

No. 694,125.

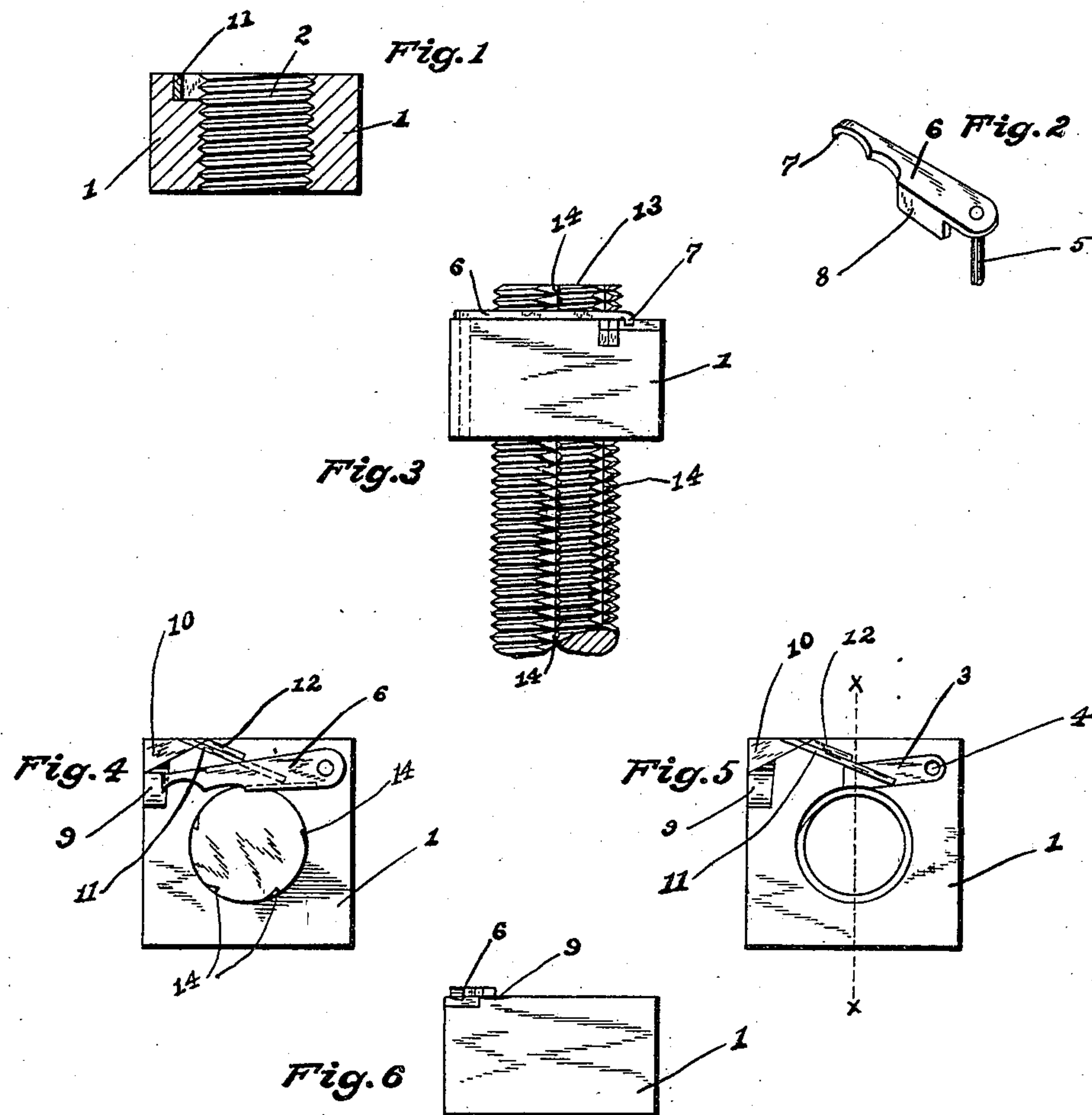
Patented Feb. 25, 1902.

J. O. WOLFORD.

NUT LOCK.

(Application filed Dec. 18, 1901.)

(No Model.)



WITNESSES:

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NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 694,125, dated February 25, 1902.

Application filed December 18, 1901. Serial No. 88,406. (No model.)

To all whom it may concern:

Be it known that I, JAMES OLIVER WOLFORD, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Nut-Locks, of which the following is a specification.

My invention relates to the improvement of nut-locks, and has for its object the construction of a simple and reliable nut-lock wherein improved means are provided for preventing the reversed rotation of a nut on a bolt and wherein improved means are provided for disengaging the lock from the bolt. This object I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of the nut with the lock removed, the view being taken on line *x x* of Fig. 5. Fig. 2 is a detail view in perspective of the lock. Fig. 3 is a side elevation of the nut having my improvements and with a portion of a bolt therein, the locking-tongue being shown in its unlocked position. Fig. 4 is a plan view of the same with the locking-tongue in the locked or engaged position. Fig. 5 is a plan view with the locking-tongue removed; and Fig. 6 is a view in elevation of the nut, taken at right angles with that shown in Fig. 4.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ a nut-body 1, having the usual central threaded passage 2. In the upper face of the nut-body and leading from the opening 2 toward one corner of the nut is formed a recess or depression 3. From the outer end of this depression or recess extends vertically downward through the nut-body an opening 4, within which is pivotally supported the vertical end pin 5 of a locking-tongue 6. As shown more clearly in Fig. 2 of the drawings, this locking-tongue has its wider end portion connected with the pin 5 and its forward or outer reduced portion provided with a downwardly-projecting or hook-like termination 7. The wider portion of the locking-tongue on its inner side is provided with a downwardly-extending flange 8, which flange, as indicated by the dotted lines in Fig. 4, is intended to project within the recess 3. When in its inner and locked position, as shown in Fig. 4

of the drawings, the tongue 6 is adapted to have its downturned end 7 depending within a shallow rounded recess 9, formed in the upper side of the nut-body. Immediately adjoining this recess 9 the corner of the nut-body is cut away, as indicated at 10, to form an inclined shoulder and offset. Embedded in the upper side of the nut-body and extending diagonally from near one corner of the nut to the inner side of the locking-tongue flange 8 is a spring-strip 11, this spring-strip having its outer end portion where it intersects one corner of the recess 10 cut away on its upper side until flush with said recess and having its remaining portion flush with the upper surface of the body of the nut. The spring 11 is preferably reinforced in its outer portion by a second shorter spring-strip 12, which is likewise embedded in the nut.

It will be understood that the pressure of the inner end of the spring-strip 11 against the inner side of the flange 8 of the locking-tongue will serve to hold the outer end of said tongue partially projected into the nut-opening 2. The bolt 13, on which my improved nut is designed to be used, has its threads formed with or intersected at intervals by grooves or cuts which extend lengthwise of the bolt. These cuts or recesses, which are indicated at 14, are, as indicated more clearly in Fig. 4, angular in cross-section, the two shoulders formed by the intersection of each thread being, respectively, short and abrupt and comparatively long and inclined, so that when the nut is screwed onto the bolt the grooved or recessed portions of the bolt-threads may pass the forward end of the locking-tongue flange 8 without engaging the same; but in case the motion of the nut is reversed the shorter shoulders of one of said bolt-grooves 14 will engage the flange of said locking-tongue and prevent further reversed rotation of the nut. By engaging the outer end portion of the tongue with a suitable instrument and pulling the latter outward until its downturned end 7 has been sprung over the ridge between the recesses 9 and 10 and into the latter it is obvious that the flange 8 will be brought out of the path of the bolt-recesses 14, thus permitting the nut to be reversed and removed from the bolt. The locking-tongue is preferably formed of galvan-

ized iron to prevent rusting and is pressed into locking position by forcing it over the ridge between the recesses 10 and 9 and allowing the spring 11 to act in pressing the
5 flange 8 into the position shown in Fig. 4.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

10 In a nut-lock, the combination with a nut-body 1 having a face-recess 3 leading from its central threaded opening, a locking-tongue 6 pivoted over said recess, said locking-tongue

having a downwardly-extending inner side flange 8 and a spring embedded in the nut-body and extending within said recess, said
15 spring exerting a pressure on said locking-tongue flange, of a bolt adapted to be received by said nut, said bolt having longitudinal recesses intersecting its threads, substantially as specified.

JAMES OLIVER WOLFORD.

In presence of—

A. L. PHELPS,

W. L. MORROW.