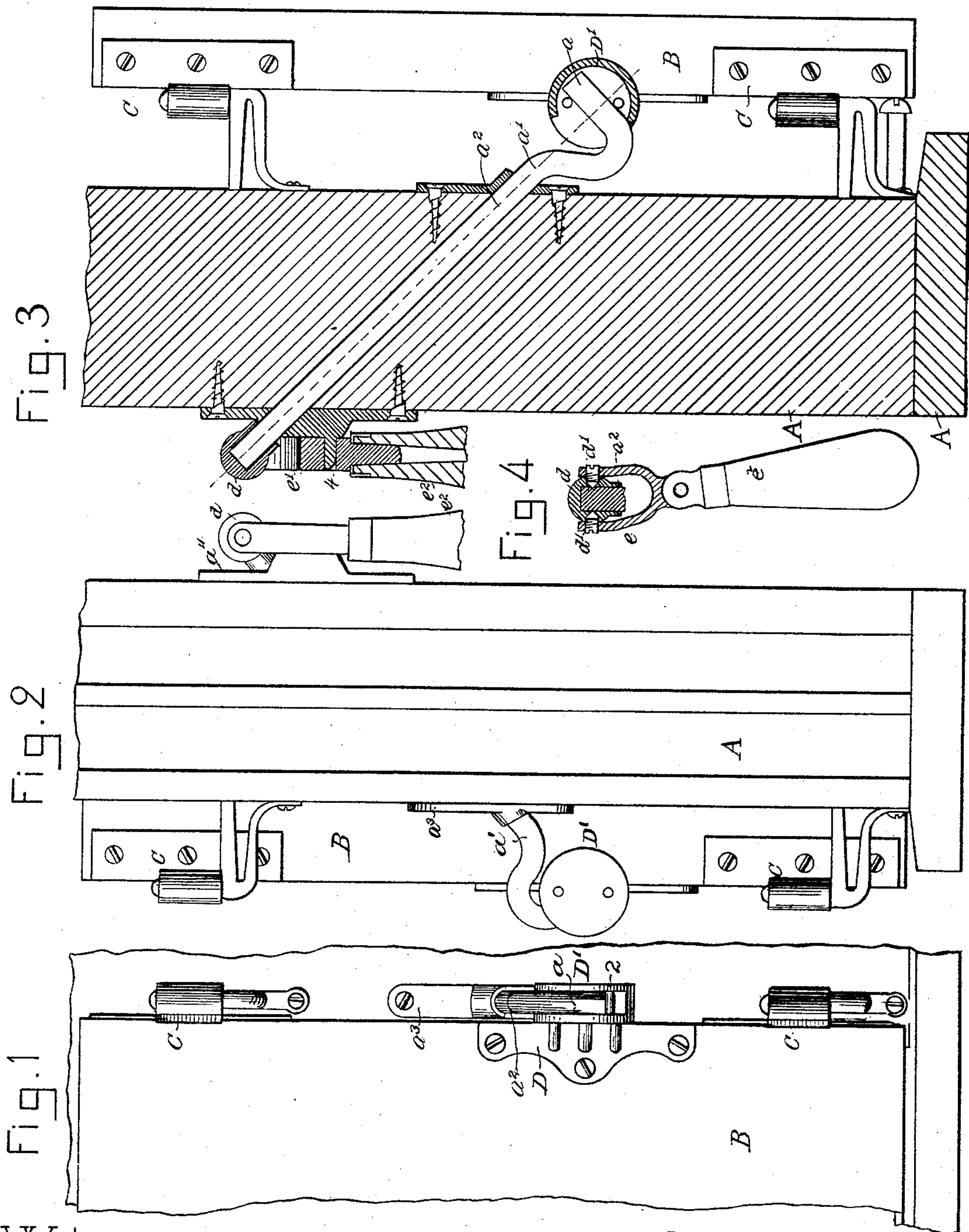


(No Model.)

E. PRESCOTT.
SHUTTER WORKER.

No. 328,141.

Patented Oct. 13, 1885.



Witnesses.

Arthur Lippert.
John F. C. Pringle.

Inventor

Edwin Prescott.
by Crosby & Gregory attys.

UNITED STATES PATENT OFFICE.

EDWIN PRESCOTT, OF ARLINGTON, MASSACHUSETTS.

SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 328,141, dated October 13, 1885.

Application filed September 26, 1884. Serial No. 144,085. (No model.)

To all whom it may concern:

Be it known that I, EDWIN PRESCOTT, of Arlington, county of Middlesex, State of Massachusetts, have invented an Improvement in Shutter-Operators, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to that class of shutter-operators wherein the shutter is moved from the inside of the building without lifting the sash, and has for its object to provide a simple and effective mechanism for such purpose, which may be easily moved and which may be applied to ordinary shutters. An example of such a device may be seen in my Patent No. 308,698, dated December 2, 1884, in which I have specially reserved for this case the claims for the broad invention therein illustrated and not claimed.

My invention consists, essentially, in the combination, with a diagonally-placed shaft provided at one end with a crank or hook and at its other end with a pivoted drop-handle, of a shutter-plate a connected part of which is engaged by the said crank or hook, the oscillation of the said shaft effecting the opening and closing of the shutter; also, in the combination, with a diagonally-placed shaft having at one end an offset hook or crank, of a shutter-plate provided with wings or portions which are loosely engaged by the said offset hook or crank to operate substantially as described.

Other features of my invention will be hereinafter fully set forth, and described in the claim at the end of this specification.

Figure 1 in elevation represents a sufficient part of a shutter and window-frame with my improvements attached to enable the same to be understood, the shutter being closed. Fig. 2 is a right-hand elevation of Fig. 1. Fig. 3 is a section showing the shutter open, and Fig. 4 is a detail of the drop-handle.

The window-frame A, shutter B, and hinges C are and may be all as usual.

The shutter has attached to it a shutter-plate, D, having a projection, D', which is slotted or chambered to form wings 2 2, between which is entered or extended the crank or hook a , located at one end of the shaft a^2 ,

extended diagonally through a hole or passage made in the window-frame, (see Fig. 3,) the said shaft near each end passing through bearing-plates a^3 a^4 , attached by suitable screws to the said frame.

The crank or hook is preferably formed, not as simply a right-angled projection, but the rod is curved or offset, as at a' , leaving the part a at right angles to the main or straight part of the body of the shaft, the offset portion enabling the right-angled portion a to be made of such length that a point nearly midway of its straight portion will substantially coincide with the center line of the main portion of the shaft, as represented by the dotted line, Fig. 3, and it will be noticed that the junction of the center lines of the main part of the shaft and of the right-angled portion a thereof is in the line of the center of the hinges. This offset hooked or crank-like end of the rod a^2 is placed loosely in the space between the wings referred to, and as the shaft a^2 is partially rotated the said hooked or crank-like end in its change of position turns the shutter on its hinges.

By making the right-angled projection a to extend from an offset part of the shaft a^2 , as described, instead of directly from the straight part of the shaft, as heretofore done, I am enabled to reduce the strain of the shutter-operator on the hinges, and at the same time bring the free end of the right-angled portion a nearer the center of rotation of the shaft a^2 , thus insuring compactness of parts.

The upper or inner end of the shaft a^2 is provided with a head, d , which is attached to the shaft by set-screws d' , the said set-screws also serving as pivots for the ears e e' of the drop-handle e^2 , the ear e being a little longer than the ear e' , to thus enable the long ear to rest at the left-hand side of the drop-handle of a left-hand shutter when the latter is closed and at the right-hand side of the handle when the said shutter is open, such change of position of the long and short ears by about half-rotation of the shaft a^2 through engagement of the handle and the subsequent reversal or down-turning of the handle on its pivots d' thus bringing the latter again into its vertical position, enabling the shutter-plate to be so pressed upon by the crank-like end a of the said shaft as to

forcibly hold the shutter closed or to forcibly hold it open, thus avoiding rattling.

The drop-handle employed with a right-hand shutter will be so applied to its pivots that when the shutter is closed the long ear will be at the right-hand side of the handle.

To enable the shutter to be held firmly in closed or open condition, I have provided a handle-locking device composed, as herein shown, of a stud, 4, preferably rigidly attached to the bearing-plate a^4 and entering an eye, 3, in the shank of the handle.

By the employment of a pivotal drop-handle which is reversed on its own pivots after each half-rotation of the shaft a^2 I am enabled to gain great leverage, so as to operate a shutter in a strong wind, and am also enabled to work closer into the corner of the room and closer into deeply-recessed molding than would be possible with a knob.

I claim—

1. In a shutter-operating mechanism, a shaft adapted to be extended through a window-frame, fixed against longitudinal motion and having only a motion of rotation in the said frame, and a shutter-plate engaged thereby, combined with the pivoted drop-handle, the pivotal point of which on the said shaft is always beyond the window-frame, whereby the drop-handle in all positions of the blind and the shaft may be engaged and used as a lever by which to rotate the said shaft, as described.

2. In a shutter-operating mechanism, a shaft adapted to be extended through a window-frame, fixed against longitudinal motion and having only a motion of rotation in the said frame, and a shutter-plate engaged thereby,

combined with the pivotal drop-handle, the pivotal point of which on the said shaft is always beyond the window-frame, whereby the drop-handle in all positions of the blind and the shaft may be engaged and used as a lever by which to rotate the said shaft, and with a locking device for holding the parts in a given position, as described.

3. The shutter-plate provided with the projection, and slotted or recessed to form wings, combined with a shaft offset as described to form a right-angled projection to enter the said recessed portions and act against the said wings, the said right-angled projection being prolonged to pass beyond the center line of the said shaft and also across the axis of rotation of the blind on its hinges, as and for the purpose set forth.

4. In a shutter-operator, the shaft a^2 , and means, substantially as set forth, for connecting it with the shutter and with the window-casing, combined with the drop-handle having ears of unequal length pivoted to the head of said shaft to make an essentially universal joint therewith to permit the handle to be rotated to actuate the shaft, and always at the conclusion of the operation bring up at a single locking-point, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN PRESCOTT.

Witnesses:

G. W. GREGORY,
W. H. SIGSTON.