(No Model.)

M. W. FARBER.

NUT LOCK.

No. 348,117. Patented Aug. 24, 1886.

Fig. 1.

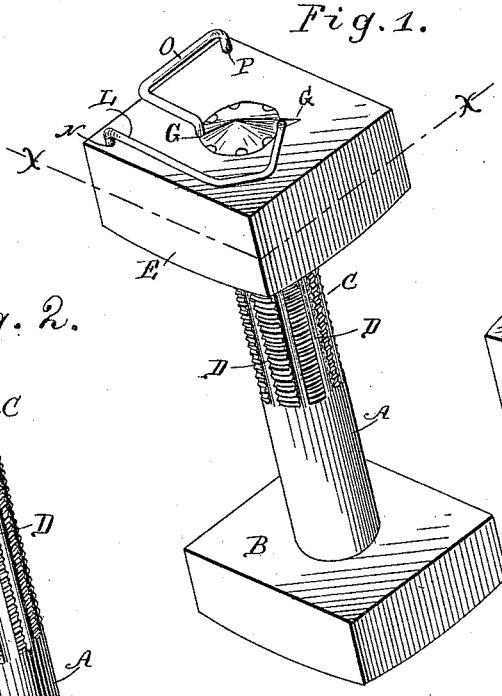


Fig. 2.

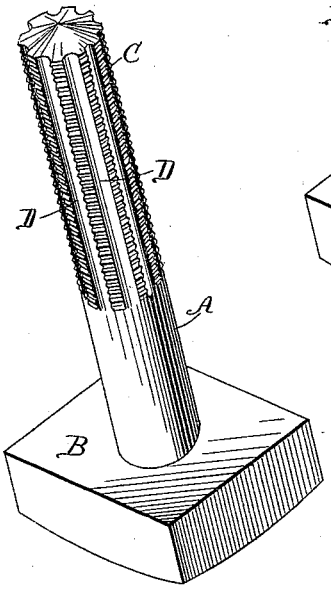


Fig. 3.

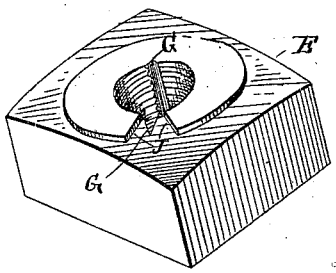


Fig. 4.

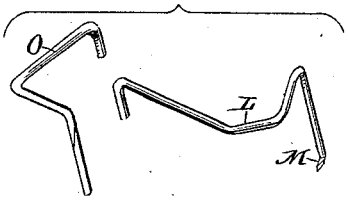


Fig. 5.

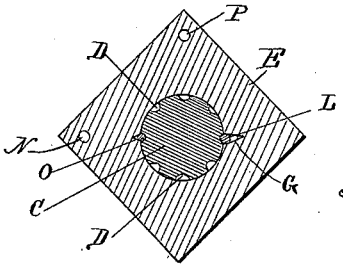
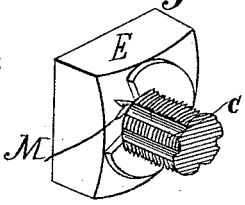


Fig. 6.



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UNITED STATES PATENT OFFICE.

MANNASSEH WASHINGTON FARBER, OF EL DORADO, KANSAS, ASSIGNOR TO HIMSELF AND JAMES E. MARSHALL, OF SAME PLACE.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 348,117, dated August 24, 1886.

Application filed April 30, 1886. Serial No. 200,743. (No model.)

To all whom it may concern:

Be it known that I, MANNASSEH WASHINGTON FARBER, of El Dorado, in the county of Butler and State of Kansas, have invented a new and useful Improvement in Nut-Locks, of which the following is a specification.

My invention consists in the improved construction, arrangement, and combination of parts of a nut-lock, as will be hereinafter fully described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of my improved nut-lock, showing the nut locked upon the bolt. Fig. 2 is a perspective detail view of the bolt. Fig. 3 is a similar view of the nut. Fig. 4 is a detail view showing the two forms of keys employed. Fig. 5 is a cross-sectional view taken on line *x x*, Fig. 1 of the drawings; and Fig. 6 is a perspective view showing the normal relation of the locking-key to the recess in the inner face of the nut.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A indicates the bolt, which has the usual head, B, and screw-threaded end portion, C. In this threaded portion are formed the longitudinal grooves D, which are approximately U-shaped in cross-section, and which may extend the entire length of the threaded portion of the bolt, the number of the said grooves varying from three to four in a quarter-inch bolt, upward for larger bolts, eight being the best number for a half-inch bolt, the grooves increasing in number according to the size of the bolt, so that they will register with the groove or grooves of the nut.

The nut E has V-shaped grooves G, that cut its threads transversely, as shown best in Fig. 3. The inner face of the nut is recessed, as shown in Fig. 3—that is to say, a circular boss is formed around the hole in the nut on the inner side of the latter, and the same has a lateral V-shaped recess, J, whose function will be presently explained.

A locking-key, L, is inserted in the registering grooves D and G of the bolt and nut, as shown in Figs. 1 and 5. There may be more than one key employed. In this instance I show two.

The key L is constructed of spring-wire, bent at several angles to adapt it to its function. One end is bent laterally to form a claw, M, Figs. 4 and 6. When the key is inserted in place, it traverses the coincident grooves D and G in the bolt and nut, and the claw M catches over the inner edge of the nut and lies in recess J, so that it is protected when the nut is screwed home, and prevents the key being withdrawn or becoming detached unless turned so as to bring the claw M into coincidence with the V-shaped groove G. The outer end of the key is bent downward and enters a hole, N, in a corner of the nut, Fig. 1.

The key O has no claw M, and therefore is adapted to enter and lie in a round groove. Its outer end enters a hole, P, in the nut, similarly to the key L; but this key O may be dispensed with.

I do not claim, broadly, a bolt provided with a longitudinal groove, nor a nut provided with a recess in its inner threaded portion and locked to such bolt by means of a key consisting of a bent wire, for I am aware this construction and combination of parts are not new.

Having thus described my invention, what I claim as new is—

1. The combination of the locking-key, having claw M, with the grooved bolt and nut, the latter having a recess, J, in its inner face to receive said claw, as shown and described.

2. The combination, with the bolt and nut, grooved as shown, and the latter having a recess, J, in its inner face and an aperture, N, in the outer face, of the spring-key L, whose inner and outer ends are bent, as shown, to adapt it to engage with and lock the nut, as specified.

MANNASSEH WASHINGTON FARBER.

Witnesses:

A. L. L. HAMILTON,

JOHN J. HAMILTON.