(No Model.)

2 Sheets—Sheet 1.

J. G. KRIEGER.

TRUNK LOCK.

No. 447,057. Patented Feb. 24, 1891.

Fig 1

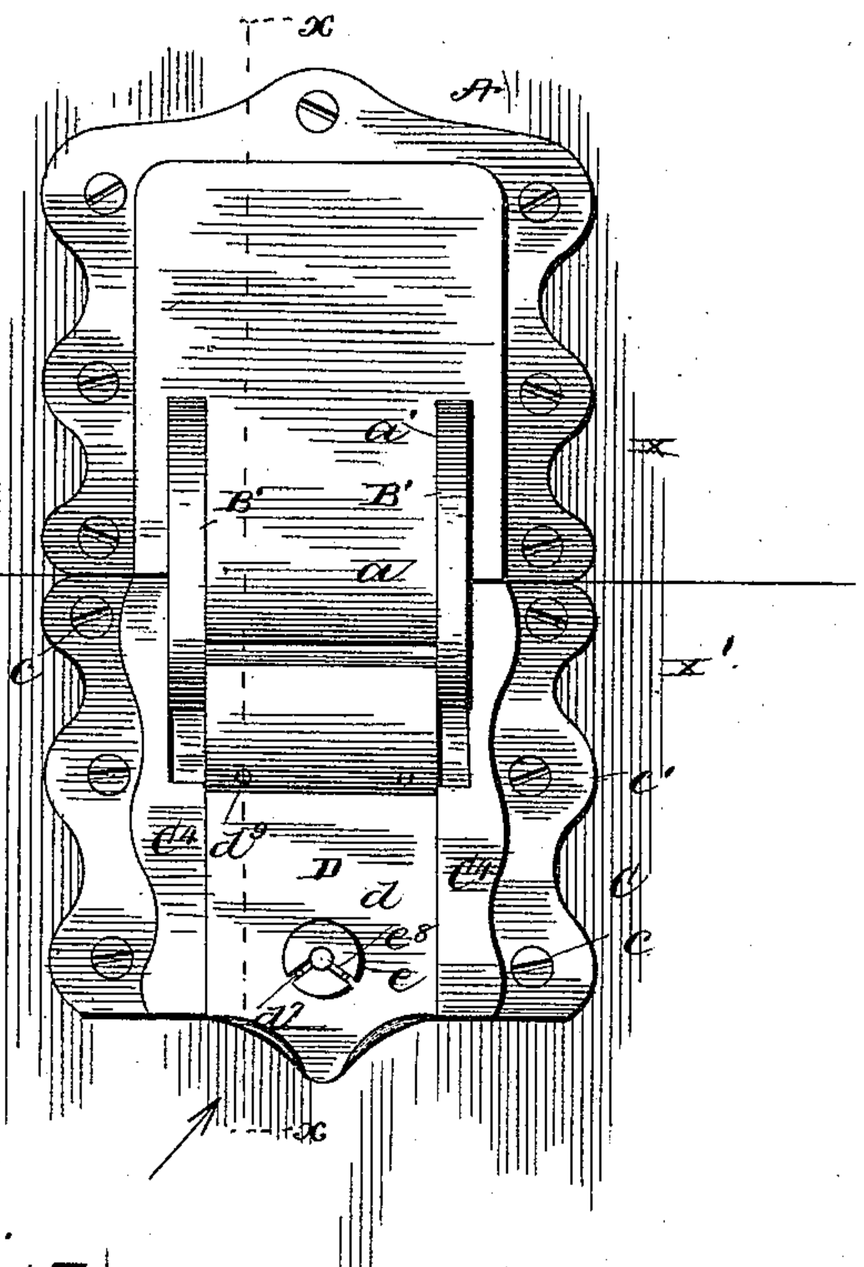


Fig 2

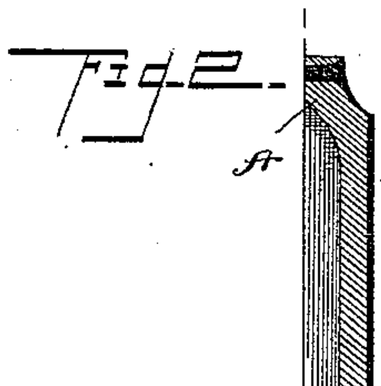


Fig 3

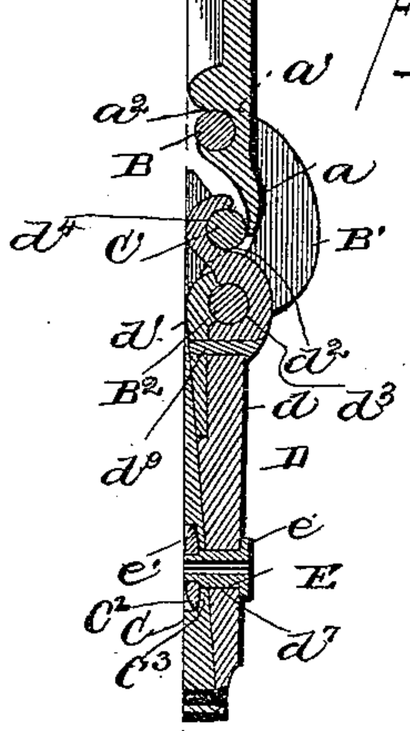


Fig 4

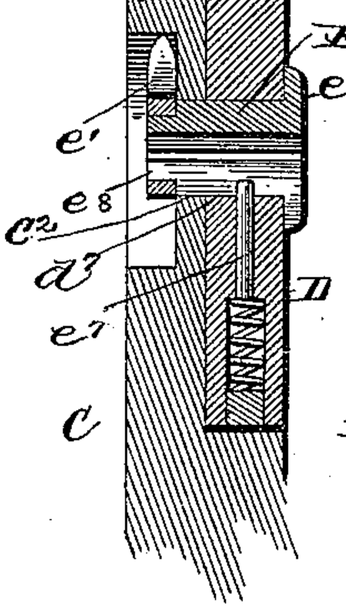
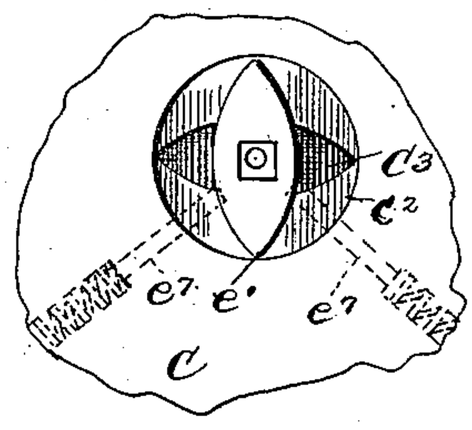
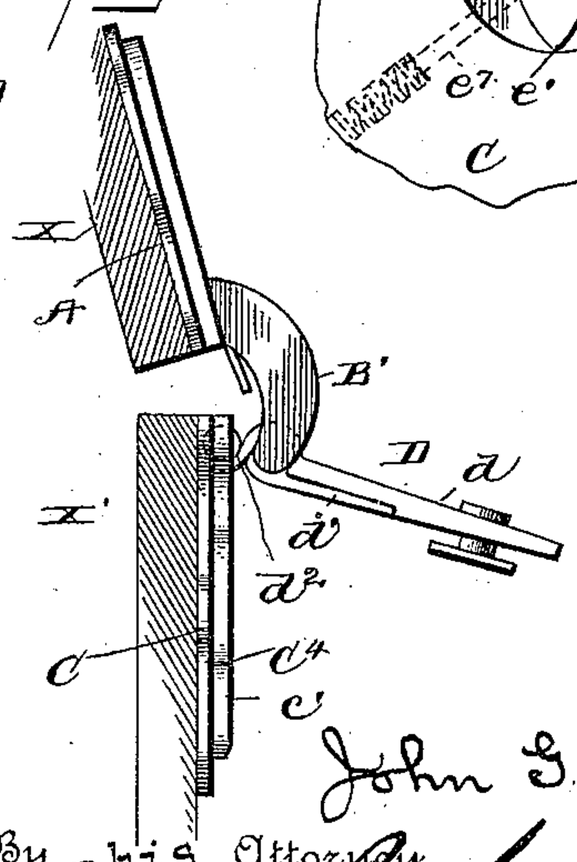


Fig 5





Witnesses

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(No Model.) 2 Sheets—Sheet 2.

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TRUNK LOCK.

No. 447,057. Patented Feb. 24, 1891.

Fig 6

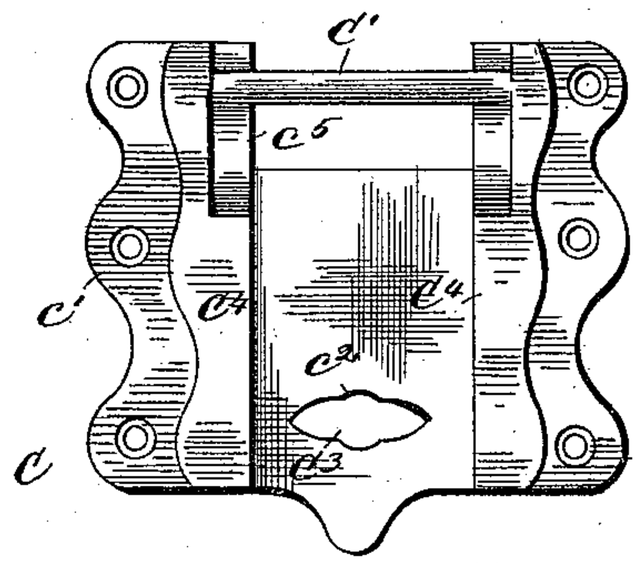

Fig 7

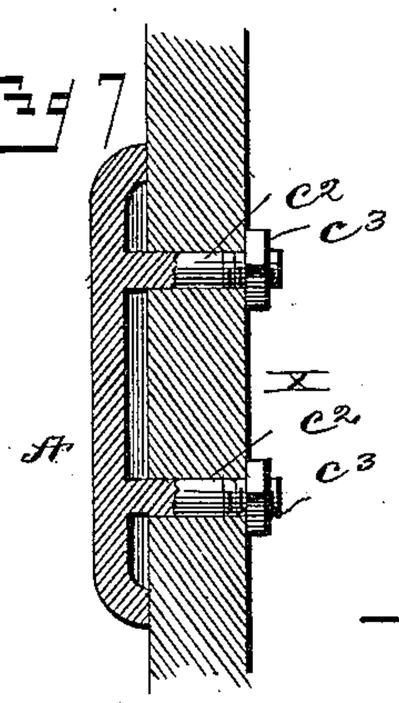

Fig 8

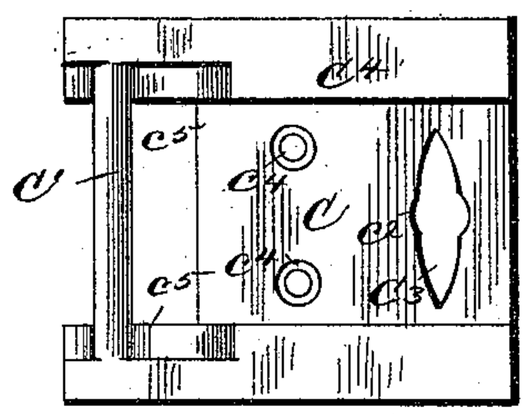

Fig 9

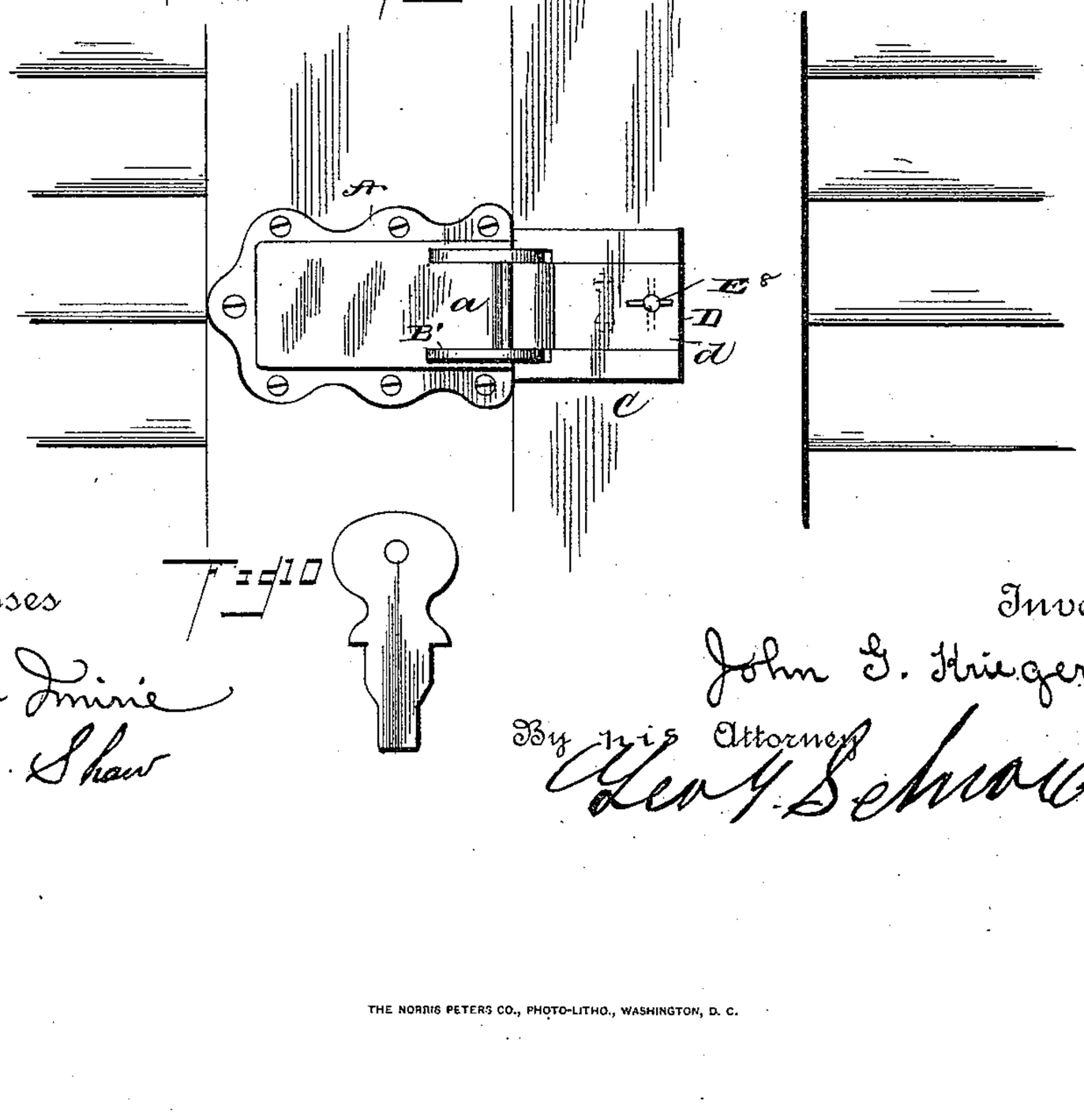

Fig 10

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN G. KRIEGER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO GEO. G. SCHROEDER, LEVI P. WRIGHT, AND CHARLES NEWBOLD, ALL OF SAME PLACE.

TRUNK-LOCK.

SPECIFICATION forming part of Letters Patent No. 447,057, dated February 24, 1891.

Application filed November 12, 1890. Serial No. 371,202. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. KRIEGER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Locks and Fastenings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in locks and fastenings; and it has for its object to provide a construction by which the strain exerted upon the two parts thereof tending to separate them is taken off of the lock; and for this purpose it consists of the construction, arrangement, and combination of the several parts of which it is composed, as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, in which corresponding parts are designated by corresponding letters, Figure 1 is a front elevation of my invention. Fig. 2 is a central vertical section on line *x x* of Fig. 1. Fig. 3 is a detail sectional view of the lock, taken in the direction indicated by the arrow. Fig. 4 is a side elevation showing the lock partly opened. Fig. 5 is a detail rear elevation of the locking-plate. Fig. 6 is a detail front view of the locking-plate. Figs. 7 and 8 are vertical sections of modified forms of the locking-plate. Fig. 9 is a view of my invention, showing it adapted for use as a window-shutter lock. Fig. 10 is a detail view of the key.

The force-plate A is adapted to be fastened to one part X of the trunk part, &c., to be locked, the lower central portion of the said plate projecting below the lower edge of the said part and forming a lip *a*, while open slots *a'* are formed on each side of the said central portion and extend to about the middle of the said plate. A transverse groove a^2 is formed in the rear of the said plate, adapted to receive the cross-head B, extending from the rear ends of the opposite arms B', said arms projecting outward through the said slots *a'*, the lower ends thereof being curved toward the rear and connected by the lower cross-head B^2 below the lower edge of the part X' of the box, trunk, &c, the said cross-heads and arms being made integral. To the opposite portion X' of the box, trunk, &c., is secured the locking-plate C, having the cross-bar C' crossing its upper end from side to side above the forward face thereof, the said locking-plate being secured in place by rivets or screws *c* passing through the ears *c'* thereof, as shown in Fig. 1, or by legs or bolts c^2 cast integral with tht rear thereof and passing through the thickness of the part X' and held in place by the nuts c^3, as shown in Fig. 7, or by screws passing through holes c^4 in the center of the locking-plate C, as shown in Fig. 8, in which last position the heads of the screws will be covered by the leaf D when the trunk is locked, thus preventing the removal thereof. A circular recess C^2 is formed in the rear of the lower end of the said locking-plate and the said recess communicating with the front of the said plate by an elongated opening C^3. A ridge C^4 is located on each side of the central portion of the locking-plate and serves as a guide for the leaf D, the upper ends of the said ridges being recessed at c^5 to receive the lower ends of the arms B', while the cross-bar C' extends from near the top of upper end of one of the ridges to the corresponding portion of the other.

The leaf D consists of two plates *d* and *d'*, the main plate *d* having a channel d^2 in the forward face of its extreme upper end and a channel d^3 in its rear surface just below the channel d^2, the said channel d^3 receiving the lower cross-head B^2, connecting the lower arms B' B', the said channel d^3 being closed by the second plate *d'*, which is riveted or otherwise suitably secured to the rear surface of the main plate *d*, as by the rivets d^9. The lower portion D has the locking mechanism secured thereto, the character of which will be hereinafter more fully described.

It will now be seen that if the two parts X X' of the trunk are brought together and the channel d^2 on the upper end of the leaf D is

caught under the cross-bar C′ (the parts now being in the position shown in Fig. 4) the lower ends of the said leaf may be brought down and backward, and in so doing the parts X X′ will be drawn close together, and at the same time the lower end of the leaf will rest between the ridges on the face of the locking-plates and the cross-bar C′ will bear against the face d^4 of the channel d^2, as shown in Fig. 1, taking up the locking-strain.

The lock I prefer to use to keep the leaf drawn upon the face-plate is as follows: A barrel E, having a collar *e* upon its outer end, passes through the perforations d^7 in the lower portion of the leaf and has upon its inner end the wings *e′*, which are adapted to pass through the elongated openings C^3 in the locking-plate when in one position and to catch in the recess C^2 when rotated, thus securing the leaf in position. In order to prevent the rotation of the barrel by unauthorized persons, I form a V-shaped slot e^8 therein, the opposite arms of which slots, when the barrel is in a locked position, are caught by the spring-actuated pins e^7, contained in the leaf, the said pins being adapted to be pushed back flush with the surface of the barrel by means of the V-shaped key adapted to enter the said slot e^8, thus liberating the barrel and permitting it to be turned in such a manner that the wings *e′* register with the elongated perforations C^3 in the locking-plate, thus unlocking the lower end of the latter and the face-plate.

Instead of the above construction of lock, I may, if I so prefer, use a simple turn-bolt, such as E^8, carried by the leaf D, and having the wing *e′*, such as described on the base thereof, as is shown in Fig. 9, which figure shows my invention adapted for use as a fastening for window-shutters.

From an inspection of Fig. 1 it will be seen that the lip *a* overlaps and protects the cross-bar C′, thus giving additional strength to the invention.

Having thus described my invention, what I claim is—

1. The combination, with a face-plate, of curved arms having their ends bent backward and their upper ends pivoted to said face-plate, a locking-plate having a cross-bar extending over its upper end and under the said arms, a leaf pivoted to the lower ends of the said arms, the upper end of the said leaf being contained under the said cross-bar, and means for securing the lower end of the leaf and locking-plate together, as described.

2. The combination, with a face-plate having a central lip, of arms having one end pivoted to the said plate, a locking-plate having a cross-bar upon its upper end and below the said lip, a leaf pivoted to the said arms and having a channel in its end adapted to engage under the said cross-bar, and means for securing the lower end of the leaf and locking-plate together, as described.

3. The combination, with a rotary barrel having a V-shaped slot therein, of spring-actuated pins engaging the ends of the said slots, a locking-plate having an elongated opening therein, and wings upon the said barrel, as described.

4. The combination, with a face-plate having a central downwardly-projecting lip and slots upon the sides thereof, and having a groove in its rear surface communicating with the ends of the said slots, of two opposite arms having their upper ends contained within the said slots, a cross-head carried in the said groove and connecting the upper ends of the said arms, a cross-head connecting the lower inwardly-curved ends of the said arms, a leaf having a covered slot therein which receives the lower cross-head and having a forwardly-opening channel in its upper end, a locking-plate having vertical ridges and a cross-bar at the top of the said ridges, and means for securing the lower end of the said leaf and locking-plate together, as described.

5. The combination, with a face-plate having a transverse groove in its rear face, of arms, a cross-head connecting the upper ends of the said arms and contained in the said transverse groove, a locking-plate having a cross-bar upon its upper end, a leaf composed of two plates, one of the said plates having a channel upon its outer face at its upper end and a channel in its rear face below the said channel in its outer face, and the remaining plate serving as a cover for the said channel in the rear face of the said plate, and a cross-head connecting the lower ends of the said arms and contained in the said channel in the rear face of the said forward plate of the leaf, the said cross-heads and arms being made integral, and means for securing the lower end of the leaf and locking-plate together, as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN G. KRIEGER.

Witnesses:
W. C. HALDEMAN,
T. FRANK GREENWOOD.