(No Model.)

H. E. LANTZ.

NUT LOCK.

No. 535,913. Patented Mar. 19, 1895.

Fig. 1.

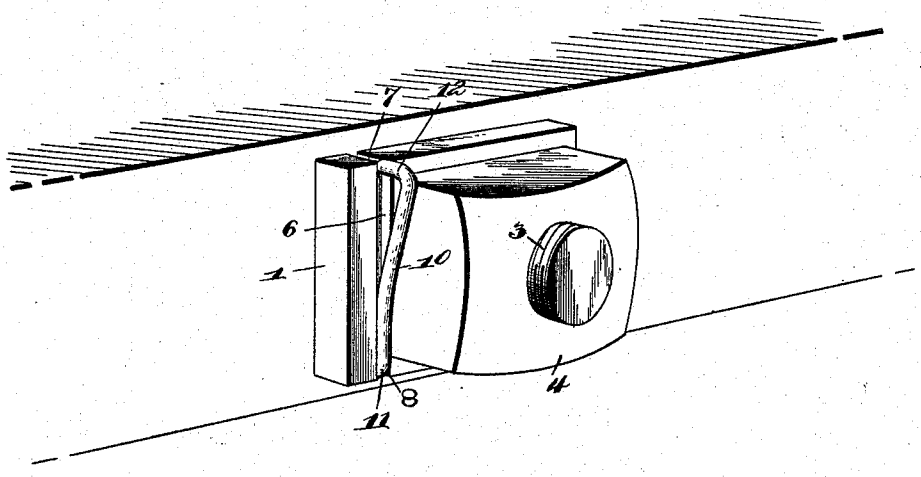


Fig. 2.

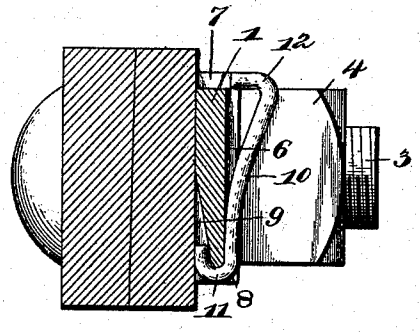


Fig. 3.

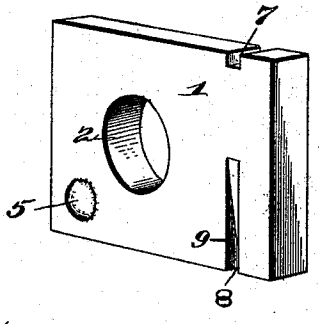
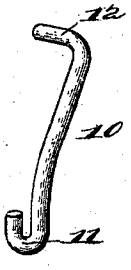


Fig. 4.



Inventor

Harvey E. Lantz.

Witnesses

Wm. H. Doyle

J. F. J. Riley

By *his* Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

HARVEY E. LANTZ, OF HAGERSTOWN, ILLINOIS.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 535,913, dated March 19, 1895.

Application filed April 21, 1894. Serial No. 508,520. (No model.)

To all whom it may concern:

Be it known that I, HARVEY E. LANTZ, a citizen of the United States, residing at Hagerstown, in the county of Fayette and State of Illinois, have invented a new and useful Nut-Lock, of which the following is a specification.

The invention relates to improvements in nut locks.

The object of the present invention is to improve the construction of nut locks, and to provide one which will be exceedingly simple and inexpensive in construction, positive and reliable in operation, and capable of securely locking a nut against accidental unscrewing and of permitting the nut to be removed when desired without injury to the nut lock.

A further object of the invention is to provide a simple and inexpensive nut lock adapted to be employed in connection with the ordinary construction of bolts and nuts, and capable of being used where ordinary washers are employed, thereby dispensing with the usual jam-nuts.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings: Figure 1 is a perspective view of a nut lock constructed in accordance with this invention. Fig. 2 is a vertical sectional view. Fig. 3 is a detail perspective view of the plate or washer. Fig. 4 is a similar view of the locking spring.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a plate or washer, having a central opening 2, to receive a bolt 3, and adapted to have a nut 4 screwed against it, similar to an ordinary washer. The plate or washer is provided on its inner face with a projection or lug 5, which may be formed by indenting the outer face of the plate or washer, or by any other suitable means; and the said plate or washer has one end extended beyond the nut and provided with a groove 6, arranged, preferably, parallel with the adjacent edge of the washer or plate and located close to the same. At one end of the groove the plate or washer is provided with a recess 7, and at the other end of the groove is arranged a recess 8, which communicates with a short groove 9, of the lower face of the plate or washer.

Within the groove is seated a locking spring 10, having one end 11 hooked, and extending through the recess 8 and fitting in the short groove 9 of the lower face of the washer. The locking spring inclines upward and extends above the washer or plate and has its other end 12 bent inward at an angle to form a supporting arm located in the recess 7 which forms a way at right angles to the groove for supporting and guiding the arm 12.

The nut is adapted to be readily screwed on the bolt. In its forward rotation it engages the inclined or raised portion of the locking spring and it depresses the same, readily passing over the spring. A reverse movement of the nut causes it to come in contact with the shoulder of the spring, said shoulder being formed by the angularly-bent end 12, whereby the nut is locked securely against accidental unscrewing. By bending the end 12 at an angle and loosely guiding it in the recess 7, it is securely locked against lateral movement, and its resiliency is not impaired by any pressure of the nut; but when it is desired to remove the nut, it is only necessary to depress the spring and the nut will readily pass over the same.

It will be readily seen that the nut lock is simple and comparatively inexpensive in construction, that it is positive and reliable, and capable of securely locking a nut against accidentally unscrewing, and of permitting the nut to be readily removed when desired, and that it is capable of being readily employed in all places where the ordinary form of washer is used, thereby dispensing with jam-nuts and the like.

The locking spring is preferably constructed of resilient wire, and the nut bearing against the plate or washer securely fastens the locking spring in place. The projection or lug is adapted to engage an indentation to prevent the washer or plate from turning on the bolt.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. A nut lock comprising a plate or washer having a bolt-opening and provided on its

outer face with a groove, and having a recess or opening arranged at right angles to the groove and forming a way, and a locking spring located in said groove and extending upward from the plate or washer at an inclination, and having one end secured to the plate or washer and having its other end bent at an angle to form a supporting arm and loosely arranged in and guided by the said way, substantially as described.

2. A nut lock comprising a plate or washer having a bolt-opening and provided on its outer face with a groove and having recesses at the ends of the groove and having adjacent to one of the recesses a groove located on the lower face of the plate or washer, and a locking spring arranged in said groove and inclining upward from the face of the plate or washer and having one end hooked and engaging the recess and the groove of the lower face of the washer, said locking spring having its other end bent inward at an angle and arranged in the other recess, substantially as described.

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

HARVEY E. LANTZ.

Witnesses:
WILLIAM CAUSEY,
H. H. STINE.