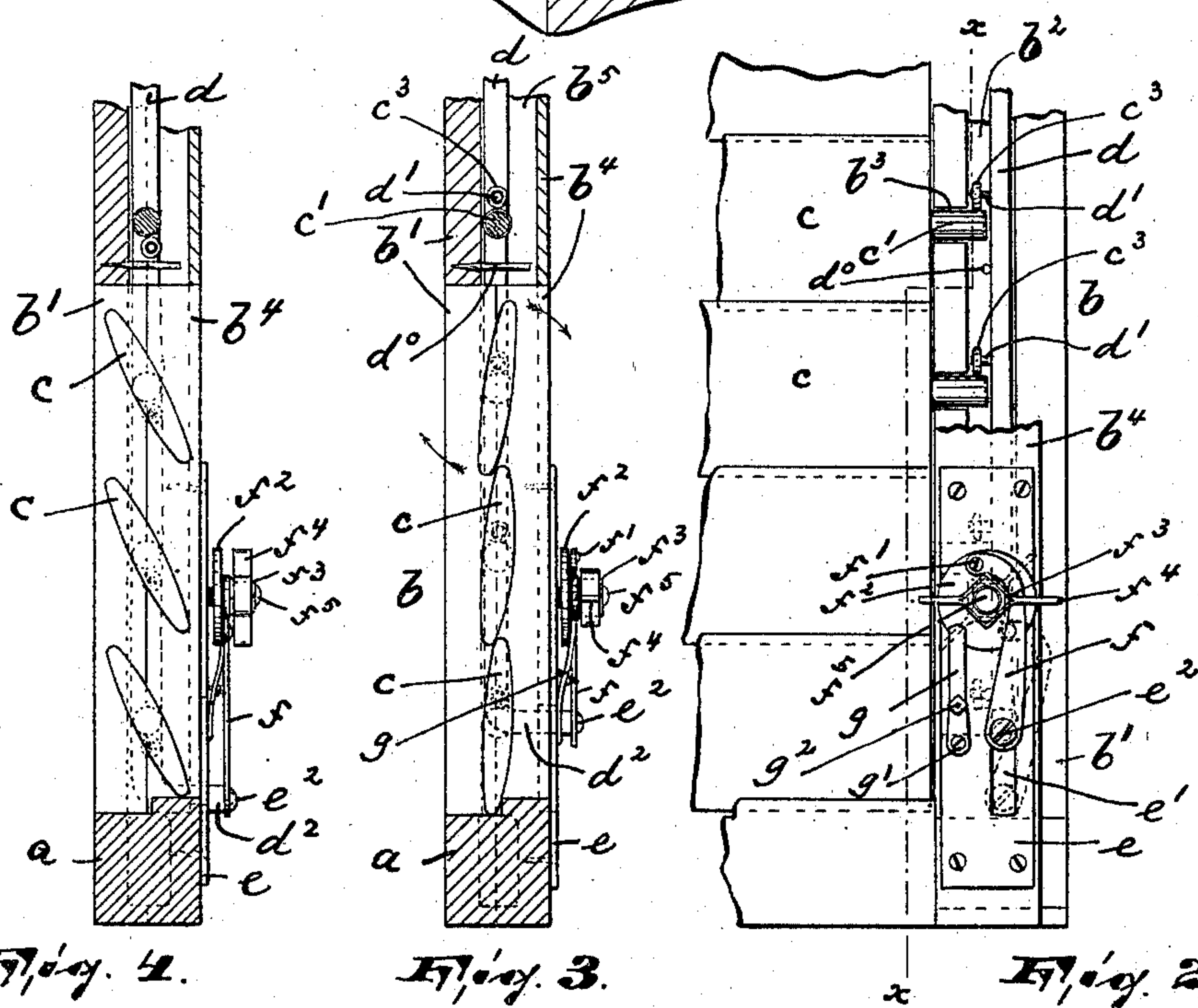
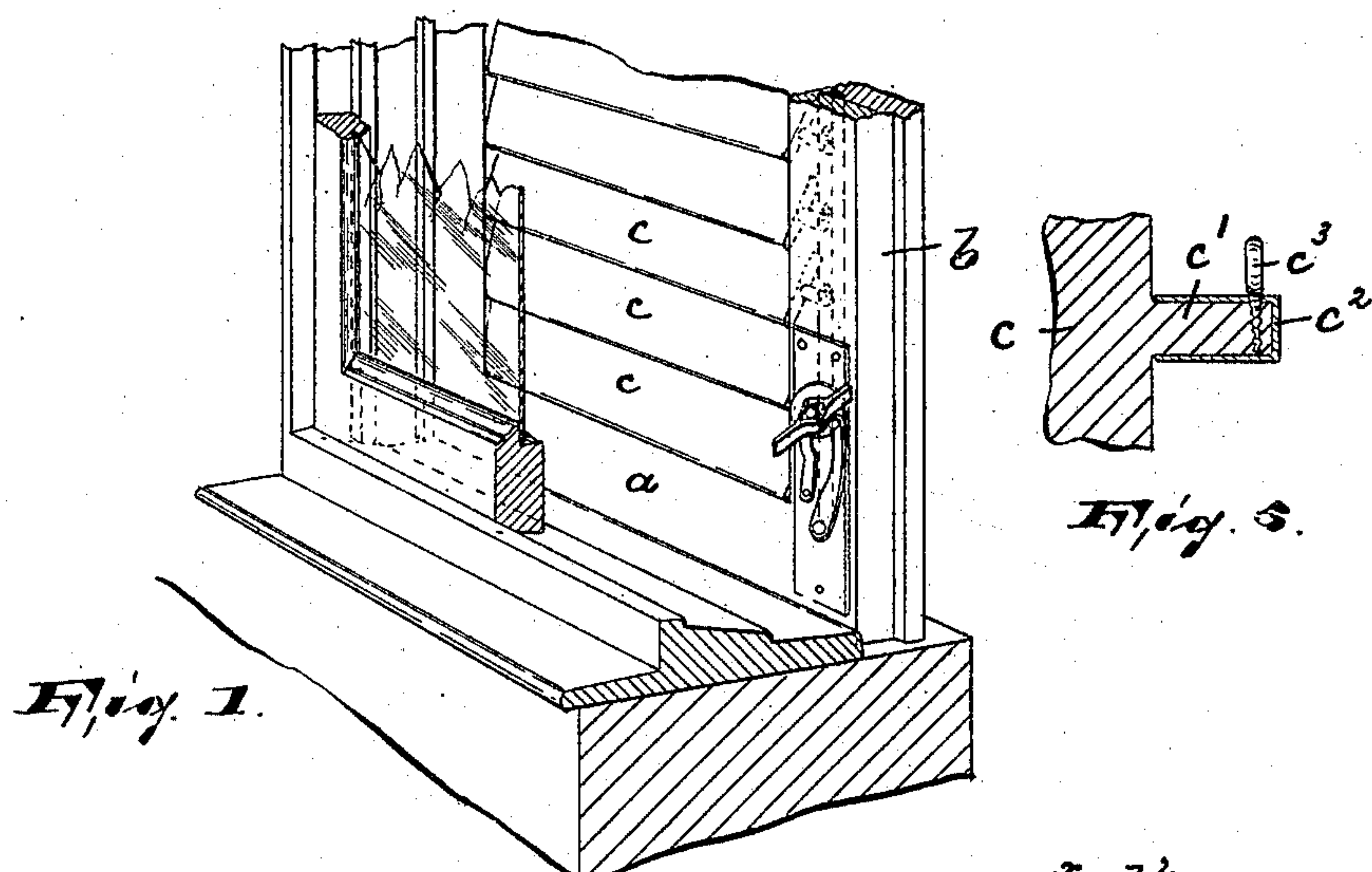
(No Model.)

G. H. HAMALIAN.

BLIND SLAT OPERATING AND LOCKING DEVICE.

No. 598,600.

Patented Feb. 8, 1898.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE H. HAMALIAN, OF PATERSON, NEW JERSEY, ASSIGNOR OF ONE-THIRD TO GREGERY G. BARONIAN, OF SAME PLACE.

BLIND-SLAT OPERATING AND LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 598,600, dated February 8, 1898.

Application filed August 16, 1897. Serial No. 648,431. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. HAMALIAN, a citizen of the United States, residing in Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Slat Rolling and Locking Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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.

The object of my present invention is to provide a shutter with means for rolling the slats to any desired position and locking the same when in closed position, of simple, strong, and durable construction, quick and reliable in operation, and easily handled.

The invention consists in the improved slat rolling and locking mechanism and in the combination and arrangements of the various parts thereof, substantially as will be herein-after more fully described, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a perspective view of a window and its shutter provided with my improvements; Fig. 2, an enlarged front elevation of a portion of the shutter, more clearly illustrating my improved slat rolling and locking mechanism, and for which purpose a portion of the frame has been broken away; Fig. 3, a sectional view on the lines $x x$ of Fig. 2, the slats being shown in full lines; Fig. 4, a view similar to Fig. 3, the slats being shown in reversed position and in full lines; and Fig. 5, an enlarged detail sectional view of a portion of one of the slats and the trunnion arranged thereon.

In said drawings, a and b represent the bottom and side rail, respectively, and $c c c$ the slats of the shutter, which latter are provided at opposite ends with trunnions c' , having their bearings in the side rails of the shutter, all as of usual construction.

The side rail b consists of two sections b' and b^4 , secured together in any desired man-

ner and provided with vertically-arranged elongated slots b^2 and b^5 , respectively, forming a channel for the operating rod or bar d . Said rod or bar is provided on its inner face and at certain intervals with a series of horizontal pins d' , engaging the screw-eye c^3 , secured in the trunnions c' and projecting at right angles therefrom. The trunnions c' are protected by metal caps or covers c^2 for the purpose of furnishing additional strength to said trunnions. Said trunnions c' are arranged in cylindrical-shaped holes or sockets b^3 , as clearly shown in Fig. 2 of the drawings.

The lower portion of the rod or bar d is bent outward and forward at substantially right angles, as at d^2 , and projects through an elongated slot arranged in the section b^4 of the side rail b and through a conforming slot e' , arranged in a plate e , secured to said rail in any desired manner and carrying the bar operating and locking mechanism.

To the free end of the projecting portion d^2 of the rod or bar d is pivotally secured, by means of a screw e^2 , one end of a hook-shaped link f , the other end of which is pivotally secured, as at f' , to a disk f^2 , revolvably mounted on a pin f^5 , projecting from the plate e and at right angles thereto. The sleeve of the disk f^2 is squared or polygonal-shaped, as at f^3 , and is engaged by a key f^4 for the purpose of conveniently operating said disk.

A flat spring g is secured with one end, as at g' , to the plate e and bears with its other end on the top surface of the disk f^2 for the purpose of furnishing friction and thus retain said disk in any desired position. A screw-bolt g^2 , provided with an adjusting-nut, penetrates the said spring g and engages the plate e and furnishes means for adjusting said spring with relation to the disk f^2 .

A pin d^0 is arranged at a convenient place within the channel formed in the rail b and is adapted to be engaged by one of the projecting pins d' to thus limit the downward movement of the bar or rod d and the revolving movement of the slats c , as will be manifest.

It must be remarked that the pivot f' for the link f is beyond the vertical center line of the disk f^2 when said disk is in normal position—that is to say, has passed the dead-cen-

ter of rotation of the said disk—whereby the rod d is prevented from being shifted (by simply operating the slats) without operating said disk by means of the key f^4 , as will be manifest.

When the shutter is to be opened, the key f^4 is rotated until the slats have obtained the desired position. The spring g , being in frictional contact with the disk f^2 , retains said disk and thus the slats in said position.

It will be manifest that the slat rolling and locking mechanism can be arranged on either side of the shutter or that the same mechanism can be connected with any ordinary shutter—that is to say, the bar d taking the place of the ordinary slat-connecting bar—in which case the locking mechanism is secured to the central portion of the lower rail a .

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a shutter the combination with the frame and the slats pivotally arranged therein, of a sliding rod loosely connected with said slats and provided at its lower end with an outwardly-projecting portion bent at right angles to said rod, a disk revolubly mounted on said frame, a pin or pivot arranged on said disk, a hooked-shaped link pivotally connected at one end to the projecting portion of the rod and at its other end to the said pin or pivot on the disk, and a pivot for said disk, said pivot lying between the pivoted connections at the ends of the link, when said disk has been rotated to raise said rod to close the slats, all said parts, substantially as and for the purposes described.

2. In a shutter the combination with the frame and the slats pivotally arranged therein, of a sliding rod loosely connected with said slats and provided at its lower end with an outwardly-projecting portion bent at right angles to said rod, a disk revolubly mounted on said frame, a pin or pivot arranged on said disk, a hooked-shaped link pivotally connected at one end to the projecting portion of the rod and at its other end to the said pin or pivot on the disk, a pivot for said disk, said pivot lying between the pivoted connections at the ends of the link, when said disk has been rotated to raise said rod to close the slats, and a flat spring carried by the frame and in frictional contact with the top surface of the disk, substantially as and for the purposes described.

3. In a shutter the combination with the frame and the slats pivotally arranged therein, of a sliding rod loosely connected with said slats and provided with an outwardly-projecting portion bent at right angles to said rod, a disk revolubly mounted on said frame, a pin or

pivot arranged on said disk, a hooked-shaped link pivotally connected at one end to the projecting portion of said rod and at its other end to the said pin or pivot on the disk, a pivot for said disk—said pivot lying between the pivoted connections at the ends of the link, when said disk has been rotated to raise said rod to close the slats, a flat spring carried by the frame and in frictional contact with said disk, and a screw-bolt, provided with an adjusting-nut penetrating said flat spring and engaging the frame for regulating the tension of said spring, substantially as described.

4. The combination with the frame and the slats of a shutter, one of the side rails of the frame being provided with a vertical central channel, of a rod slidingly arranged in said channel and loosely connected with said slats and having its lower portion bent outward at right angles to said rod, a plate on said side rail and penetrated by a vertical elongated slot, a disk revolubly mounted on said plate, a pin or pivot arranged on said disk, a hooked-shaped link pivotally connected at one end to the projecting portion of the sliding rod and at its other end to the said pin or pivot on the disk, and a pivot for the disk and projecting from the plate, said pivot lying between the pivoted connections at the ends of the link, when said disk has been rotated to raise said rod to close the slats, substantially as described.

5. The combination with the frame and the slats of a shutter, one of the side rails of the frame being provided with a vertical central channel, of a rod slidingly arranged in said channel and loosely connected with said slats and having its lower portion bent outward at right angles to said rod, a plate mounted on said side rail and penetrated by a vertical elongated slot, a disk revolubly mounted on said plate, a pin or pivot arranged on said disk, a hooked-shaped link pivotally connected at one end to the projecting portion of the rod and at its other end to the said pin or pivot on the disk, a pivot for the disk and projecting from the plate, said pivot lying between the pivoted connections at the ends of the link, when said disk has been rotated to raise said rod to close the slats, and a flat spring carried by said plate and in frictional contact with the top surface of the disk, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of August, 1897.

GEORGE H. HAMALIAN.

Witnesses:

GREGERY G. BARONIAN,
ALFRED GARTNER.