

W. P. OLDEN.

Nut-Lock.

No. 164,868.

Patented June 22, 1875.

Fig. 1.

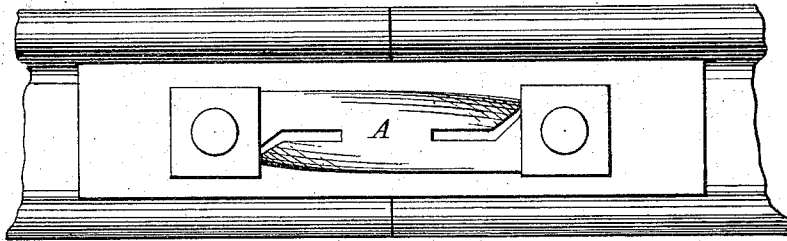


Fig. 2.

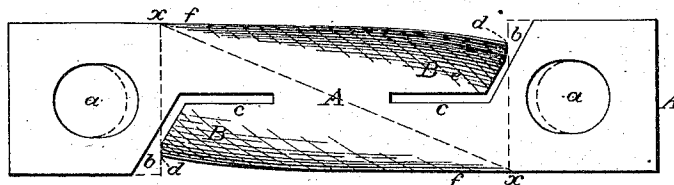


Fig. 3.

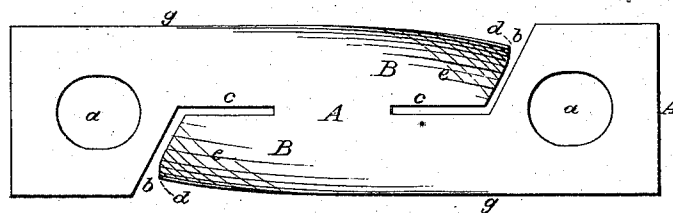
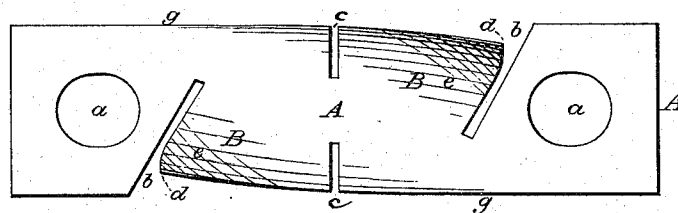


Fig. 4.



Attest:
P. O. Dyer.
W. L. Dyer

Inventor:
William P. Olden
per Geo. W. Dyer & Co
Atty

UNITED STATES PATENT OFFICE.

WILLIAM P. OLDEN, OF SPRINGFIELD, ILLINOIS.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **164,868**, dated June 22, 1875; application filed November 23, 1874.

To all whom it may concern:

Be it known that I, WILLIAM P. OLDEN, of Springfield, in the county of Sangamon and State of Illinois, have invented new and useful Improvements in Nut-Locks; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The object I have in view is an improvement in nut-locks, whereby the same may be efficiently and generally used, cheaply and simply constructed, and give effective results; and my invention therein consists in cutting plates of strap-iron, steel, or other metal in a peculiar manner, and in bending the different parts into such shapes that the resultant nut-lock shall have the maximum of elasticity required in such articles, and still possess the proper stiffness to make it answer completely the end for which it is designed, all as is more fully hereinafter explained.

In order to enable others skilled in the art to make and use my invention, I now proceed to describe the same in connection with the drawings.

Figure 1 represents a side elevation of my device as applied to railroad-rails; Fig. 2, a view of the plate detached. Figs. 3 and 4 are modifications of the same.

Like letters represent similar parts in each figure.

In the drawings, A represents a plate of sheet or strap-iron, steel, or other metal, which has a hole, *a*, punched in each end, through which the bolts are to pass. The holes *a* are made oblong, so that their inner edges may be free of the bolts, and thus avoid all tendency to spring the plate up in the center, as would be the case should the bolts bind against these inner edges, or should the holes be punched a little farther apart than the distance between the bolts. An outline of a section of the bolts is shown by the dotted lines in Fig. 2. Between the holes *a* and close to them the plate is slotted diagonally from opposite sides to the center line, as shown by *b*, from which point each slot is carried a short distance along the center line, as shown by *c*, thus forming two arms, B. The corner *d* of these arms may be cut off so as to present a square edge to the nut when it is squarely screwed down, or it may be left pointed, as it will be after the diagonal slot *t* is cut. The arms B are bent up and are made

concave, that portion of each arm at *e* being shaped like a spoon. The outer edges of the lock are bent up quite abruptly, as shown at *f* in Fig. 2, and continued at about the same angle to near the end of the arm, where the upward bend of the plate reaches an angle of about forty-five degrees. The entire length of this bend is concave in form. The outer edges *h*, as shown in Figs. 3 and 4, may be gradually turned up from the points *g*, just inside the line which marks the inner limits of the holes *a* to the points *d* of the arms B, where the upward bend is the greatest. The lock may be slotted, as shown in Fig. 4; but the form shown in Fig. 2 is preferred.

It will be seen, therefore, that when the plate A is put over any two bolts, and nuts are screwed onto said bolts, that the arms B will yield to the nuts as they go on, but after each corner of the nut has passed the point *d* it will rise, by reason of its elasticity, and prevent the nut from unscrewing. The maximum of elasticity and durability is reached in this peculiar form. That part of the lock which lies between the diagonal slots rocks on a diagonal line, *x x*, one arm, B, rising when the other is depressed, and vice versa, so that in addition to the elasticity of the arm consequent to this peculiar shape, the freedom of the other arm and the tendency of the middle part to rock on the diagonal line *x x* make this lock peculiarly effective.

I do not confine the use of this lock with two nuts or any specified number of nuts; and my invention may be applied to one nut, in which case the present lock would be divided in the middle, and but half of it used. It may, moreover, be used on the fish-plates of railroad-bars, or upon anything where it is necessary or desirable to keep nuts from unscrewing.

Having thus described my invention, and explained some of its advantages, what I claim as new, and desire to secure by Letters Patent, is—

A nut-lock consisting of the plate A, having the arms B formed by the slots *b c*, said arms being bent into a concave or spoon shape, as and for the purpose set forth.

This specification signed and witnessed this 28th day of October, 1874.

WILLIAM P. OLDEN.

Witnesses:

SAML. D. SCHOLES,
T. C. MATHER.