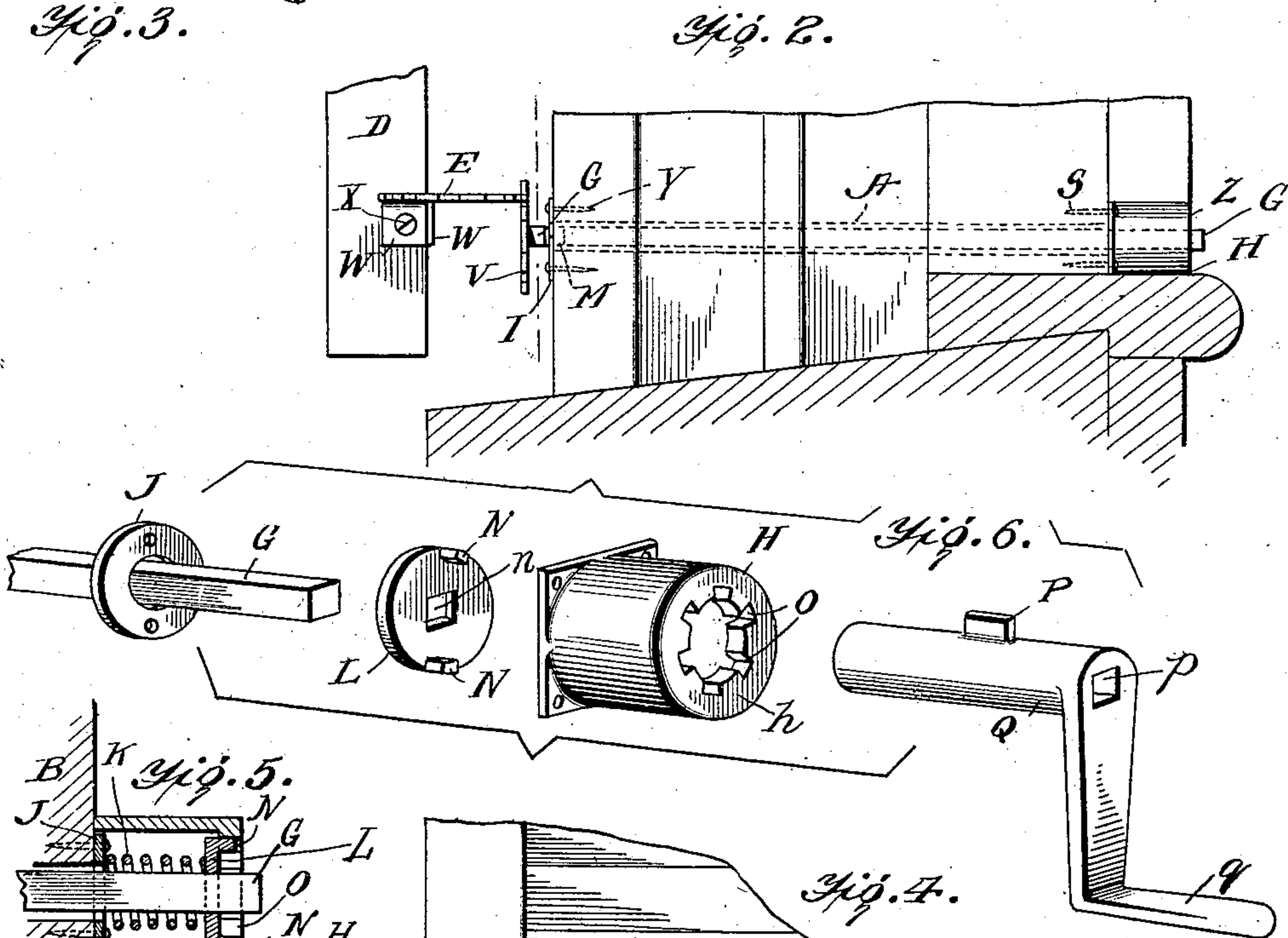
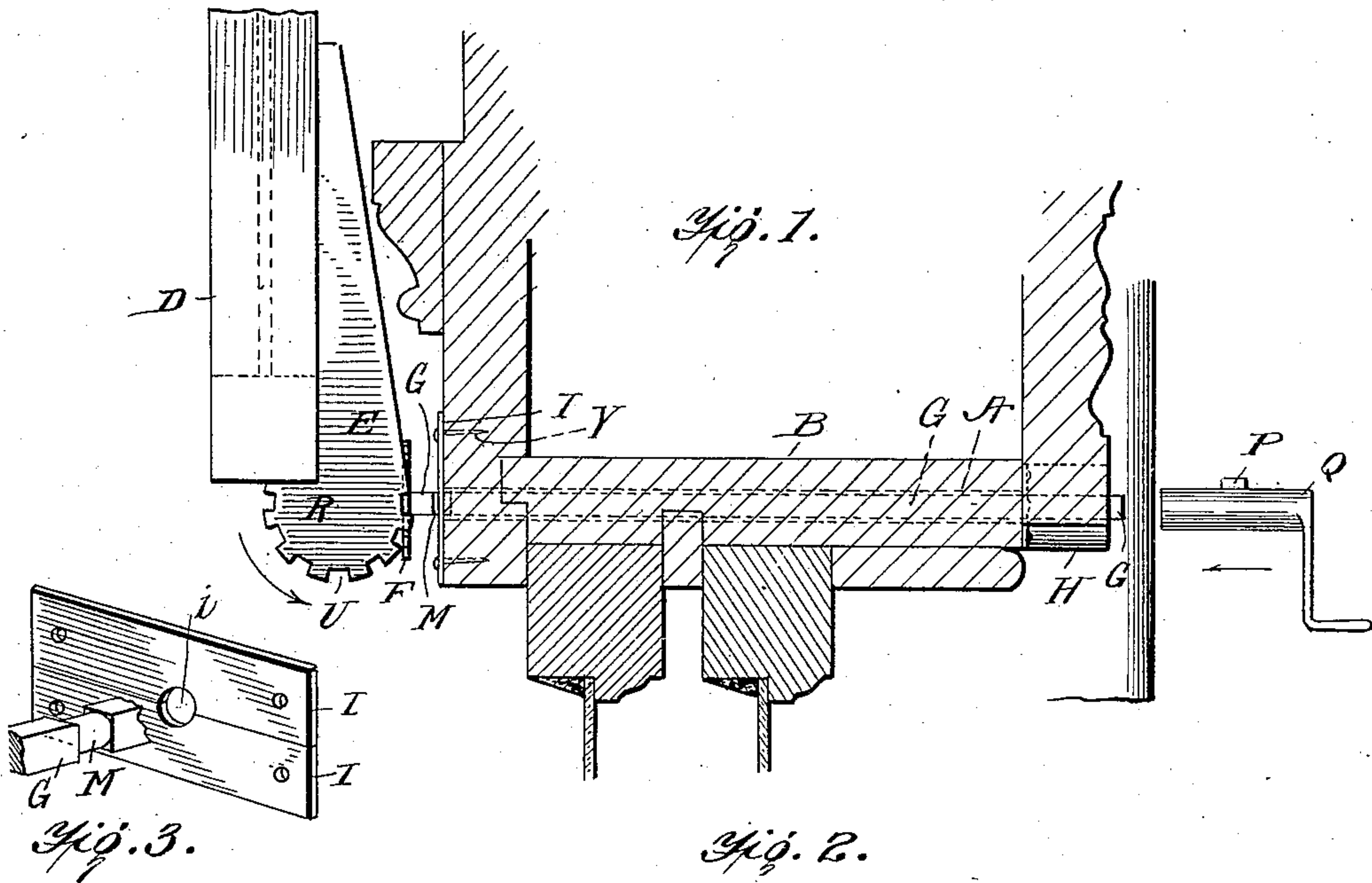


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SHUTTER FASTENER.
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SHUTTER-FASTENER.

No. 915,929.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES L. BETTON, a citizen of the United States, residing at Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented new and useful Improvements in Shutter-Fasteners, of which the following is a specification, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in explaining its nature.

The objects of my invention are: first, to provide a means of opening and closing the outsideshutters of a building from the interior thereof, without the necessity of opening or leaning from the windows thereof; second, to provide a means of securely fastening the shutters at certain angles, as desired; and, third, to allow of the utmost ease in removal of said shutters from the hinges on which they are hung when used in connection with an interior controller; and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts. I attain these results by the mechanism illustrated in the accompanying drawing, in which:

Figure 1 is a horizontal cross sectional view of a window-casing and shutter, showing my device in position; Fig. 2 is a vertical cross sectional view thereof; Fig. 3 is a perspective detail view of the bearing plates; Fig. 4 is a fragmentary detail view of the shutter carrying the notched arm, and of the toothed sector or sprocket cooperating therewith; Fig. 5 is a vertical sectional detail view of the inner bearings for the controlling-rod and the locking-mechanism for the rod; and Fig. 6 is a collective detail perspective view of the controlling-rod, of the key-plate, of the housing containing the key-plate and the coiled spring, and of the operating-crank.

Referring in detail to the drawing: the pulley-stile B of the window-frame is provided, horizontally, with an opening A extending therethrough, through which projects a controlling-rod G, carrying on its outer end a toothed sector or sprocket V, the rod being grooved, as shown at M.

Bearing-plates I, I, provided with a perforation *i*, are secured to the exterior of the window-frame, as by nails Y, or the like, the grooved portion M of said controlling-rod G working in said opening *i*. The function of these bearing-plates I, I, is dual in its nature; first, to prevent wear of

the window-casing by the operation of said rod G, and, second, to prevent lateral movement of said rod, as is obvious. At the opposite side of the window-frame, there is disposed another bearing-plate J, centrally perforated, as shown, and secured to the window-casing, as by nails T, or the like, and through which plate said controlling-rod G projects. Also secured, as by nails S, or the like, to the window casing, over said plate J, is a barrel or housing H, having a perforated outer face *h* provided with radial notches O. Carried within said barrel or housing H is a key-plate, or disk, L, provided with a central opening *n*, through which the controlling-rod G extends, and with circumferential lugs N, N adapted to engage said notches O. Also carried within said barrel or housing H is a coiled spring K, one end thereof bearing against said plate J and the other end against said key-plate or disk L, and which spring tends normally to retain the lugs N, N of the key-plate in engagement with the notches O of the housing H, thereby locking the rod G against movement, as is perfectly obvious. To effect rotation of said controlling-rod G, a crank Q, provided with a square bore *p*, with a handle *q*, and with a tell-tale lug P, is slipped over the outer end of the rod G (which is square in transverse cross-section), and pushed into said barrel H, against said key-plate or disk L, thereby moving the latter and bringing its lugs N, N out of engagement with the notches O; whereupon the rod G may be rotated, as desired. It is desirable to place the crank on the end of the rod G so that the tell-tale lug P is in alinement with one of the lugs N, N, so that, in turning the rod G, the operator may know when the lugs are again in alinement with the notches O, by simply noting the position of the tell-tale lug P with reference to the notches O (when the tell-tale lug P coincides with a notch O, then the lugs N, N are in alinement with two of said notches O). Upon removal of the crank, the lugs N will, by operation of the spring K, again engage the notches O, thus locking the rod G against movement.

An arm E, having, desirably, flanges W, W, is secured to the bottom portion of the shutter D, as by screws X, or the like, and is provided, at one end (which is arc-shaped), with notches U, with which cooperate the

teeth F of the sector V, to open or close the shutter, upon operation of the controlling-rod G, by the crank Q. R represents the center point upon which the arm E turns; 5 which point is directly under the pivot of the hinges upon which the shutter is hung; the arm being made sufficiently long to exercise a powerful leverage upon the blind or shutter.

10 Having thus described my invention what I claim as new and desire to secure by Letters Patent; is:

The combination with a toothed member adapted to be secured to a shutter, of a 15 controlling-rod carrying, at one end, a ratchet engaging said toothed member, and, at its other end, a locking-member provided with lugs, said locking-member mounted to turn with said rod, a stationary locking-

plate disposed on the end of said rod in 20 proximity to said locking-member and having spaced notches adapted to be engaged by said lugs, a spring bearing against said locking-member and maintaining the same normally in contact with 25 said locking-plate, with its lugs in engagement with sockets of said locking-plate, and a crank adapted to bear against said locking-member to remove its lugs from engagement with said sockets, and to en- 30 gage said rod to turn the same.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES L. BETTON.

Witnesses:

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C. E. HODGDON.