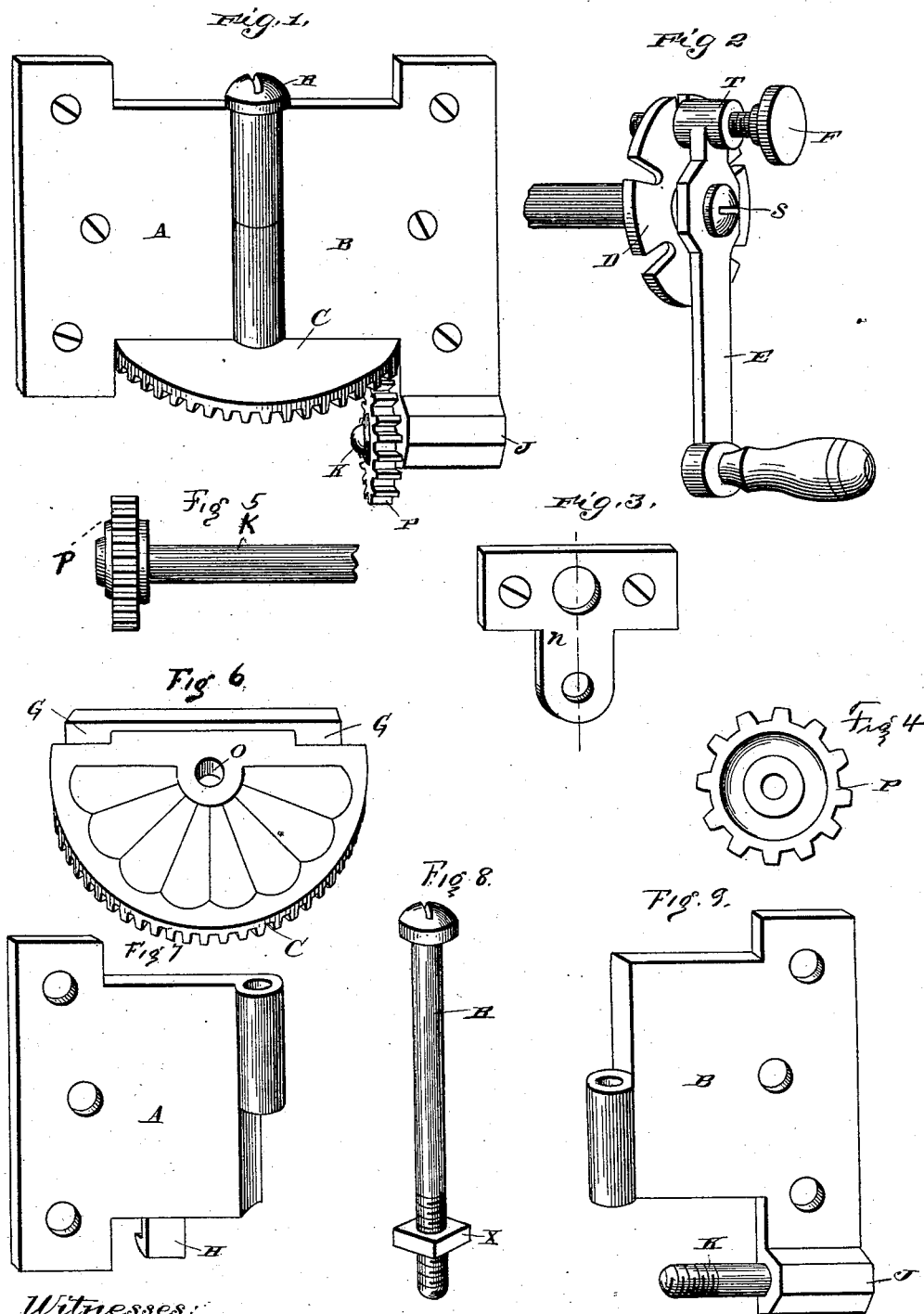


(No Model.)

P. DEVLIN.
SHUTTER REGULATOR.

No. 489,371.

Patented Jan. 3, 1893.



Witnesses:
Lewis H. Miller
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UNITED STATES PATENT OFFICE.

PETER DEVLIN, OF BALTIMORE, MARYLAND.

SHUTTER-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 489,371, dated January 3, 1893.

Application filed December 28, 1891. Serial No. 416,396. (No model.)

To all whom it may concern:

Be it known that I, PETER DEVLIN, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented a new and Improved Shutter-Worker, of which the following is a specification.

My invention relates to shutter workers that can be operated from the inside of the room, without opening the window or raising the sash, by the use of a crank suitably arranged on the inside of the window framing, the shutter can be opened, closed or secured in any position desired, by means of a stop device connected with the crank handle.

The object of my invention is to produce a shutter worker in combination with the butt shutter hinge, that could be easily substituted for that hinge, without requiring any alterations, either in the upper hinges, the window frame or the shutter, other than the aperture in the window frame through which the rotating rod passes, as well as to provide something simple, durable and inexpensive.

The invention consists in the constructions and combinations of parts hereinafter described and set forth in the claims.

In the drawings which are a part of this specification, Figure 1, illustrates the hinge when in place, the shutter open. Fig. 2. represents the device for operating the shutter inside. Fig. 3. represents a plate to hold the gearing in proper place and serves as an outside bearing. Fig. 4. is the gear wheel attached to the lower leaf of the hinge. Figs. 5, 6, 7, 8, and 9 show detached parts of the structure.

A. represents the upper leaf of the hinge
B. the lower leaf thereof. C. the segmental gear. J. an extension molded to the lower leaf.

K is the rotating bar or rod that passes through the window frame and the extension J.

P is the gear wheel on the outside end of bar *m* that operates it, thereby causing the segmental gear, to move with the upper leaf of the hinge.

D, is a circular raised plate, with an aperture in its center through which the rotating bar passes to receive the crank handle. It is also provided with a suitable number of grooves, peripherically arranged to receive or

be engaged by a stop connected with or attached to the crank handle.

E is the crank handle with the stop screw F passing through the aperture in the extension T. on the top end of the crank handle.

The plate *n*. Fig. 3, when in place on the outside of the window frame, serves as an outside bearing, the stop plate D serving as an inside bearing. The rotating bar being passed through the aperture in the window frame, from the outside can be easily adjusted to frames of any width before the crank is put on. The segmental gear C. is provided with a slot G, on either side for right or left hinge. The aperture O. is engaged by the pintle of the hinge R. and the slot G. is engaged by the catch H. shown under lower edge of the upper leaf of the hinge A. The pintle R. is passed downward through the hinge and through the aperture O. in the segmental gear and secured underneath by the nut, *t*.

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

1. In a shutter worker, a butt hinge, the lower leaf of which is provided on its lowest end with an extension molded thereto to hold a spindle to be engaged by a gear wheel, the upper leaf of which is provided on its lower edge with a catch, a segmental gear provided with a recess, to engage said catch and with an aperture to be engaged by the pintle of the hinge, whereby the segmental gear will move with said leaf of the hinge, in combination with a rotating rod which passes through the window frame and is provided with a gear wheel on its outer end to engage with and operate said segmental gear as described.

2. A crank handle which is provided with a stop thumb screw, in combination with a circular plate having an aperture in the center to admit of the rotating bar passing through it and being provided with grooves around its outer edge to receive or engage the stop screw connected to the crank handle whereby the shutter is held in any desired position, substantially as set forth.

PETER DEVLIN.

Witnesses:

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