

(No Model.)

E. A. HILL.
NUT LOCK.

No. 547,259.

Patented Oct. 1, 1895.

Fig. 1.

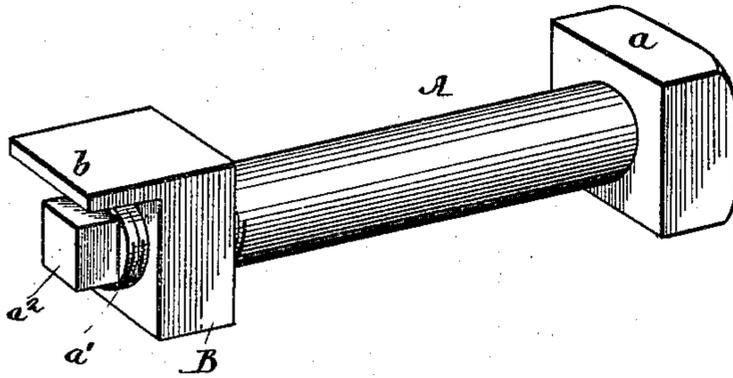


Fig. 2.

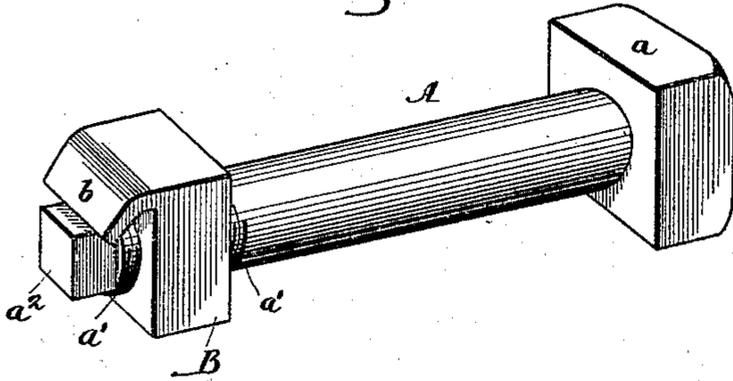
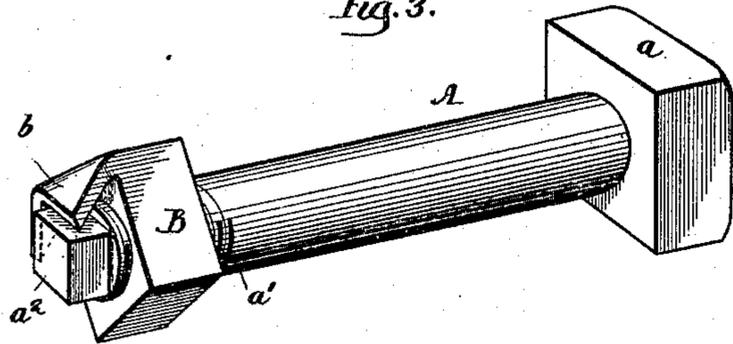


Fig. 3.



Witnesses:

Fred Golack
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UNITED STATES PATENT OFFICE.

EDWARD A. HILL, OF CHICAGO, ILLINOIS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE CHICAGO GRAIN DOOR COMPANY, OF SAME PLACE.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 547,259, dated October 1, 1895.

Application filed April 19, 1896. Serial No. 646,363. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. HILL, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have
5 invented certain new and useful Improvements in Nut-Locks, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

10 My present invention has for its object to provide a simple, cheap, and effective means whereby nuts may be locked upon their bolts so that all danger of the nuts working loose may be avoided, and this object I have ac-
15 complished by the features of invention hereinafter described, illustrated in the accompanying drawings, and particularly defined in the claim at the end of this specification.

20 Figure 1 is a perspective view of a bolt and nut embodying my invention, the jaw of the nut being in position to permit the nut to be set upon the bolt. Fig. 2 is a view similar to Fig. 1, but showing the nut-jaw interlocking with the terminal of the bolt. Fig. 3 is a per-
25 spective view showing the parts in different position.

A designates the bolt, one end of which is provided with the usual head a , while the part adjacent its opposite end is formed with a
30 threaded portion a' . The bolt A outside the threaded portion a' is formed with the reduced non-circular terminal a^2 , this terminal being reduced, so that the nut B may pass over the same in order to engage the threads
35 of the nut. In the drawings I have shown the terminal a^2 as having four faces; but it will be readily seen that the terminal may be formed with any suitable number of faces. In the preferred form of the invention the
40 jaw b of the nut B is formed at substantially right angles to the body of the nut between the threaded opening and its edge, since by this means the jaw is easily formed by the dies whereby the nut is made and does not
45 interfere with the ready placing of the nut upon the bolt or with the engagement of the nut by a suitable wrench. After the nut B has been placed upon the bolt A and secured firmly to desired position, the jaw b will be
50 bent downward until it engages the terminal a^2 of the bolt. This downward bending of the

jaw b may be effected so that this jaw may engage either face of the bolt-terminal, as seen in Fig. 2, or the jaw may be forced to engage two faces of the bolt-terminal, as seen
55 in Fig. 3. In either event, when the jaw is thus forced downward it will effectively serve to guard the nut against rotation and thus prevent all possibility of its working loose upon the bolt. The workman, having set the
60 nut to the desired point upon the bolt, can, with his wrench, and without the necessity of employing a supplemental tool, tap the jaw b and so force it against the non-circular terminal of the bolt and lock the nut in such po-
65 sition. If desired, a jaw b may be formed along two or more sides of the nut without departing from the spirit of the invention.

I am well aware that it has been heretofore
70 proposed to provide a nut-lock by cutting a longitudinal groove in the threaded end of the bolt and by forming the nut with a flange that may be forced into such groove; but such prior construction is objectionable, for the following reasons, among others: First,
75 the cutting of the groove across the bolt-threads mars the threads, so that it interferes with the easy and accurate movement of the nut upon the bolt, and particularly is this the case if the groove happens to cross the
80 outer end of the thread, or if the groove be made of sufficient width to receive enough of the flange to afford a substantial locking of the nut in place; second, in such prior
85 type of nut-lock it is necessary to employ a separate tool to force the flange into the groove, and as a consequence the workman is apt to overlook the locking of the nut; third, with such prior construction there is
90 also danger of the threaded portion of the nut adjacent the groove being crushed or injured by the tool that drives the flange into the groove; fourth, if the light be poor, or if the nut be in a somewhat-inaccessible position, as is frequently the case in work upon bridges,
95 beneath cars, and in like situations, the workman is not apt to accurately force the flange into the groove of the bolt, even if he attempt to do so at all.

By my invention all of the above-mentioned
100 difficulties are entirely overcome.

Having thus described the invention, what

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

The combination with the threaded bolt and its reduced non-circular terminal, of the
5 threaded nut having a projecting jaw bent directly inward and sidewise of the bolt length to engage with its extremity the adja-

cent lateral face of the bolt terminal and thereby interlock therewith, substantially as described.

EDWARD A. HILL.

Witnesses:

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