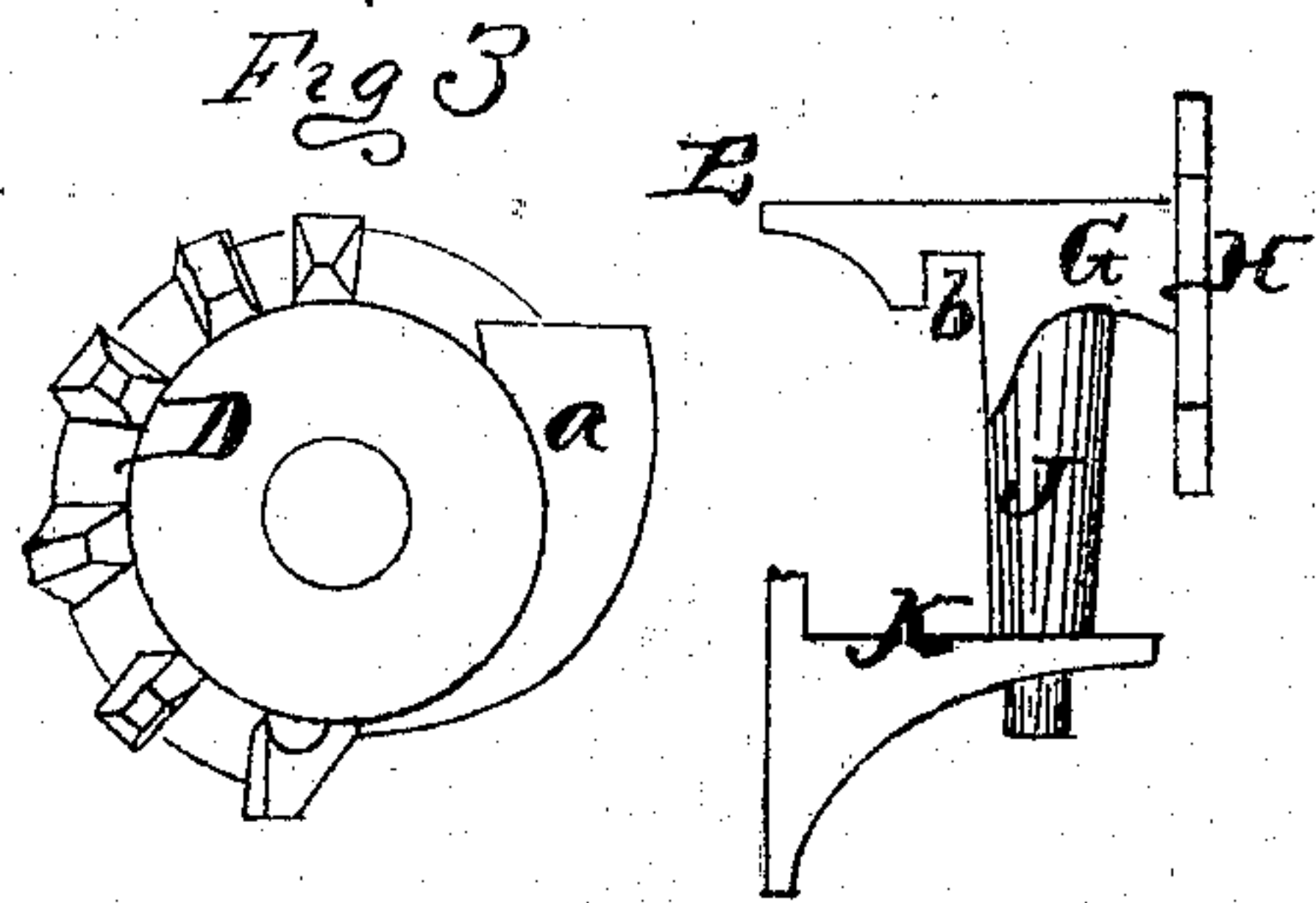
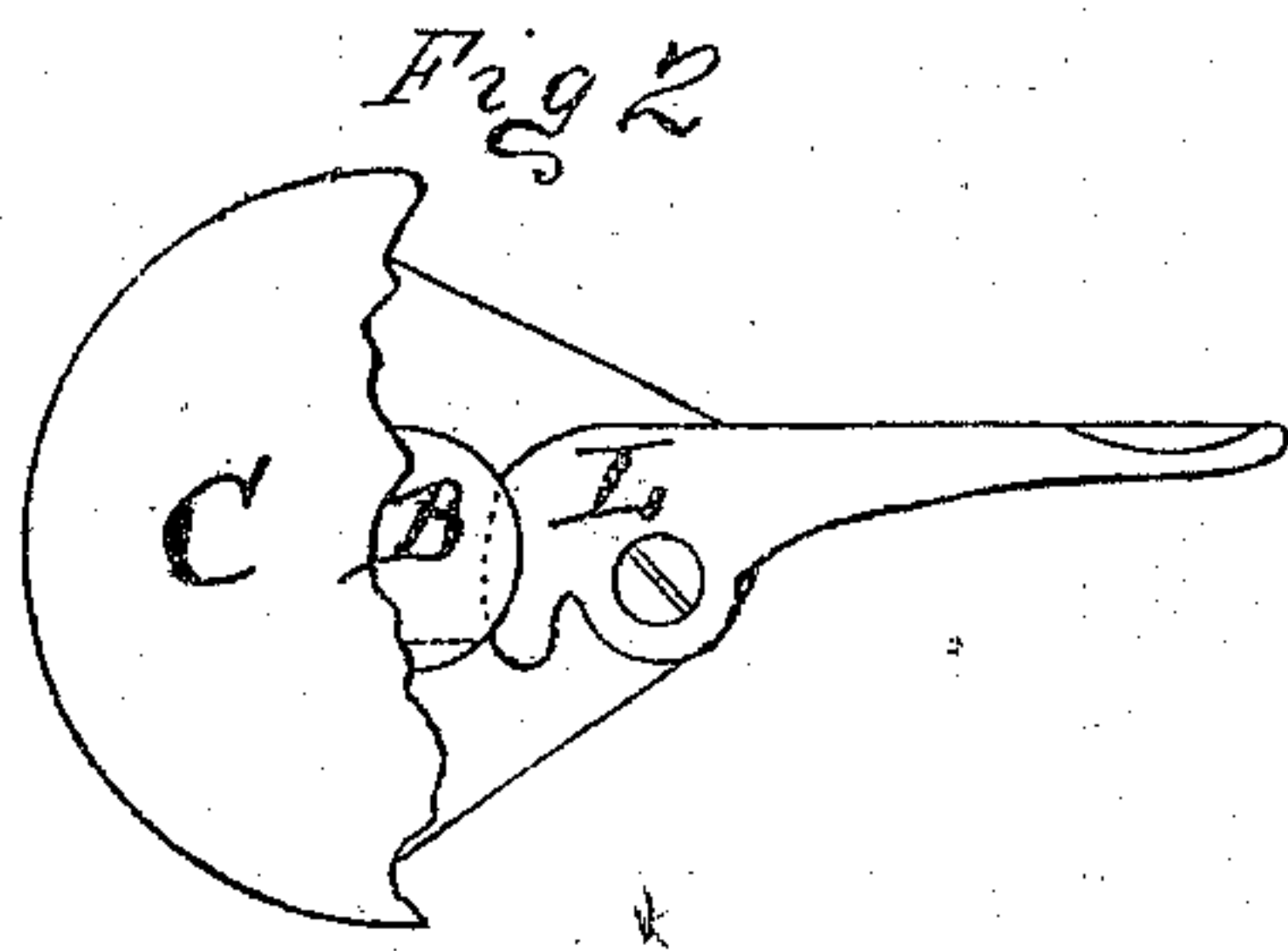
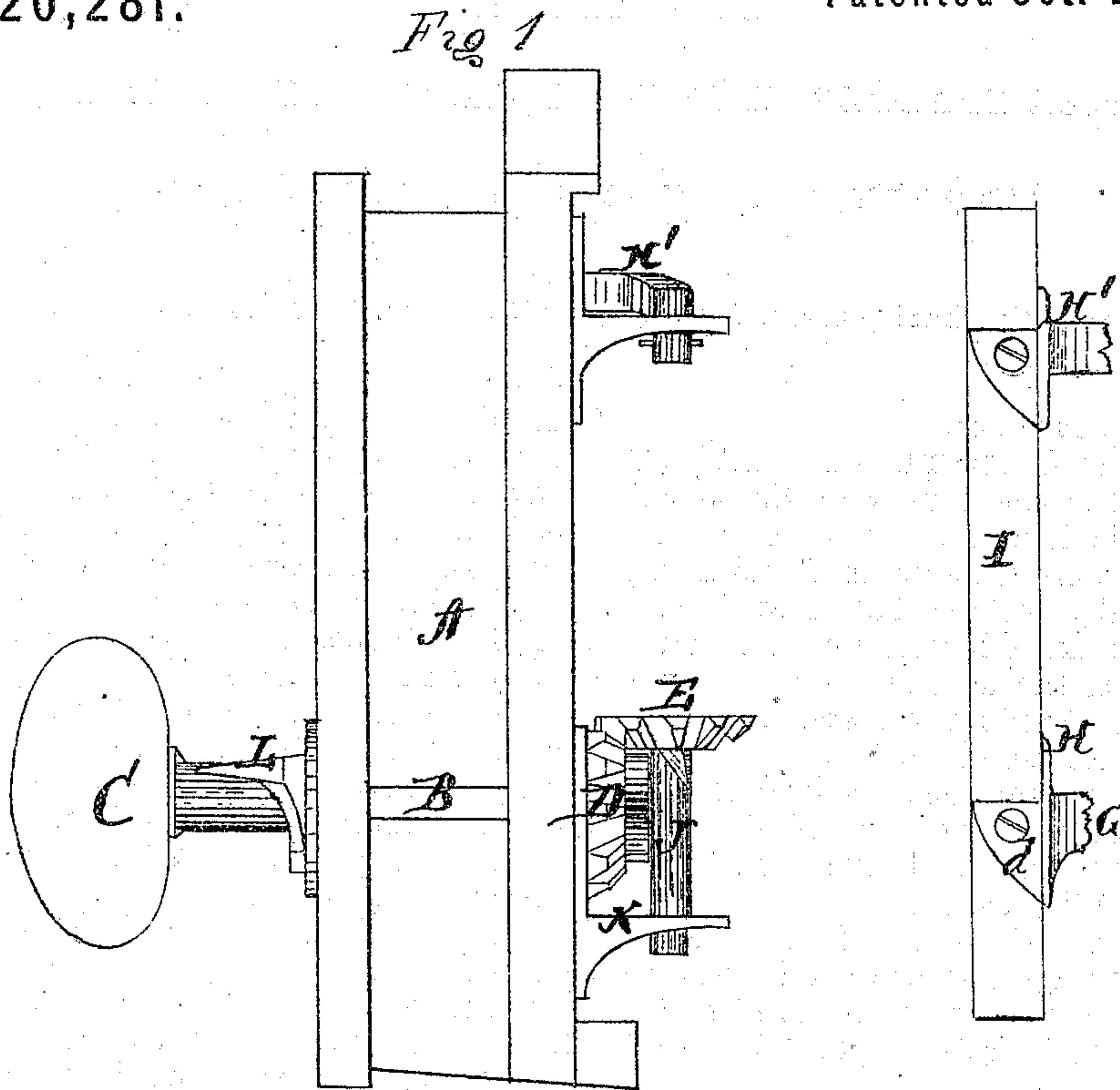


L. B. KENNEY.

Improvement in Shutter Workers.

No. 120,281.

Patented Oct. 24, 1871.



Witnesses:

F. L. Ourand  
C. A. Curt

Inventor

L. B. Kenney.  
Jewell & Co. Attorneys.

# UNITED STATES PATENT OFFICE.

LESTER BRADNER KENNEY, OF CHARLOTTE, MICHIGAN.

## IMPROVEMENT IN SHUTTER-WORKERS.

Specification forming part of Letters Patent No. 120,281, dated October 24, 1871.

*To all whom it may concern:*

Be it known that I, LESTER BRADNER KENNEY, of Charlotte, in the county of Eaton and in the State of Michigan, have invented certain new and useful Improvements in Blind-Hangings; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a blind-hinge and in the devices for operating the same, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view of the hinge; Fig. 2 is a view of the device for holding the blind at any angle desired; and Fig. 3 is a detached view of the lower hinge.

A represents the window-frame, through which passes a shaft or spindle, B, having on its inner end a knob, handle, or crank, C. Upon the outer end of the spindle B is a bevel-pinion, D, which has cogs only on one half of its circumference; while on the other half is an outward-projecting cam-shaped flange, *a*. The pinion D gears with a similar pinion, E, having enough cogs to correspond with the cogs on the pinion D, and having a groove, *b*, for a purpose that will be hereinafter described. The pinion E is formed upon an arm, G, extending from a plate, H, which is attached to the outside of the blind I. This plate is provided with a flange, *d*, set at right angles with it, which flange is let into and fastened to

the edge of the blind. The upper hinge H' is provided with a similar flange. These flanges prevent anybody from taking off the hinges when the blinds are closed, as they cannot be got at by any instrument. From the center of the pinion E a pin, J, extends downward into a suitable bearing, K, attached to the window-frame, and thus completing the lower hinge. By turning the knob C so that the pinion D turns the pinion E, the blind is opened; and when the cogs of the two pinions have passed each other the flange or cam *a* enters the groove *b* and locks the blind open. The blind is closed by reversing the motion of the knob; and when closed it is locked by means of a cam-lever, L, pivoted on the inside of the window-frame, and fitting in a square notch made in the spindle B, as shown in Fig. 2. By making several of these notches around the circumference of the spindle, the blind may be locked at any angle desired by throwing the lever L into the same. Upon throwing the lever L upward out of the notch the spindle may be turned in either direction.

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

The combination of the beveled pinion D with its cam *a* with the beveled pinion E having a groove, *b*, all constructed to operate substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 21st day of August, 1871.

LESTER BRADNER KENNEY. [L. S.]

Witnesses:

FRANK A. HOOKER,  
E. H. CHANDLER.

(24)