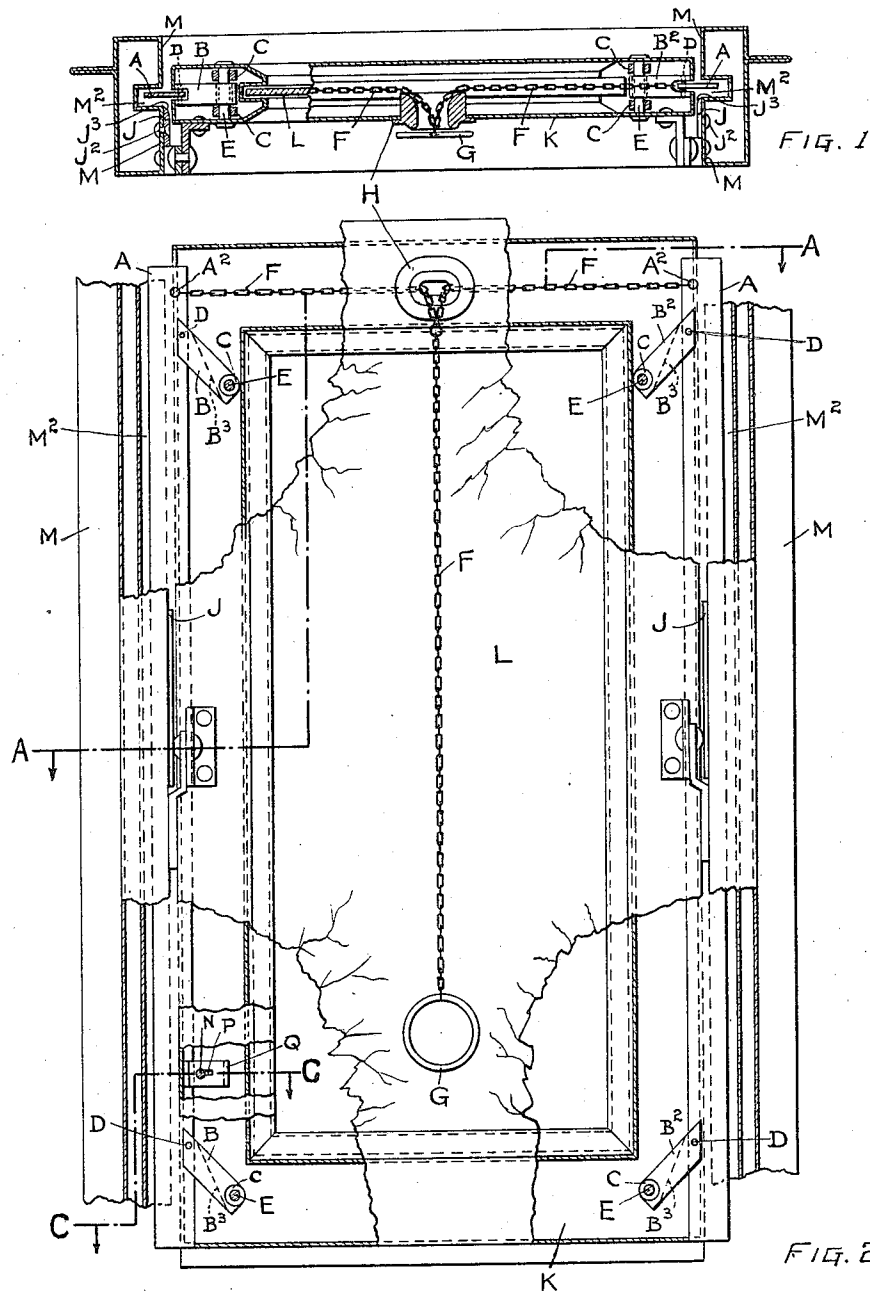


W. T. McFARLAND.
COMBINATION GRAVITY SASH LOCK AND WEATHER STRIP.
APPLICATION FILED AUG. 6, 1910.

1,045,869.

Patented Dec. 3, 1912.

3 SHEETS—SHEET 1.



WITNESSES:

Laurence Wilson Jr.

Frank Gilbert Jr.

INVENTOR

William Thomas McFarland

BY

William G. Blomstran
ATTORNEY

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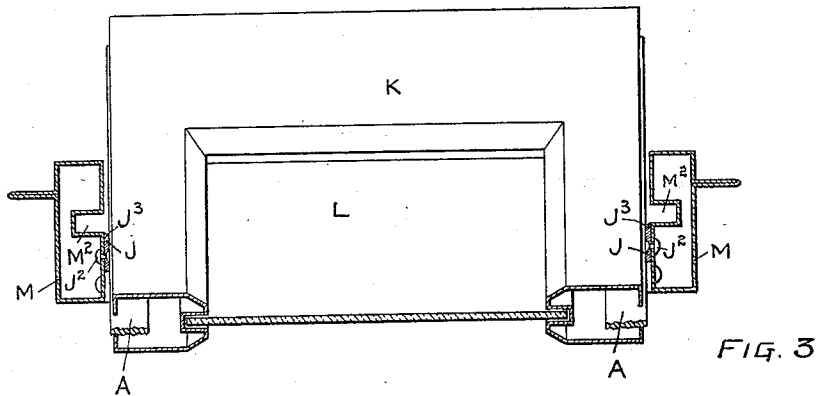


FIG. 3

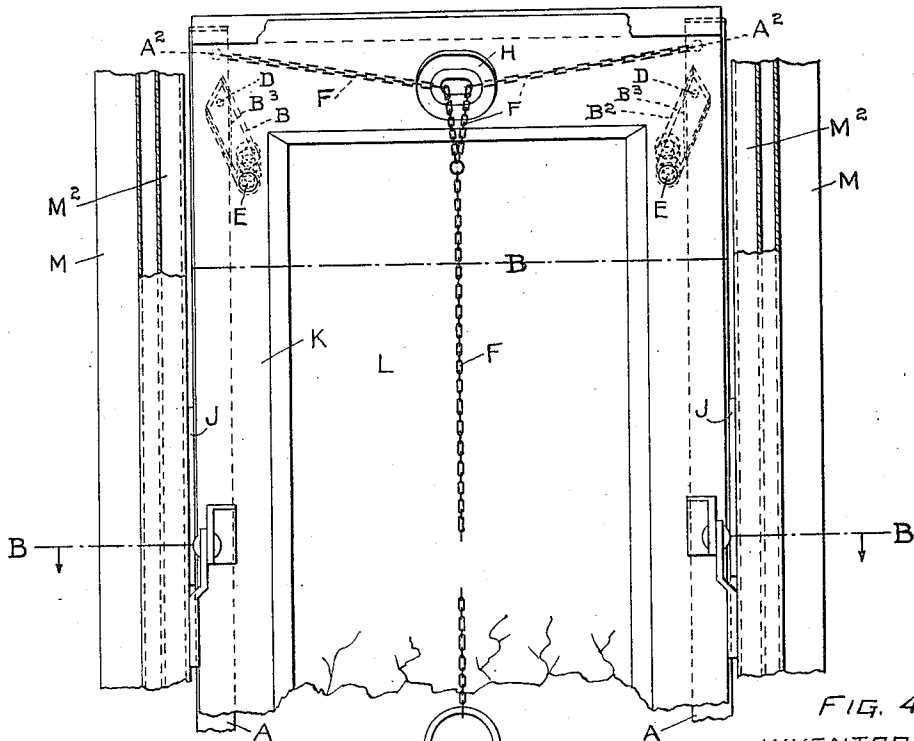


FIG. 4

WITNESSES:

Lawrence Wilson Jr.

Frank Gilbert Jr.

INVENTOR

William Thomas McFarland
BY

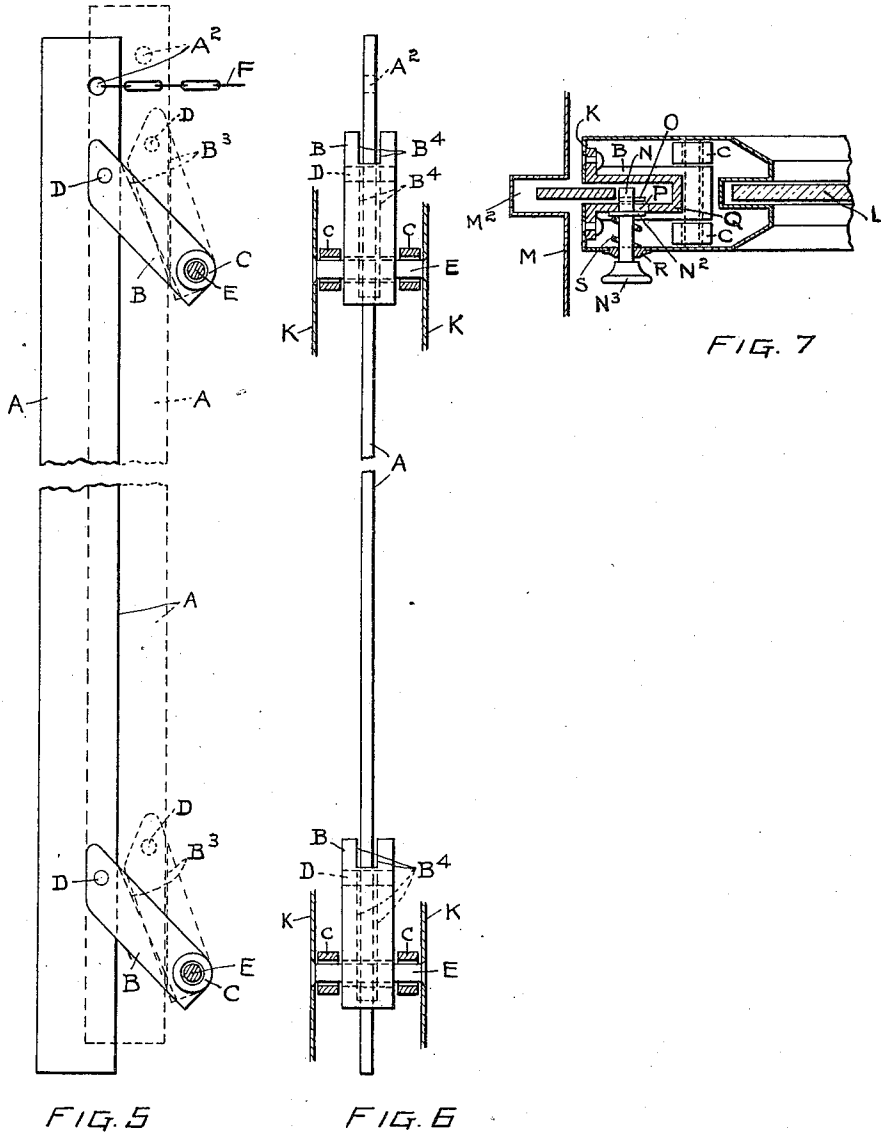
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Lawrence Wilson Jr.

Frank Gilbert Jr.

INVENTOR

William Thomas McFarland

BY

William G. Blomstrom

ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM THOMAS McFARLAND, OF CHICAGO, ILLINOIS.

COMBINATION GRAVITY SASH-LOCK AND WEATHER-STRIP.

1,045,869.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed August 6, 1910. Serial No. 575,954.

To all whom it may concern:

Be it known that I, WILLIAM T. McFARLAND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Combination Gravity Sash-Locks and Weather-Strips, of which the following is a specification.

My invention relates to improvements in sash locks of the gravity operated type, and which at the same time perform the function as weather strips between the sash and frame of the window when the window is in the locked position; said lock preferably used in pivotal or hinged window sash of metallic construction; and the main objects of my improvements are, first, to provide a sash lock whereby the window sash is securely locked to the window frame against any possibility of said window being opened by any foreign pressure other than that used for the purpose of opening same; second, to provide a sash lock, which shall lock the window sash to the frame or casing therefor, and at the same time perform the function as a weather strip between said window sash and frame; third, to provide a combination sash lock and weather strip operated to a locking position by the force of gravity; fourth, to provide means for moving the said lock out of its locking position and therewith open the window; fifth, to provide a sash lock which is simple in construction, and cheap to manufacture; and sixth, to provide a combination gravity sash lock and weather strip which, when an open window has been released from its fastening, through the efforts of heat from fire melting the customary fuse link (not shown) and when the window has closed, will securely lock same and thereby prevent any further draft and spread of fire. I attain these objects by the mechanism illustrated in the accompanying drawings, in which:

Figure 1, Sheet 1, is a cross section taken on the line A—A of Fig. 2. Fig. 2, Sheet 1, is an inside elevation showing the entire mechanism when in a locking position, as applied to a vertically operated pivoted window, with parts of the window and frame broken away, and shown in section. Fig. 3, Sheet 2, is a cross section taken on the line B—B of Fig. 4, showing the lock and window in its open or unlocked position. Fig. 4, Sheet 2, is an inside elevation of the upper part of a window in an open or un-

locked position, and a portion of the side frames, of which a part is broken away and shown in section. Fig. 5, Sheet 3, is an elevation on a larger scale of the sash lock and its parts shown in full lines in the locked position, and in dotted lines in the unlocked position. Fig. 6, Sheet 3, is a right side elevation of Fig. 5. Fig. 7, Sheet 3, is a section taken on line C—C of Fig. 2, showing an auxiliary lock for locking said sash lock.

Similar letters refer to similar parts throughout the several views.

The vertical strips (A), and the parallel links (B) and (B²), the spacers (C), link pins (D) and (E), the chain or cord (F), the ring or grip (G), the guides (H), the wearing plate (J), the auxiliary locking device, shown in Fig. 7, Sheet 2, to be described later, constitute my invention as applied, in this instance, to the sash (K) of a horizontally pivoted window (L) and the frame (M) therefor.

The strip (A) is preferably a piece of metal of rectangular cross section and pivotally secured in a vertical position, as shown, to the links (B) and (B²) by the pins (D); the links (B) and (B²) are, as shown, pivotally secured to and within the window sash by the pins (E) and said links and said strips are preferably centrally spaced in the sash by spacers (C).

The links (B) and (B²) are centrally cut out, as shown by the dotted lines (B³) and the full and dotted lines (B⁴), to receive the strip (A); the line (B³) indicates the direction in which the cut-out extends, and is cut away in that manner for two purposes: first, to give room for moving the strip out of its locking position and, second, to act as a back-stop for said strip, thereby preventing said strip from being forced against the pins (E) and working them loose from their fastenings in the window sash. The wearing plate (J) is secured to the frame (M) by rivets (J²) and has one of its edges, as shown at (J³), rounded, in order that the locking strip (A) will not get caught while opening the window, and also to facilitate easier movement of the window (L) and the locking strip (A).

Referring to Fig. 1 and Fig. 2, Sheet 1, it will be seen that the window is in its closed position and the locking strip (A) extends nearly its whole width from the sash into the recess (M²) of the frame (M), throughout

its entire length. In the upper end of strip (A), a hole (A²) is drilled or punched to receive the operating chain or cord (F) which is passed through the guide (H) and terminating in a ring (G). In order to open the window the operator grasps the ring (G) and pulls, raising the strip (A) clear of the recess (M²) and the wearing plate (J), which now allows the window to be opened. The wearing plate (J) prevents the strip (A) from rubbing against the frame (M) and wearing the paint off, or otherwise defacing same, and also keeps the strip (A) in an unlocked position when the window is opened, as is shown in Fig. 3 and Fig. 4, Sheet 2.

In the previously referred to auxiliary locking device shown in Fig. 7, Sheet 3, will be seen the locking pin (N) inserted behind the strip (A), thereby insuring any movement of said strip (A) against intruders who may attempt to pry the lock strip (A) open, where a window is placed within easy reach of the intruder. In order to open a window placed in such position as just mentioned, the operator first pulls the lock pin (N) out by the handle (N³), from behind the strip (A) (that is, if it is in the position shown in Fig. 7,) against the pressure of the tension springs (S) (which, as will be seen holds the pin (N) in whatever position it is put), until the stop pin (O) has passed through slot (P) of the bearing bracket (Q), then gives said pin (N) a slight turn so that the stop-pin (O) cannot reënter the slot (P), thereby holding said pin (N) clear of strip (A), allowing the operator to move the locking strip (A) to an unlocked position and open the window, as before stated. The pin (N) is movably held in bracket (Q) which is riveted to the inside of the sash (K), and in the bearing (R) which is riveted to the sash (K) on the inner side of the window, preferably as shown, (Fig. 2, Sheet 1), in the lower left-hand corner of the window. The pin (N) has a shoulder (N²) upon which the spring (S) acts.

Referring to the foregoing descriptions and drawings, it will be seen that my construction affords an absolute and instantaneous locking means for two sides of a window throughout its entire length; and as the locking strip (A), when the window has closed, falls or drops in the recess (M²) pre-

vents, absolutely, the window from rebounding, as is the case with present locks now in use. It will also be seen, that, as the locking strip (A) extends approximately throughout the length of the sash and frame, it serves as a perfect weather strip, preventing any draft, water or fire from passing beyond same in either direction. It sometimes happens that a strong wind blows windows open from their locked position, owing to the inefficiency of the present locking devices, and causing a great deal of unnecessary damage; but with my construction such a thing is absolutely prevented.

Having thus described my invention, the merits of my improvement can be readily understood, and it will be seen that the minor details of my construction can be altered in many ways without departing from the spirit of my invention, but

What I claim and desire to secure by Letters Patent is—

1. The combination in a pivotal window sash, of pivotal gravity operated sash locking members, operatively secured through suitable openings in the lateral faces of the vertical sash members to bi-furcated links within the vertical sash members; of links pivotally secured to and within the vertical sash members; of gravity sash locking member controlling and operating means, operatively secured, through a guide having a rounded opening, to the upper ends of said locking members; of a guide, secured centrally to the inward vertical side of the horizontal top member of the sash; of a locking means for said strip.

2. In combination with a pivotal window sash, sash locking members; bi-furcated pivotal members pivotally secured to, and within, the vertical sash members, and to the upper and lower ends of said sash locking member; said bi-furcated members having an inclined surface formed therein, transversely to the line of centers of the pivotal bearings thereof; said inclined surfaces adapted to be parallel with the rear or inwardly opposing surfaces of said sash locking member when the sash locking members are in their unlocked position.

WILLIAM THOMAS MCFARLAND.

Witnesses:

LAWRENCE WILSON, Jr.,

FRANK GILBERT, Jr.