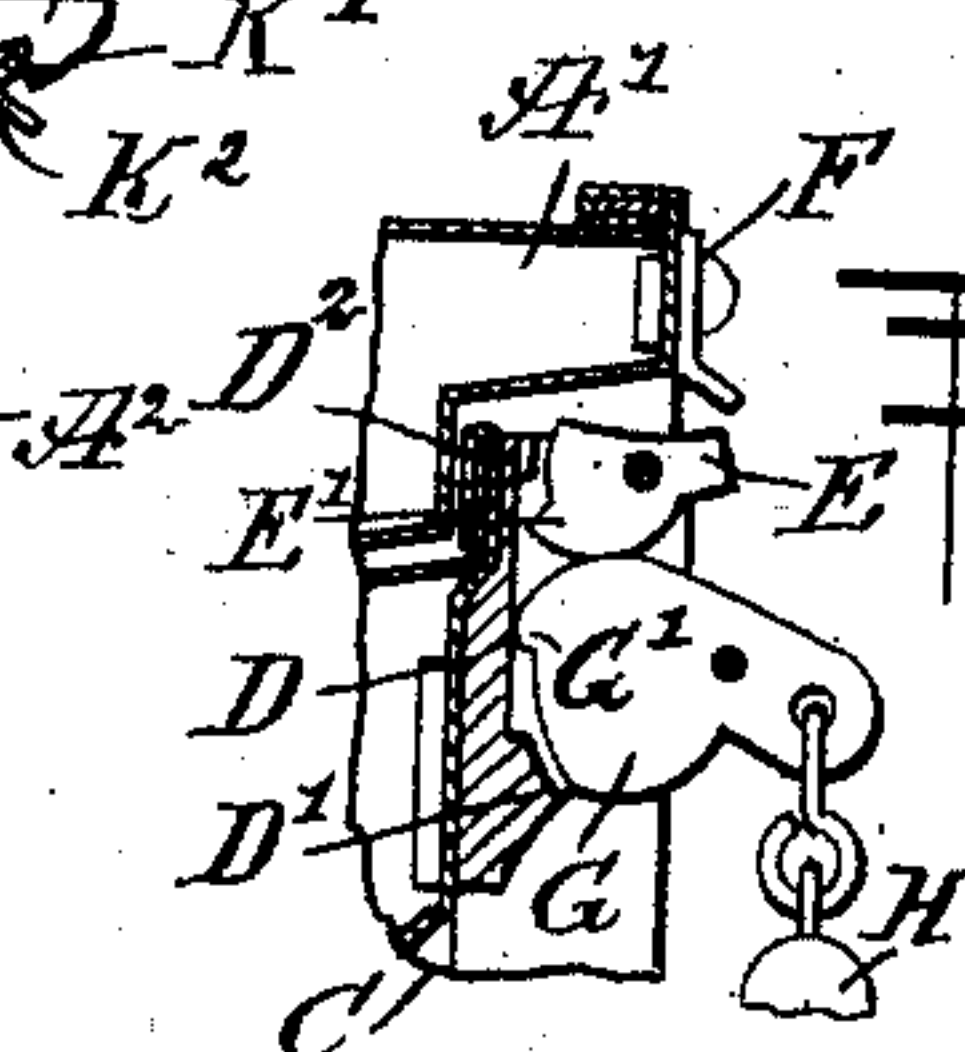
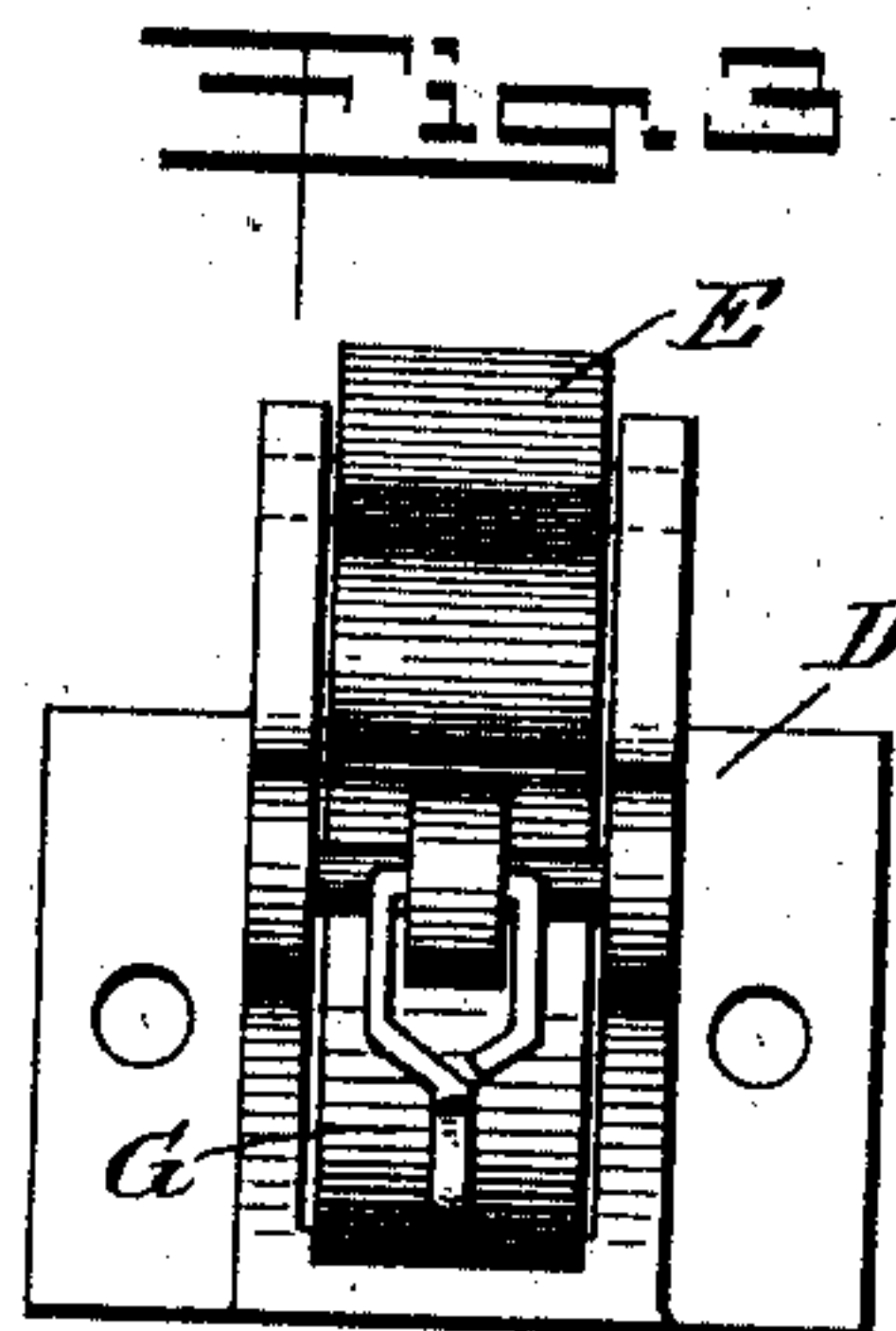
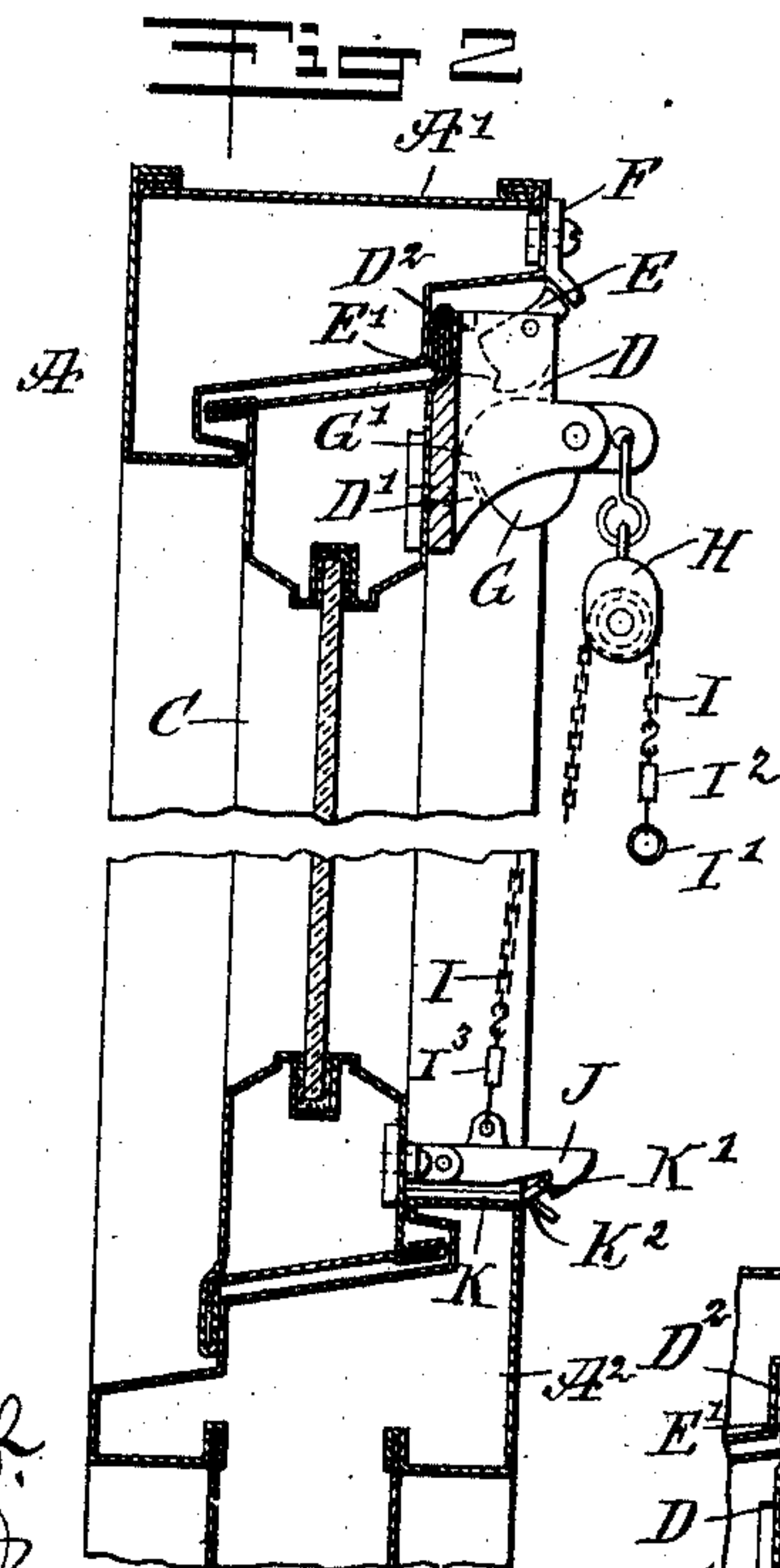
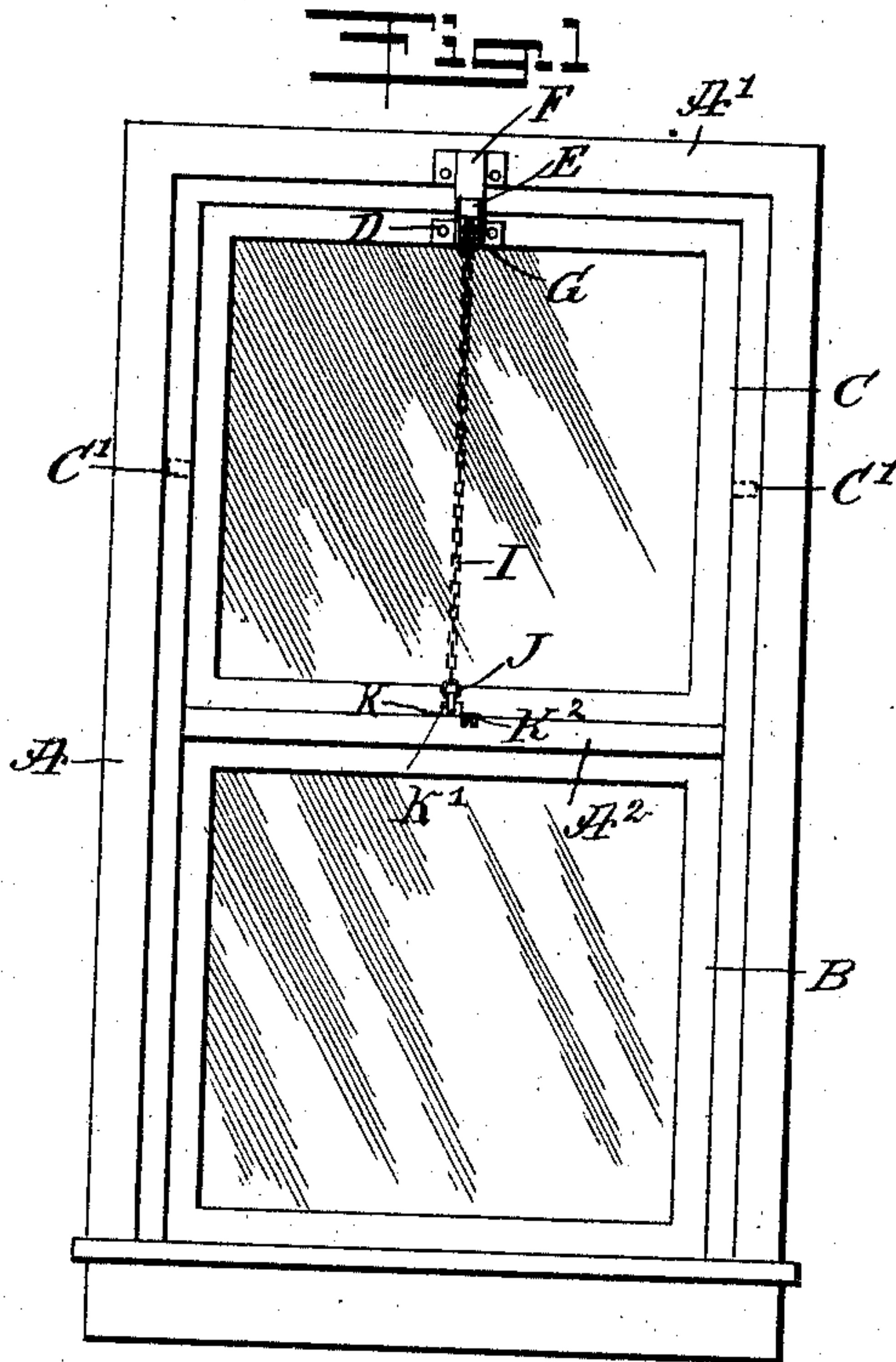


A. C. GODDARD.  
GRAVITY LOCK FOR WINDOWS.  
APPLICATION FILED JUNE 4, 1908.

908,857.

Patented Jan. 5, 1909.



WITNESSES  
*F. D. Sweet*  
*Rev. J. H. Smith*

INVENTOR  
*Alvin Carroll Goddard*  
BY *Mumford*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ALVIN CARROLL GODDARD, OF NEW YORK, N. Y., ASSIGNOR TO J. F. BLANCHARD CO., OF  
NEW YORK, N. Y.

## GRAVITY-LOCK FOR WINDOWS.

No. 908,857.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed June 4, 1908. Serial No. 436,596.

*To all whom it may concern:*

Be it known that I, ALVIN CARROLL GODDARD, a citizen of the United States, and a resident of the city of New York, Long Island City, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Gravity-Lock for Windows, of which the following is a full, clear, and exact description.

The invention relates to windows having tilting or swinging sashes, and its object is to provide a new and improved gravity lock for windows, arranged to automatically lock in case of fire when the sash is closed by fusing of the chain link connection, to securely hold the window locked and to allow convenient and quick unlocking of the window sash and opening the same.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the improvement as applied; Fig 2 is an enlarged transverse section of the window provided with the improvement; Fig. 3 is an enlarged front view of the bracket showing the locking lever and the operating lever; and Fig. 4 is a transverse section of the improvement as applied and showing the locking lever in an unlocked position.

In the window frame A are mounted the lower and upper sashes B and C, of which the sash C is provided at its sides with trunnions or pivots C' mounted to turn in bearings arranged in the window frame A, to allow an operator to swing the sash C into an open position, the sash being self-closing when released. On the upper bar of the window sash C is secured a bracket D in which is fulcrumed a locking lever E adapted to engage the back of a keeper F bolted or otherwise fastened to the top cross bar A' of the window frame A. The locking lever E is adapted to be engaged by an operating lever G fulcrumed on the bracket D and supporting a pulley H, over which passes a chain or other flexible connection I having one end secured to a latch J fulcrumed on the lower cross bar

of the window sash C. The latch J is adapted to hook onto the upturned arm K' of a keeper K, secured to the middle cross bar A<sup>2</sup> of the window frame A, so that the sash C is normally locked against opening both at the top by the locking lever E engaging the keeper F, and at the bottom by the latch J engaging the keeper K. Now when the several parts are in the locked position as shown in Figs. 1 and 2, and the operator pulls on the free end of the flexible connection I, then the latch J is lifted out of engagement with the keeper K and the operating lever G is swung with its rear portion upward, to impart a swinging motion to the locking lever E, thus swinging the same out of engagement with the keeper F, as plainly shown in Fig. 4. A further pull on the free end of the flexible connection I now causes the unlocked window sash C to swing into an open or tilted position, and the sash is now locked in this position by the operator hooking the ring I' of the flexible connection I onto a downwardly bent arm K<sup>2</sup> of the keeper K.

The flexible connection I is provided at or near the ring I' with a fusible link I<sup>2</sup> and a similar link I<sup>3</sup> is at the other end of the connection I near the latch J, both links I<sup>2</sup> and I<sup>3</sup> being of metal capable of melting at a comparatively low temperature, so that in case of flames reaching the window at the time the sash C is open, the heat melts either link I<sup>2</sup> or I<sup>3</sup>, thus releasing the sash of the flexible connection I and thereby allowing the sash to close of its own accord. It is understood that in case the flames are on the outside of the window the link I<sup>3</sup> melts and in case the flames are at the inside of the building, the link I<sup>2</sup> melts to release the chain or flexible connection I and thus unlock the sash.

The downward swinging motion of the rear portion of the operating lever G is limited by a stop D' attached to or formed on the bracket D and adapted to be engaged by a shoulder G' formed on the operating lever G, as indicated in the drawings. The upward swinging motion of the locking lever E is limited by a stop D<sup>2</sup> secured or formed on the bracket D and adapted to be engaged by a shoulder E' formed on the rear end of the locking lever E. When the sash C is unlocked and swings into a closed position, the locking lever E readily drops behind the



keeper F and the latch J rides over the keeper K, to hook onto the free end thereof, as plainly indicated in Fig. 2.

5 The gravity lock shown and described is very simple and durable in construction, can be cheaply manufactured and readily applied to various kinds of windows, preferably metallic windows, as indicated in Figs 2 and 4.

10 Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In combination with a window frame and sash, a window lock, comprising a keeper 15 on the window frame, a bracket on the window sash, a weighted operating lever fulcrumed on the said bracket, and a locking lever fulcrumed on the said bracket and controlled by the said operating lever, the said 20 locking lever being adapted to abut against the said keeper.

2. In combination with a window frame and sash, a window lock comprising a keeper 25 on the window frame, a bracket on the window sash, a weighted operating lever fulcrumed on the said bracket, a locking lever fulcrumed on the said bracket and controlled by the said operating lever, the said locking lever being adapted to abut against the said 30 keeper, and stops on the said bracket for limiting the swinging motions of the said levers.

3. A window lock comprising a keeper for attachment to a window frame, a bracket for attachment to the window sash and 35 provided with stops, a locking lever fulcrumed on the said bracket and adapted to engage the said keeper, and a weighted operating lever fulcrumed on the said bracket and engaging the said locking lever, the move- 40 ment of the said levers being limited by the said stops.

4. In combination with a window frame and a sash, a keeper attached to the top cross bar of the said window frame, a bracket 45 attached to the upper end of the said window sash, a locking lever fulcrumed on the said bracket and adapted to engage the back of the said keeper, an operating lever fulcrumed on the said bracket and adapted to actuate 50 the said locking lever, a flexible connection movably connected with the said operating lever, a latch connected with the said flexible connection and with the lower end of the sash, and a second keeper on the window 55 frame and adapted to be engaged by the said latch.

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

ALVIN CARROLL GODDARD.

Witnesses:

THEO. G. HOSTER,  
EVERARD B. MARSHALL.