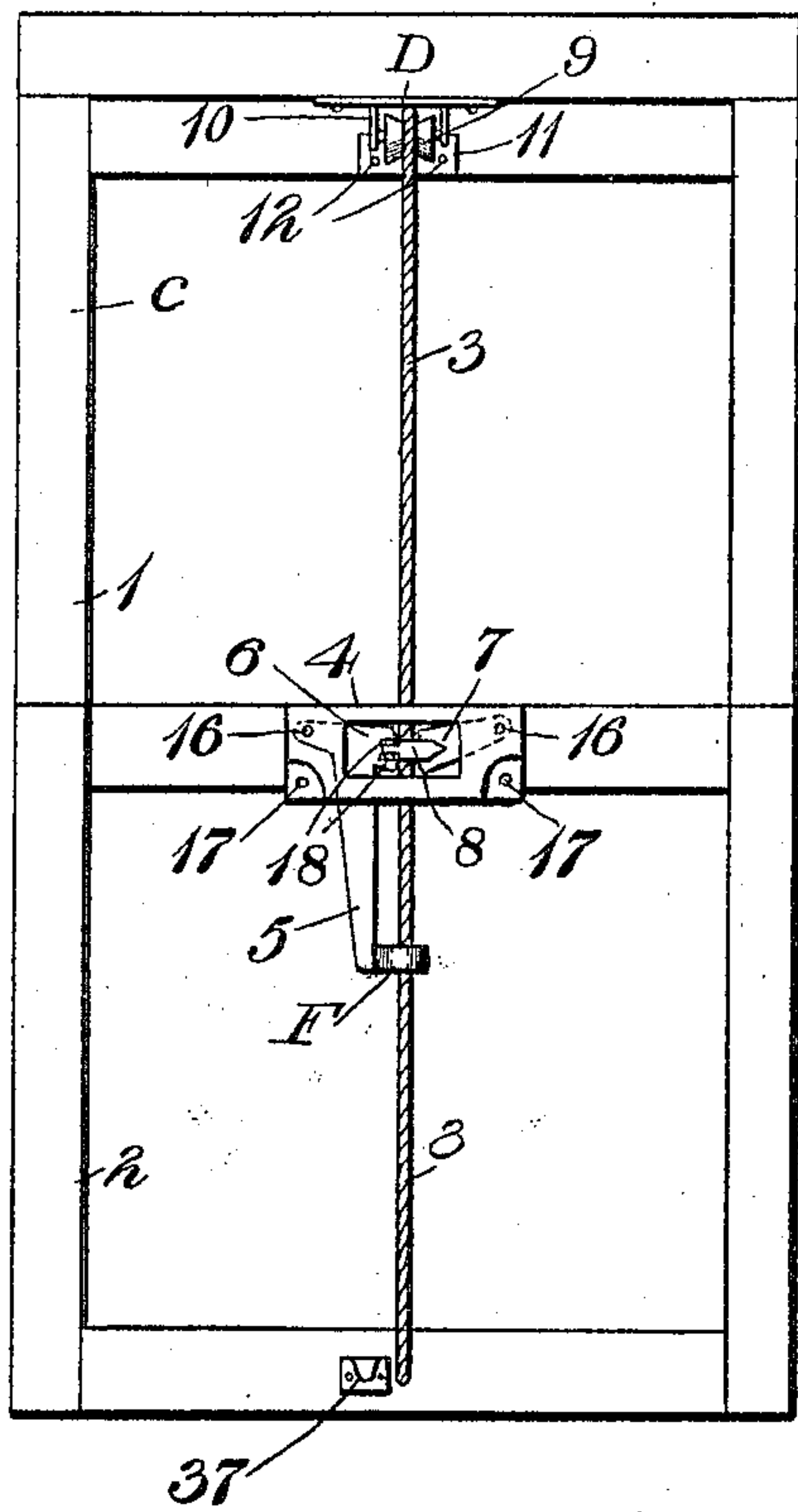


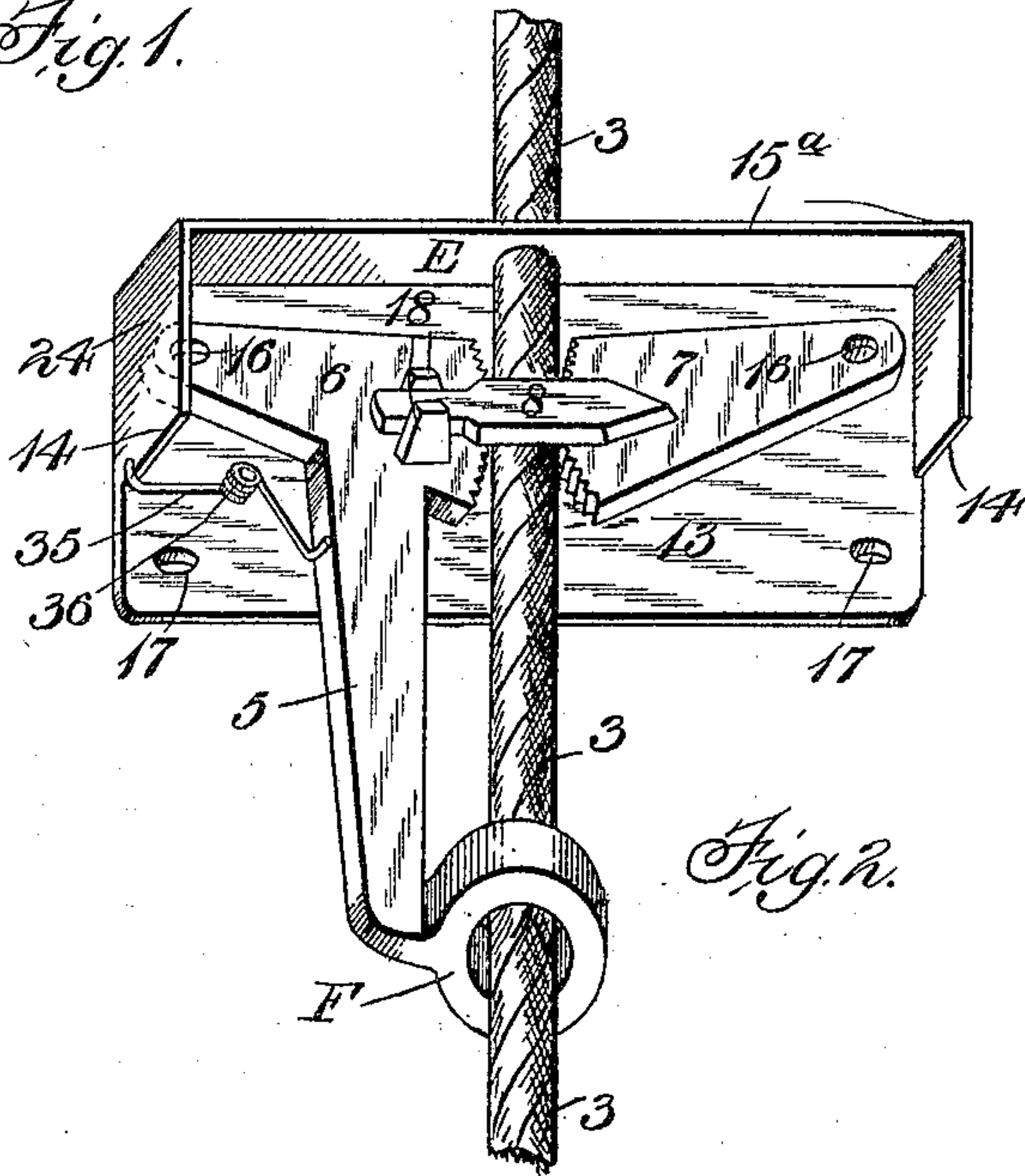
No. 812,808.

PATENTED FEB. 20, 1906.

H. BOWERS.  
WINDOW SASH ADJUSTER.  
APPLICATION FILED APR. 5, 1904.

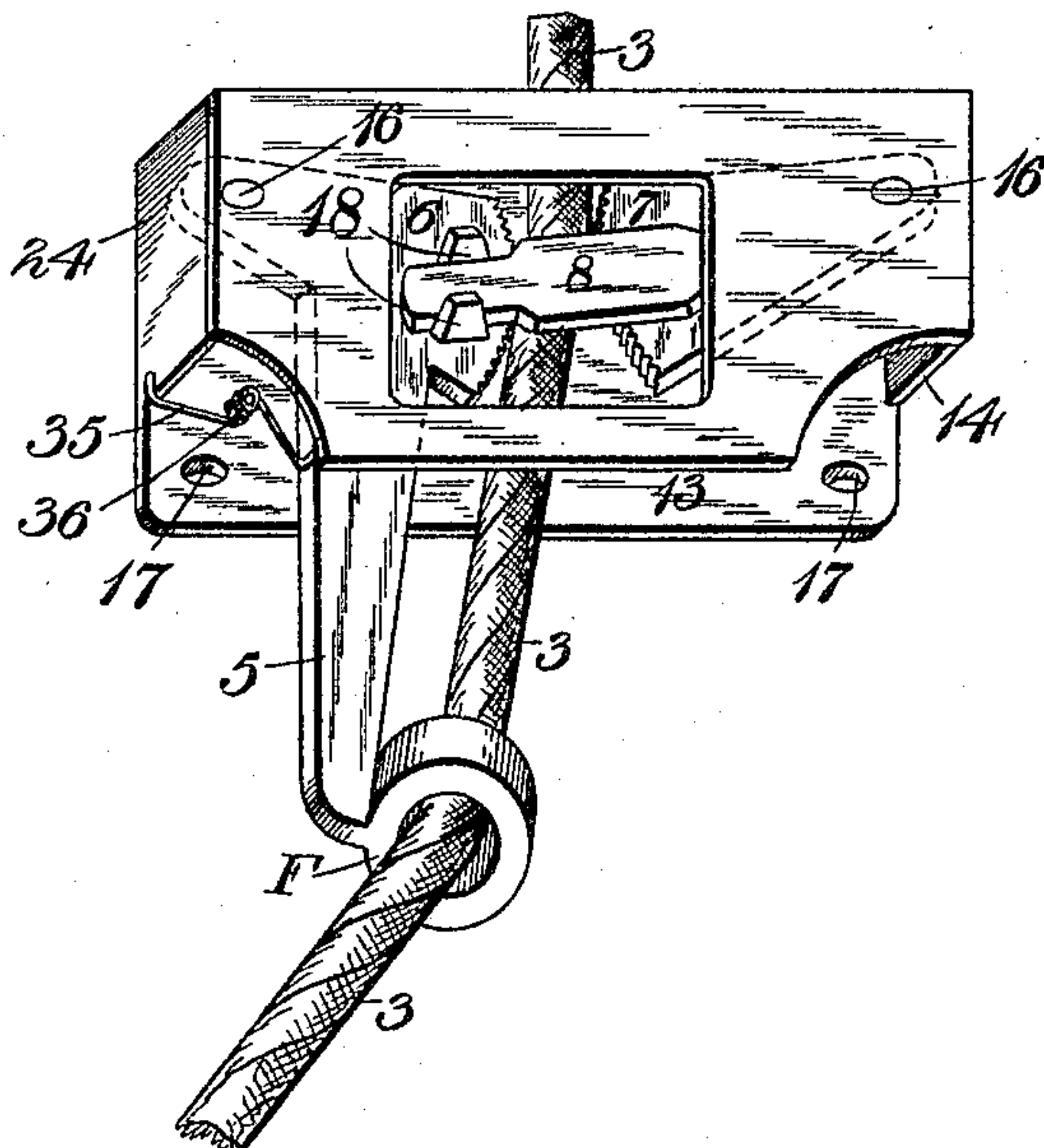


*Fig. 1.*



*Fig. 2.*

*Fig. 3.*



Inventor

Witnesses  
W. H. Curand  
L. E. Buckley.

Harvey Bowers  
By *Frank Appaman* Attorney



# UNITED STATES PATENT OFFICE.

HARVEY BOWERS, OF WICHITA, KANSAS.

## WINDOW-SASH ADJUSTER.

No. 812,808.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed April 5, 1904. Serial No. 201,769.

*To all whom it may concern:*

Be it known that I, HARVEY BOWERS, a resident of Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Window-Sash Adjusters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to window-sash lock and adjustment, and has for its object the raising and lowering of windows with the use of one cord, thereby dispensing with so many cords and weights, as is usual.

With the use of my invention any window can be cheaply and speedily adjusted, whereby one sash will balance the other, as will be hereinafter fully explained, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my invention applied to a window; Fig. 2, an enlarged view of my cord-lock with the face-plate removed. Fig. 3 illustrates the method of releasing the clutch from the cord.

Similar letters and numerals refer to similar parts throughout the several views.

1 and 2 are window-sashes positioned in the window-frame C, a plate 11 having a round opening in its center, through which the end of the cord 3 is passed and knotted, said knot being placed in an opening previously made in the sash 1, which will allow the plate 11 to lie flat on the said sash 1, and is made secure thereto by screws 12 being passed through the plate 11 into the sash-rail. A bracket 10 is secured to the sash-frame by screws D, and a grooved roller 9 is mounted in the bracket 10, over which passes the cord 3, extending down through the cord-lock, as clearly illustrated in Fig. 1 and Fig. 2. This cord-lock is made of a piece of sheet-steel 24, having flanges 14 turned up on either end and a flange 15<sup>A</sup> turned up on one of its longer sides, said flange having a round opening E midway its length, through which the cord 3 passes. The plate 15 has a rectangular opening 15<sup>B</sup> in its center and two of its corners cut away, as shown, by which means screws can be put through the holes 17 without removing the said plate, and it rests over the said flanges and is secured thereon and to the plate 24 by rivets passing through the opening 16 in the plate and the outer ends of the clutches 6 and 7, by which means the

outer ends of the clutches are pivotally secured between said plate.

Downwardly extending from clutch 6 is an arm 5. The free end thereof is provided with an eyelet F, through which the cord 3 passes. On the outside of clutch 6 are studs 18, Fig. 6, and on the outer side of the clutch 7 is an extension 8, passing over the cord 3 and between the studs 18. A spring 35, coiled once around in its center, is secured to the plate 24 by a rivet 36, one end of said spring resting against the end of the flange 14 and the other against the arm 5, which latter end is bent at right angles to itself extending transversely over the edge of the arm 5, as seen in Fig. 2. This spring is to keep the clutches 7 and 8 in contact with the cord 3. The object of the studs 18 and projection 8 is to insure unity of action. The projection 8 also acts as a guide for the cord 3 and limits the outward movement, and thereby confines it to an operative position.

Having thus described the detailed construction of my machine, I will now proceed to describe its operations generally. When it is desired to raise or lower the windows, it will be seen if the cord 3 is pulled down and off to the left the arm 5 will pull the clutches 6 and 7 down, as seen in Fig. 3, and the cord 3 is free to move up and down, by which means either one or both of the sash can be raised or lowered, as may be desired. When it is desired to lock the cord and hold the sashes in the desired position, the cord 3 is pulled to the right, as seen in Fig. 2, and the cord is locked securely between the clutches.

It is obvious that the invention herein set forth is susceptible of many changes and modifications involving mechanical skill which may be made within the scope of the invention without departing from the spirit thereof. I do not, therefore, desire to be understood as limiting myself to the precise construction of the parts shown in the drawings.

Having thus described my invention, what I wish to secure by Letters Patent is—

In a window-sash adjuster, a plate secured to a lower sash, said plate having top and side flanges, said top flange being provided with an aperture, gripping-dogs pivoted to the plate and depending one toward the other but not contacting, serrations on the opposed faces, lugs formed on the outer face of one of the dogs, and at right angles thereto, a longitudinal extension on the opposite dog and on

the outer face thereof, said extension bridg-  
ing the space between the opposing faces of  
the dogs and loosely fitting between the lugs,  
a depending arm formed on one of the dogs  
5 and terminating in an eye, a spring inter-  
posed between the depending arm and one of  
the side flanges of the plate, a pulley on the  
window-frame, a flexible connection secured  
at one end to the top sash and passing over  
10 the pulley and through the aperture in the  
top flange of the plate between the opposing

faces of the dogs and adapted to be engaged  
thereby, and through the eye on the depend-  
ing arm, the extension on the dog acting as a  
guide for said flexible connection.

In testimony whereof I have signed this  
specification in the presence of two subscrib-  
ing witnesses.

HARVEY BOWERS.

Witnesses:

EDWIN C. MITCHELL,  
SILAS S. BROWN.