

J. C. DEUCHLER.

NUT LOCK.

APPLICATION FILED JAN. 4, 1911.

1,001,368.

Patented Aug. 22, 1911.

Fig. 1.

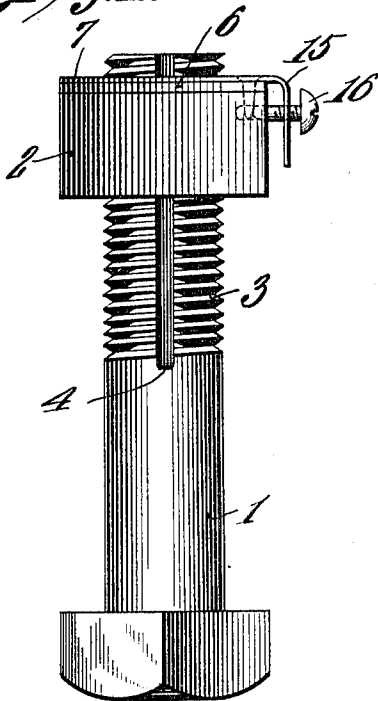


Fig. 2.

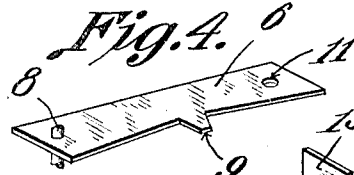
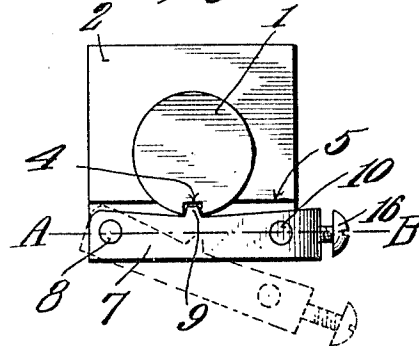


Fig. 5.

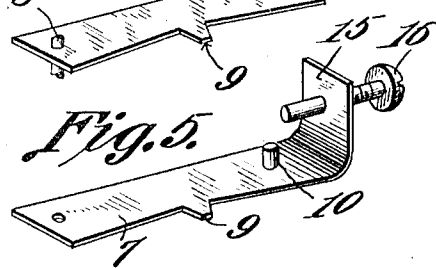


Fig. 6.

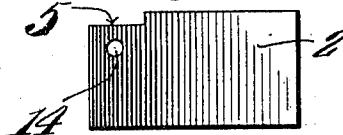
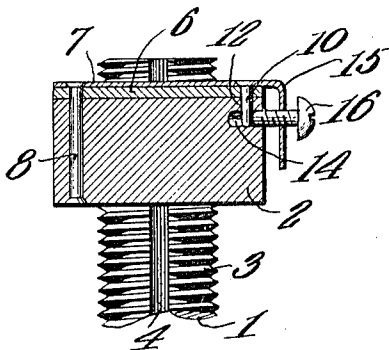


Fig. 3.



Witnesses

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NUT-LOCK.

1,001,368.

Specification of Letters Patent.

Patented Aug. 22, 1911.

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To all whom it may concern:

Be it known that I, JOHN C. DEUCHLER, a citizen of the United States, residing at Tiffin, in the county of Seneca and State of Ohio, have invented a new and useful Nut-Lock, of which the following is a specification.

It is the object of this invention to provide a nut locking device which will firmly hold a nut against rotation upon a bolt, said device being so constructed that the nut, at will, may be set free readily, for rotation upon the bolt.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings,—Figure 1 shows the invention in side elevation, mounted upon a bolt; Fig. 2 is a top plan; Fig. 3 is a section on the line A—B of Fig. 2; Fig. 4 is a detail perspective of the latch; Fig. 5 is a detail perspective of the spring arm; and Fig. 6 is a side elevation of the nut.

In the drawings, the bolt is denoted by the numeral 1 and the nut by the numeral 2. The threaded surface 3 of the bolt is crossed by longitudinally extended grooves 4. The outer face of the nut 2 is recessed, as shown at 5, and upon the recessed face 5 of the nut are disposed, in superposed relation, a latch 6 and a spring arm 7, a single pivot element 8 being employed for connecting the latch 6 and the spring arm 7 with the nut 2, so that the latch and the arm may move parallel to the outer face of the nut, the latch 6 being an element which may or may not be employed.

The latch 6 and the spring arm 7 are provided with outstanding tongues 9, adapted to register in the grooves 4, to hold the nut 2 against rotation on the bolt 1. In order that the tongues 9 may be maintained in the grooves 4 of the bolt, the spring arm 7 is supplied, adjacent its free end, with a depending stud 10, adapted to pass through an opening 11 in the latch 6, and to enter an opening 12 formed in the outer face of the nut 2. This opening 12

communicates with an opening 14 extended inwardly into the nut 2, from one of the side faces thereof, as clearly seen in Fig. 6.

The spring arm 7 is provided at one end with a depending projection 15, overlapping that face of the nut 2 in which the opening 14 is formed, and into this projection 15, a screw 16, or like securing element is threaded, the screw 16 being adapted to enter the opening 14, and to bind against the inner end of the stud 10. The parts 15 and 16 are collateral features, and the use of them is optional.

Presupposing that the parts are positioned as shown in Fig. 2 in dotted line, the latch 6 and the spring arm 7 may be swung inwardly toward the bolt 1, until the tongues 9 rest in the grooves 4 in the bolt, the free end of the spring arm 7 being lifted, so that the inner end of the stud 10 may move over the outer face of the nut 2. When the spring arm 7 is released, the stud 10 will register in the openings 11 and 12, thus holding the latch 6 in engagement with the bolt 1. By rotating the screw 16, the inner end thereof may be made to enter the opening 14 in the side face of the nut 2, thus preventing the free end of the spring arm 7 from being moved upwardly, a contingency tending to withdraw the stud 10 from the opening 12, and thus to set free the latch 6 from its engagement with the bolt 1. As shown in Fig. 3, the screw 16 may be rotated until its inner end bears against the inner end of the stud 10. The advantage incident to this feature is, that should the screw 16 be somewhat loose in the projection 15 of the spring arm 7, thereby permitting movement between the spring arm and the screw 16, the engagement between the screw 16 and the inner end of the stud 10 will, nevertheless, be sufficient to prevent the lifting of the spring arm, and the consequent disengagement of the stud 10 from the latch 6 and the bolt 2.

Disregarding elements which may be dispensed with, it will be seen that when the stud 10 of the spring arm 7 is engaged in the opening 12 in the outer end face of the nut, the tongue 9 of the spring plate 7 will be held in engagement with the groove 4 in the bolt 1, independent rotation of the bolt and the nut being thus prevented. By lifting the free end of the spring plate 7, the stud 10 may be lifted out of the opening

12, whereupon the spring plate may be swung laterally, to set the nut 2 free for rotation.

Having thus described the invention what is claimed is:—

In a device of the class described, a nut; and a spring plate pivoted to the outer end face of the nut, the plate having means to hold against rotation, the bolt with which
10 the nut is assembled; the plate having a

projection adapted to enter an opening in the outer end face of the nut, to maintain the plate in bolt-engaging position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN C. DEUCHLER.

Witnesses:

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ARMINDA D. MORLOCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."