(No Model.)

H. BITNER.

SASH LOCK.

No. 539,030. Patented May 14, 1895.

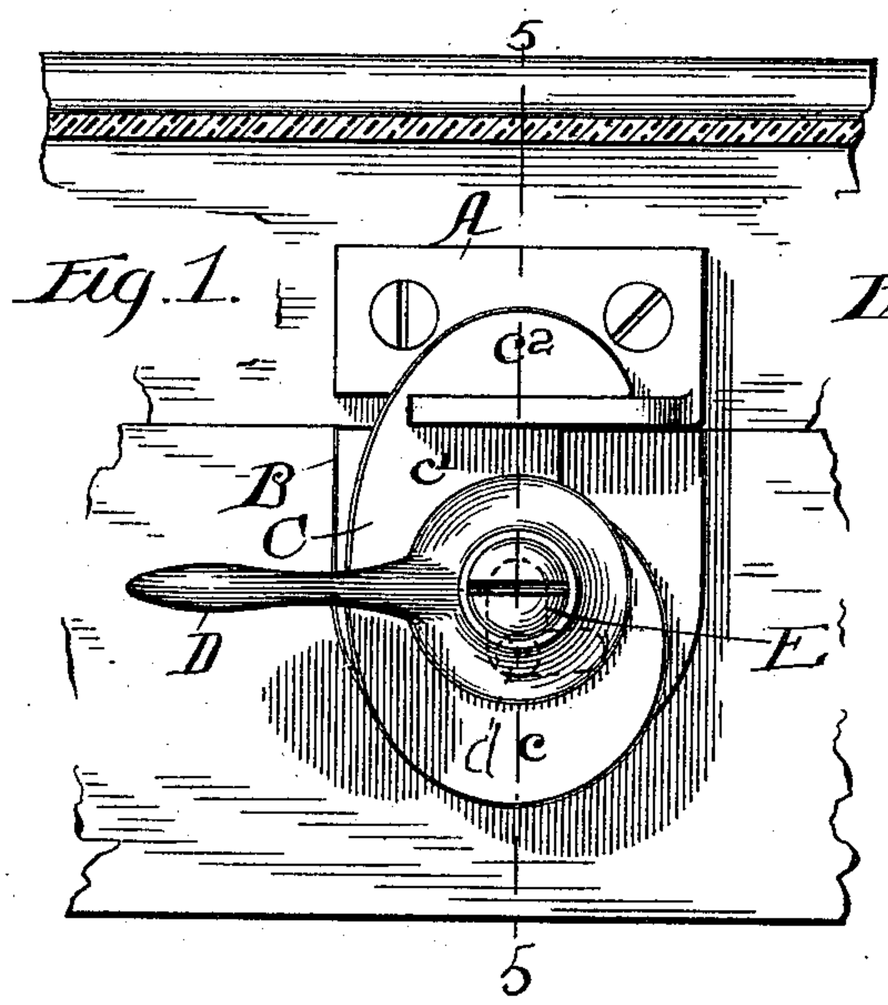


Fig. 1.

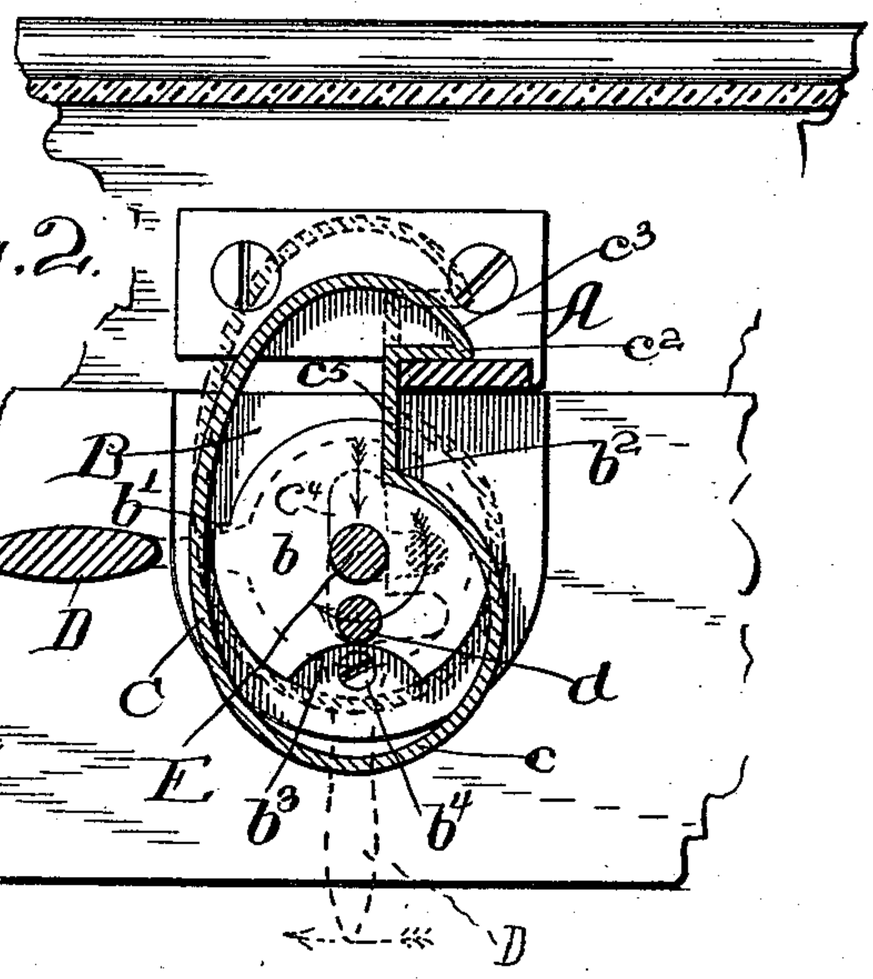


Fig. 2.

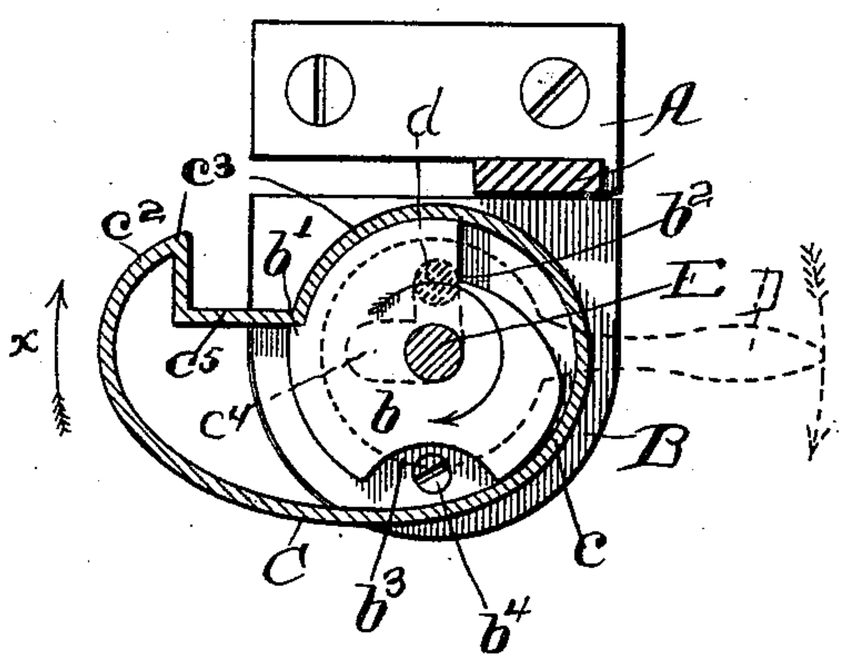


Fig. 3.

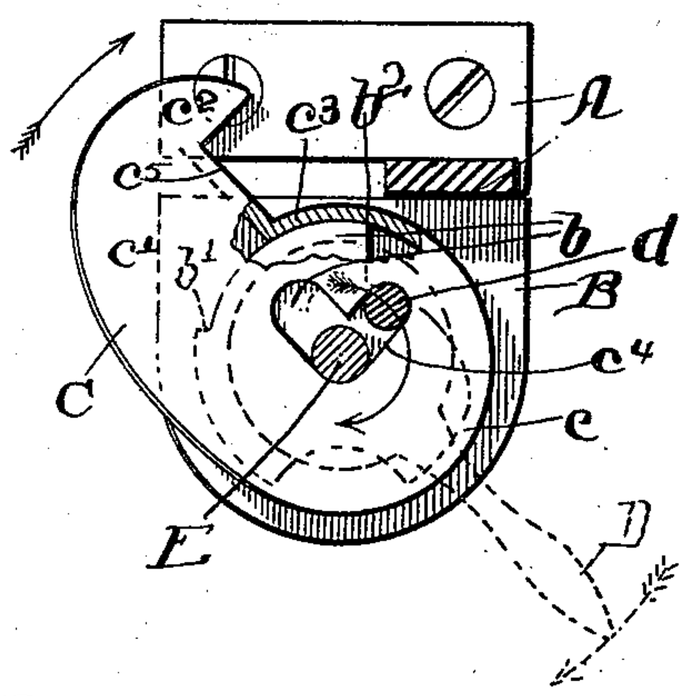
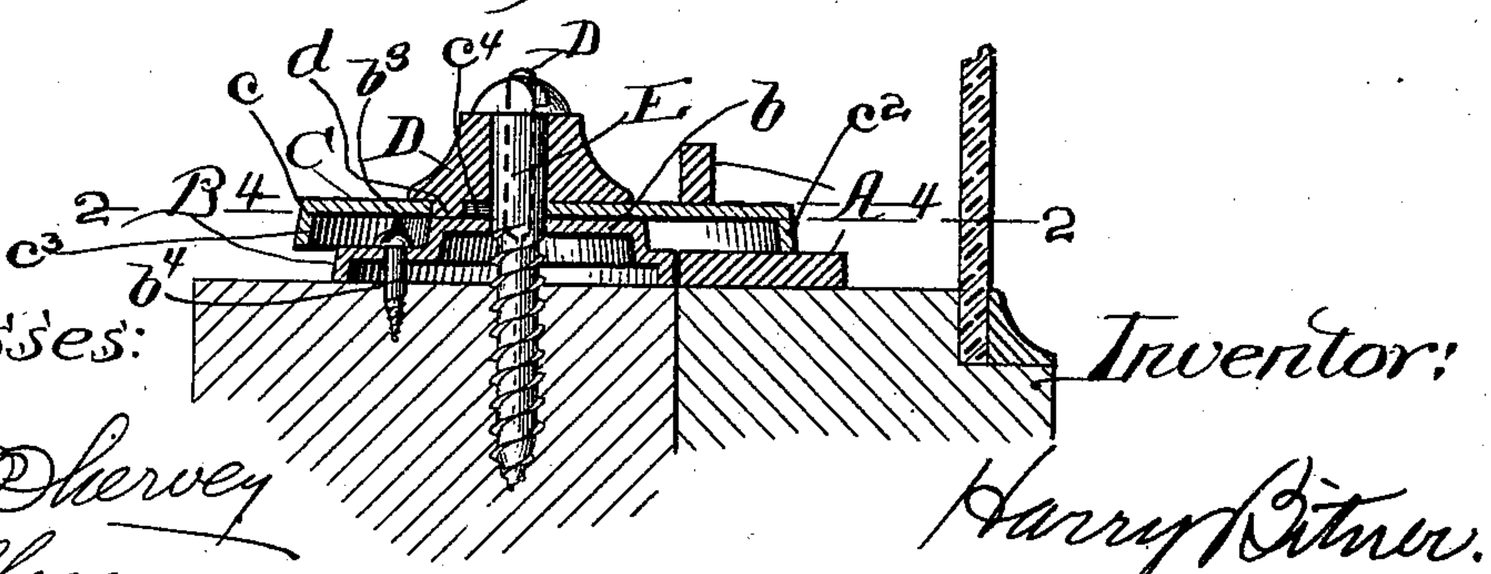


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

HARRY BITNER, OF CHICAGO, ILLINOIS.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 539,030, dated May 14, 1895.

Application filed April 9, 1894. Serial No. 506,827. (No model.)

To all whom it may concern:

Be it known that I, HARRY BITNER, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification.

My invention relates to certain improvements in sash locks, the purpose of which is to simplify and cheapen the construction of said locks, and, at the same time, so shape the parts as to enable the portions upon which the greatest strain falls to be struck up out of sheet metal, the intention being to make said parts of sheet steel, or other equally strong material.

The invention is illustrated in the drawings by means of five figures, of which—

Figure 1 is a plan of a complete sash-lock. Fig. 2 is a horizontal section in line 2 2 of Fig. 5, showing certain internal parts. Fig. 3 is a similar section showing the same parts in a different position. Fig. 4 is a horizontal section in line 4 4 of Fig. 5, certain portions beneath said section being also cut away; and Fig. 5 is a vertical section in line 5 5 of Fig. 1.

The lock consists of a hook, A, of ordinary construction adapted for attachment to the lower rail of the upper sash, a base plate, B, adapted to rest upon the top of the upper rail of the lower sash, an oscillating hook or latch pivoted upon the base plate and adapted to engage the hook, A, a handle, D, adapted to operate the latch and a screw, E, which performs the double function of securing the handle, latch and base plate to the sash rail and also acting as a pivot about which the handle and latch may turn.

The base plate, B, has a central portion, b, raised above the surrounding portions and preferably struck up therefrom. This raised portion is perforated centrally to receive the screw, E, and its general outlines are preferably circular about this point, but vary from said circular outline to form a shoulder, b', and two notches, b^2, b^3, respectively. The notch, b^3, is made to receive the head of a nail or screw, b^4, by means of which the base plate is prevented from turning about the retaining screw, E. The functions of the shoulder and notch, b', b^2, will be described in connection with the latch, C. In the form here shown said latch consists of a flat hooked plate having a rounded portion, c, adapted to cover the raised portion, b, of the base plate, a neck, c', and a hook, c^2, adapted to engage with the hook, A. About the margin of said flat portion and upon the under side thereof is a substantially vertical flange, c^3, which is clearly shown in Figs. 2 and 3, by the removal of the flat portion. Said latch also contains an L-shaped slot, c^4 (see Fig. 4 and dotted lines in other figures), and the handle, D, which is pivoted upon the screw, E, above said slot, has a downwardly projecting lug, d, extending into said slot. The retaining screw, E, also extends through the slot, so that the swinging of the handle, D, is capable of giving the latch either an oscillating motion about the retaining screw, or a longitudinally reciprocating motion with respect thereto. In the latter case the shank of the screw slides back and forth in one arm of the slot and the lug, d, slides back and forth in the other. This motion is common in sash locks of this class, and hence it is not thought necessary to further describe either it or its advantages herein. The raised central portion, b, has that part of its margin between the shoulder, b', and the notch, b^2, substantially circular around the retaining screw, and the flange, c^3, has a portion conforming substantially to said part and shown in contact therewith in Fig. 3, so that as the latch swings in the direction of the arrow, x, in said figure, it is compelled to oscillate upon the retaining screw, until the straight portion, c^5, of the flange, c^3, reaches the notch, b^2, when the latch is permitted to be drawn backward and as the neck of the hook, A, is reached at the same time the continuation of the motion of the handle necessarily draws the point of the hook, c^2, toward the neck of the hook, A. In the return motion the swinging of the handle throws said point away from said neck until the straight portion, c^5, of the flange, c^3, passes out of the notch, b^3, when the latch turns upon the retaining screw, E, into the position shown in Fig. 3. The shoulder, b', acts as a stop to prevent further movement in this direction.

The principal advantage of my invention is that all of the necessary points of engagement between the latch and the base plate are located in the downturned marginal flange,

c^3, so that it becomes unnecessary to provide lugs or shoulders upon any other portion of the surface of the latch. This is exceedingly important when the latch is struck up of sheet metal.

I recognize the possibility of great variation in form and hence do not desire to limit myself except as definitely pointed out in the following claim.

I claim as new and desire to secure by Letters Patent—

The combination in a sash lock, and with a suitable hook and operating handle, of an oscillating and reciprocating latch actuated by said handle, and having a marginal flange upon its under side, and a base piece connected to the handle by a pivot and having raised portions inclosed by the flange and arranged to guide the latch by engaging with the inner side of said flange; substantially as described.

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