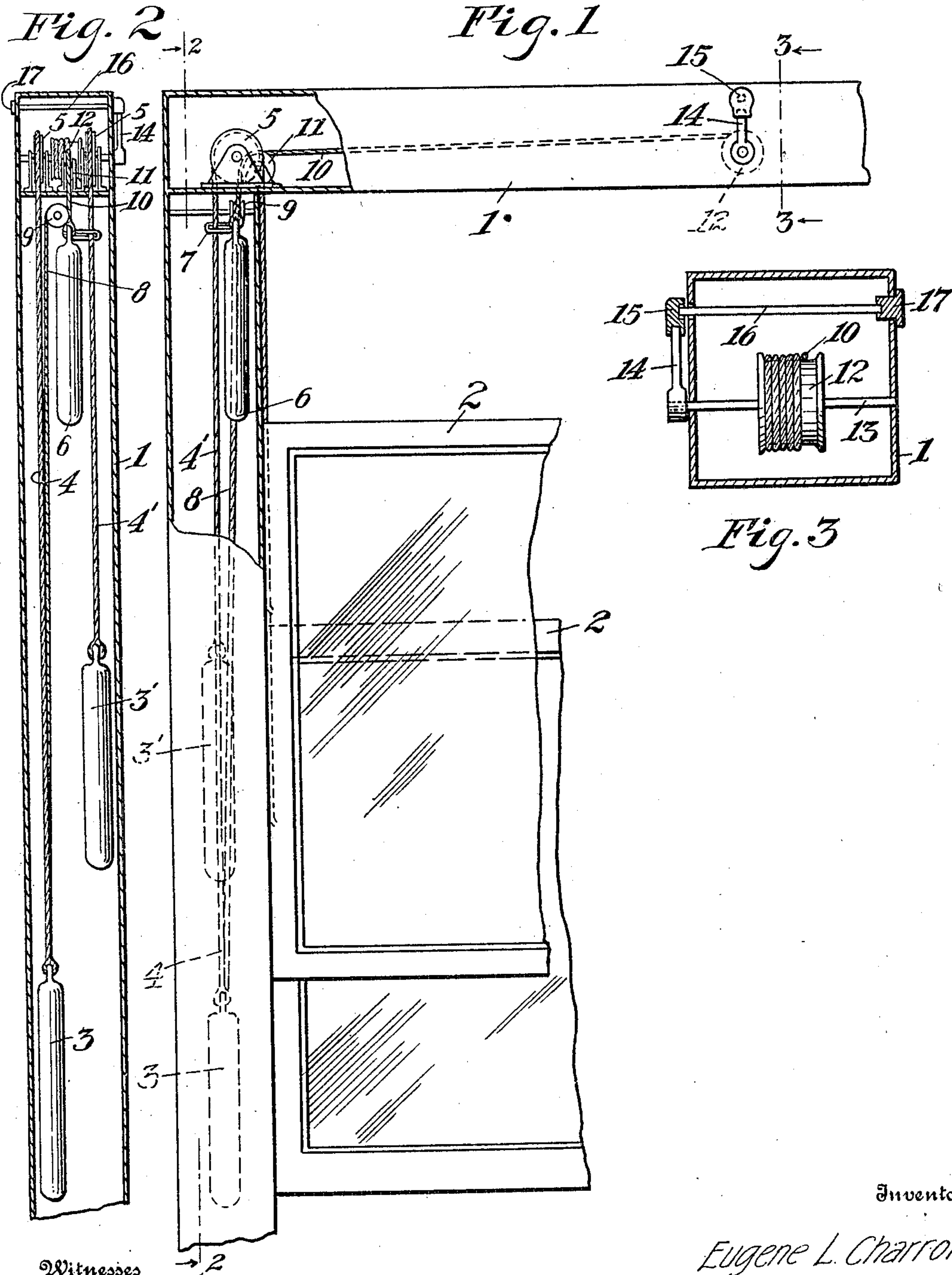


No. 837,194.

PATENTED NOV. 27, 1906.

E. L. CHARROIN.  
SASH CLOSING DEVICE.  
APPLICATION FILED APR. 5, 1906.



Witnesses

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# UNITED STATES PATENT OFFICE.

EUGENE L. CHARROIN, OF SEATTLE, WASHINGTON.

## SASH-CLOSING DEVICE.

No. 837,194.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed April 5, 1906. Serial No. 310,147.

*To all whom it may concern:*

Be it known that I, EUGENE L. CHARROIN, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Sash-Closing Devices, of which the following is a specification.

The primary object of my invention is the provision of an improved means for automatically closing the sashes in the event of there being a fire in the immediate vicinity of the window.

With the above and other objects in view the invention consists of the construction, arrangement, and combinations of parts hereinafter described, and succinctly defined in the appended claims.

In the accompanying drawings, in which like numerals of reference indicate like parts throughout the several views, Figure 1 is a fragmentary view, partly in section. Fig. 2 is a section taken on line 2 2 of Fig. 1, and Fig. 3 is a section taken on line 3 3 of Fig. 1.

Referring to the drawings by numerals of reference, 1 and 2 indicate the window and sash frames, respectively, the same being preferably of hollow metallic construction. The sash-frames are mounted for vertical sliding in frame 1 in any desired manner and are provided with the usual balance-weights 3 3', which are connected to their respective sash-frames by cords 4 4', passing over sheaves 5.

Reference-numeral 6 indicates an auxiliary weight provided with a catch 7, which receives cord 4 of the lower sash and is connected by means of a connection 8, which passes over sheave 9, with weight 3' of the upper sash. The means for normally holding weight 6 elevated consists of cord 10, which passes over a sheave 11 and has a portion of its length wound and secured on a drum 12, fixed to a shaft 13, journaled in the head of the casing. One end of this shaft projects without the window-frame and is provided with an arm 14, having secured on its free end a fusible device 15. This fusible device has its inner face recessed (see Fig. 3) for reception of one end portion of a locking device 16, the other end portion of this locking device being fitted in a cap or socket member 17, arranged in an opening in the opposite wall of the window-frame. By this construction should device 15 fuse arm 14 would obviously be freed and weight 6 al-

lowed to fall by gravity. Should, however, the fire or heat first fuse member 17, the locking device 16 would lose its supporting means at one end, and consequently fall and become unseated from the recess in fusible device 15. Fusible device 15 being thus freed, weight 6 will be allowed to fall, as previously described.

When weight 6 falls, it pulls upwardly on sash-weight 3, and the lower sash to which weight 3 is connected, being relieved of the balancing influence of its weight, will fall or close by gravity, and weight 6 in its downward travel, by reason of its catch 7, catches onto weight 3'. This added weight to the sash-weight causes an overbalancing, and as weight 6 and 3' fall the upper sash is closed.

In view of the foregoing it will be observed that as now constructed one weight 6 effects the closing of both upper and lower sash, and said weight being connected to sash-weight 3' will not when released fall with such momentum as to cause the breaking of cord 4' when it catches onto weight 3' thereof. Further, by my construction the mechanism can be reset when desired without taking apart the window-frame, an undesirable feature found in many devices of this character with which I am familiar. This operation is as follows:

Shaft 13 is rotated through the medium of the arm 14, thereby winding cord 10 on the drum until weight 6 is sufficiently elevated. Then a new locking device 16 and socket member 17 or a new device 15 is provided, this obviously depending on which fusible means fuses to effect the release of weight 6.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. In combination with the window-frame, a sash slidable therein, and a balancing-weight therefor, a device for closing said sash including a weight, said last weight being operatively connected to the balancing-weight so as to serve when falling to raise the same, and means to normally hold said weight elevated.

2. In combination with the window-frame, a sash slidable therein, and a counterbalancing-weight therefor, an auxiliary weight arranged for coöperation with said first weight to effect closing of said sash, and means for holding said auxiliary weight inactive consisting of a drum mounted for rotation, a



cord connected to the auxiliary weight and wound on said drum; and means to rotate said drum.

3. In combination with the window-frame, a sash slidable therein, and a counterbalancing-weight for the sash, a sheave, an auxiliary weight, and a cord connected to the auxiliary weight and passing over said sheave and connected to the said first weight.
4. In combination with the window-frame, the two sashes slidable therein and counterbalancing-weights for the sashes, weight means arranged in the window-frame for co-action with counterbalancing-weights of the respective sashes to effect closing of both sashes, said weight means being connected so as in falling to exert a downward pull on a weight of one sash and an upward pull on a weight of the other sash, and means to normally hold said weight means inactive.
5. In combination with the window-frame, and the upper and lower sashes therein, and counterbalancing-weights for the sashes, an auxiliary weight provided with a catch receiving the cord of one of the first-named weights, a sheave, and a cord connected to the auxiliary weight and passing over said sheave and operatively connected to a weight of the other sash, for the purpose specified.
6. In combination with the window-frame, a sash slidable therein, and a balancing-weight therefor, an auxiliary weight for overbalancing the first-named weight, means for raising the auxiliary weight, and fusible means for preventing falling thereof.

7. In combination with the window-frame, a sash slidable therein, and a balancing-weight therefor, an auxiliary weight for overbalancing the first-named weight, means for raising the auxiliary weight including a drum, and a cord wound on said drum and connected to the weight, and fusible means for preventing rotation of said drum.

8. In combination with the window-frame, a sash slidable therein, and a balancing-weight therefor, an auxiliary weight for overbalancing the first-named weight, means for raising the auxiliary weight including a drum, an arm secured to said drum and arranged without the window-frame, and a cord secured to said drum and said weight, and means for preventing rotation of said drum.

9. In combination with the window-frame, a sash slidable therein, and a balancing-weight therefor, a weight arranged to overbalance the first weight when falling, means for raising and holding elevated said last weight including a cord and a drum, said cord being connected to the weight and drum, locking means for preventing rotation of said drum, and fusible means arranged at opposite sides of the window-frame for controlling said locking means.

Signed at Seattle, Washington, this 26th day of March, 1906.

EUGENE L. CHARROIN.

Witnesses:

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