

(No Model.)

S. S. REED & I. S. REITZ.
NUT LOCK.

No. 498,943.

Patented June 6, 1893.

FIG. 1.

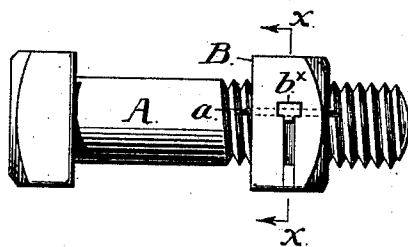
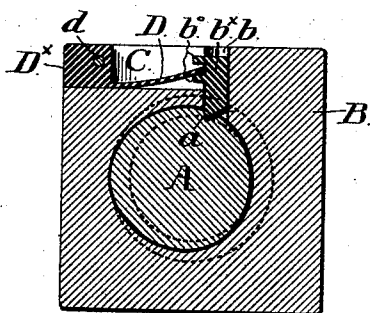


FIG. 2.



WITNESSES:

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SAMUEL S. REED AND ISAAC S. REITZ, OF SHAMOKIN, PENNSYLVANIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 498,943, dated June 6, 1893.

Application filed December 2, 1892. Serial No. 453,895. (No model.)

To all whom it may concern:

Be it known that we SAMUEL S. REED and ISAAC S. REITZ, citizens of the United States, residing at Shamokin, Northumberland county, Pennsylvania, have jointly invented certain new and useful Improvements in Nut-Locks, of which the following is a specification.

It is the object of our invention to provide means, of a simple and inexpensive construction, and of directness and certainty in operation, by which a nut may, when brought to a selected position upon the bolt in connection with which it is employed, be locked against unscrewing.

In the accompanying drawings we show, and herein we describe, a preferred form of a convenient embodiment of our invention, the particular subject-matter claimed as novel being hereinafter definitely specified.

In the drawings, Figure 1 is a view in side elevation, and Fig. 2 a transverse section on the line $x-x$ of Fig. 1, of a nut and bolt embodying our invention.

Similar letters of reference indicate corresponding parts in both figures.

In the drawings, A is a screw bolt, and B is a nut adapted to be screwed thereupon, said devices being equipped with a good embodiment of our invention.

The nut B, which is of any preferred size, shape, and material, embodies a slot which we term a latch way, b , extending transversely through its wall, and opening into its bore, as shown. Within the latch way is mounted a latch bolt, b^x , the inner or advance extremity of which is conformed to a bevel edge,—that is to say, one side face of said advance end is in a plane parallel with the axis of the latch bolt, and the opposite face is in a plane at an acute angle with said axis, said last named face being the advance face in the rotation of the nut to the right. Suitable means being provided to force said latch bolt constantly inward or toward the center of the nut with a yielding pressure, and the screw A being, in the region in which it is desired that the nut should be locked, provided with a groove or channel, a , cut transversely through its threads, and extending for any desired length, the operation of the devices so far described will be readily understood.

The nut, carrying the latch bolt within its

latch way, is applied to and screwed upon the bolt in the ordinary manner, the inner end of the latch bolt riding upon the crest of the screw thread. When the nut reaches the region of the groove a , said latch bolt, when in the rotation of the nut brought into registry with said groove, is forced into it by its spring, whereof hereinafter, and thereby, by reason of the presentation of its straight side face against the rear edge of the groove, locks or secures the nut against rearward rotation or unscrewing. Further advance rotation to carry the nut to the desired position is possible, however, because the inclined face of the latch bolt, being in contact with the advance edge of the groove, said groove edge, in the further rotation of the nut, acts against said inclined face and lifts the latch bolt out of the groove, whereupon the latch bolt rides upon the crest of the screw thread until the groove is again reached when it is again forced into the groove, and is again lifted therefrom, and so on, until the nut reaches the desired position.

The means which we employ to force the latch bolt constantly inward with a yielding pressure, are as follows:

C is a recess which we term the spring recess, formed in and extending along that outer face of the nut through which the latch way opens,—said recess extending from said latch way to the adjacent corner of the nut.

D is a click spring, suitably mounted in said recess, and adapted to engage with the latch bolt. In the drawings the click spring is shown as formed integral with and as extending from a block D^x fitted within the end of the spring recess and secured therein by a pin d which passes through the block and nut. In this position the block fills up the outer end of the recess, and, two of its edges being flush with the two adjacent edges of the nut, the contour of the corner of the nut remains uninterrupted.

b^o b^o are a pair of studs or projections of any character formed on that side of the latch bolt which faces the click spring, and they together constitute a recess or spring seat between them in which the free extremity of the click spring engages, their position being such that the click spring must to engage between them be bent out of its normal set,

with the result that in the effort of said spring to reassume its normal set it constantly presses the latch bolt toward the center of the nut.

Having thus described our invention, we
5 claim and desire to secure by Letters Patent—

A nut embodying a latch way or slot, a recess, a latch bolt the advance end of which has a bevel edge and the side of which embodies a seat for the end of a spring, said bolt
10 being mounted in said slot, and a click spring, being a strip of spring metal, separate from the latch bolt, one end of which is rigidly se-

cured within the recess, and the other end of which is entered in the seat of the latch bolt, substantially as set forth.

In testimony that we claim the foregoing as
our invention we have hereunto signed our
names this 22d day of November, A. D. 1892.

SAMUEL S. REED.
ISAAC S. REITZ.

In presence of—

D. C. KASEMAN,
LYDIA S. REITZ.