

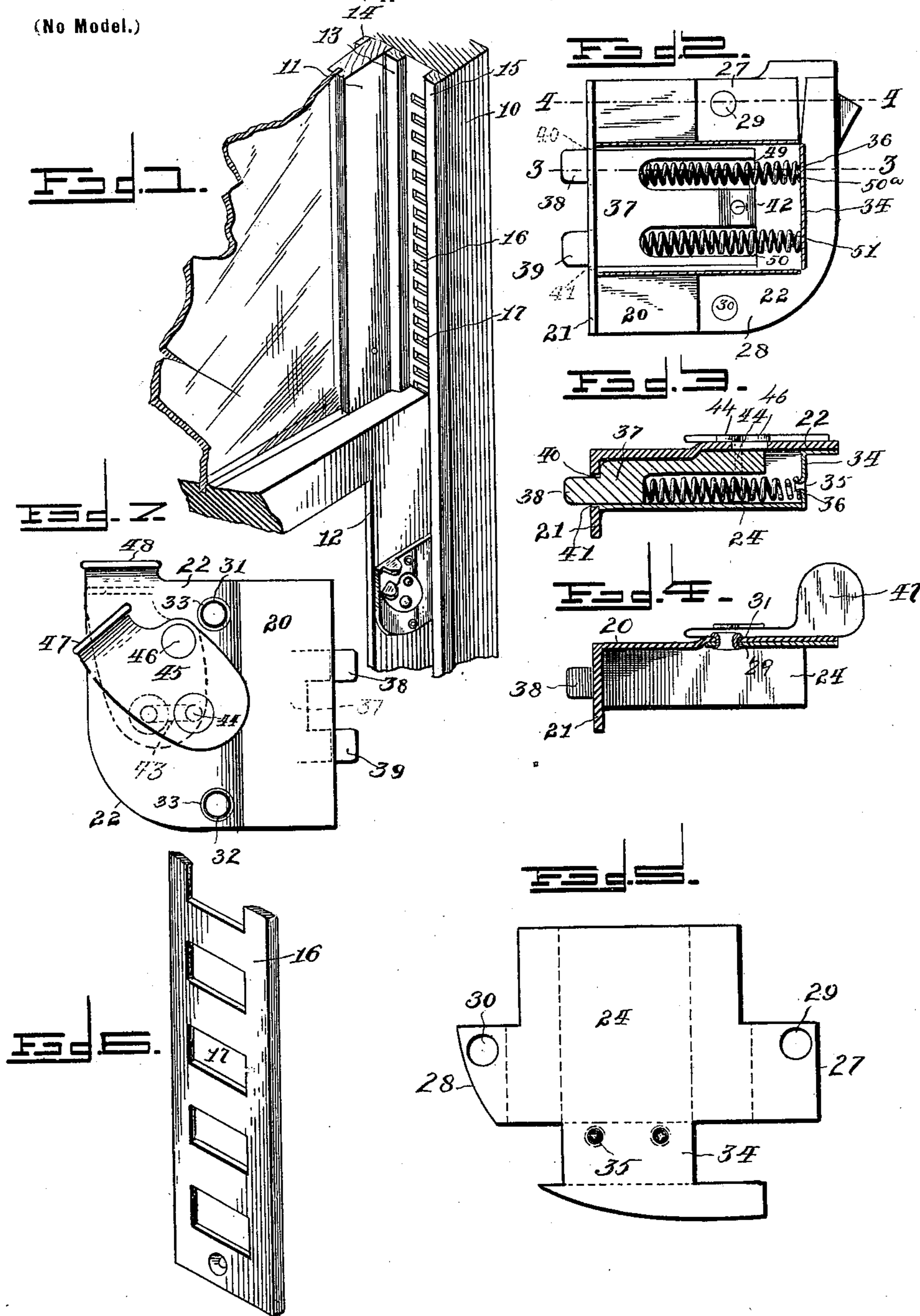
No. 652,749.

Patented July 3, 1900.

J. W. CRIGLER.  
LOCK.

(Application filed Nov. 4, 1899.)

(No Model.)



Witnesses

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By *His* Attorneys,

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# UNITED STATES PATENT OFFICE.

JULIUS W. CRIGLER, OF BLOOMINGTON, ILLINOIS.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 652,749, dated July 3, 1900.

Application filed November 4, 1899. Serial No. 735,789. (No model.)

*To all whom it may concern:*

Be it known that I, JULIUS W. CRIGLER, a citizen of the United States, residing at Bloomington, in the county of McLean and State of Illinois, have invented a new and useful Lock, of which the following is a specification.

This invention relates to locks in general, and more particularly to that class employed in locking window-sashes at different elevations; and it has for one object to provide a simple and efficient construction of lock in connection with a perforated metallic strip, the perforations of which are adapted to receive the projections of the bolt of the lock to hold the window-sash against both upward and downward movement.

A further object of the invention is to so construct the casing of the lock and the finger-piece of the bolt that the act of raising the sash will disengage the bolt from the keeper and to connect the several parts in a novel and efficient manner, as an improvement upon my Patent No. 612,310, of October 11, 1896.

In the drawings forming a portion of this specification, and in which similar numerals of reference designate like and corresponding parts in the several views, Figure 1 is a perspective view, partially broken away, and showing a portion of a window-frame with portions of the upper and lower sashes, the lower sash and the window-frame being equipped with the present invention. Fig. 2 is a section taken through the casing of the bolt and showing the bolt and its pressing-springs in elevation. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a section on line 4 4 of Fig. 2. Fig. 5 is a plan view showing the blank from which the cover-plate is made. Fig. 6 is a perspective view showing a portion of the keeper-plate. Fig. 7 is a top plan view showing the lock with the bolt thereof projected.

Referring now to the drawings, 10 represents a window-frame in which are slidably disposed the upper sash 11 and a lower sash 12, having a separating-bead 13, the usual rear bead 14, against which the upper sash lies, and a removable strip 15, which rests against the inner face of the lower sash. The inner face of the frame 10 between the bead 13 and the strip 15 is provided with a keeper-

plate 16, having a series of rectangular perforations 17 therein and which are adapted to successively receive the projections of the bolt of the lock.

The lock of the present invention consists of a base-plate 20, one end of which is bent to lie at right angles thereto, as shown at 21, and the opposite end of which is curved outwardly and then extended rearwardly, as shown at 22, in a plane parallel with the body of the plate 20, the width of the portion 20 being somewhat in excess of the thickness of the strip 15 for purposes to be presently explained. Coöperating with the base-plate 20 is a cover-plate 24, which is rectangular in form and is secured upon the rear face of the plate and with the front open end of the housing against the bent portion 21. This cover-plate is formed of a sheet-metal blank (shown in Fig. 5 of the drawings) and which is bent into the form shown in Fig. 4 of the drawings, the ears 27 and 28 having perforations 29 and 30, which are adapted to aline with perforations 31 and 32 in the portion 22 of the base-plate 20, eyelets 33 being passed through these alining perforations and acting to hold the base-plate and the cover-plate together and at the same time forming screw-receiving perforations for attaching the lock to the window-sash. The rear end 34 of the cover-plate blank has two perforations 35, which are formed by punching the metal inwardly of the housing to form projections 36, for a purpose which will be presently explained.

The bolt which is employed in the present instance consists of a block 37, the front end of which is bifurcated to form projections 38 and 39, the adjacent faces of which are parallel, while the outer faces converge forwardly of the bolt. These projections 38 and 39 are adapted to play in openings 40 and 41 in the bent portion 21 of the base-plate 20 in the manner hereinafter described. The lower face of the bolt 37 is varied in form to conform to the adjacent face of the plate 20 and its extension 22, and through the rear thickened portion is formed a perforation 42, which alines with a slot 43 in the portion 22. Through the slot 43 and into engagement with the perforation 42 is passed a rivet 44, the outer end of which passes through a perforation in a lever 45, which is pivoted to the

extension 22 of the plate 20 by means of a rivet 46. The lever 45 has an outwardly-extending lug 47, and in line with the path of this lug is a second lug 48 upon the extension 5 22, whereby a thumb of the operator may be placed upon the lug 48 and a finger upon the lug 47 to facilitate movement of the lever 45 upon its pivot 46 to draw the bolt 37 rearwardly. In order to project the bolt 47, with 10 its extensions, through the openings 40 and 41, the bolt 37 has two slots 49 and 50 in its inner face, the inner ends of which slots are closed and the outer ends of which open through the rear end of the bolt. These slots 15 are in alinement with the projections 35 upon the rear end of the housing and receive helical springs 50<sup>a</sup> and 51, one end of each of which springs encircles a projection 35, while the opposite end lies against the inner end 20 of its respective slot. The length of these springs is such that they will normally hold the extensions 38 and 39 projected through the openings 40 and 41.

In the application of this lock to the win- 25 dow-sash the inner face of the sash is recessed, and in this recess is placed the lock, the forward portion of the plate 20 lying between the inner face of the lower sash, to which the lock is applied, and the adjacent strip 15, and the 30 portion 22 of the plate 20, together with the lever 45, lying exposed. The lever 45 in its movement to withdraw the bolt is operated upwardly and in the direction of the lug 48, and thus by placing the finger beneath the 35 lug 47 the bolt will be first withdrawn from engagement with the keeper, and continued upward pressure will act to raise the sash. If the lug 47 be then released, the helical springs will shoot the bolt and cause the extensions 40 thereof to engage two mutually-adjacent perforations of the keeper, the converging arrangement of the outer faces of the extension causing the bolt to have a wedging action, and thus insuring a tight fit and preventing loose 45 motion. After the lock has been placed upon the sash, as above described, it may be firmly secured in place by means of screws passed

through the eyelets 33, these screws serving also to reinforce the eyelets in holding the cover-plate upon the base-plate. 50

It will of course be understood that in practice a lock may be arranged at each side of the sash, and also that various modifications may be made in the form, materials, and proportions, and that the lock may be employed 55 for other purposes for which it is adapted, without departing from the spirit of the invention.

What is claimed is—

1. A lock, comprising a base-plate, a cover- 60 plate upon the base-plate, a slotted bolt inclosed by the cover-plate, struck-up projections upon the rear end of the cover-plate and extending inwardly thereof, and springs disposed in the slots of the bolt and encircling 65 the struck-up portions of the housing to hold the bolt yieldably in a predetermined position.

2. In a lock, the combination with a base-plate, of a bolt yieldably mounted thereon and having a longitudinal slot, a cover-plate for 70 the bolt, and a spring disposed in the slot of the bolt, said spring bearing at one end against the end of the slot and at the opposite end against a portion of the cover-plate to hold the bolt normally projected. 75

3. A lock comprising a base-plate having a cover-plate thereon, one end of the base-plate being bent across the end of the cover-plate and having openings therein, a bolt disposed within the inclosure of the cover-plate and 80 having extensions adapted to play in the openings, slots in the bolt, springs disposed in the slots and engaging the cover-plate at their outer ends to hold the bolt normally projected, and a lever pivoted to the base-plate and to 85 the bolt for operating the latter.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JULIUS W. CRIGLER.

Witnesses:

JOSEPHA M. ATOR,  
CORA J. DIXON.