

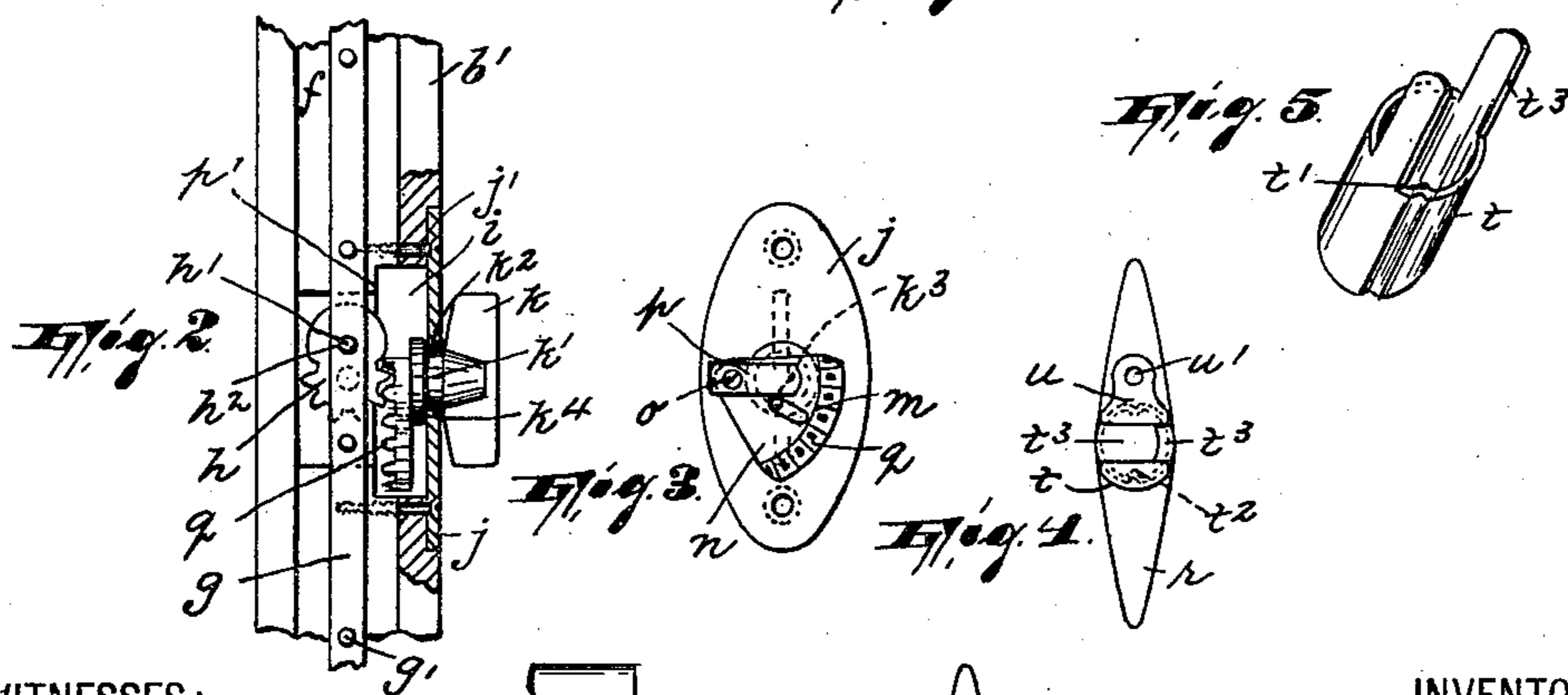
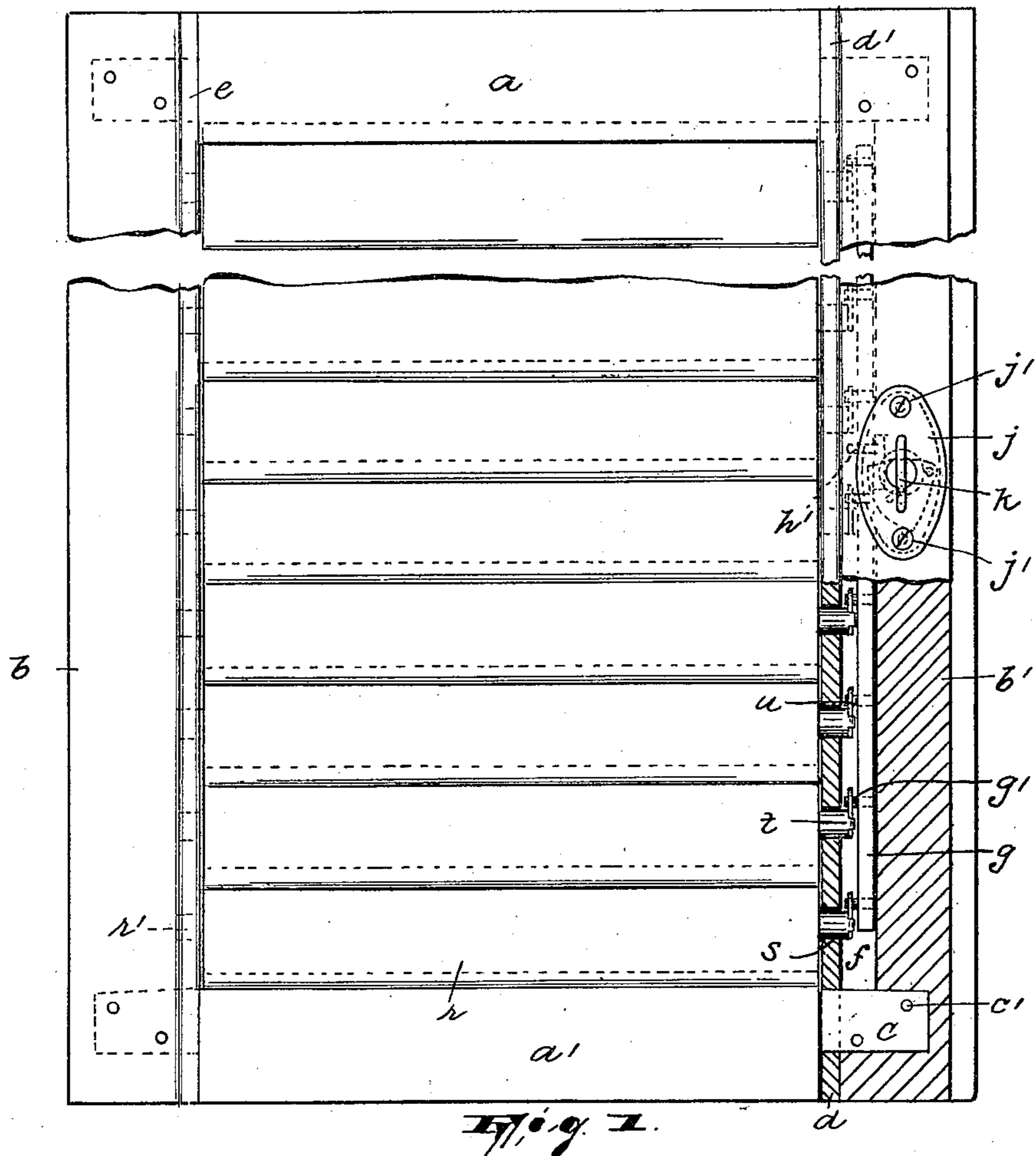
No. 644,354.

Patented Feb. 27, 1900.

G. H. HAMALIAN.
WINDOW SHUTTER OR BLIND.

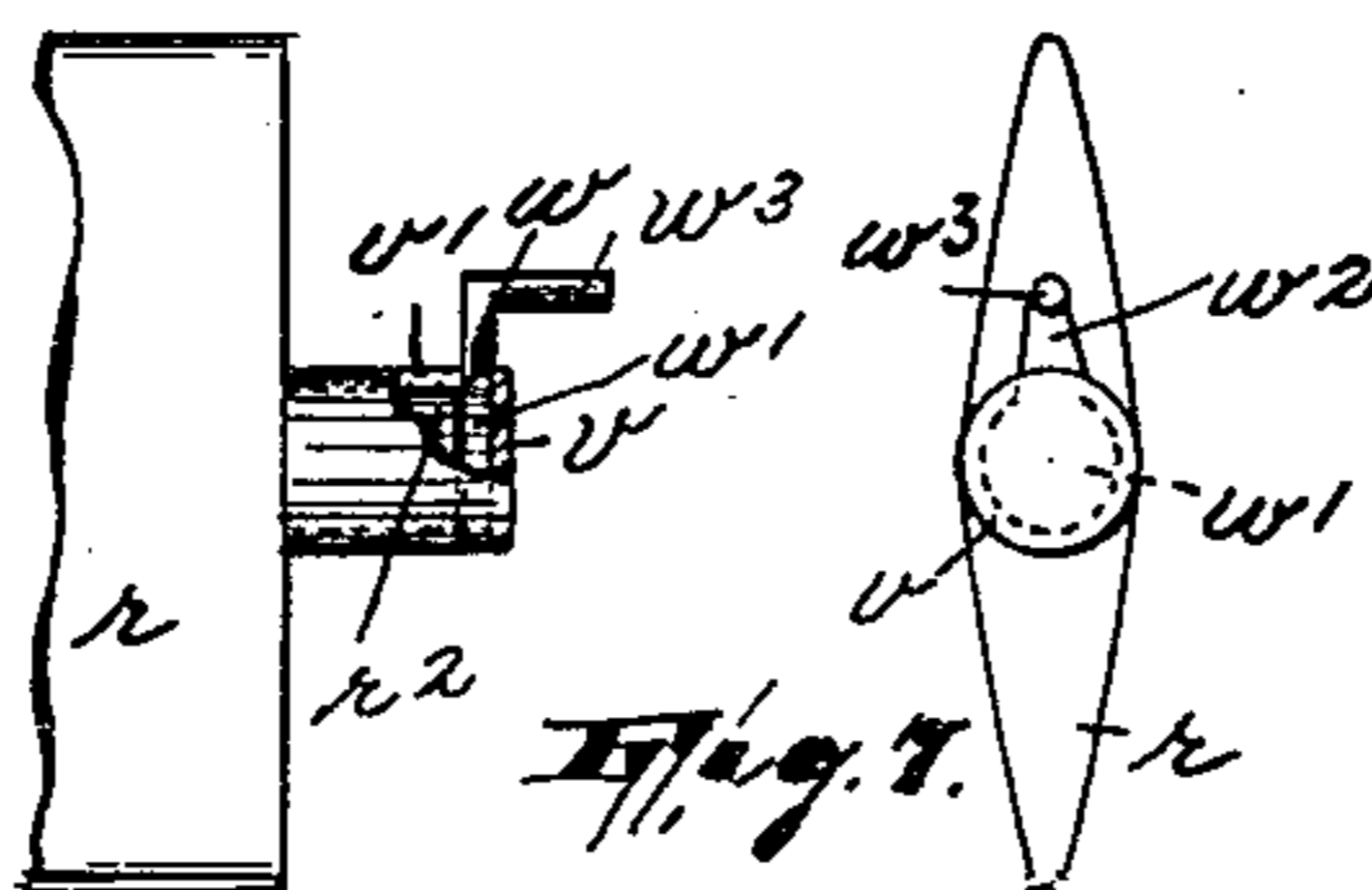
(Application filed June 21, 1899.)

(No Model.)



WITNESSES:

Wm. D. Bell.
T. J. Pollitt



INVENTOR

George H. Hamalian,
BY
Gartner & Steward,
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE H. HAMALIAN, OF PATERSON, NEW JERSEY, ASSIGNOR OF ONE-THIRD TO HARUTUNE S. JENANYAN, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW SHUTTER OR BLIND.

SPECIFICATION forming part of Letters Patent No. 644,354, dated February 27, 1900.

Application filed June 21, 1899. Serial No. 721,285. (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, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Window Shutters or Blinds; 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 the letters of reference marked thereon, which form a part of this specification.

This invention constitutes an improvement upon the invention set forth in Letters Patent No. 598,600, issued to me February 8, 1898; and it relates to blinds or shutters having movable slats.

The object of the invention is to provide a blind or shutter of this kind with means for adjusting its slats to various positions and for locking the same when in the closed position; and a further object of the invention is to so construct a blind or shutter provided with the above-mentioned adjusting and locking means that facility in operation, simplicity, and inexpensiveness will be secured.

The invention consists in a blind or shutter provided with my improved slat adjusting and locking means and in the combination and arrangement of the various parts, substantially as will be hereinafter pointed out, and finally embodied in the clauses of the claim.

The invention is fully illustrated in the accompanying drawings, wherein corresponding letters of reference indicate like parts, and wherein—

Figure 1 is a face view of a blind provided with my improved slat adjusting and locking means, certain portions of the blind being broken away and a part of one of its side rails being shown in section to reveal the internal portions of the slat adjusting and locking mechanism. Fig. 2 is an inside view of the above-mentioned side rail, a certain part thereof being removed and the body thereof being partially shown in section to reveal said slat adjusting and locking mechanism.

Fig. 3 is an inside view of a portion of said slat adjusting and locking mechanism removed from the blind. Fig. 4 is an end view of one of the slats, presenting certain details of construction. Fig. 5 is an enlarged perspective view of a detail involved in what is shown in Fig. 4; and Figs. 6 and 7 are side and end views, respectively, of one end of one of the slats, presenting a modified form of the details of construction involved in what is shown in Fig. 4.

$a a'$ in said drawings respectively designate the upper and lower rails of a blind, and $b b'$ respectively designate the two side rails thereof, these several rails being secured together by means of mortise-and-tenon joints c , the tenon portions of said joints being preferably formed on the upper and lower rails $a a'$. These joints may be maintained by screws or pegs, which may project through holes c' .

Between the ends of the rails $a a'$ and the rail b' and practically forming a portion of the latter is a strip d , the edges d' of which may be rounded off to give it the appearance of a bead, such as the integral bead e of the rail b .

The rail b is provided with an elongated recess f , which extends nearly the entire length of said rail and is covered by the strip d when the parts are properly assembled. In this recess works an oscillating rod g , carrying a series of equidistantly-disposed pins g' , that project toward the strip d . h is a half-pinion that is journaled in a cavity formed in the rail back of the rod g , said half-pinion carrying a pin h' , working in an aperture h^2 , formed in the rod g . It will be seen that in view of the above by rotating the half-pinion h the rod g will be oscillated. Another recess i , communicating with the recess f and extending at right angles thereto, is cut into the face of the rail b' , being covered by a plate j , secured in position by screws j' .

k is a thumb-piece or handle, the shank k' of which penetrates an opening k^2 in the plate j and has a flange k^4 abutting against the inside of said plate to obviate undue looseness of parts. Projecting inwardly from said shank k' and disposed eccentrically thereof is a pin k^3 . Said pin k^3 works in a radial slot

m of a sector n , movable about a pivot o , which may be a screw projecting inwardly from the plate j . In order to keep the sector in place and insure it properly working, I have provided a bent or L-shaped plate-spring p , which is secured in position by the screw o between said sector and the wall p' of the recess i . The sector is provided, near its outer edge and upon its outer face, with teeth q , adapted to engage the teeth of the half-pinion. Therefore in order to actuate the pinion, and consequently oscillate the rod, it is only necessary to turn the thumb-piece k . It will be seen that so long as the pin k^3 is in either of the extreme vertical positions relatively to the center of rotation of the shank k' , or, in other words, at the "dead-center," the parts will be locked against movement in any other way than by the thumb-piece k .

The slats are designated by the reference character r . Each is provided, as usual, at the ends with trunnions r' r^2 , the trunnions r' projecting into openings provided for them in the rail b and the trunnions r^2 projecting into openings s , formed in the strip d . The trunnions r^2 are incased in sleeves t , having longitudinal inwardly-projecting ribs t' , adapted to engage corresponding channels t^2 , formed in the trunnions, so as to prevent the sleeves from turning upon them. Each of said sleeves is provided at its outer ends with a pair of ears t^3 , adapted to be bent toward each other, so as to overlap and secure in place a crank u , having a hole u' at its free end for the reception of one of the pins g' . It will be obvious that, if desired, each crank may carry a crank-pin that engages an opening in the rod g instead of vice versa, as above described.

In the modifications presented in Figs. 6 and 7 a cylindrical socket v , open at but one end, receives the trunnion r^2 of each slat, said socket also having the rib t' , engaging the channel t^2 of the trunnion, and being further provided with a longitudinal slot v' . A crank w , consisting of an integral disk w' and an arm w^2 , the former fitting within the socket v , is secured between the end of the trunnion and the end wall of the socket, its arm projecting through the slot v' , whereby it is admitted to position. From the arm w^2 of the crank projects laterally a crank-pin w^3 , adapted to engage a suitable opening provided in the rod g .

It will be seen that the sleeve or the socket

not only provides means for securing the crank in place, but also protects the trunnion r^2 against wear, which would be somewhat greater than that upon the other trunnion r' , owing to the action of the actuating mechanism.

By forming the rail b' in two sections the operation of assembling the parts of the blind is greatly facilitated. For instance, the strip can be used to act to hold the slats in approximately the proper position until the pins on the rod g can be made to properly engage with the several cranks.

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

1. In a blind or shutter having pivoted slats, a movable rod having eccentric connection with each slat, a suitably-pivoted sector having a radial slot, operative connecting means between said rod and said sector, and a pivoted handle or thumb-piece carrying an eccentric-pin engaging the slot in said sector, said handle or thumb-piece and the sector being eccentrically pivoted, substantially as described.

2. In a blind or shutter having pivoted slats, a movable rod having eccentric connection with each slat, a suitably-pivoted sector having teeth on one of its faces, a suitably-pivoted half-pinion disposed at right angles to said sector and engaging the teeth thereof, said rod having an eccentric connection with the half-pinion, and a pivoted handle or thumb-piece carrying an eccentric-pin, said sector having a radial slot receiving the pin of said thumb-piece, and said thumb-piece and the sector being eccentrically pivoted, substantially as described.

3. In a blind or shutter having pivoted slats and a suitably-operated rod for actuating said slats, each slat having trunnions, of removable cranks carried by said trunnions and operatively connected to said rod, and a cylindrical device receiving each trunnion and one end of said crank and securing the latter in place, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of June, 1899.

GEORGE H. HAMALIAN:

Witnesses:

JAS. B. NEWTON,
 JOHN W. STEWARD.