T. J. CARROLL.

Shutter-Worker.

No. 164,519. Patented June 15, 1875.

Fig. 1

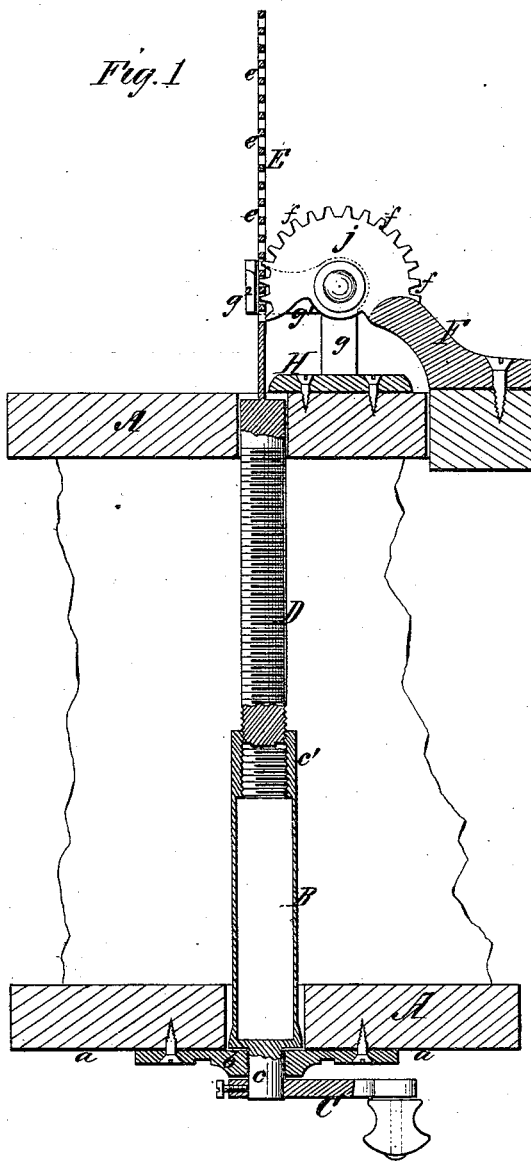
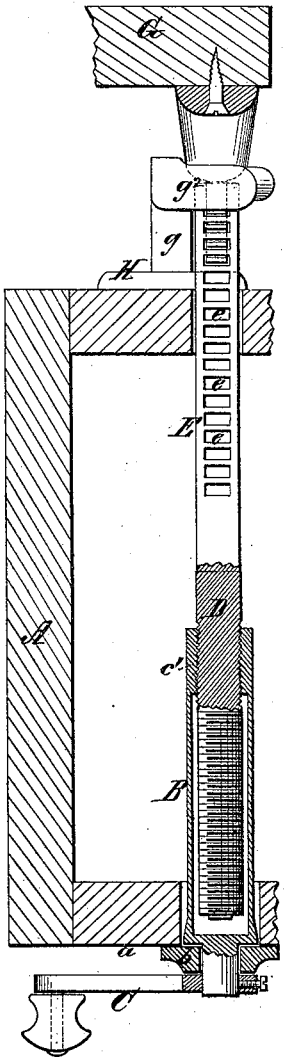


Fig. 2



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS J. CARROLL, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO FRANK ARMSTRONG.

IMPROVEMENT IN SHUTTER-WORKERS.

Specification forming part of Letters Patent No. **164,519**, dated June 15, 1875; application filed May 20, 1875.

CASE B.

To all whom it may concern:

Be it known that I, THOMAS J. CARROLL, of Bridgeport, county of Fairfield and State of Connecticut, have invented a new and Improved Device for Opening and Closing Shutters for Dwellings and other houses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a longitudinal horizontal section of my improvement, and Fig. 2 a section at right angles to Fig. 1.

The object of my invention is to afford a ready and effective means for opening and closing a shutter without raising the window-sash to give access thereto; my device being operated by a person within the room, and in such manner as shall adjust the outside shutter to any desired position, whether entirely open, more or less open, or closed, all as hereinafter described and claimed.

In the drawings, A indicates the casing of a window to which my invention is applied. To the inside *a* of this case an ornamental plate, *b*, is affixed, which affords a bearing for the journal *c* of a cylinder, B. To the journal *c* a crank, C, is applied, as shown, to give rotation to the cylinder B, which, at its inner end, as at *c'*, is made with a female screw to take in a male screw formed on a round bar, D, as shown in the figures. To the outer end of this bar a plate, E, is attached, having rectangular perforations *e*, which engage with the teeth or cogs *f* of a half-wheel, *j*, formed on and constituting a part of a shutter shank or strap, F, which is screwed onto an outside shutter, G. H is a bracket screwed to the outside of the casing, having arms *g* and g^1, the latter of which has an extended portion, g^2, projecting upward, so as to confine and hold the rack E in contact with the cogs *f* when the several parts are in working position, as shown in Fig. 1. A pintle, *i*, is made to project above the arms *g* g^1 of the bracket H, and passes through the toothed half-wheel *j* when the parts are in working position, thus forming a hinge for the articulation or movements of the shutter G. In Fig. 1 the shutter G is represented closed. To open it the crank C is rotated to the right, such act revolving the tube and drawing the bar D therein, as indicated in Fig. 2, the rack during such movement engaging with the teeth *f* of the half-wheel *j*, and thus throwing open the shutter G more or less, according as the crank is turned more or less. The tube B incloses the bar D when the shutter is thrown open, and at its end *c'* affords a proper bearing for the steady travel of the bar either forward or back, according as the bar is moved by the crank C.

By this application and use of the tube B, in conjunction with the bar D, a connection with the operating crank C is maintained when the bar is projected from the tube, as in Fig. 1, notwithstanding the bar is in length but about one-half the width of the casing.

What I claim is—

The tube B, having a screw-head, as at *c'*, in combination with the bar D, rack E, and toothed wheel *j*, substantially as and for the purpose described.

THOMAS J. CARROLL.

Witnesses:

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