

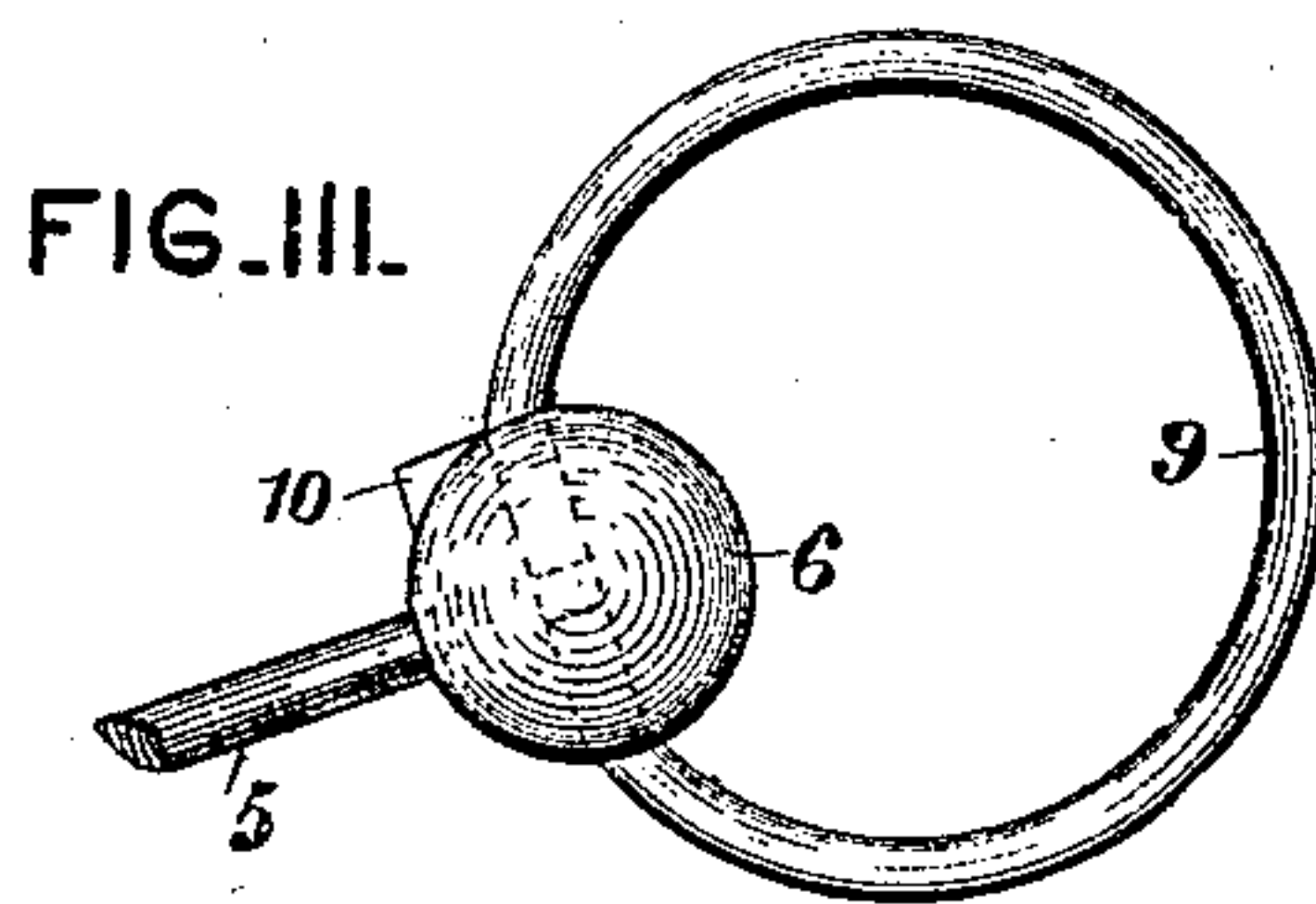
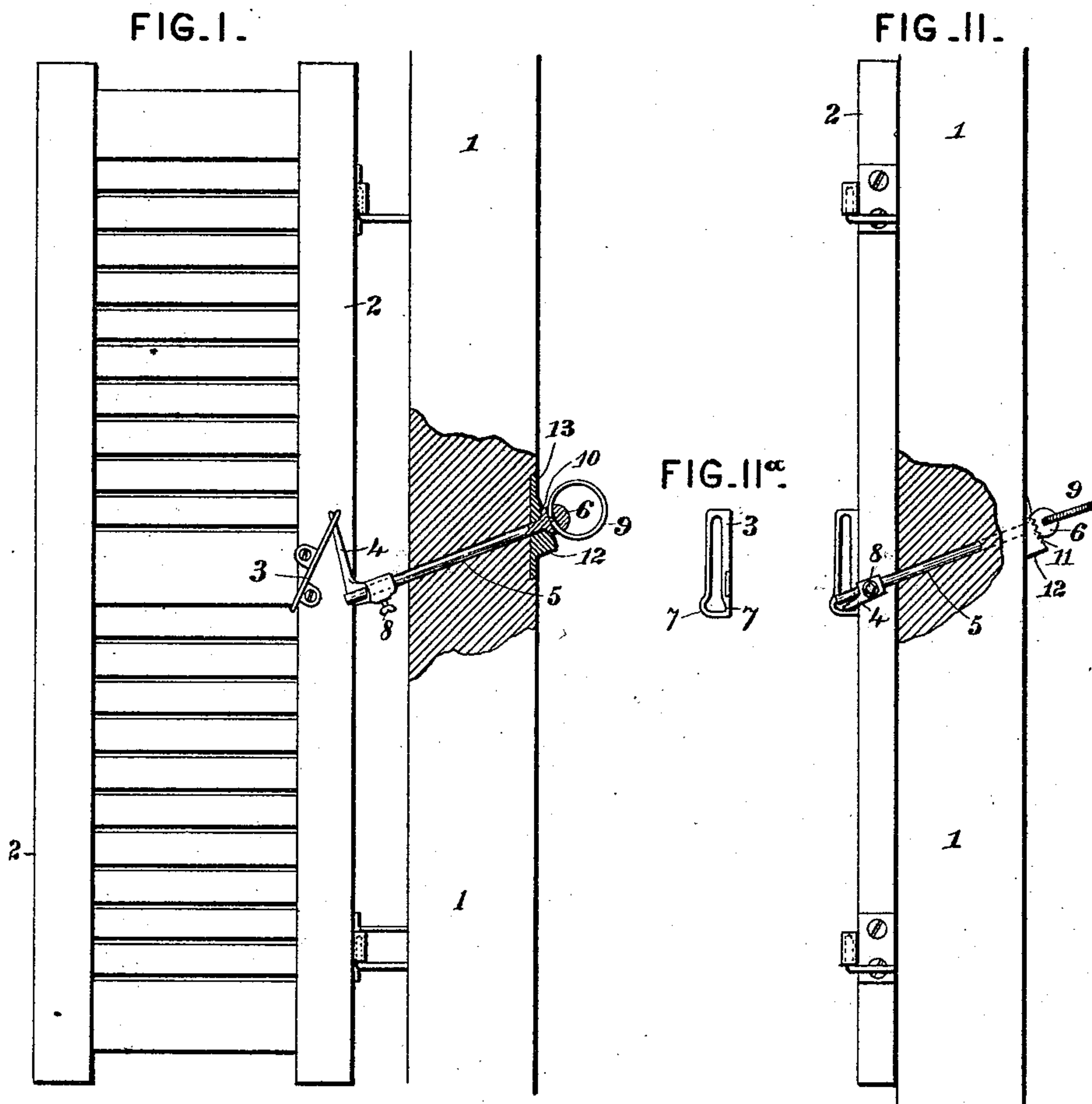
(No Model.)

A. M. BURNHAM.

SHUTTER OPERATOR.

No. 343,297.

Patented June 8, 1886.



Attest.  
Geo. T. Smallwood.  
A. E. Trumbull

Inventor:  
Arthur M. Burnham.  
By *Wright & Bro.*

Atty.

# UNITED STATES PATENT OFFICE.

ARTHUR M. BURNHAM, OF GARDINER, MAINE.

## SHUTTER-OPERATOR.

SPECIFICATION forming part of Letters Patent No. 343,297, dated June 8, 1886.

Application filed May 20, 1885. Serial No. 166,141. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR M. BURNHAM, a citizen of the United States, residing at Gardiner, in the county of Kennebec and State of Maine, have invented a new and useful Improvement in Shutter Operating and Locking Devices, of which the following is a specification.

My invention relates to those shutter-operating devices having an inclined rod passing through the window-frame and provided at its inner end with an operating-handle and at its outer end with a rectangular arm or projection, which engages in a metallic slot-

ted guide fixed to the shutter or blind. In my improvement the main operating-rod is made with an offset in a direction at right angles to that of its arm or projection, or, preferably, said arm or projection is made separate from and adjustable on said operating-rod, and is made in such form as to produce the same effect as if the main rod itself were made with an offset. By thus making the arm adjustable the device is rendered applicable to window-frames of various thicknesses, and by forming the described offset the arm is brought closer to the side of the house when in its outermost position, so as to force the shutter or blind as wide open as possible.

I provide locking devices upon the window-frame and the metallic guide, so as to prevent the movement of both the shutter and operating-rod, and to prevent the ingress of air through the hole in the window-frame provided for the operating-rod I enlarge the inner end of such hole to form a housing for a ball swaged or otherwise provided on the inner end of the operating-rod.

In order that my invention may be more fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a vertical sectional view of a window-frame showing my improvement in position, and showing the blind in a half-open position. Fig. II is a similar view showing the blind open. Fig. II<sup>a</sup> is a detail view, in side elevation, of the metallic strap or plate adapted to be fixed to the shutter or blind. Fig. III is a detail view, in side elevation, of the inner end of the operating-rod.

1 may represent the side of a window-frame, to which is hinged, in customary manner, a blind or shutter, 2, which carries on its out-

side an inclined metallic strap or plate, 3, slotted to receive the end of arm 4, projecting from the rod 5, which bears in inclined position in the side of the window-frame. The main operating-rod 5 is provided with a bend or offset, or in case the arm 4 is made separate from said rod it is applied thereto so as to lie in a plane outside of that of the operating-rod. Preferably the said arm is made separate, and is adjustable by means of set-screw 8, so as to adapt the appliance to window-frames of various thicknesses. The object of forming the described offset on the operating-rod or in making its arm to lie in a different plane from itself is to bring said arm nearer to the side of the house when in its outermost position, and thus force the blind or shutter firmly back against the wall of the house. The lower end of the strap or plate 3 is notched at both sides, as shown at 7, to receive the end of the arm 4, which thus, when in its extreme positions, locks the blind and prevents it from being either opened or shut without the movement of the operating-rod, and to prevent such movement of the operating-rod I provide its inner end with additional locking devices, to be presently described. The inner end of said rod is provided with a ball or enlargement, 6, receiving an operating ring or handle, 9, and having on its inner face a tooth or projection, 10, adapted to engage in any one of the series of notches 11, made in the outer edge of the neck 12 on the plate 13, fixed to the window-frame over the hole for the operating-rod. The continuation of the hole for the operating-rod through the plate 13 is provided with hemispherical bearings for the ball 6, which thus prevents the outside air from passing through the hole in the window-frame.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

The combination, with a blind or shutter and a slotted strap or plate fixed thereto, of an operating-rod bearing in the window-frame, having a rectangular arm secured adjustably thereto and lying in a plane outside of that of the operating-rod, substantially as and for the purposes set forth.

ARTHUR M. BURNHAM.

Witnesses:

HENRY FARRINGTON,  
BERT H. WENTWORTH.