

(No Model.)

C. W. HUBBARD.
LOCK NUT.

No. 597,982.

Patented Jan. 25, 1898.

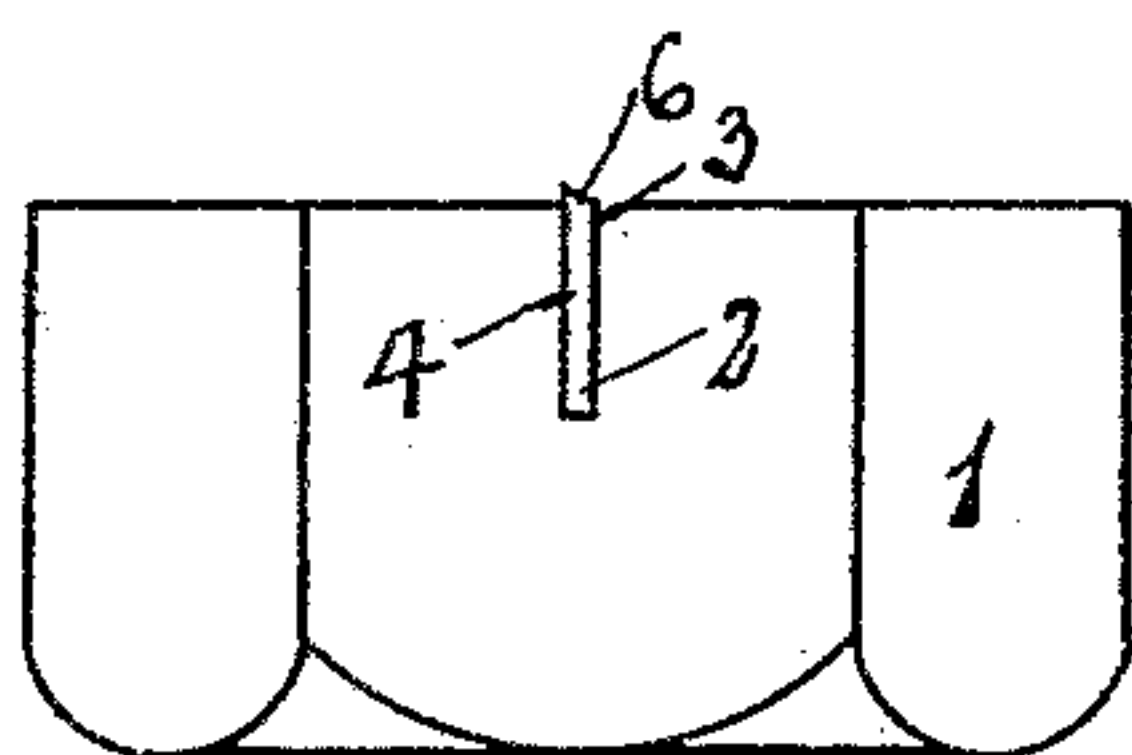


Fig. 1

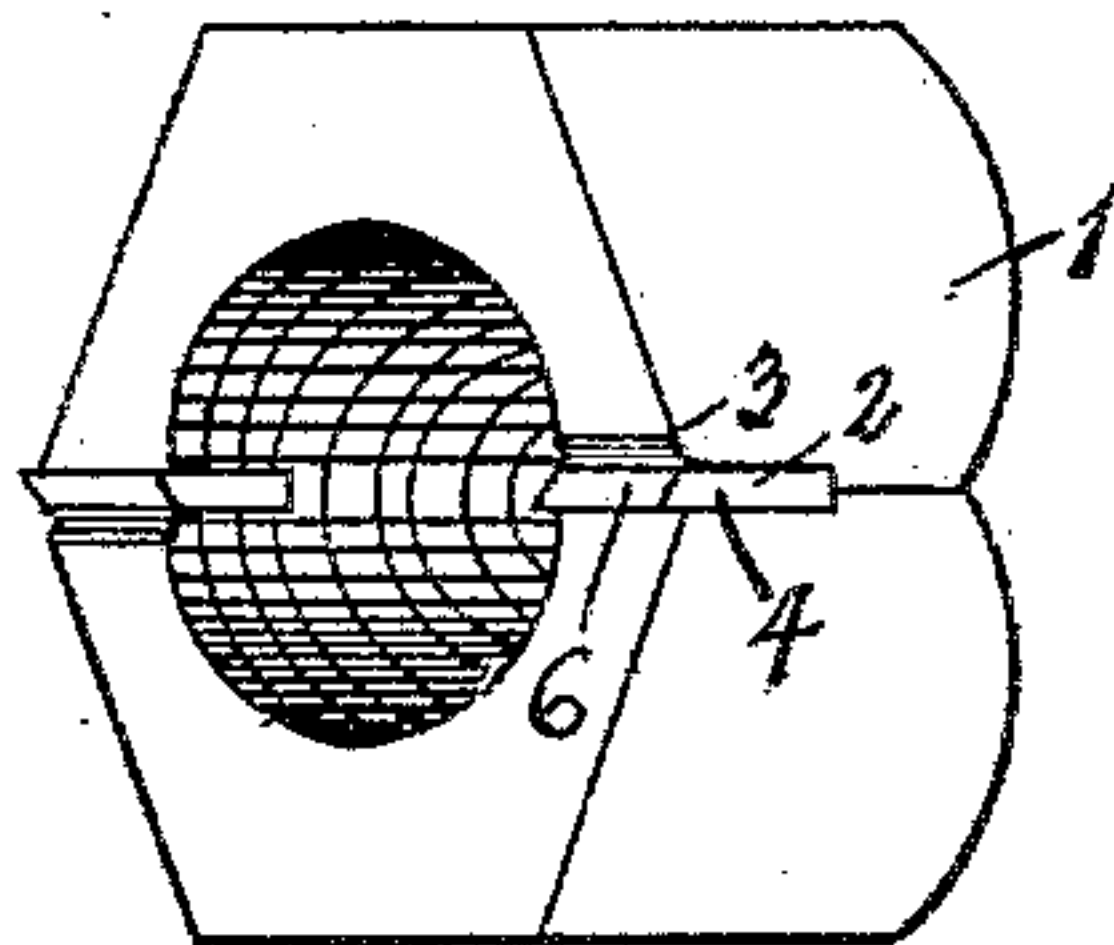


Fig. 2

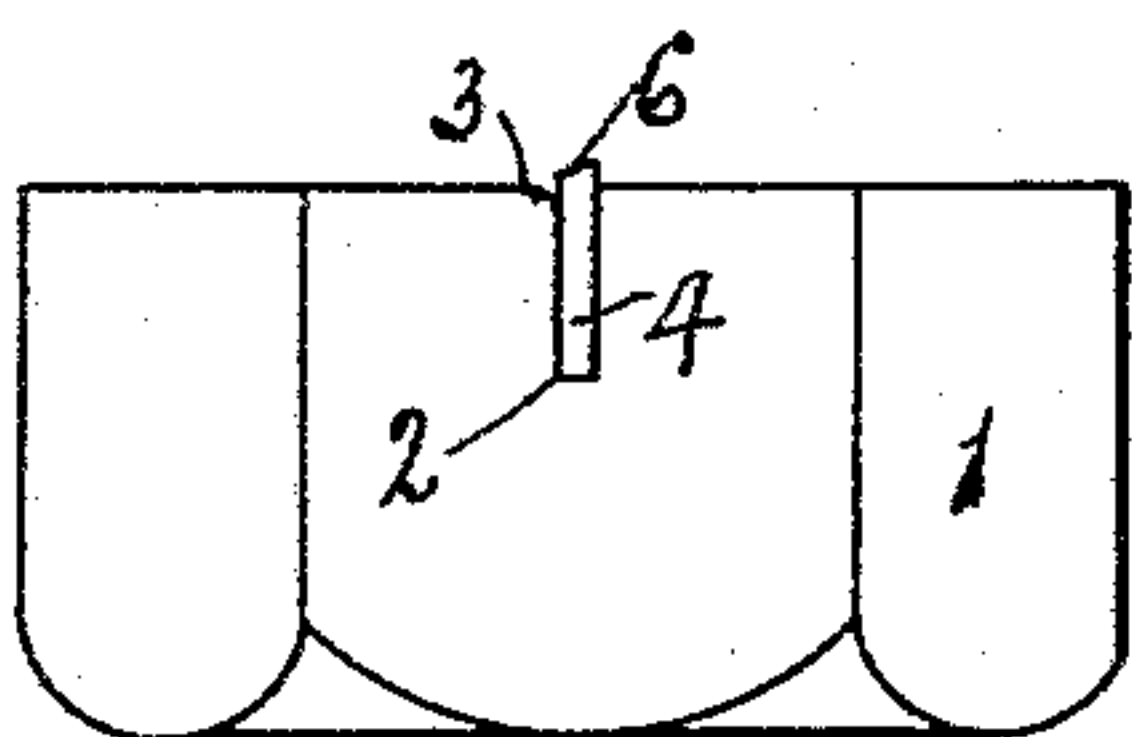


Fig. 3

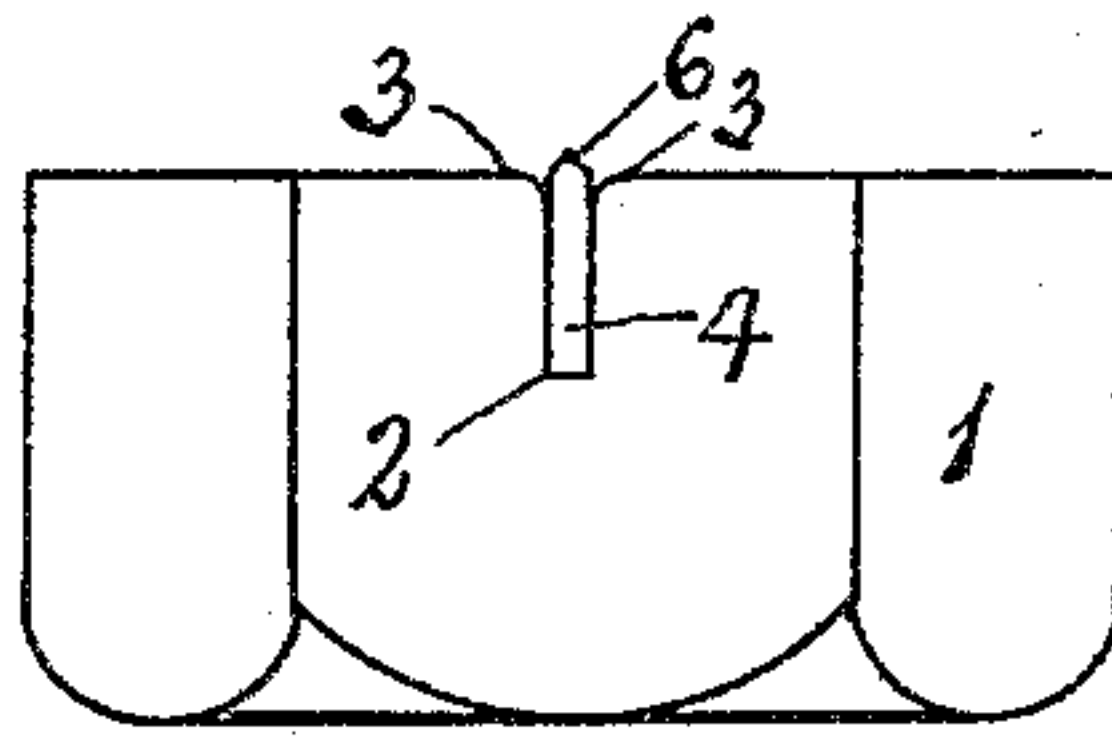


Fig. 4

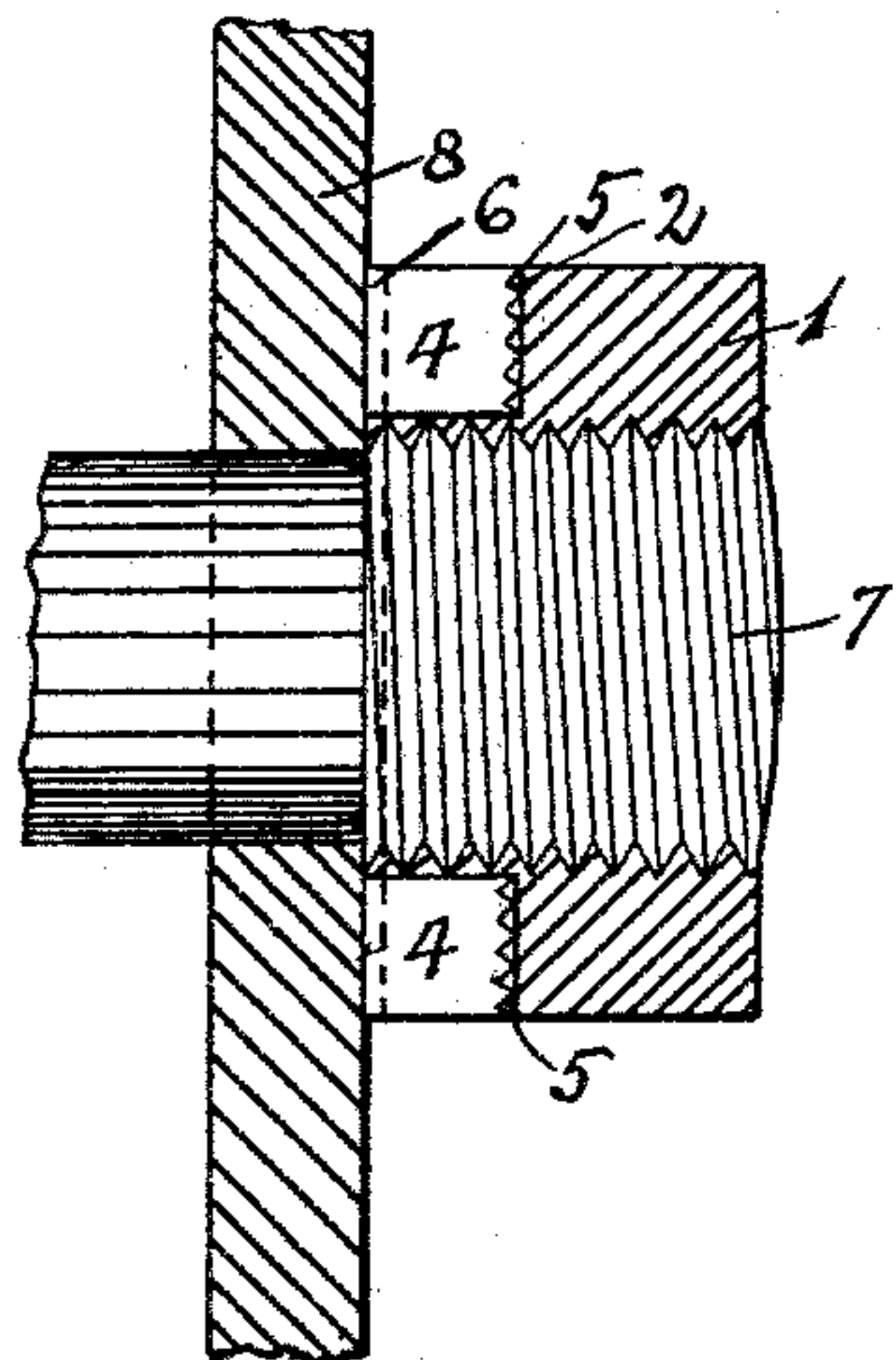


Fig. 6

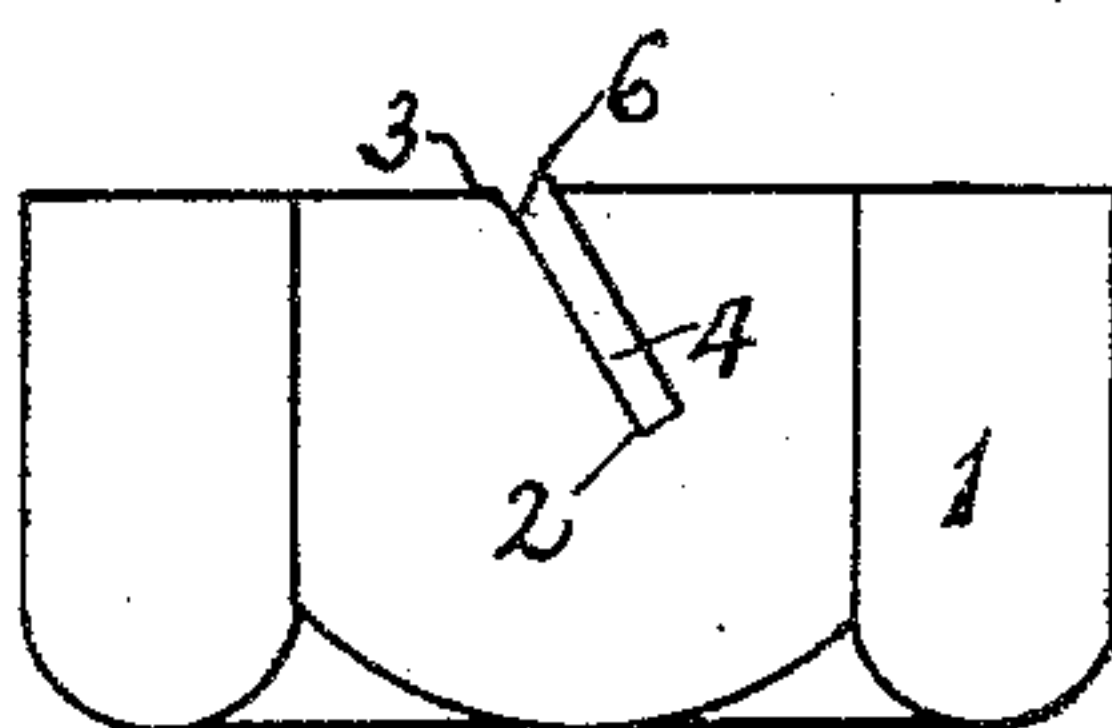


Fig. 5

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES W. HUBBARD, OF PITTSBURG, PENNSYLVANIA.

LOCK-NUT.

SPECIFICATION forming part of Letters Patent No. 597,982, dated January 25, 1898.

Application filed February 17, 1897. Serial No. 623,764. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HUBBARD, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered new and useful Improvements in Lock-Nuts, of which the following is a specification.

In the accompanying drawings, which make part of this specification, Figure 1 is an elevation of my device. Fig. 2 is a view of the inner face of a nut fitted in my locking devices. Figs. 3, 4, and 5 are elevations showing variations of my device. Fig. 6 is a sectional view showing bolt, nut, and fish-plate with my device applied.

The purpose of my invention is to provide a reliable lock-nut of simple construction at small expense. A large number of devices for this purpose have been patented, but they have been too complex and expensive in construction to permit of their general use. Another objection is that former lock-nuts have consisted of two or more disconnected pieces or parts, while my locking device is a fixture in the nut.

The following is a detailed description of my invention:

1 is the nut, of any usual form, in which is cut a rabbet 2, one of whose edges is beveled off at 3. The beveled edge on a right-hand nut is preferably the left, while on a left-hand nut it is preferably the right edge which is beveled. In rabbet 2 is seated lock-plate 4, preferably made of steel of suitable spring temper, whose bottom can be serrated or left plain. This lock-plate extends beyond the face of the nut and is beveled at its top, as at 6, on the side opposite to the direction of rotation in the operation of screwing the nut up.

Fig. 1 shows a left-hand nut with the rabbet and plate beveled opposite to the direction of rotation, viz: They are beveled toward the right.

Fig. 2 shows a left-hand nut with two rabbets and plates seated therein.

In Fig. 3 a right-hand nut is shown, with the rabbet and plate beveled opposite the direction of rotation, viz: beveled toward the left.

The rabbet may be cut in the nut at an acute angle to the direction of rotation, and the plate may be correspondingly beveled at a greater angle than where the rabbet is at right angles with the face of the nut. This construction is shown in Fig. 5.

In Fig. 4 is shown a multiplication of my device with the rabbet or plate beveled at both sides.

In Fig. 6 the locking-nut is shown in operation screwed up on bolt 7 against fish-plate 8.

The operation of my device is as follows: The nut is screwed up on bolt 7, and as it approaches fish-plate 8 the lock-plate 4, being preferably of spring metal, will be somewhat bent back and will slide along fish-plate 8. The serrated end 5 of lock-plate 4 is forced against the bottom of rabbet 2, giving the lock-plate a firmer hold. When the nut is screwed up as far as it will go, the lock-plate 4, being jammed between the bottom of rabbet 2 and fish-plate 8, will firmly lock the nut in place, for any attempt at unscrewing the nut will result in forcing the sharp edge of plate 4 into the surface of fish-plate 7 and the firmer fixing of the lock-plate in place. In the form of my invention shown in Fig. 4 the pressure of the nut when screwed up against fish-plate 8 would tend to force the edge of lock-plate 4 into the fish-plate, thus locking the nut firmly in position.

The nut may be fitted to any number of rabbets and lock-plates seated therein desired, according to the strain to which the nut is to be subjected.

Any jar, tension, or blow received by a nut fitted in my device would only result in the more firmly fixing of the edge of lock-plate 4 in the surface of fish-plate 7.

Having described my invention, what I claim is—

1. In lock-nuts, the combination of a nut; a rabbet with beveled edge in the face of said nut, and a lock-plate seated in said rabbet.

2. In lock-nuts, the combination of a nut; a rabbet in the face of said nut, having the edge opposite to the direction of rotation of said nut, beveled, and a lock-plate seated in said rabbet.

3. In lock-nuts, the combination of a nut; a rabbet with beveled edge in the face of said nut; a lock-plate with beveled edge seated in said rabbet, and serrations on the bottom of said lock-plate.

In testimony whereof I have hereunto set my hand this 30th day of January, A. D. 1897.

CHARLES W. HUBBARD.

Witnesses:

C. C. LEE,

EDWARD A. LAWRENCE.