

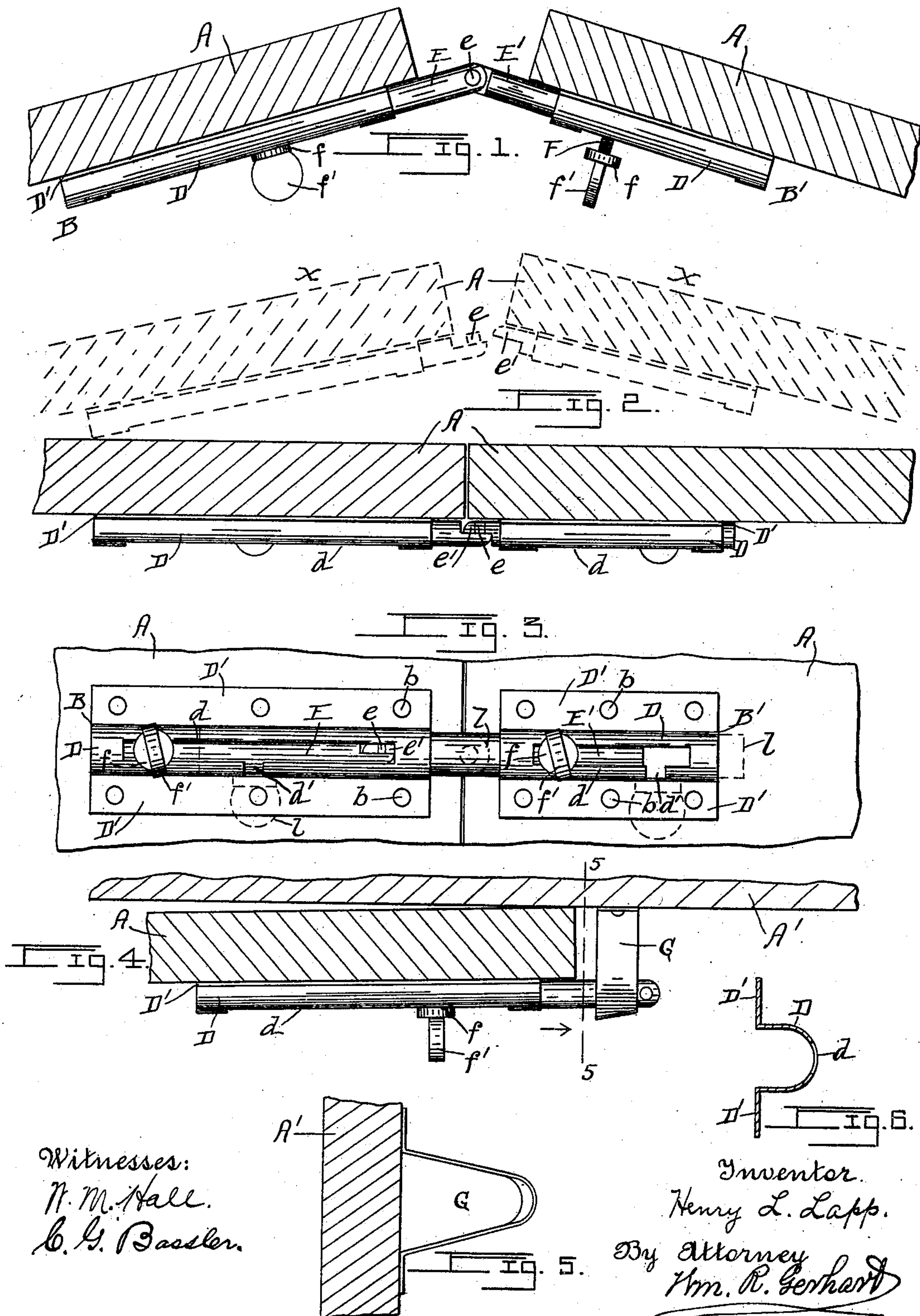
No. 618,958.

Patented Feb. 7, 1899.

H. L. LAPP.
SHUTTER BOLT.

(Application filed Nov. 25, 1898.)

(No Model.)



Witnesses:
N. M. Hall.
C. G. Bassler.

Inventor.
Henry L. Lapp.
By Attorney
Am. R. Gerhardt

UNITED STATES PATENT OFFICE.

HENRY L. LAPP, OF BIRD IN HAND, PENNSYLVANIA.

SHUTTER-BOLT.

SPECIFICATION forming part of Letters Patent No. 618,958, dated February 7, 1899.

Application filed November 25, 1898. Serial No. 697,361. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. LAPP, a citizen of the United States, residing at Bird in Hand, county of Lancaster, State of Pennsylvania, have invented certain Improvements in Shutter-Bolts, of which the following is a specification.

This invention relates to improvements in that class of bolts designed for securing window-shutters; and the objects of the invention are, first, with the same bolt to lock the shutters in a closed position or to secure them in any bowed position desired, and, second, to secure the shutters firmly in a fully-open position.

There are bolts in use divided into sections one of which is attached to each of the shutters and with which the shutters are held in a bowed position by engaging a hook on the outer end of one bolt-section with an eye on the outer end of the other bolt-section; but there is more or less difficulty always experienced in disconnecting the hook from the eye, and in so doing the hook is very liable to be broken off. My bolt overcomes these difficulties.

My invention consists in the construction and combination of the various parts, as hereinafter fully described and then pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a horizontal sectional view of the shutters and a top view of a bolt embodying my invention, the parts being shown in the position occupied thereby when the shutters are bowed. Fig. 2 is a similar section of the shutters closed, but showing the bolt in the position occupied thereby when the ends of the bolt-sections are to be disconnected, as seen in the parts shown by broken lines *xx*. Fig. 3 is an inner face view of the closed shutters, the bolt locking them in that position. Fig. 4 is a top sectional view of one of the shutters, showing the same locked in an open position against the wall of the house; and Fig. 5 is a side view of the wall-keeper on broken line 5 5, Fig. 4, showing a side view of one of the wall-keepers. Fig. 6 is a transverse section of the case of one of the bolt-sections.

Referring to the details of the drawings, A indicates the shutters, and A' the wall of a

house. There is a bolt-case B and B', respectively, on each shutter, each of which bolt-cases is formed of a plate of flexible metal struck up lengthwise of the center to form a channel D and lips or flanges D' on the sides of said channel, through holes in which the bolt-case is secured to the shutter by screws *b*, as seen in Fig. 3. It is not necessary that the bolt-cases be constructed as described, as they may be formed of cast metal consisting of a flat plate extending continuously from side to side and having channels cast integral therewith.

E E' indicate bolt-sections secured, respectively, in bolt-cases B and B', in which they have both a longitudinal and an oscillating movement. The extremities of the outer ends of these bolt-sections are halved in their contiguous faces, and on the lip thus formed on bolt-section E is a stud *e*, adapted to be engaged in an opening through lip *e'* of bolt-section E' when said bolt-sections are turned with their lips in a vertical position, as shown in full lines in Fig. 2.

Through the outer walls of channels D are longitudinal slots *d*, through which pass clamp-screws F, which engage threaded holes in the bolt-sections. The clamp-screws have annular flanges *f*, which are adapted to engage the edges of slots *d* to secure the bolt-sections in an adjusted position, and on said screws, outside of flanges *f*, are handholds *f'*. In the lower edge of each slot *d* is a notch *d'*, constructed to receive the projecting portions of clamp-screws F when the bolt-sections are turned in their channels to throw the lips thereof into a vertical position.

In operating when it is desired to bow the shutters the bolt-sections are turned, with the clamp-screws engaging the notches in the lower edges of the slots in the bolt-cases, so as to place the lips on said bolt-sections in a vertical position, as shown by broken lines *l*, Fig. 3, and stud *e* is engaged in the opening in lip *e'*, as shown in full lines in Fig. 2. The bolt-sections are then turned to throw the lips into a horizontal position, the shutters are opened to the desired width, and then the clamp-screws are tightened up, as shown on the left of Fig. 1. To disconnect the bolt-sections, the clamp-screws are loosened, as seen on the right of Fig. 1. Said bolt-sections

are turned to throw the clamp-screws into said notches and the lips on said bolt-sections into a vertical position, and the shutters are then moved to disconnect stud *e* from the opening in lip *e'*. To lock the shutters in a closed position, both bolt-sections are moved in their channels until their united ends engage one of said channels, and there they are clamped fast, as seen in full lines in Fig. 3.

On the outer face of wall *A'*, somewhat outside of the line occupied by the swinging edge of the shutter when fully open, is a keeper *G* in position to be engaged by the bolt-section on the shutter. The inner bearing-surface of the keeper is tapered, so that the shutter is forced firmly against the wall when the bolt-section is engaged with said keeper, as shown in Figs. 4 and 5.

I do not restrict myself to the details of construction herein shown and described, as it is obvious that many alterations may be made therein without departing from the principle and scope of my invention.

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

1. The combination, with a pair of shutters, of a bolt-section connected with each shutter and having a longitudinal and an oscillating

movement in its case, and a stud on the outer end of one bolt-section and adapted to engage an opening in the outer end of the other bolt-section, for the purpose specified.

2. The combination, with a pair of shutters, of a bolt-section connected with each shutter and having a longitudinal and an oscillating movement in its case, the outer ends of the bolt-sections having lips formed thereon and constructed to lap one over the other, and a stud on one of said lips and adapted to engage an opening in the other lip, for the purpose specified.

3. The combination, with a pair of shutters, of a bolt-case on each shutter and having a longitudinal slot therein, notches being formed in corresponding edges of the slots, a bolt-section in each bolt-case, clamp-screws passing through the slots in the bolt-cases and engaging in the bolt-sections, lips on the outer ends of the bolt-sections and constructed to lap one over the other, and a stud on one of said lips and adapted to engage an opening in the other lip, substantially as and for the purpose specified.

HENRY L. LAPP.

Witnesses:

C. G. BASSLER,
WM. R. GERHART.