(No Model.)

J. T. WILDE.

SHUTTER WORKER.

No. 358,998. Patented Mar. 8, 1887.

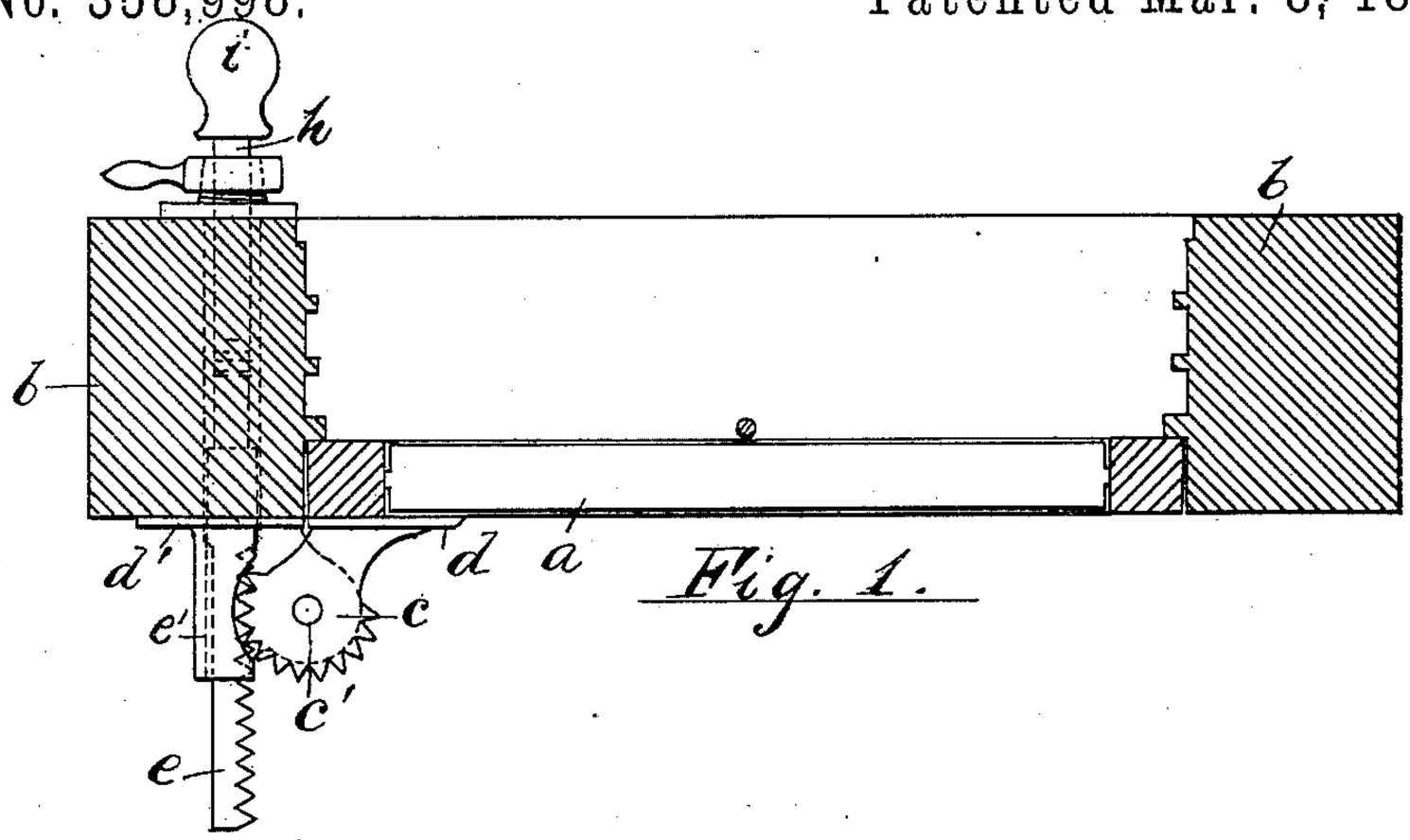


Fig. 1.

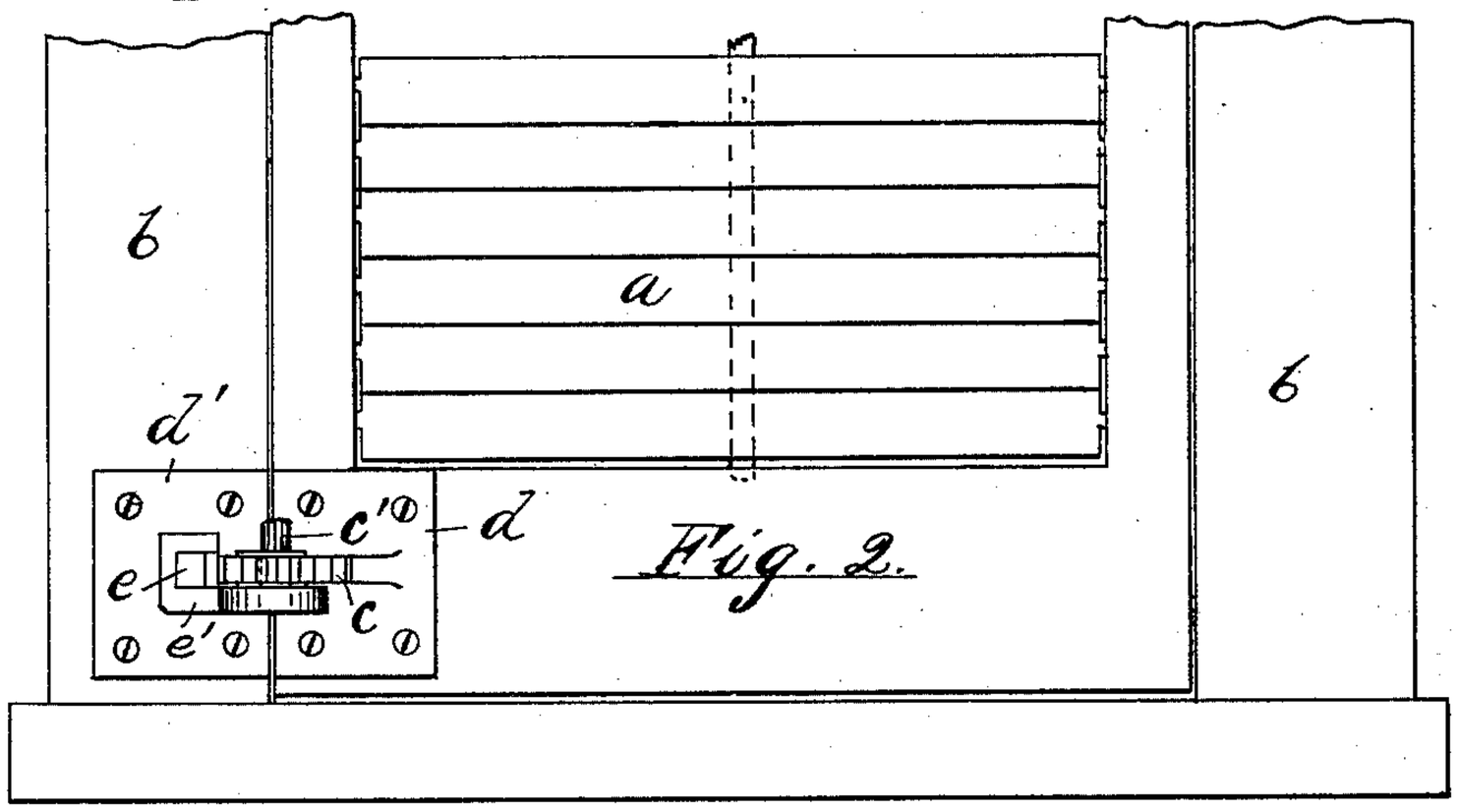
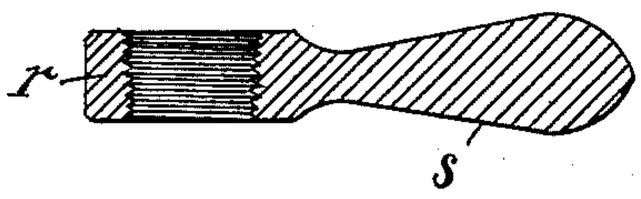


Fig. 2.

Fig. 3.

Fig. 5.



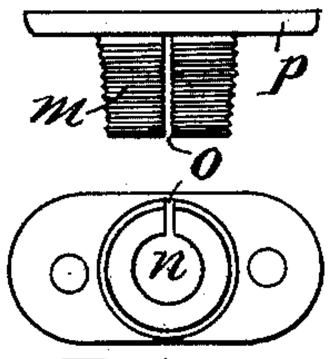
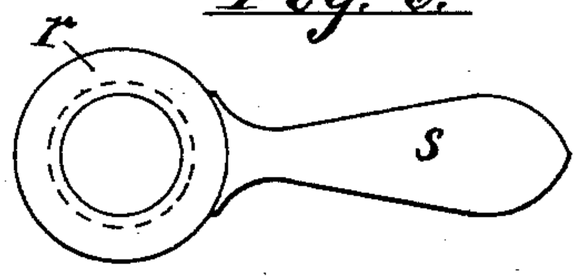


Fig. 4.

Fig. 6.



Witnesses.
L. Lee.
Henry J. Theberath.

Inventor.
John T. Wilde, per
Bruce & Miller, attys.

UNITED STATES PATENT OFFICE.

JOHN T. WILDE, OF NEWARK, NEW JERSEY.

SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 358,998, dated March 8, 1887.

Application filed October 29, 1886. Serial No. 217,507. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. WILDE, a subject of the Queen of Great Britain, residing at Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Shutter-Workers, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to that class of shutter-workers which have a pinion attached by means of a bracket to the shutter, the same forming a part of the lower hinge for the shutter, such pinion engaging with a rack-bar extended through the casing to operate the shutter from the inside of the same; and the invention consists in the particular construction hereinafter described and claimed.

My invention will be understood by reference to the annexed drawings, in which—

Figure 1 is a sectional plan of the shutter when closed, and the window-frame, showing, also, a plan of the shutter-worker applied thereto. Fig. 2 is a view of the same from the outside of the shutter. Fig. 3 is a side view of a split bushing forming a part of the clamping device, and Fig. 4 is a plan of the same. Fig. 5 is a longitudinal section of the collar which acts in conjunction with the split bushing for clamping the rack-bar in place, and Fig. 6 is a plan of the same. Figs. 3 to 6, inclusive, are drawn upon a larger scale than Figs. 1 and 2.

a is the shutter; *b*, the window-frame; *c*, the pinion, constructed integral with the foot *d*, attached to the hinge upon the window-shutter. *d'* is the foot of the hinge attached to the window-frame, which supports a pintle, *c'*, as in ordinary shutter-hinges, to act as a pivot for the pinion *c*.

e is the outer or rack section of the rack-bar, provided with a threaded socket, *f*, at its inner end, and held in position laterally by the sleeve *e'*.

g is the outer section or shank of the handle-bar, provided with a screw-thread and adapted to screw into the socket *f*. At the inner end this outer section is pivoted to the inner section, *h*, of the handle-bar, which is provided at its opposite end with a handle, *i*, to operate the whole.

It will be seen that by turning the handle *i*, and thereby causing the outer section, *g*, to be screwed into or out of the threaded socket *f*, the length of the rack-bar may be varied to fit the window-casing to which the shutter-worker is applied; but this construction for the rack-bar is not necessary in order to apply my clamp to the mechanism.

The clamping device consists in a bushing, *m*, provided with a cylindrical aperture, *n*, through which the inner end of the rack-bar passes, and slit at *o* to admit of its contraction when its outer surface is pressed inward. This bushing is provided with a flange, *p*, by which it is fastened to the inner side of the window-casing, the surface of the bushing being slightly tapered outward and provided with a screw-thread. A threaded collar or nut, *r*, when screwed upon the threaded bushing, serves to contract the aperture *n*, and thus to grasp the rack-bar and clamp it firmly in place. In the drawings I have shown this nut provided with a handle, *s*, projecting from one side of it; but this is not necessary to its operation, although I prefer to employ such construction in manufacturing the device. This clamping device is intended more particularly for clamping the shank of the rack-bar when it is desired to hold the shutter entirely or partly closed; but when it is used the pivotal joint in the rack-bar may be dispensed with as a means for locking the shutter open, since my clamping device affords ample security against the movement of the rack-bar.

Having thus described my invention, what I claim herein is—

In a shutter-worker comprising a rack-bar operating independently of the shutter and through the window-frame, and a pinion mounted upon a foot secured to the frame and engaged by said rack-bar, the combination, with the longitudinally-movable rack-bar, of the split bushing attached to the inner side of the window-frame and fitted to the shank of such rack-bar, the bushing having a tapering screw-thread upon its exterior, and a nut adapted to turn upon such thread to compress the bushing upon the shank, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN T. WILDE.

Witnesses:
HENRY J. MILLER,
HENRY J. THEBERATH.