W. JONES.
Shutter-Worker.

No. 209,055. Patented Oct. 15, 1878.

Fig. 1.

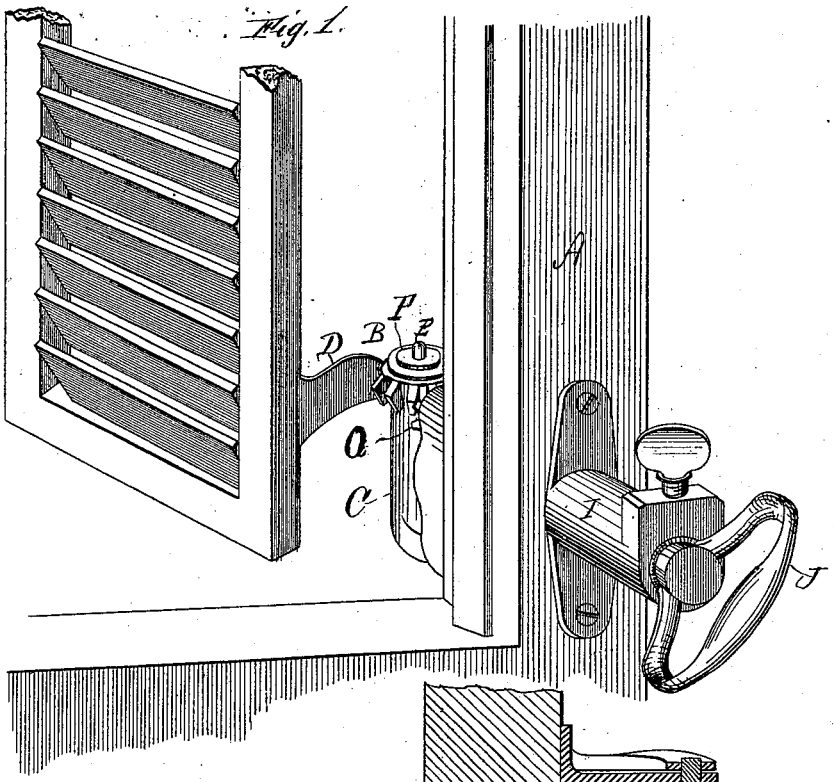

Fig. 2.

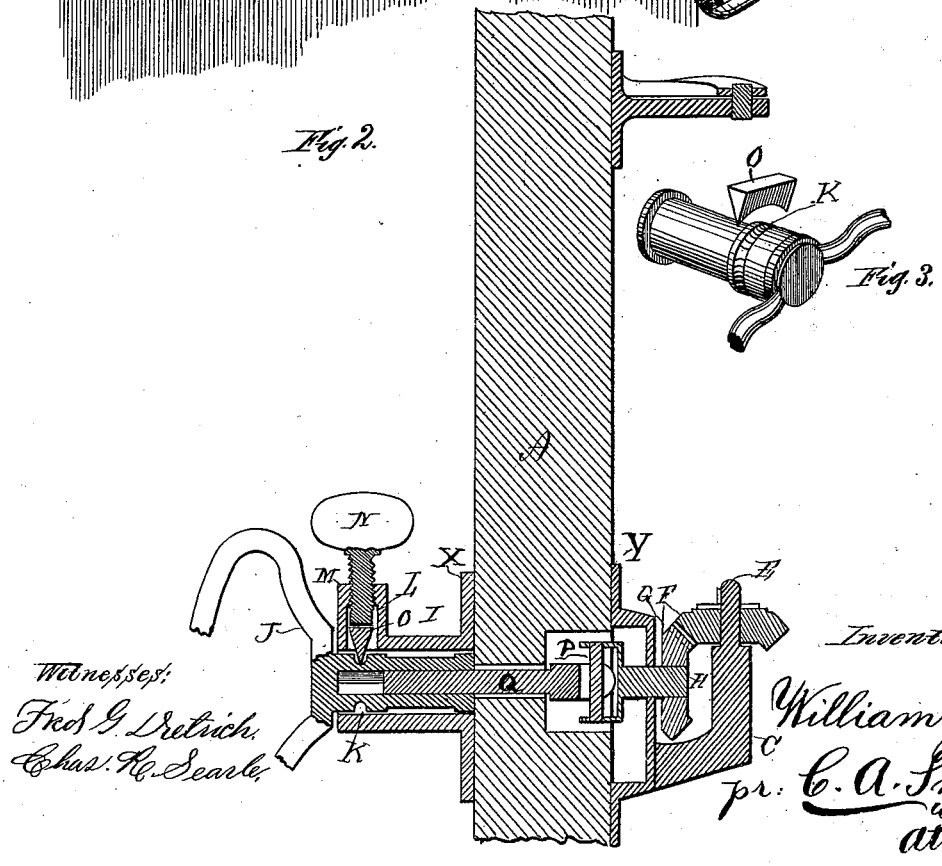

Fig. 3.

Witnesses:
Fred G. Dretrich.
Chas. H. Seare.

Inventor:
William Jones,
per C. A. Snow & Co.
attys.

UNITED STATES PATENT OFFICE.

WILLIAM JONES, OF OSHAWA, ONTARIO, CANADA.

IMPROVEMENT IN SHUTTER-WORKERS.

Specification forming part of Letters Patent No. **209,055**, dated October 15, 1878; application filed July 3, 1878.

To all whom it may concern:

Be it known that I, WILLIAM JONES, of Oshawa, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in Device for Operating and Fastening Window-Shutters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 represents a view in perspective of a shutter-worker embodying the improvements of my invention. Fig. 2 is a vertical longitudinal section, showing the handle and the mechanism for connecting with the shaft in the socket; and Fig. 3 is a detached view of the handle and the key which binds it in its socket.

This invention relates to shutter-workers; and consists in the improvements in the construction of the same, hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawing similar letters of reference indicate corresponding parts in the several figures.

A represents the window-frame that is built in the wall of the building, and in brick buildings, or others where the walls are unusually thick, it inclines, being narrower upon the outside of the wall than upon the inside thereof. B is the hinge, one part, C, of which carries the pintle E. The eye part D is provided with a gear-wheel, F, which engages with a gear-wheel, G, upon the shaft H. The shaft H is connected by a universal joint, P, to a shaft, Q, which is passed through a hole made in the frame A, as shown. A socket, I, which receives the inner end of the shaft Q, and also the shaft of the handle J, is secured to the inner side of the frame A. Where the casing and frame A are made flaring, as before mentioned, the castings X and Y are not in line with each other, and a single straight shaft passed through the window-frame would be inoperative. For this reason the universal joint P is provided, which will permit the shaft Q to operate the shaft H, even when the shaft Q is at a considerable incline. The handle J has a groove, K, in its shaft near the hand-piece; and a recess, L, in the projection M, which holds the thumb-screw N, is adapted to receive a key, O, upon which the thumb-screw N acts to cause it to bind the shaft of the handle J.

To insert the handle J into the socket I, it is necessary to invert the casting before securing it to the window-frame and unscrew the thumb-screw N, which will permit the key O to drop into the recess L, at which time the handle J may be slipped upon the shaft Q in the socket I and the casting X turned back to place and secured to the window-frame. The key O will then drop into the groove K and the set-screw N may be turned to bind it at pleasure. By turning the handle J the gear-wheels F and G will operate the hinge B, and the shutter may be opened or closed or locked in any position.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

In a shutter-worker, the combination of the socket I, having the projection M, groove K, key O, and thumb-screw N with the handle J, constructed and operating substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM JONES.

Witnesses:

HEDLEY FREDERICK SANFORD,

JOHN MCNAUGHTON.