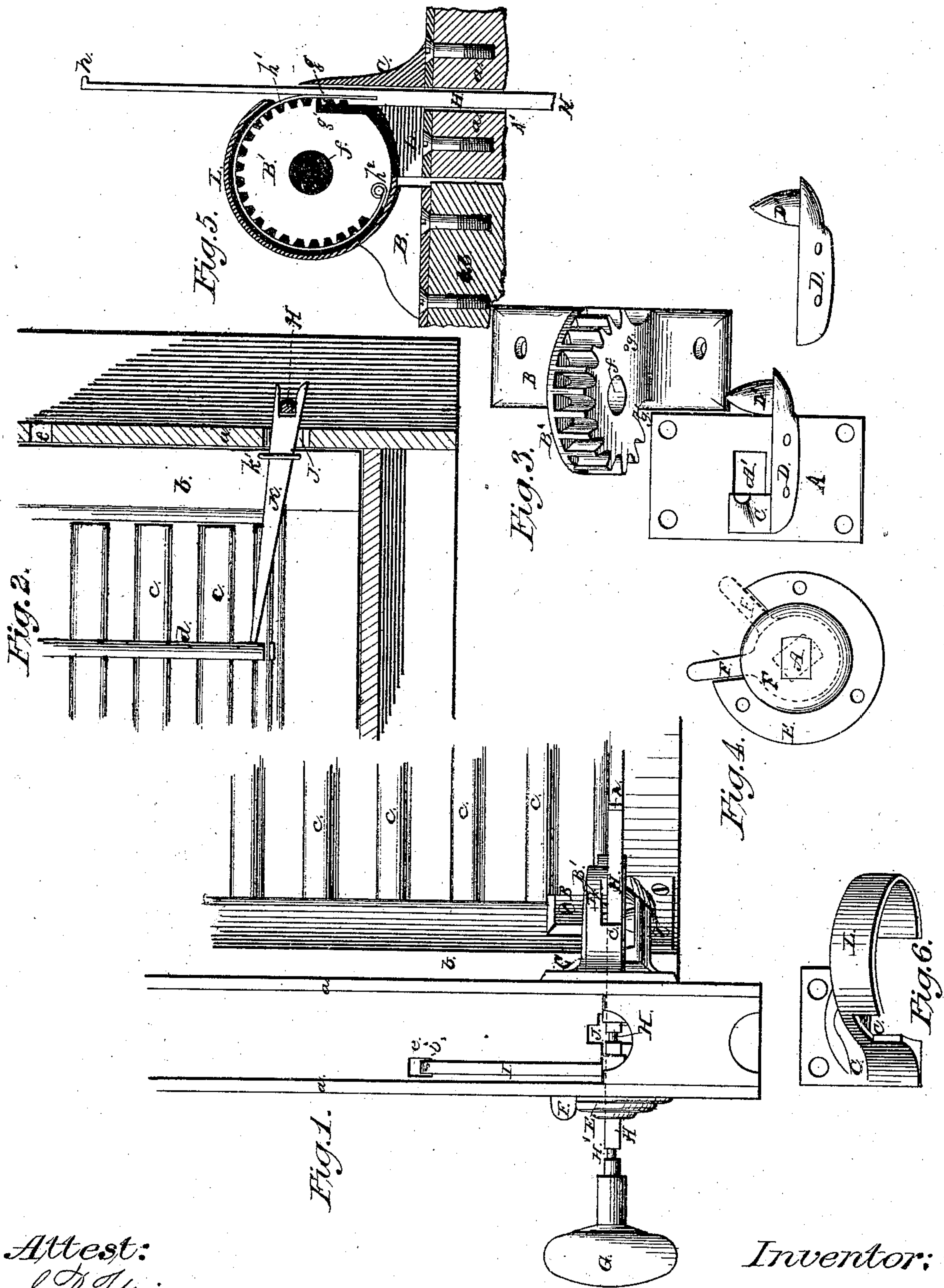


H. J. DICKERSON.
Combined Shutter-Worker, Blind-Slat Adjuster.
and Sash-Fastener.
 No. 168,887. Patented Oct. 19, 1875.



Attest:
S. J. Wing
H. B. Coulter

Inventor:
Henry J. Dickerson

UNITED STATES PATENT OFFICE

HENRY J. DICKERSON, OF APPLETON, WISCONSIN.

IMPROVEMENT IN COMBINED SHUTTER-WORKERS, BLIND-SLAT ADJUSTERS, AND SASH-FASTENERS.

Specification forming part of Letters Patent No. 168,887, dated October 19, 1875; application filed February 12, 1875.

To all whom it may concern:

Be it known that I, HENRY J. DICKERSON, of Appleton, county of Outagamie and State of Wisconsin, have invented certain new and useful Improvements in a Combined Shutter-Worker, Blind-Slat Adjuster, and Sash-Stop, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a side elevation of the window frame or jamb with the shutter thrown partly open, and with my improvements applied for operating the same. Fig. 2 represents a vertical section through a portion of the window-frame, with the shutter and lever for actuating the slats, in elevation. Fig. 3 represents, in perspective, the parts of the shutter-hinge with which my improvements are connected. Fig. 4 represents, in front elevation, the lock for fastening the shutter either open or closed. Fig. 5 is a plan view of the hinge pulley or wheel and its actuating rod and strap or spring, and Fig. 6 is a perspective view of the inclosing cap or case which covers the operative parts of the hinge.

Similar letters of reference, wherever used in the several figures, denote the same parts.

My invention relates to a combined shutter, blind-slat, and sash-fastening devices; and consists in novel means for opening, closing, and locking the shutters from the inside of the window; also, in connection therewith, in a novel means for locking and releasing the sash; and, also, in combining a novel method of actuating the pivoted slats, all as hereinafter more fully explained and definitely claimed.

In the accompanying drawings, *a* represents the window frame or casing; *b*, the blind or shutter; *c c*, the pivoted slats; and *d* the rod connected with the slats for operating them, said parts being of any usual construction. The hinge, in connection with which my improved device for actuating the shutters is applied, is constructed as follows: *A* represents the fixed portion of the hinge, or that part of it which is rigidly secured to the window-frame, and *B* the moving portion secured to the shutter. The part *A* is perforated at *A'*, (said perforation matching a corresponding perforation through the window-frame,) and has formed upon it a horizontal arm or bracket, *D*, provided at its outer end with an upright conical point, *D'*, forming the pivot of the part *B*. The bracket or part *B* of the hinge is provided at its outer end with a disk or wheel, *B'*, having a central perforation or conical socket, *f*, which matches the point *D'*, adapting the part *B* and the shutter connected therewith to turn on said conical point as a center. *C* represents a bracket, applied to the window-frame above the part *A*, and provided with an inverted cylindrical cap or cover, which overhangs and protects the disk *B*, inclosing the same. This cap portion is notched or cut away at *e* to permit the passage of a sliding bar or rod, *H*, which passes through the window-frame and through the perforation *A'* for operating the shutters. The sliding bar or rod *H* is connected with the part *B* of the hinge by a friction strap or spring, *h'*, which passes nearly or quite around the disk or wheel *B*, and is secured thereto at a point, *h''*, as shown in Fig. 5. By this arrangement it will be seen that as the sliding rod *H* is drawn inward the disk or wheel *B'* is rotated, causing the shutter to be opened, and the spring or metallic strap *h'* being inclosed between the casing and the wheel *B'*, a reverse movement of the sliding rod *H* serves to close the shutter, though, if preferred, for giving a more positive movement in the latter direction a rack upon one side of the rod *H*, overhanging the spring *h'*, may be made to engage with teeth on the disk *B'*, as shown; or, if desired, the tension of the friction strap or spring *h'* itself may be made to assist in the operation of closing the shutter. The perforation *A'* for the passage of the sliding rod *H* is made square or polygonal in form, and the rod, in cross-section, is made of corresponding form, the perforation being enlarged sufficiently to permit a slight axial movement of the sliding rod *H* for a purpose which will be explained. The inner face of the window-frame is provided with an escutcheon, *E*, surrounding the sliding rod *H*, and recessed or provided with a seat on its inner face to receive a perforated disk, *F*, (shown in dotted lines, Fig. 4.) The disk or plate *F* has a handle or thumb-piece, *F'*, which projects through a notch in the plate *E*, and by means of which

the plate F may be partially rotated in its seat. The perforation in the plate F matches the sliding rod H, and said plate can therefore be rotated on said rod only when certain cylindrical portions H' on the rod H are brought into the same vertical plane with the plate F, when said plate being rotated the rod H is locked in position and all end movement of the same for opening or closing the shutter effectually prevented. When the shutter is closed and the sliding bar H locked, a tooth or shoulder at *g* on said bar engages with a corresponding tooth or shoulder, *g'*, on the disk B, and prevents the shutter from being opened. The sliding rod H is provided at its inner end with a knob or handle, G, for convenience in manipulating the same. Between the casings or trimmings of the window-frame the squared sliding rod H has mounted upon it an arm, I, secured to the rod by being provided with a sleeve having a square perforation through it, through which the sliding rod can freely move endwise, but by means of which the arm I is vibrated toward or away from the window-frame when an axial movement is imparted to the sliding rod H. The upper end of this arm I has a horizontal spur, *i*, which passes through a perforation, *e*, in the frame, and engages with the sash for locking the same. K is a lever, pivoted at its inner end to the slat-rod *d*, and held to the inner face of the shutter by a loop or staple, *k*, through which said lever passes, the outer end of said lever passing also through a slot, J, in the frame *a*, and being forked, as is shown in Fig. 2, to engage, when the shutter is closed, with the squared sliding rod H, by the rotary movement of which, as explained, the slats

can be turned to any desired angle, as will be readily understood.

It will be seen, from the foregoing description, that the devices for opening and closing the shutter, and for locking the same, as also the lock for securing the sash, and the means for turning the pivoted slats and setting them at any desired angle are all connected with the single actuating sliding bar or rod H, and may be readily operated through the medium of an ornamental knob or handle, G, applied at the inner side of the window frame or casing, as explained.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The disk or wheel B', applied to the shutter-hinge, in combination with the friction strap or spring *h*¹ and the sliding bar or rod H, applied and operating to open and close and fasten the shutter from the inside, as described.

2. The combination with the sliding bar H, operating substantially as described, of the forked lever *k*, for operating the pivoted slats of the blind, the combination and arrangement operating substantially as shown and described.

3. The combination with the sliding bar H, by means of which the shutter is opened, closed, and fastened, as described, of the sash lock or arm I, having spur *i*, arranged and operating to lock the window-sash, as specified.

HENRY JAMES DICKERSON.

Witnesses:

BENJAMIN FAGAN,

WILLIAM C. DICKERSON.