

No. 644,277.

Patented Feb. 27, 1900.

C. S. CLARK.
NUT LOCK.

(Application filed June 13, 1899.)

(No Model.)

Fig. 1.

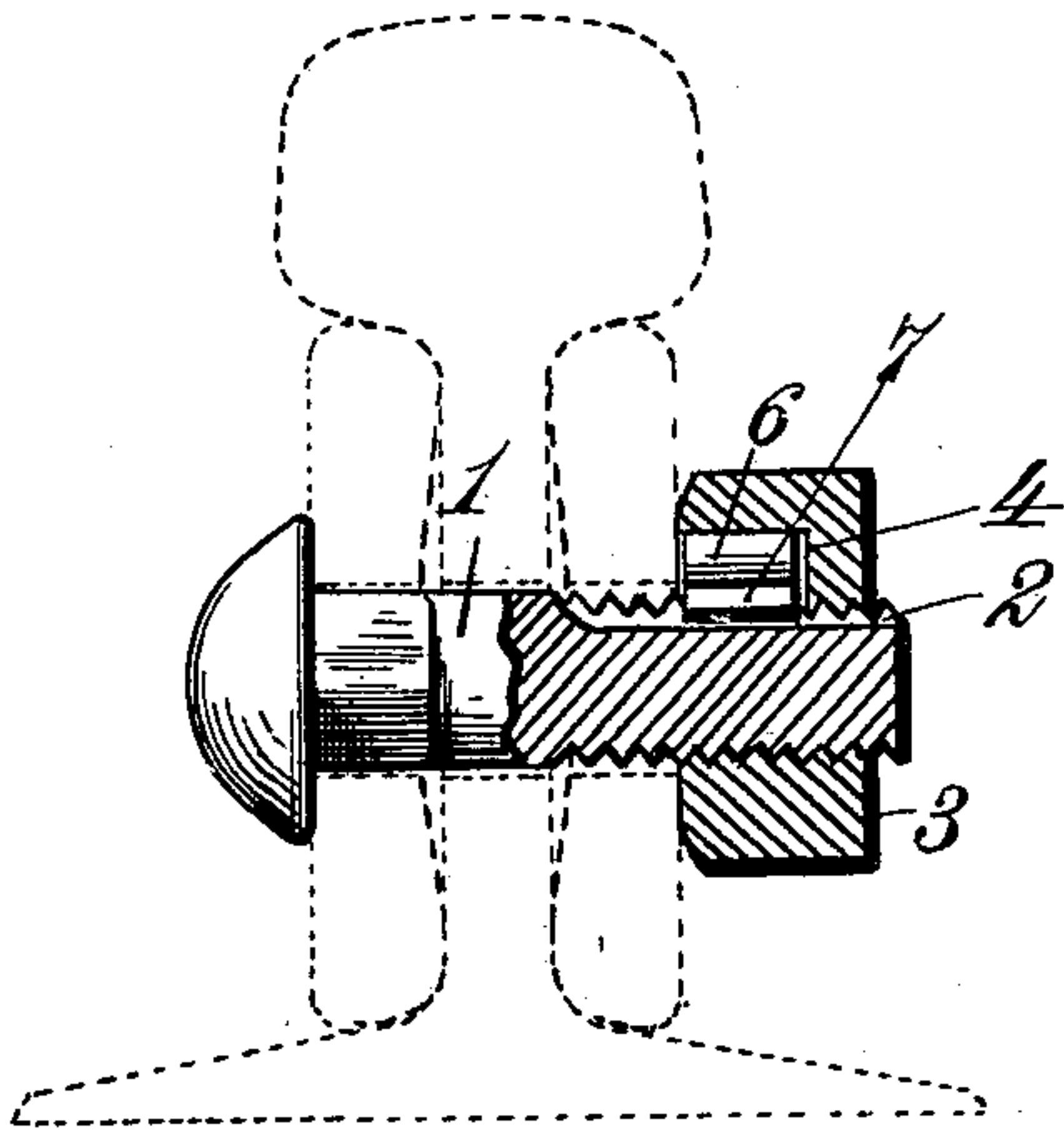


Fig. 2.

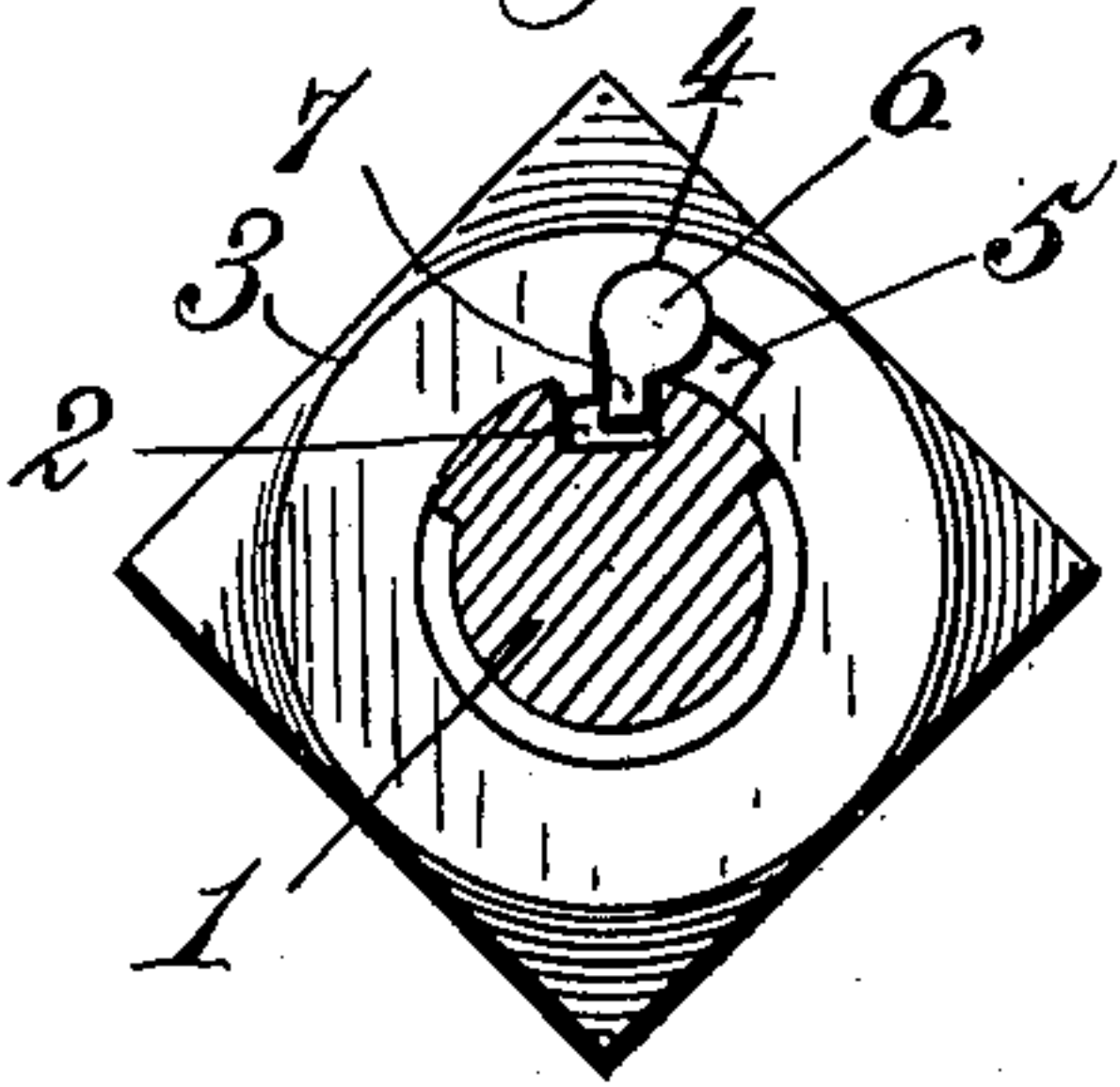
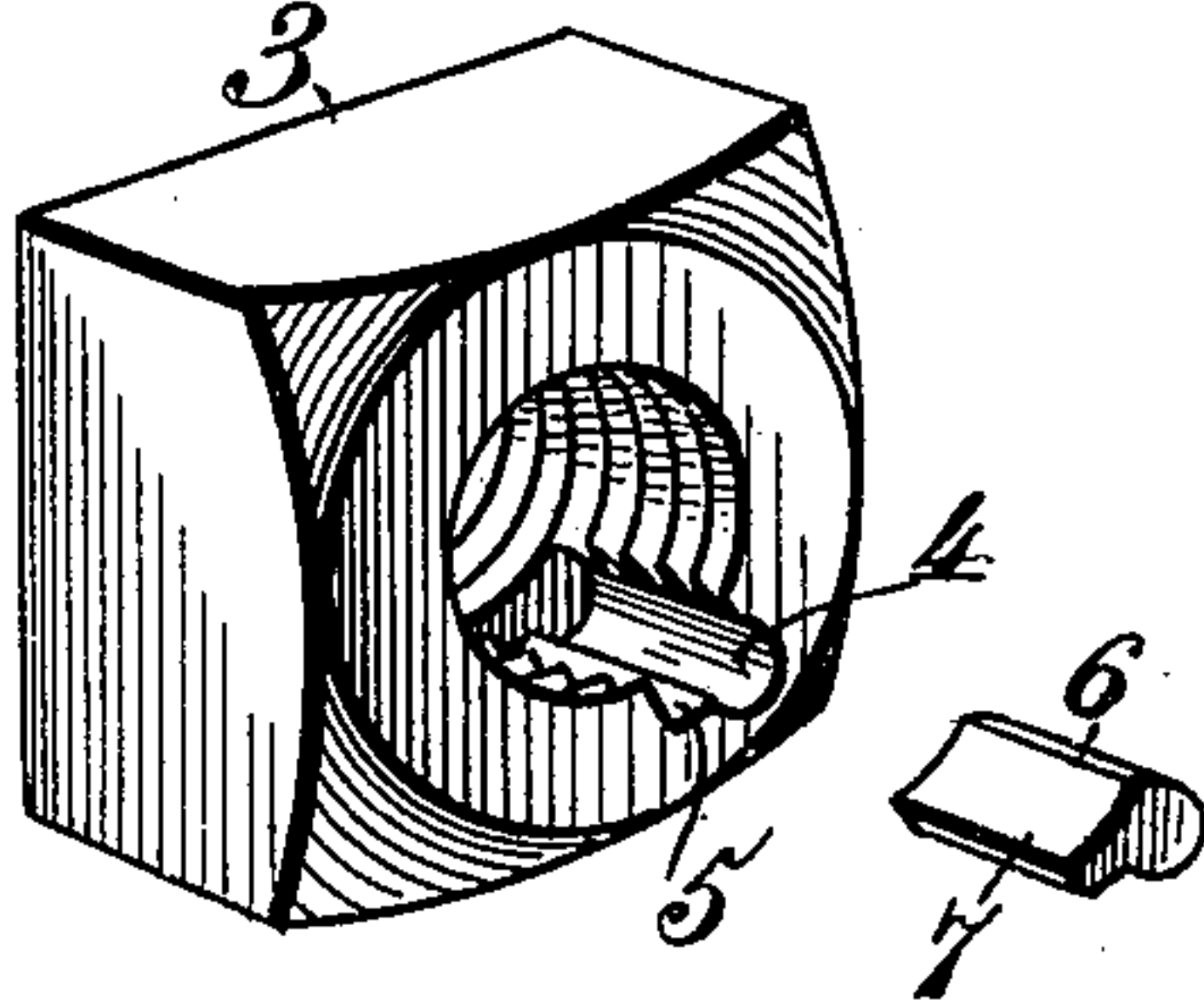


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

CORNELIUS S. CLARK, OF NORFOLK, VIRGINIA, ASSIGNOR OF ONE-FOURTH
TO MARCELLUS MILLER, OF SAME PLACE.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 644,277, dated February 27, 1900.

Application filed June 13, 1899. Serial No. 720,380. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS S. CLARK, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented new and useful Improvements in Nut-Locks, of which the following is a specification.

My invention relates to nut-locks of that class wherein are employed a bolt having a longitudinal groove therein and a nut having a locking-dog thereon, which is adapted to fit within said groove to prevent turning of the nut.

One object of the invention is to simplify and cheapen the construction of devices of this kind and provide means whereby access to the locking mechanism is prevented after the nut has once been seated and locked on the bolt.

A further object of the invention is to dispense with the use of actuating-springs and pivot-pins for the locking-dog, the use of which tend not only to complicate devices of this character, but to increase the original cost thereof and to render the same more liable to get out of order.

The invention consists of a bolt having a longitudinal groove therein, a nut having a socket intersecting the bolt-opening therein, extending from the inner end wall thereof and terminating at points removed from the outer end wall and from the outer side faces, and a dog mounted in said socket and adapted to engage the groove in said bolt.

The invention also consists in certain details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 is a longitudinal sectional view through the bolt with the nut in locking position thereon and the rail and fish-plate shown in dotted lines. Fig. 2 is a cross-section of the bolt, showing the nut in elevation. Fig. 3 is a detail perspective view of the nut and the locking-dog, the parts being slightly separated one from the other.

Like reference-numerals indicate like parts in the different views.

The bolt 1 is secured against rotary movement in any suitable manner and is provided

with a longitudinal groove 2, which when the bolt is in place lies uppermost. The nut 3 is of the usual form and construction, except that it is provided with a socket 4, which extends from the inner end wall thereof, terminates a short distance from the outer end wall, and is without access from the outer sides of the nut. The said socket intersects the bolt-opening in the nut 3 and is formed with a segmental portion and with a lateral extension 5. In this socket the locking-dog 6 fits and is adapted to turn. Said dog is provided with a segmental enlargement which fits within the segmental portion of the socket 4 and with a laterally-extending wing 7, which is adapted to fit within the extension or offset 5 of the socket 4.

In applying the nut 3 to the bolt 1 the former is screwed up upon the bolt in the usual manner, during which time the wing 7 of the locking-dog is held within the lateral extension or offset 5 of the socket 4 and rides over the outersurface of the bolt 1, including the shoulders formed by the groove 2. When the nut is screwed up against the fish-plate, the dog 6 drops by gravity, so that the wing 7 thereof fits within the groove 2 of the bolt and backward movement of the nut is prevented. The open end of the socket 4 is also closed by the contact of the inner end wall of the nut with the fish-plate, and access to the socket 4 is prevented from any point. The nut is securely held in position upon the bolt and can only be removed by breakage of parts. The locking-dog is also prevented by the engagement of the nut with the fish-plate from being removed from the socket 4 longitudinally.

While I have described one groove 2 in the bolt and one socket 4 and locking-dog 6 in the nut 3, it is obvious that these parts may be duplicated or multiplied without departing from the nature or spirit of my invention.

It will be observed that my improved nut-lock has been shown in connection with a fish-plate and also described with reference thereto. It is not, however, limited to this use, but may be employed in any connection where it is desirable to prevent the removal of a nut from a securing-bolt.

The device is extremely simple in construction, is effective in operation, and can be

manufactured at a cost but little in excess of the present cost of the ordinary bolt and nut.

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

1. The combination with a bolt having a longitudinal groove therein, of a nut adapted to screw upon said bolt, having a socket therein intersecting the bolt-opening, the said
10 socket extending from the inner end wall of the nut and terminating short of the outer end wall and the outer sides of the nut, and a gravity-actuated locking-dog in said socket adapted to fit within the groove in said bolt,
15 as and for the purposes set forth.

2. The combination with a bolt having a longitudinal groove therein, of a nut adapted to screw upon said bolt, having a socket there-

in intersecting the bolt-opening, the said socket extending from the inner end wall of
20 said nut, terminating short of the outer end wall of said nut and of the sides thereof, and provided with a lateral extension or offset, and a gravity locking-dog fitting and adapted to turn within said socket and provided with
25 a laterally-extending wing or lip adapted to fit within said lateral extension or offset and to engage the groove in said bolt, as and for the purposes set forth.

In testimony whereof I have hereunto set
30 my hand in presence of two subscribing witnesses.

CORNELIUS S. CLARK.

Witnesses:

WM. M. STOCKBRIDGE,
GEO. W. REA.