

No. 834,417.

PATENTED OCT. 30, 1906.

C. R. SJOBERG.  
WINDOW.

APPLICATION FILED APR. 10, 1906.

2 SHEETS—SHEET 1.

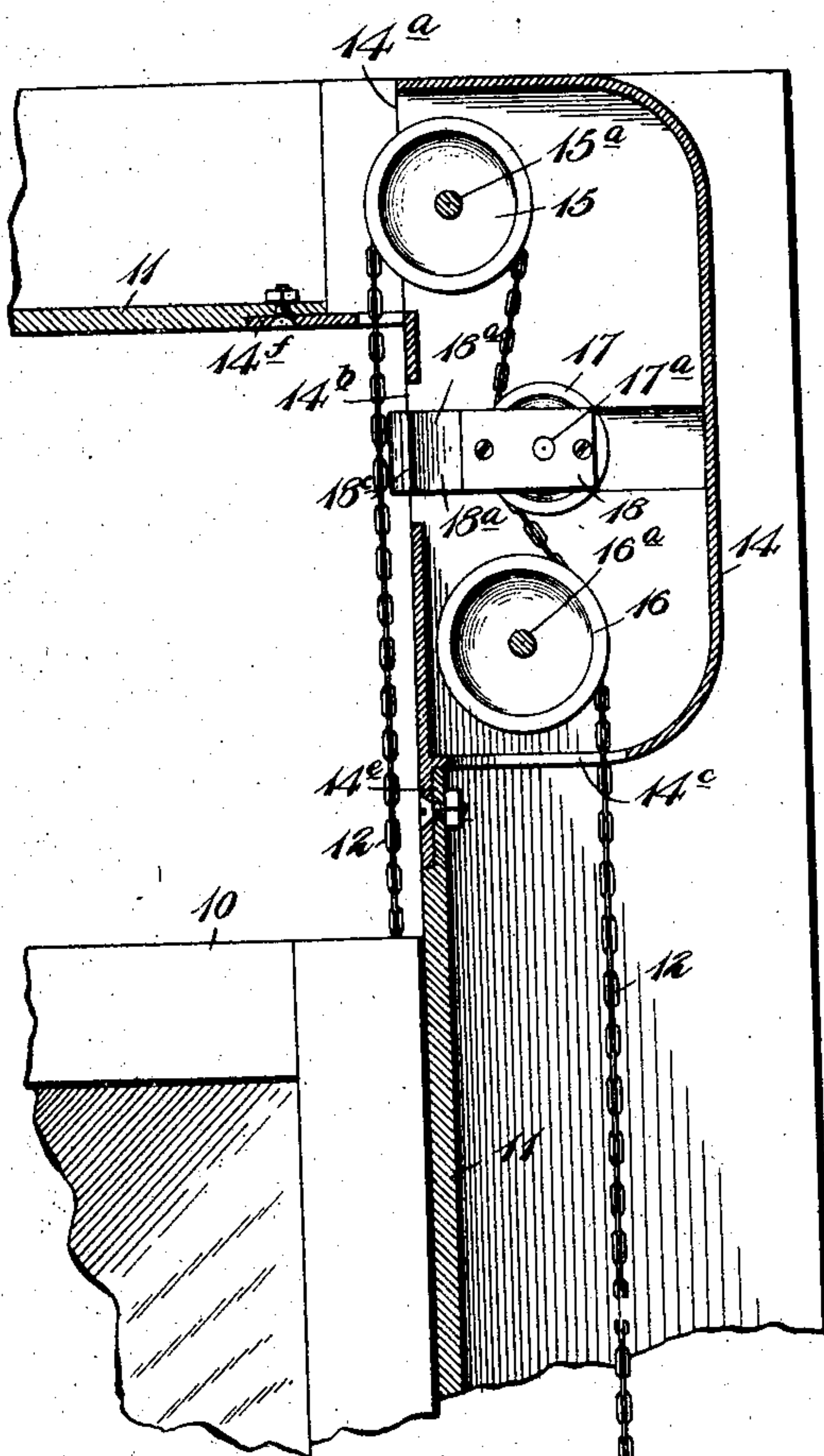


Fig. 1.

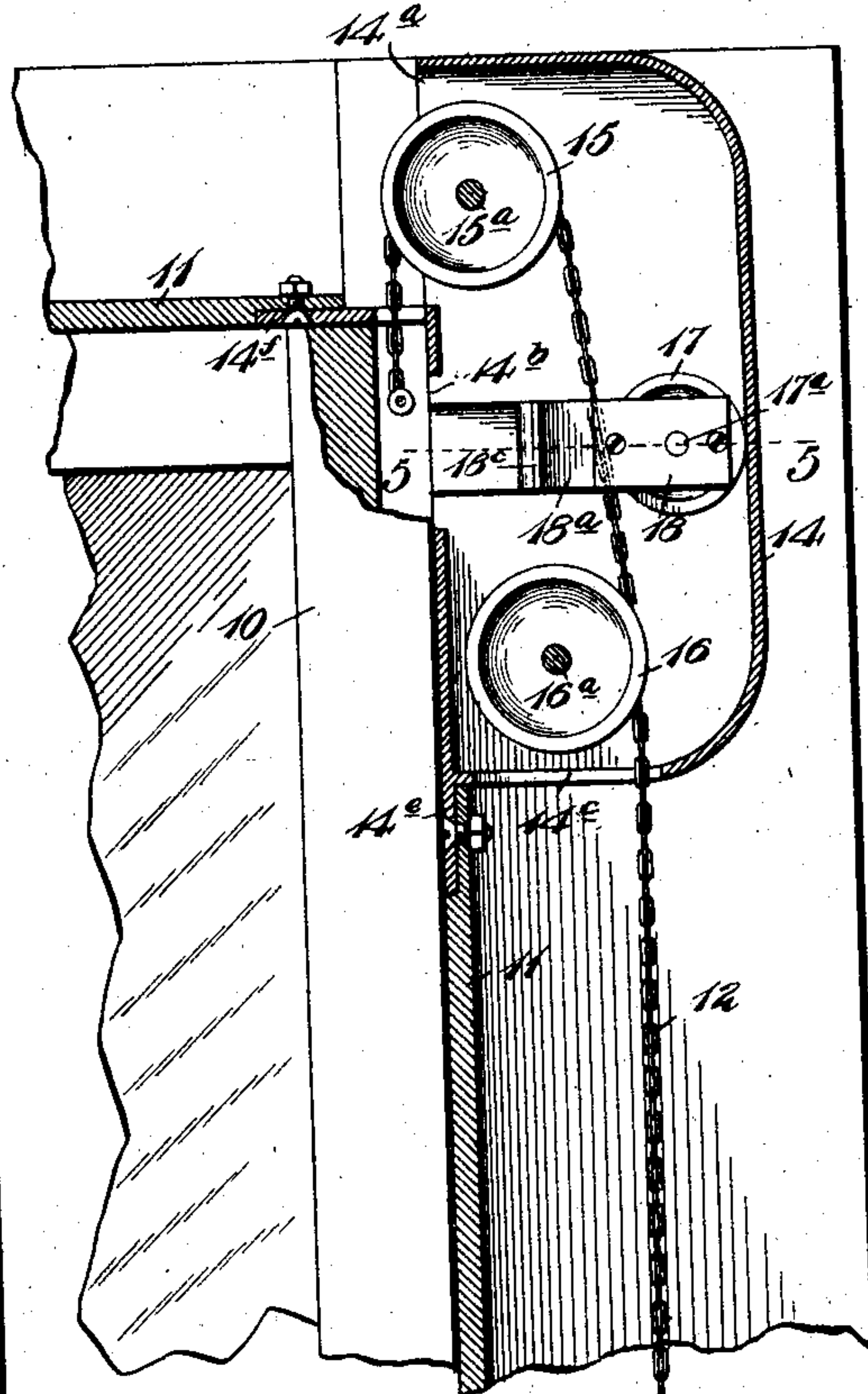


Fig. 2.

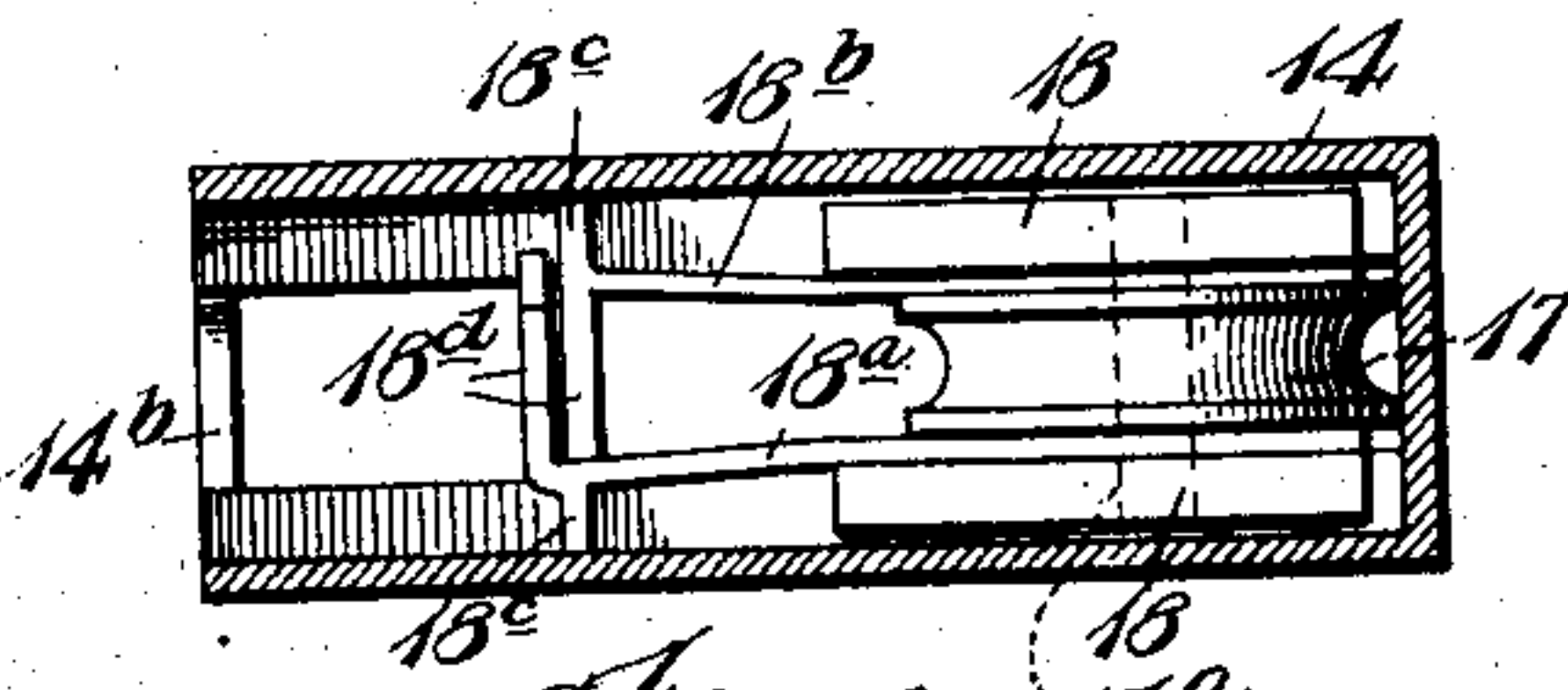


Fig. 5.

Witnesses

W. H. Curand  
E. F. Camp

Carl P. Sjoberg

By Milo B. Stevens & Co.

Attorneys.

No. 834,417.

PATENTED OCT. 30, 1906.

C. R. SJOBERG.  
WINDOW.

APPLICATION FILED APR. 10, 1906.

2 SHEETS—SHEET 2.

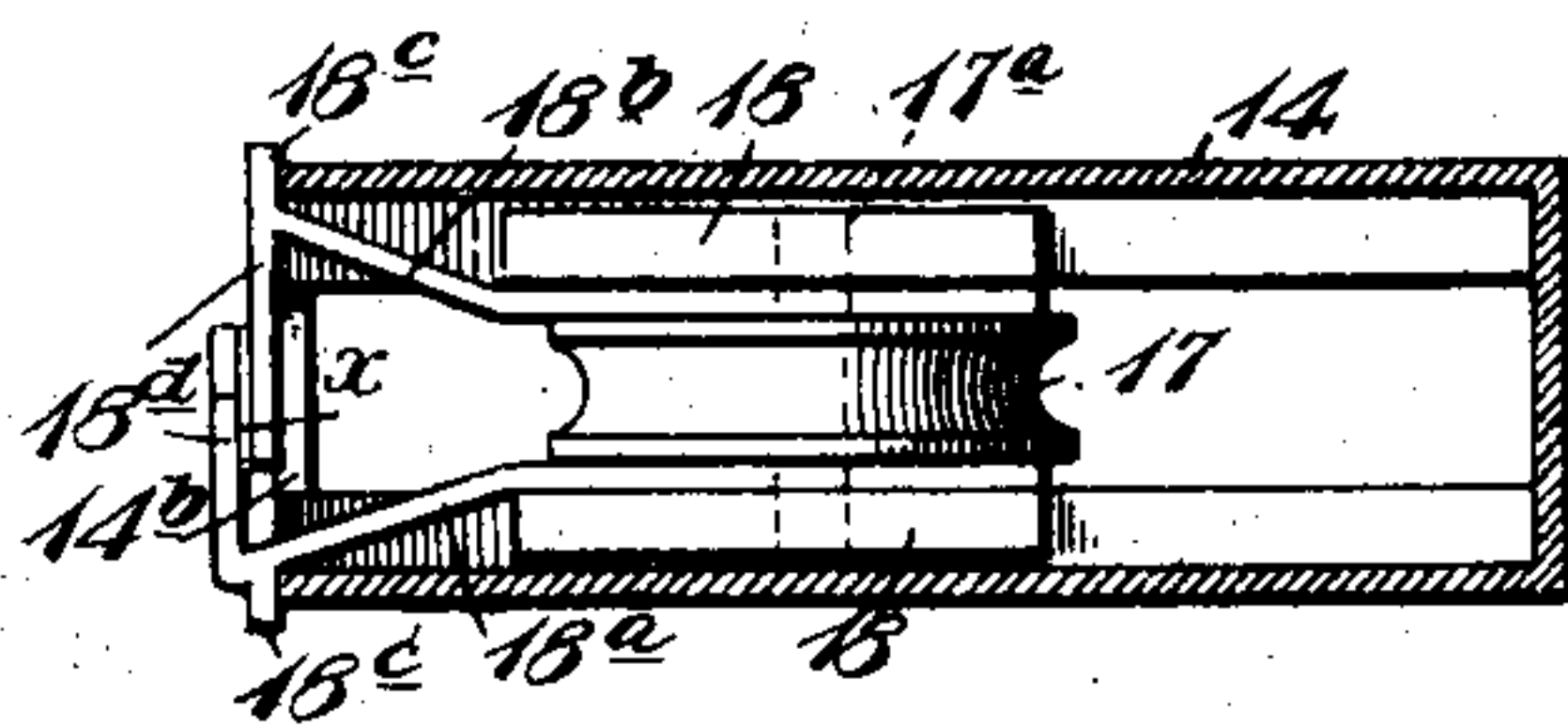
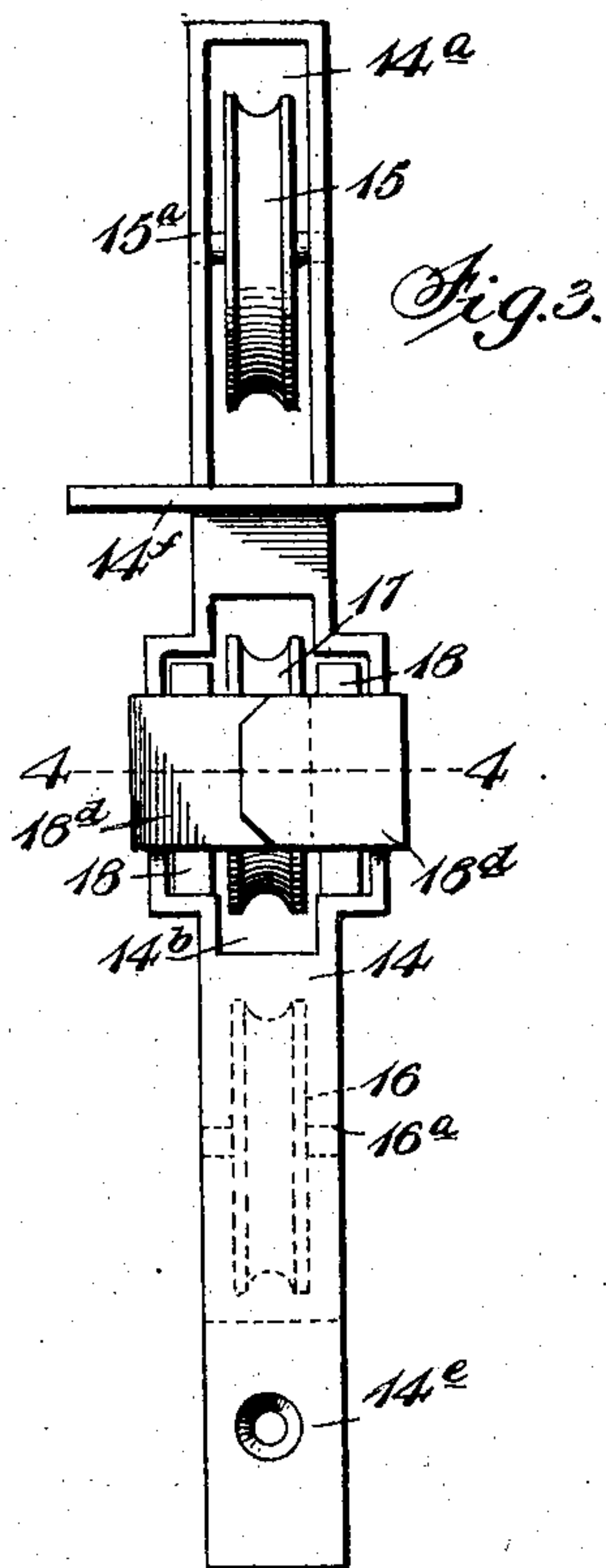


Fig. 4.

Inventor

Carl R. Sjoberg

By Milo B. Stevens & Co.

Attorneys.

Witnesses  
W. H. Ourand  
E. F. Camp



# UNITED STATES PATENT OFFICE.

CARL R. SJOBERG, OF CHICAGO, ILLINOIS.

## WINDOW.

No. 834,417.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed April 10, 1906. Serial No. 310,937.

*To all whom it may concern:*

Be it known that I, CARL R. SJOBERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Windows, of which the following is a specification.

This invention is a device applicable to windows, sliding shutters, and the like, and is especially in its preferred form adapted for use with fireproof windows.

Among the novel features are a pulley-casing or hollow block provided with three wheels or pulleys proper on which the window-weight cord or chain travels, also a device for automatically putting one of the pulleys out of engagement with the chain, so that the same only runs over two pulleys. This part of the device is intended for use in case of fire and includes a spring-catch held by a fusible device. In case of fire the device melts, releases the catch, and the center wheel or pulley slides back, thus taking off an amount of friction from the chain and allowing the weight to close the window if the same is open. It may also be applied to and worked by the window which overbalances the weight.

In the accompanying drawings, Figure 1 is a section of the device, showing the window and the middle friction-wheel in engagement with the chain. Fig. 2 is a similar view showing the friction-wheel released and the window drawn up by the weight. Fig. 3 is a front elevation of the device removed from the window-frame. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a section on the line 5 5 of Fig. 2.

In the drawings, 10 is the window-sash, and 11 is the window-frame. As shown in Figs. 1 and 2, the window may be made of metal.

12 is the sash chain or cord, and 13 is the weight.

14 is a pulley-box or hollow block or casing having slots or openings 14<sup>a</sup> 14<sup>b</sup> in the front and 14<sup>c</sup> in the bottom.

15 is a grooved wheel or pulley projecting out through the slot 14<sup>a</sup>, and this wheel is journaled at 15<sup>a</sup> to the casing. 16 is another grooved wheel journaled at 16<sup>a</sup> to the casing.

17 is a friction-pulley on a sliding bracket or support. In the modification shown in Fig. 6 this wheel has its axis fixed to the casing. The wheel 17 has an axle 17<sup>a</sup> passing through the bracket 18, which bracket is pro-

vided with two flat springs 18<sup>a</sup> and 18<sup>b</sup>, and these are provided with lips 18<sup>c</sup> and overlapping tongues 18<sup>d</sup>. X refers to a fusible soldered joint between said tongues.

Normally, as shown in Figs. 1 and 4, the lips 18<sup>c</sup> engage the sides of the casing 14, being held in this spread or outward position by the solder. When in this position, the friction-pulley 17 is drawn forward and engages the chain and balances the weight by the additional friction. In case of fire the fusible device melts and the springs 18<sup>a</sup> and 18<sup>b</sup> retract and allow the pulley 17 to slide back to the rear of the casing. If the window is then open, the weight will close the same, being so proportioned that when the friction of pulley 17 is removed the weight overbalances the sash. The same principle is also applied to lowering a shutter or window should it be necessary for the same to go downward for closing. In that case the weight is lighter and the sash overbalances the weight when the friction-pulley is released, thus closing the window.

14<sup>e</sup> and 14<sup>f</sup> are flanges for attaching the pulley-box to the window-frame.

I claim—

1. In a window, the combination with the sash-weight cable, of a friction-pulley bearing against the cable, and a fusible piece exposed at the side of the frame and connected to the pulley, to normally hold the same in contact with the cable.

2. In a window, the combination with the sash-weight cable, of a friction-pulley bearing against the same, a spring-catch connected to the pulley and holding the same against the cable, and a fusible piece exposed in the window and normally holding the catch engaged.

3. In a window, the combination with two pulleys in the frame and a sash-weight cable which runs over the pulleys, of an intermediate friction-pulley which bears against the cable between said pulleys, and a fusible piece which is connected to said friction-pulley and normally holds the same against the cable.

4. In a window, the combination with a casing having pulleys therein and a sash-weight cable which runs over said pulleys, said casing also having an opening in the side thereof, of a friction-pulley which bears against the cable in the casing, a bracket supporting said pulley and extending through

the opening, and a fusible piece connected to said bracket and exposed on the outside of the casing.

5 5. In a window, the combination of a casing in the window-frame, having an opening in the side thereof, a pair of spaced pulleys in the casing, a sash-weight cable which runs over said pulleys, a friction-pulley bearing against the cable in the casing between said  
10 pulleys, a bracket which supports the friction-pulley and has a spring-catch extending through said opening and engaging outside

the edge thereof to hold the friction-pulley against the cable, and a fusible piece secured to said catch on the outside of the casing and  
15 normally holding the same in engagement.

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

CARL R. SJOBERG.

Witnesses:

HOWARD S. McNABB,  
H. G. BATCHELOR.