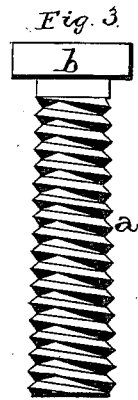
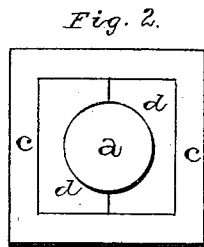
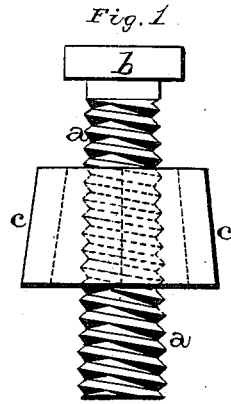


J. T. COLLINS & E. B. GRANT.

NUT-LOCK.

No. 192,636.

Patented July 3, 1877.



WITNESSES.

Albert S. Cook
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UNITED STATES PATENT OFFICE.

JACOB T. COLLINS AND ELIJAH B. GRANT, OF BYESVILLE, OHIO.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **192,636**, dated July 3, 1877; application filed June 13, 1877.

To all whom it may concern:

Be it known that we, J. T. COLLINS and E. B. GRANT, of Byesville, in the county of Guernsey and State of Ohio, have invented certain new and useful Improvements in Nut-Locks; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in nut-locks; and it consists in the combination of a tapering threaded bolt, a divided nut, and a square cap to fit over the nut, as will be more fully described hereinafter, whereby the nut is prevented from shaking loose and coming off.

The accompanying drawings represent our invention.

a represents a screw-bolt, which is largest at its outer end, and tapers downward toward the head *b*, as shown. This bolt is passed through the rail and fish-plates in the usual manner. After the end has been passed through the rail a square and tapering cap, *c*, is passed over it until its smaller end abuts against the side of the fish-plate. The divided nut *d* is then applied to the bolt and the bolt turned toward the right by applying a wrench to its head. As the bolt turns both the cap and the nut are drawn against the rail, and when the cap can move no farther up the di-

vided nut is drawn inward inside of the cap. As the bolt is still turned the enlarged end acts as a lever to pry the divided nut outward until it is clamped so rigidly inside of the cap that it cannot possibly be jarred or shaken loose.

By means of the enlarged end upon the bolt which is on the outside of the divided nut, it is impossible for the nut to shake loose or turn, as the nut would have to work up the inclined thread.

As the cap prevents the nut from expanding, it will be readily seen that it is impossible for the nut to shake loose or in anywise come off until some instrument is applied to the head of the bolt for the purpose of turning it in the proper direction to unscrew it.

Having thus described our invention, we claim—

The combination of a bolt, a divided nut, and a cap to fit over the nut, the end of the bolt being made tapering, so as to expand the nut inside of the cap, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 2d day of June, 1877.

JACOB T. COLLINS.
E. B. GRANT.

Witnesses:

WILLIAM LINKHORN,
JOSEPH W. OLIVER.