(No Model.)

V. A. & P. F. LAUE.

NUT LOCK.

No. 575,251. Patented Jan. 12, 1897.

Fig. 1.

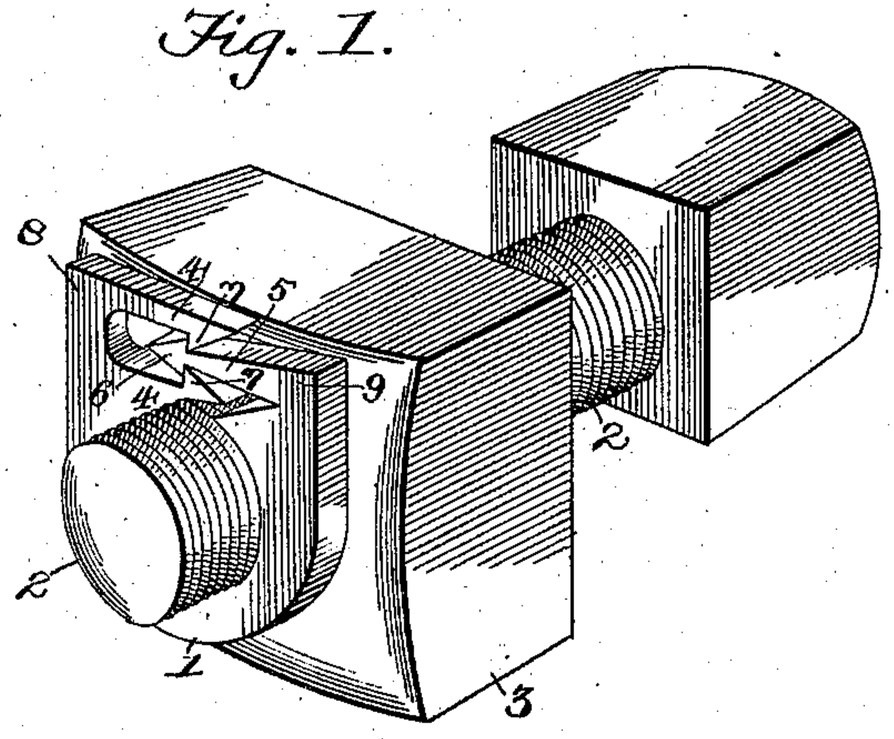


Fig. 2.

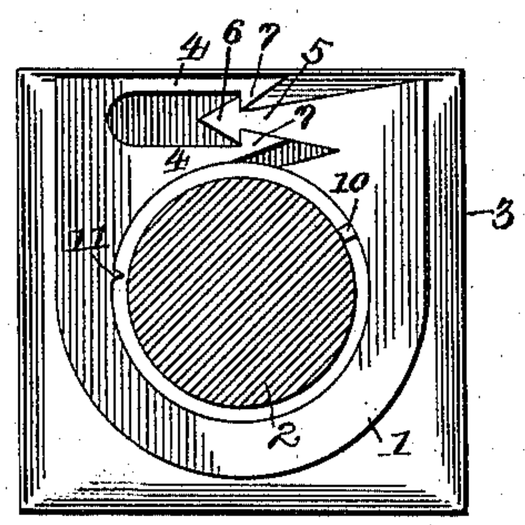


Fig. 3.

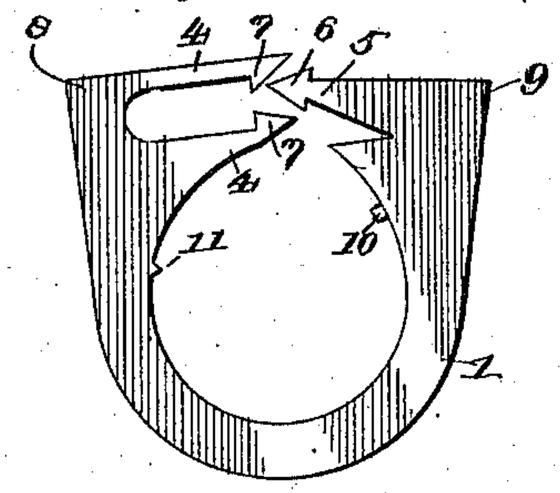


Fig. 4.

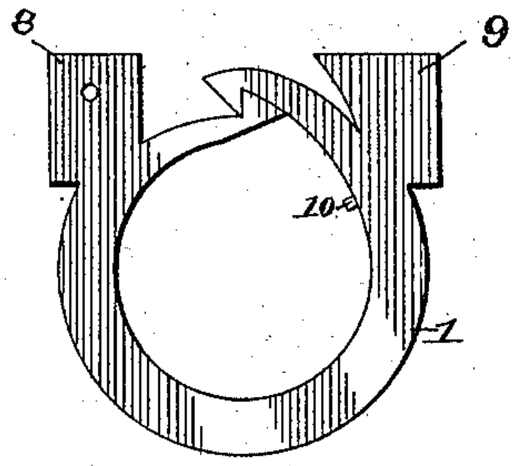
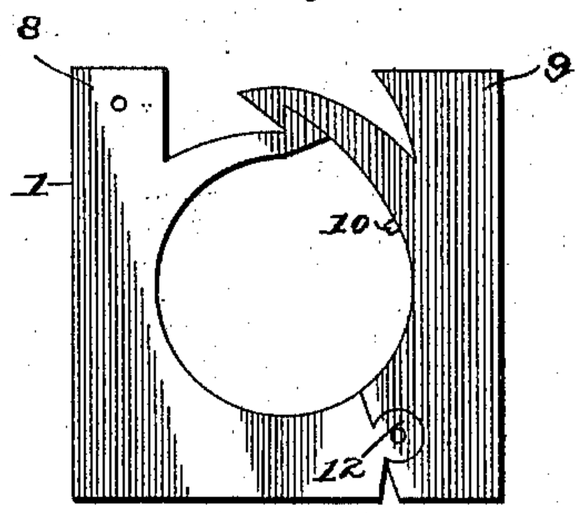


Fig. 5.



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UNITED STATES PATENT OFFICE.

VERNON ALBERT LAUE AND PAUL FERDINAND LAUE, OF CROSS FORK, PENNSYLVANIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 575,251, dated January 12, 1897.

Application filed February 11, 1896. Serial No. 578,890. (No model.)

To all whom it may concern:

Be it known that we, VERNON ALBERT LAUE and PAUL FERDINAND LAUE, citizens of the United States, residing at Cross Fork, in the county of Potter and State of Pennsylvania 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 a simple, inexpensive, and efficient device adapted to be readily applied to bolts and nuts without altering the construction thereof, and capable of securely locking the nut against accidental unscrewing.

A further object of the present invention is to provide such a device which will be applicable to railroads, machinery, and the like, and which may be readily operated to release a nut when desired.

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 perspective view of a nut-lock constructed in accordance with this invention and shown applied to a bolt and nut. Fig. 2 is a front elevation of the same, the bolt being in section. Fig. 3 is a detail view of the locking device. Fig. 4 is a similar view illustrating a modification of the invention. Fig. 5 is a detail view of a locking device, illustrating another modification of the invention.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a nut-lock adapted to be applied to a bolt 2 and nut 3 of the ordinary construction. The locking device consists of a substantially circular body having a circular bolt-opening and adapted to embrace a bolt 2, as illustrated in Fig. 1 of the accompanying drawings, and it is arranged at the outer face of the nut to prevent the latter from accidentally unscrewing. The locking device is preferably constructed of steel or other suitable resilient material. It is adapted to be compressed around the bolt, and it is secured in its locked position by means of a pair of arms 4, arranged substantially parallel, extending inward from one end of the body of the locking device and adapted to receive between them an arm 5, projecting inward from the other end of the body. The arm 5 is provided with an arrow-head 6, and the arms 4, which are spaced apart to provide an opening for the reception of the arm 5, are provided at their inner faces with inwardly-projecting teeth 7, which are adapted to interlock with the arrow-shaped head 6 of the arm 5.

The ends 8 and 9 of the body are enlarged to form lugs, and have straight outer edges adapted to be engaged by a wrench, a pair of pincers, or any other suitable tool for compressing the sides of the body around the bolt to interlock the arms 4 and 5. The sides of the body may be readily released by inserting the point of a screw-driver or other suitable tool between the arms 4 and springing them apart to release the arm 5.

The body is provided at its bolt-receiving opening with an inwardly-extending projection 10, beveled at opposite sides and having its point or engaging edge disposed longitudinally of the body and adapted to be inserted between a pair of threads to secure the locking device against longitudinal movement on the bolt and to enable it to be readily turned up tight against the nut. After the locking device has been arranged in proper relation to the nut and has been compressed around the bolt it is locked against retrograde rotation by a chisel-point or projection 11, disposed transversely of the body and adapted to engage the threads of the bolt transversely of them. By this construction it will be absolutely impossible for the nut to become accidentally unscrewed, and if the locking device should be forced around the bolt the transverse projection or chisel-point 11 would strip the threads from the same.

Instead of employing the projection or point 10 to hold the locking device against longitudinal movement, one of the enlargements or lugs of the body may, as illustrated in Fig. 4 of the accompanying drawings, be perforated to receive a pin or other suitable fastening device for engaging one of the faces of the nut, or a projection or lug may be

formed integral with the body for this purpose.

Instead of constructing the body of a single piece of resilient metal the two sides may, as illustrated in Fig. 5 of the accompanying drawings, be connected by a hinge-joint 12, and the free ends of the sides may, as shown in Figs. 4 and 5, be provided with two interlocking arms instead of three, as shown in Figs. 1, 2, and 3.

It will be seen that the nut-lock is exceedingly simple and inexpensive in construction, that it is positive and reliable in operation, and that it is capable of preventing a nut from accidentally unscrewing. It will also be apparent that it is applicable to all kinds of bolts and nuts employed on railroads, machinery, and the like, and that it does not necessitate any change in the construction of bolts or nuts.

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

What we claim is—

1. A nut-lock comprising a body having a circular bolt-receiving opening, arms extending inward from opposite sides of the body and provided with interlocking teeth adapted to engage each other when the body is compressed, and lugs located at the outer ends of the arms, presenting straight outer edges and adapted to be engaged by a tool, whereby the body is compressed to interlock the said teeth, substantially as described.

2. A nut-lock comprising a body having a bolt-receiving opening and provided with enlargements or lugs adapted to receive a tool for compressing the body, a projection extending inward from the body and arranged to engage the threads of a bolt, a pair of arms disposed substantially parallel, extending inward from one side of the body and provided at their outer ends with teeth, and an arm extending inward from the other side of the body and provided with an arrow-head, adapted to be inserted between the said arm and capable of interlocking with the teeth thereof, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

VERNON ALBERT LAUE.
PAUL FERDINAND LAUE.

Witnesses:
F. W. PECK,
LEWIS EGNELL.