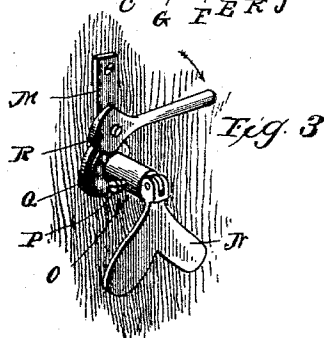
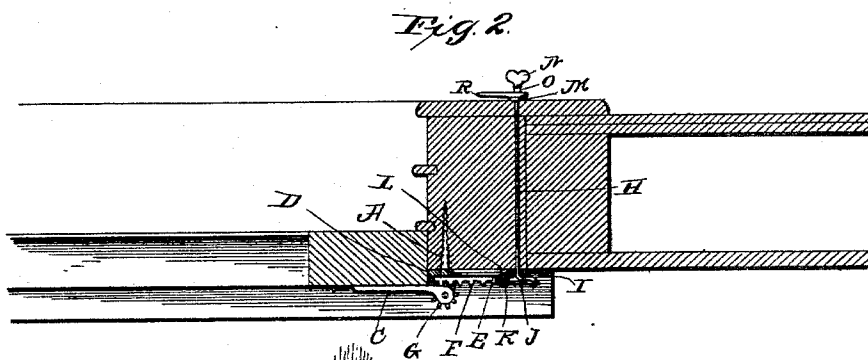
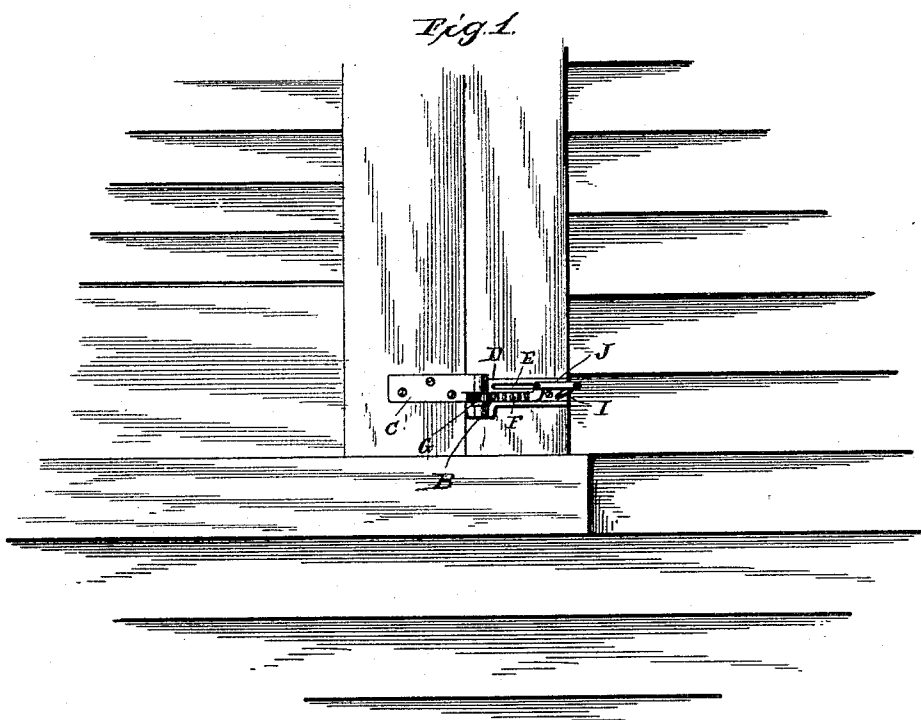


(No Model.)

D. O. GOULD.
SHUTTER WORKER.

No. 584,053.

Patented June 8, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID O. GOULD, OF TORRINGTON, CONNECTICUT.

SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 584,053, dated June 8, 1897.

Application filed September 21, 1896. Serial No. 606,485. (No model.)

To all whom it may concern:

Be it known that I, DAVID O. GOULD, a citizen of the United States, residing at Torrington, in the county of Litchfield and State of Connecticut, have invented a certain new and useful Improvement in Shutter-Workers, of which the following is a specification.

My invention relates to a new and useful improvement in shutter-workers, and has for its object to provide a device by means of which a shutter may be operated from the inside without the necessity of opening the window, so as to either close it or hold it at any degree of opening desired; and a further object of my invention is to so construct such a device as that the cost of manufacture shall be small, and that it shall be quickly and easily applied, and when so applied will be efficient in operation.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation of a portion of the building and shutter having my improvement applied thereto; Fig. 2, a cross-section of the same, showing the relative position of the several operating parts when the shutter is closed; and Fig. 3, a perspective of the operating-handle and locking-cam located upon the interior of the building.

In carrying out my invention I provide an ordinary drive-hinge A, having projecting therefrom a pintle B, upon which the strap member C of the hinge is pivoted; and this strap member, as is usual, is secured to the blind by means of screws. Formed with the drive-section of the hinge is a bracket-plate D, having a slot E therein, for the purpose hereinafter set forth, and upon this plate is fitted to slide a rack-bar F, having teeth adapted to mesh with the pinion G, which is formed upon the strap member of the hinge, by which arrangement it will be seen that when the shutter is swung open or closed the

rack-bar will be caused to travel upon the bracket-plate, or when said rack-bar is caused to travel the pinion will be revolved, thereby opening or closing the shutter. In the rear portion of the bracket-plate is journaled a shaft H, having a crank I formed therein, which is connected by means of the link J to the rack-bar at K; and this connection is accomplished by the bolt L, which passes through both the link and an eye formed upon the rack-bar, and also through the slot E, where it is secured by a nut upon the rear side of the bracket-plate, from which it will be seen that when the shaft is turned upon its axis the rack-bar will be caused to move back or forth, as the case may be, and the rear end thereof will be guided and prevented from displacement by the bolt L. The shaft H projects through the casing of the window and wall of the house, and the inner portion thereof is journaled within the escutcheon-plate M, which is secured by screws, or otherwise, to the inner face of the casing, and this shaft has secured upon its inner end a handle N, which is pivoted to the collar O, the latter being held upon the shaft by a set-screw P. This collar is provided with a flange Q, and a cam R is pivoted to the escutcheon and so overlaps this flange that when said cam is turned upon its pivot-point in the direction of the arrow it will tightly bind the flange against the escutcheon, thereby preventing the revolving of the shaft, which in turn will hold the rack-bar against movement, thus securing the blind in either a closed position or any adjustment. The cam has formed therewith a lever S for convenience of manipulation. From this description it will be seen that without raising the window the shutter may be opened, closed, or moved to any adjustment desired, and there held by camming the flange Q against the escutcheon, as just described; and, as is well understood, this is of great convenience in stormy weather, since a person upon the inside of the room will have perfect control of the shutters without the necessity of admitting a draft of cold air.

It is to be noted that a right and left hand device is to be used for the two shutters of a window, and that they may be easily attached by driving the spiked section of the lower

hinge into the casing and securing one corner of the bracket-plate by a screw T.

The length of the shaft may be varied in proportion to the thickness of the window-casing and the collar adjusted thereon so as to make a close fit between the flange and escutcheon. Since my device forms a part of the lower hinge of the shutter, it will be seen that its cost will be exceedingly small, since the only extra parts are those which may be cast and require little or no machine finish.

Having thus fully described my invention, what I claim as new and useful is—

1. A shutter-worker consisting of a hinge, one member of which has formed thereon a pinion, a rack-bar meshing with said pinion, link pivoted to said rack-bar, a shaft having a cranked end to which said link is connected, and means placed upon the inside of the window for the operation of the crank, as specified.

2. A shutter-worker consisting of a hinge, one member of which has a pinion formed thereon, a bracket-plate formed with the other member of the hinge, a rack-bar adapted to slide upon said plate and meshing with the pinion, a shaft projecting through the window-casing, a crank formed upon the end of said shaft, a link for connecting said crank and rack-bar, and a pivoted hinge secured to

the inner end of the shaft, substantially as and for the purposes set forth.

3. A shutter-worker comprising a hinge, one section of which is adapted to be driven into the window-casing, the other section having a pinion formed thereon, a rack-bar with which said pinion meshes, a bracket-plate secured to one member of the hinge arranged to guide the rack-bar, a shaft journaled in said plate and extending through the casing, a crank formed upon the other end of the shaft, a link for connecting said crank and rack-bar, an escutcheon secured to the inner face of the window-casing and in which the inner end of the shaft is journaled, a collar secured upon the inner end of the shaft, a flange formed with said collar, a cam pivoted to the escutcheon and adapted to bind said flange against said escutcheon, and a handle pivoted to the collar, substantially as and for the purposes set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

DAVID O. GOULD.

Witnesses:

S. S. WILLIAMSON,
WILLARD A. RORABACK.