

*G. Palmer*

*Nuts and Burrs.*

*Nº 86,582.*

*Patented Feb. 2, 1869.*

Fig. 1.

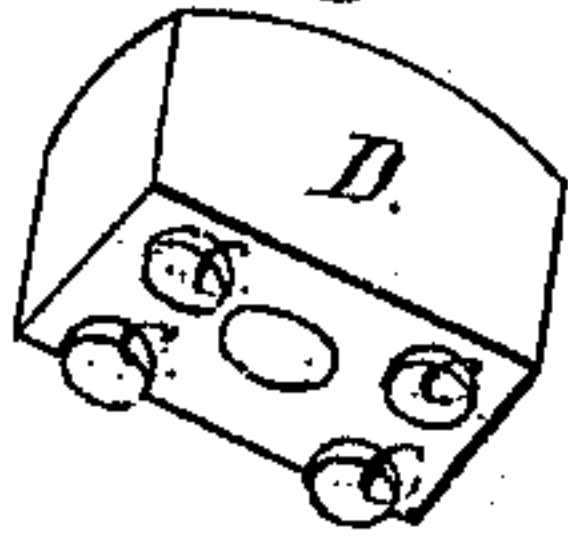


Fig. 2.

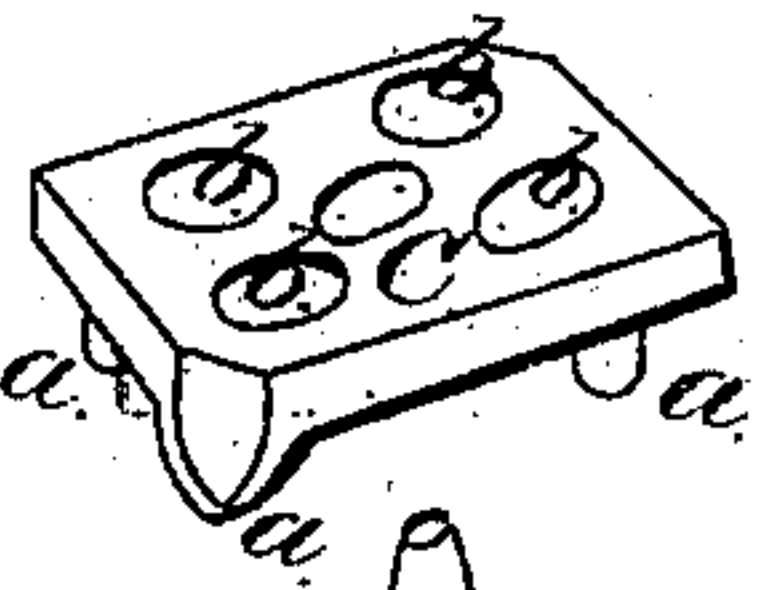


Fig. 3.

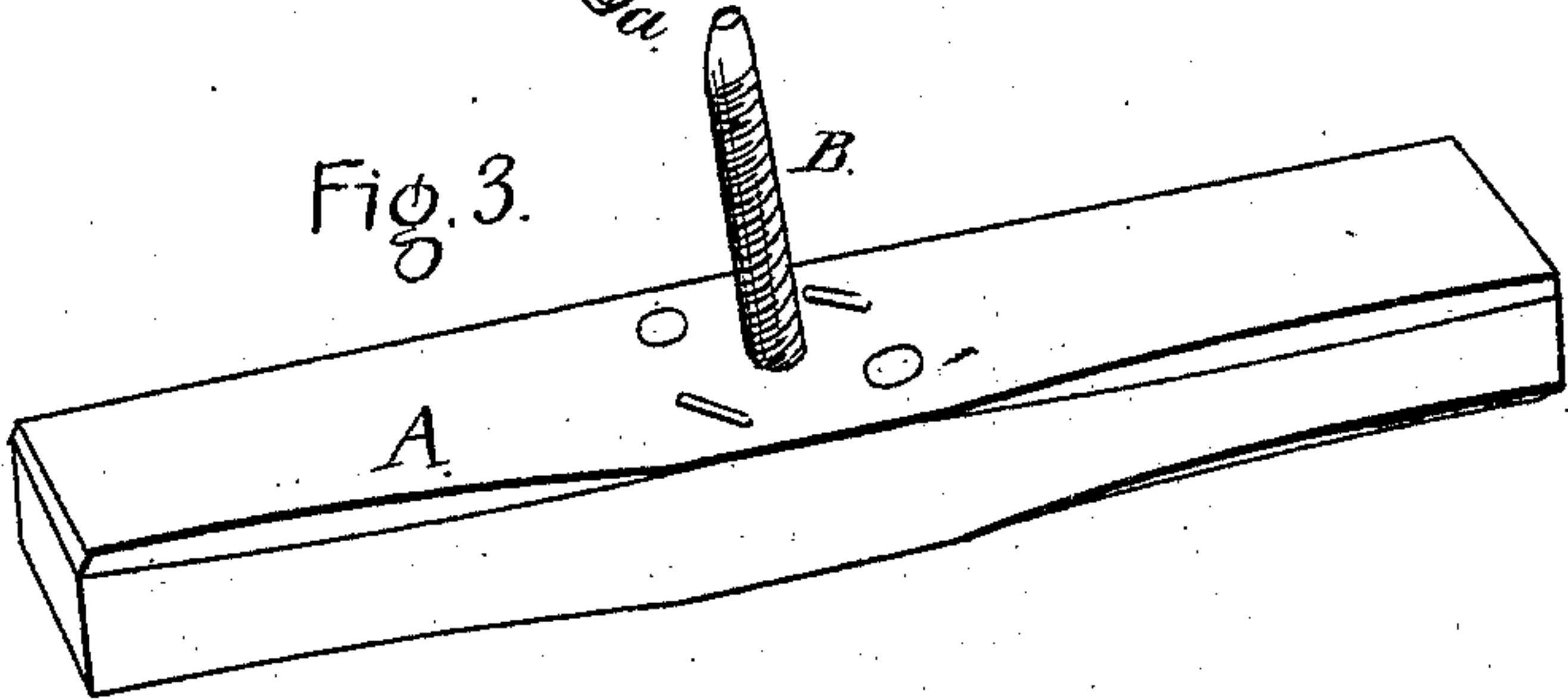


Fig. 4.

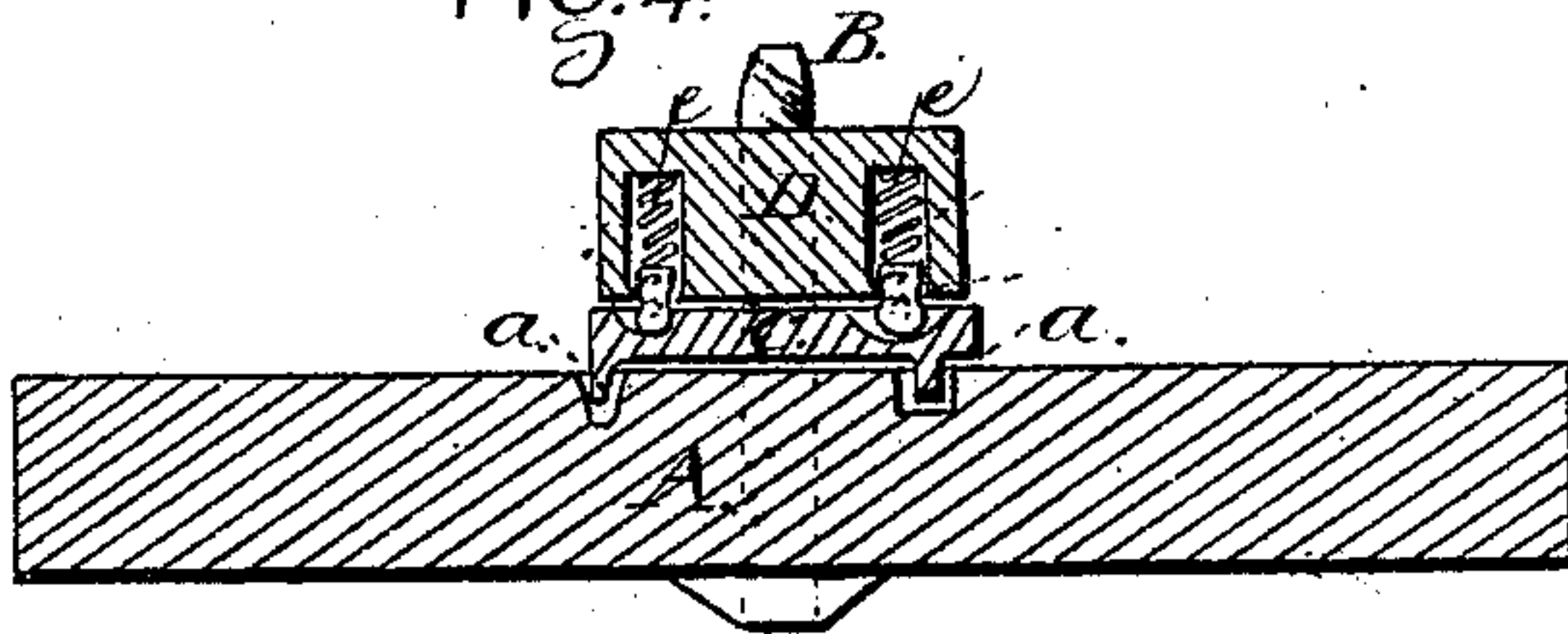
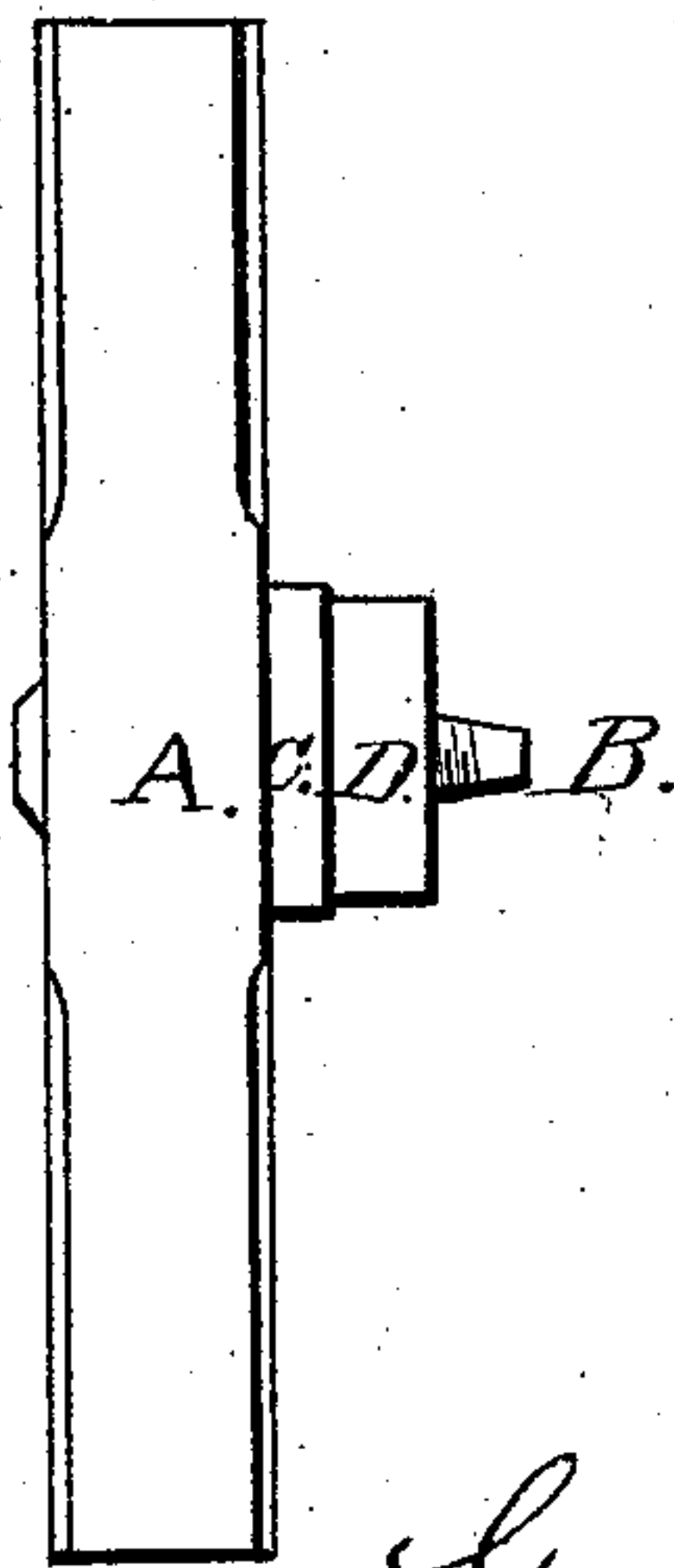


Fig. 5.



Witnesses:

*Cornelius Cox*  
*Leopold C. Cox*

Inventor:

*Geo. Palmer*  
*per Alexander Mason*  
*Att'y*



GEORGE PALMER, OF LITTLESTOWN, PENNSYLVANIA.

*Letters Patent No. 86,582, dated February 2, 1869.*

**IMPROVEMENT IN LOCK-NUTS.**

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, GEORGE PALMER, of Littlestown, in the county of Adams, and in the State of Pennsylvania, have invented certain new and useful Improvements in Nuts and Burrs; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction of a self-locking nut, which will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a perspective of the nut;

Figure 2, a perspective of the washer;

Figure 3, a perspective of a beam, with the screw-bolt;

Figure 4, a side view, in section, of the whole, when put together; and

Figure 5, a side view of the same.

A represents a beam, through which the screw-bolt B passes; and it is desired to fasten the same by means of a nut, in such a manner that in no possible way can the nut become loose.

For this purpose a washer, C, of peculiar construction, is placed over the screw-bolt B.

The corners *a a* of said washer are turned or bent downward, and fit in recesses made on the upper side of the beam, so that, when the nut is placed thereon, it is impossible to turn the washer.

On the upper side of the washer C are recesses, *b b*, the use of which will be hereinafter set forth.

The nut D may be made in any of the known and usual ways, and is, on its under side, provided with projecting lugs, or pin, *c c*, which are placed and move in recesses or holes in the nut.

In these recesses or holes are placed springs, *e e*,

of any material desired, which springs press the lugs or pins *c c* outward, and allow them to be pressed into the nut.

The nut D is placed on the screw-bolt B, and turned sufficiently down to strike the washer C, when the pins *c c* will fit into the recesses *b b* on the upper face of the washer.

The nut can, of course, be tightened, as much as may be desired, as the springs *e e* will yield and allow the lugs to pass over the surface of the washer.

When the nut D is sufficiently tightened, and the pins *c c* enter the recesses *b b*, the nut cannot by any means become loose, except by turning it with a wrench.

This nut can be used anywhere where nuts are needed, and is especially valuable in railroad-bridges, where the constant passage of heavy trains always jars the timbers and loosens the nuts.

Having thus fully described my invention,

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

1. The nut D, constructed as described, and provided with pins or lugs *c c*, and springs *e e*, placed in recesses or holes on the under side, substantially as and for the purposes herein set forth.

2. The washer C, constructed as described, with its corners *a a* turned down, and provided, on its upper side, with recesses *b b*, substantially as and for the purposes herein set forth.

3. The combination of the washer C and nut D, when constructed as described, and used substantially as and for the purposes herein set forth.

4. Securing screw-bolts by means of a nut and washer, when the nut is provided with yielding pins or lugs on its under side, fitting into recesses on the upper side of the washer, substantially as shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand, this 10th day of October, 1868.

GEORGE PALMER.

Witnesses:

LEOPOLD EVERT,  
A. A. YEATMAN.