

(No Model.)

J. W. B. COOK.
NUT LOCK.

No. 593,515.

Patented Nov. 9, 1897.

FIG. 1.

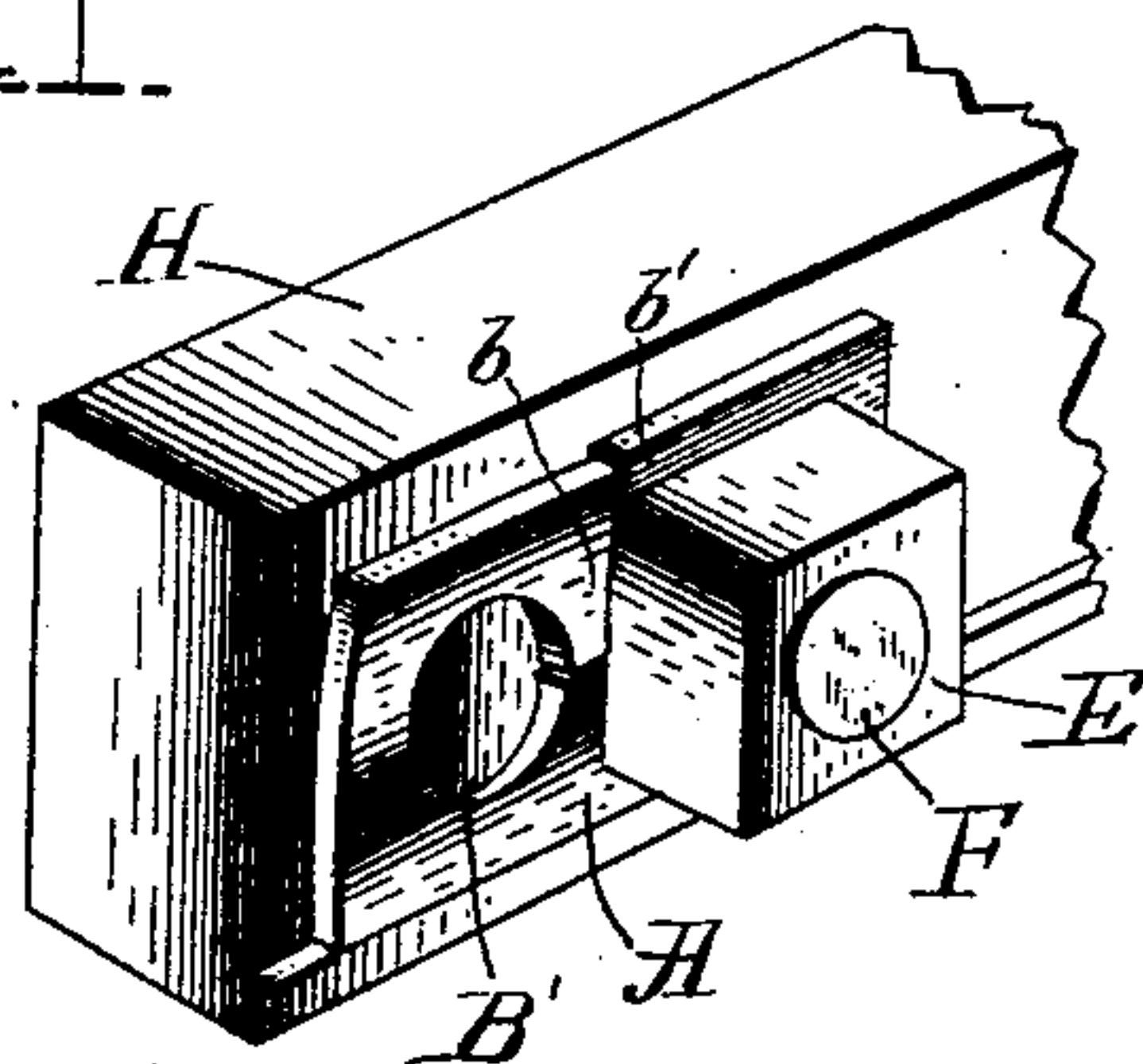


FIG. 2.

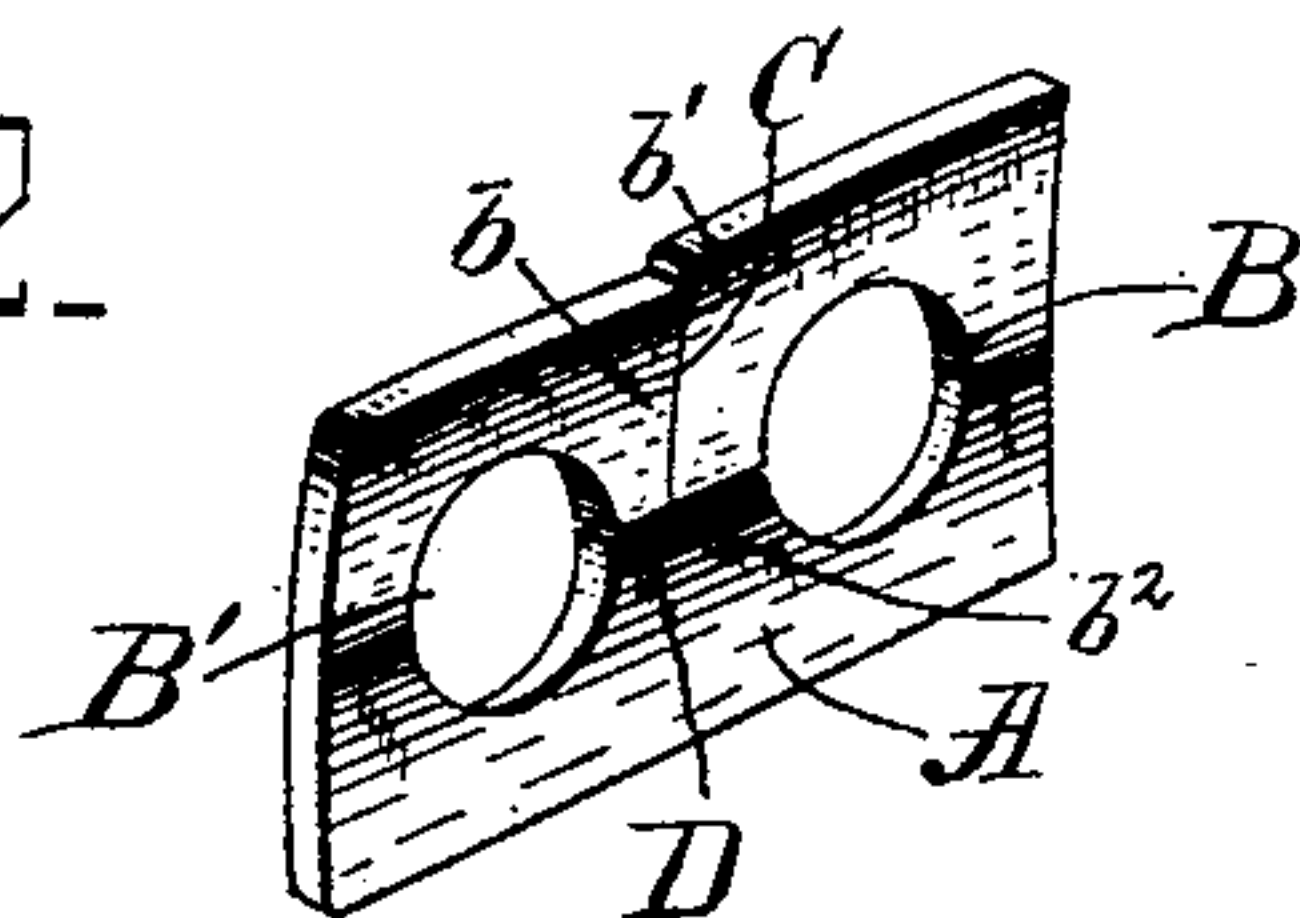


FIG. 3.

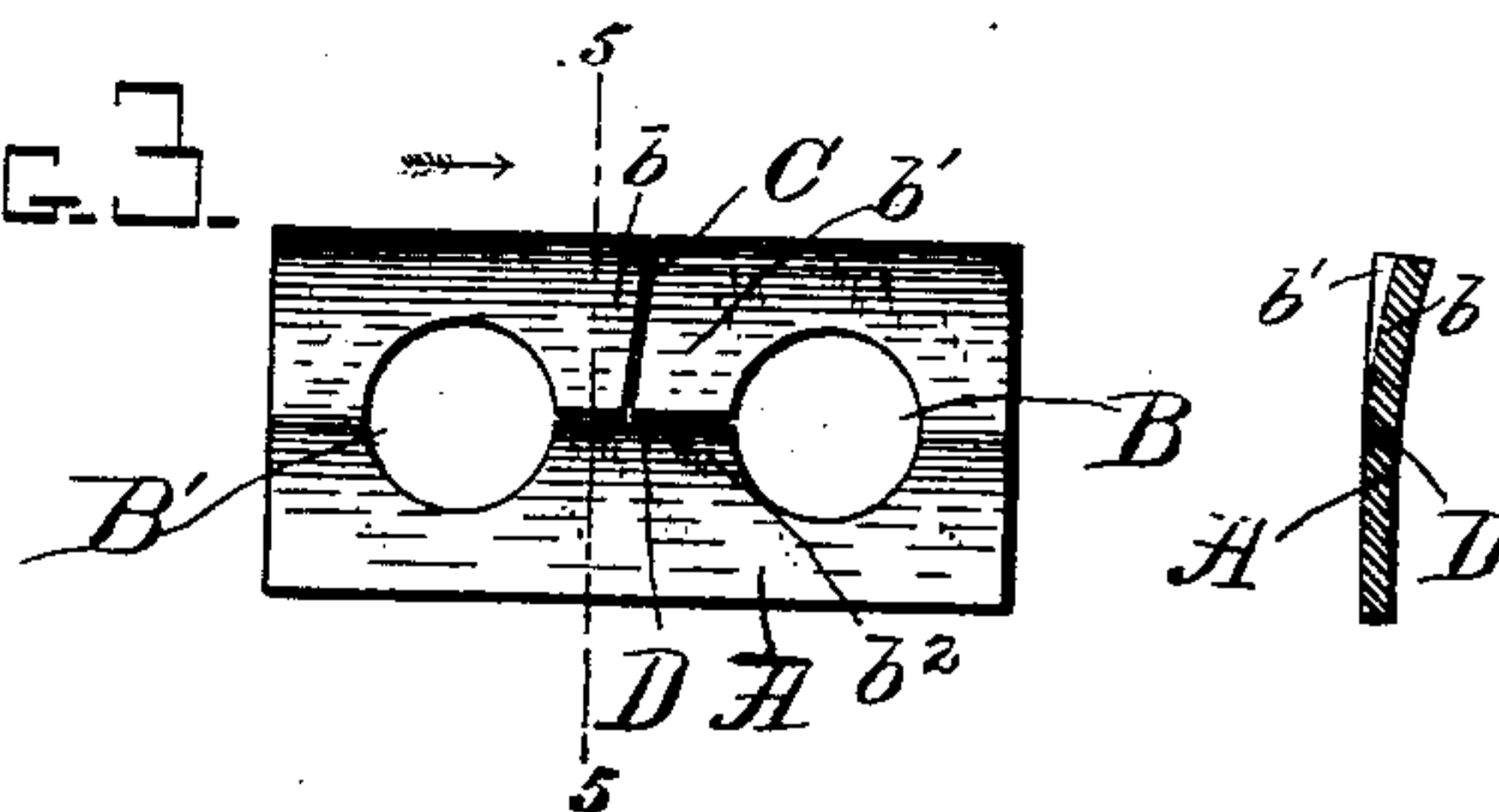
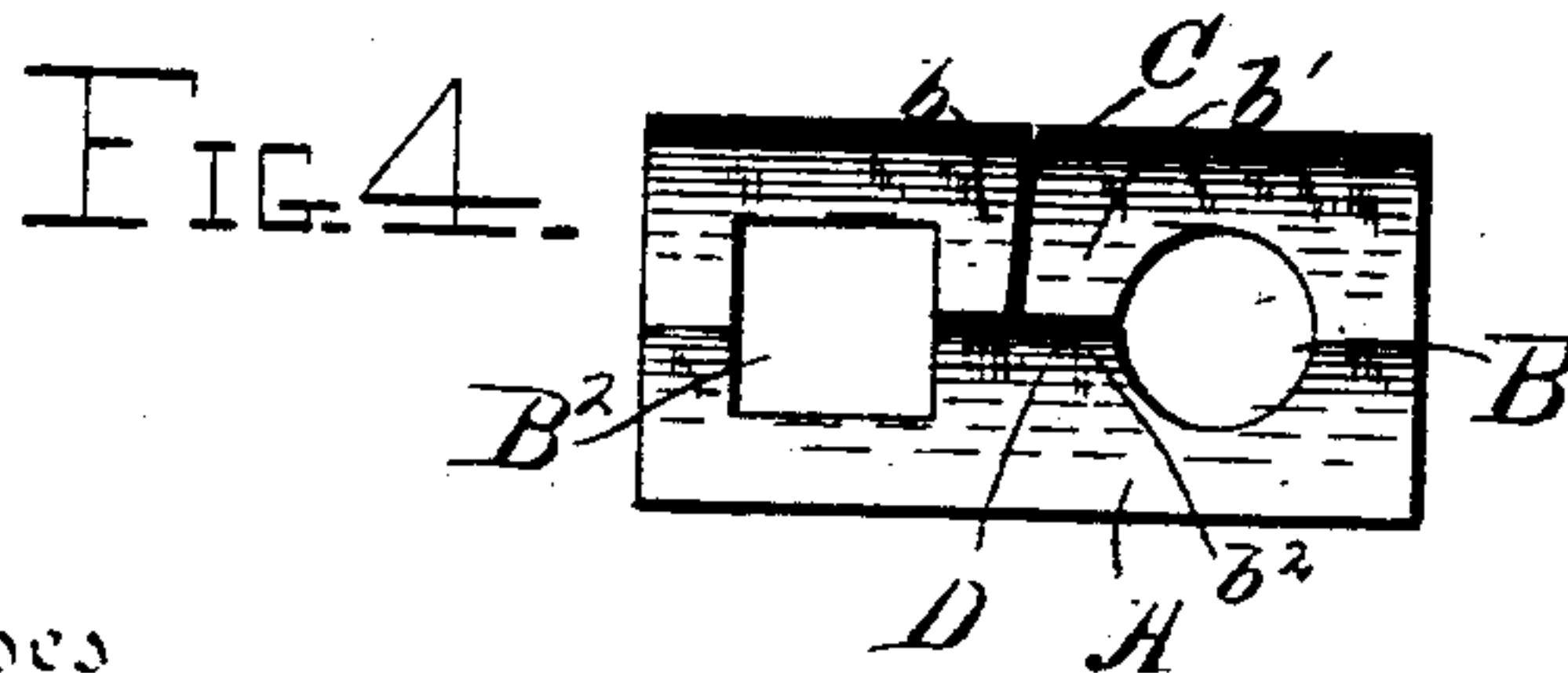


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN W. B. COOK, OF CAMDEN, ARKANSAS.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 593,515, dated November 9, 1897.

Application filed April 9, 1897. Serial No. 631,448. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. B. COOK, a citizen of the United States, residing at Camden, in the county of Ouachita and State of Arkansas, have invented certain new and useful Improvements in Nut-Locks; and I do hereby 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.

My invention relates to improvements in nut-locks; and it consists of the novel device for locking a nut in position on a bolt hereinafter described and claimed.

To more fully describe my invention, reference is had to the accompanying drawings, in which similar parts are indicated by similar letters throughout the several views.

Figure 1 represents a perspective view of my nut-lock when in use. Fig. 2 represents a perspective view of the nut-lock when separated from the bolt and nut. Fig. 3 represents the nut-lock in front elevation. Fig. 4 represents a similar view of a nut-lock differing somewhat from that shown in the preceding views; and Fig. 5 represents a section along the line 5 5, Fig. 3, and looking in the direction of the arrow.

My improved nut-lock consists of a metal plate A, perforated, as at B and B', the said plate being split transversely, as at C, and longitudinally, as at D, and the split D extending from one of said perforations to the other. The plate A is preferably made of tempered metal, and in all cases it is sprung in such a manner as to form a spring-washer around the bolt, which is done by bending the portions *b* and *b'* outward and the portion *b*² inward.

To lock the nut E, for example, the plate A is placed upon the bolt F, with the bolt passing through the aperture B. The nut is then screwed on the bolt until the plate is bound between the nut and the face of the body being bolted or against a washer, as the case may be. The plate A, being sprung around the apertures B and B', as described, forms a spring-washer, which takes up all of the lateral play of the bolt that may be caused by constant jarring or otherwise. When the nut is thus tightly screwed against the outer face of the plate A, remembering that the split

portions *b* and *b'* are sprung outward and naturally have a greater degree of resiliency than the body of the plate, the portion *b'* will be forced against the surface of the body being bolted, as against the block H, Fig. 1. When the bolt has thus forced back the portion *b'* of the plate, the portion *b*, owing to its resiliency, will remain sprung after the nut has passed over it, and will thus engage one side of the nut, as shown in Fig. 1. The nut being thus engaged by the portion *b* will be locked in that position, as it cannot be rotated in a direction to unscrew it from the bolt owing to the obstruction formed by the portion *b*.

Unlike other nut-locks in which a spur or corner of metal is placed in engagement with the side of the nut to prevent the same from rotating backward my device possesses great strength.

The plate A being extremely simple may be easily and cheaply manufactured. The spring-washer effect of the plate takes up all lateral play of the bolt, while the shoulder *b* prevents the nut from being turned in a direction to unscrew the same when once in the desired position unless it becomes necessary to unscrew the nut, when the portion *b* of the plate may be pressed down by a suitable instrument and the nut unscrewed by passing backward over what was before an obstruction. The washer-plate may be split from either side and the same may be varied to suit either a right-handed or a left-handed nut without departing from my invention. The said plate may also be held against rotation, when required, by means of a flange or a stud on the said plate or any other suitable means preferred or adapted to the location of the said plate. I may also, if desired, use a latch similar to that shown and described in my prior patent, No. 534,201, dated February 12, 1895, or any equivalent device for unlocking the nut.

While I have shown my improved washer-plate and nut-lock as applied to a bolt passing through a simple block, it will be obvious that its application would not be restricted to such a simple construction, as that shown is merely for the purpose of illustration.

The size and shape of the plate A may be varied within wide limits to suit existing con-

ditions, and one plate of sufficient length may be used to lock any number of bolts. The apertures through the said plate need not be round, but either or both of them may be
5 square or any other suitable shape.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A nut-lock comprising a plate provided
10 with an opening for the passage of a bolt, and a second opening a short distance therefrom; the said plate being slit longitudinally from one opening to the other, and slit transversely
15 slit; and the portion of said plate adjacent to one side of said transverse slit being bent outwardly therefrom, substantially as described.

2. A nut-lock comprising a plate provided
20 with an opening for the passage of a bolt, and a second opening a short distance therefrom; the said plate being slit longitudinally from one opening to the other, and slit transversely from one edge thereof to said longitudinal slit; and the portions of said plate adjacent

to said transverse slit being bent outwardly 25 therefrom, substantially as described.

3. The herein-described washer and nut-lock, comprising the plate A of resilient metal, provided with an opening B for the passage of a bolt; and a second opening B' a short 30 distance therefrom; and said plate having longitudinal slit D extending from one opening to the other, and transverse slit C extending from the side edge of said plate to said longitudinal slit; the portion *b'* adjacent to 35 the bolt-opening B and said transverse slit being bent outwardly to form a spring-washer, and the portion *b* adjacent to said second opening B' being bent outwardly to form a spring-stop to prevent the backward turning 40 of the nut when screwed up, substantially as described.

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

JOHN W. B. COOK.

Witnesses:

D. B. RAMSEY,
J. B. FRIEDHEIM.