R. L. PASSAUER.

LOCK NUT.

APPLICATION FILED AUG. 8, 1921.

1,433,410. Patented Oct. 24, 1922.

Fig. 1.

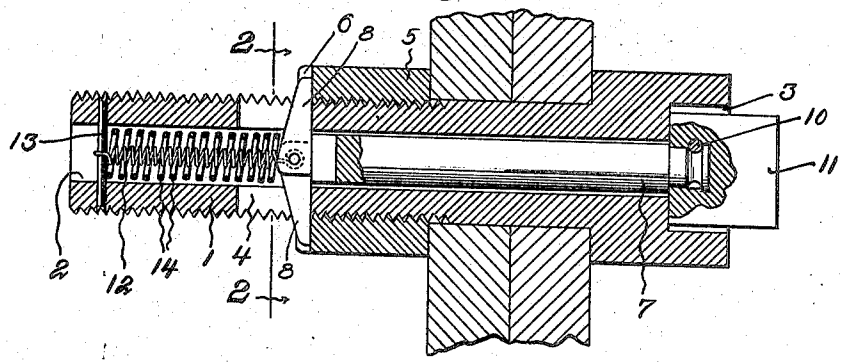


Fig. 2.

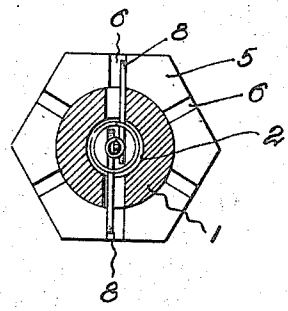
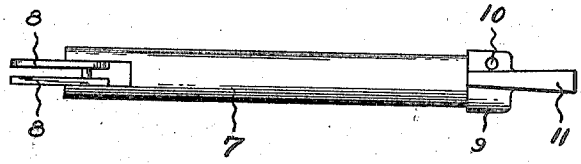


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT LEE PASSAUER, OF MARBLE, PENNSYLVANIA.

LOCK NUT.

Application filed August 8, 1921. Serial No. 490,682.

To all whom it may concern:

Be it known that I, ROBERT LEE PASSAUER, a citizen of the United States, residing at Marble, in the county of Clarion and State of Pennsylvania, have invented new and useful Improvements in Lock Nuts, of which the following is a specification.

This invention relates to devices for preventing nuts from becoming loose on their bolts, the general object of the invention being to provide movable parts carried by the bolt for engaging notches in the nut for holding the nut against rotation, with means for moving the said movable parts into and out of operative position.

Another object of the invention is to provide the bolt with a bore through which the operative means for the locking members extend and with which communicate slots in the sides of the bolt for receiving the locking members.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a longitudinal sectional view through a bolt and nut supplied with my invention.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a detail view.

In these views 1 indicates the bolt which is provided with the bore 2 which extends entirely through the stem and head of the nut. Recesses 3 are formed on the head and these recesses communicate with the bore. A transverse opening 4 is formed in the screw-threaded part of the nut and this opening communicates with the bore. The nut 5 is provided with a plurality of notches 6 in its outer face. A stem 7 fits in the bore and a pair of locking members 8 are pivotally secured to the inner end of said stem, these members being adapted to engage the two parts of the opening 4 with their ends projecting through said opening for engaging the notches in the nut. The stem has a handle part 9 rotatably secured to its outer end by means of the slot and pin connection 10, said handle part having a head 11 which is adapted to engage the recesses 3 when the parts are to be held in a position with the locking members in operative position and to be moved outwardly and given a quarter turn to hold it in this outward position when the locking members are to be moved into an inoperative position. A coil spring 12 has one end connected with the inner end of the stem 7 and its other end connected with a cross pin 13 in the bore, this spring tending to hold the stem and its handle member within the bore. A coil spring 14, located in the bore, has one end resting against the locking members and its other end against the pin, this spring tending to force the locking members through the two parts of the opening when the stem and handle member are in their inner position.

It will thus be seen that by pulling the handle member outwardly and giving it a quarter turn the locking members will be pulled out of the two parts of the opening and turned so that they will engage a solid part of the wall of the bore. By turning the part so that the head will engage the recesses 3 the springs will pull the stem and handle inwardly and at the same time force the locking members outwardly through the opening so that they will be ready to engage the notches in the nut.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. In combination with a bolt having a bore with a slot in its walls and a nut, a movable member in said bore, spring means for holding the member in its inner position, a part on the movable member for holding the same in its partly withdrawn position, a locking member on the movable member and spring means for forcing the same through the slot to engage the nut when the movable member is in its inner position.

2. In combination with a bolt and its nut, said bolt having a longitudinally extending bore having an enlarged part in the head of the bolt and slots in its walls passing

through the screw threaded part of the bolt, a stem in the bore, a pair of locking members pivoted to the stem and adapted to pass through the slots for engaging the nuts, a handle part movably attached to the stem and having a head for engaging the enlarged part of the bore when the stem is in its inner position and for engaging the head of the bolt to hold the stem in its outer position, a spring for holding the stem in its inner position and a spring engaging the locking members for forcing the same through the slots.

In testimony whereof I affix my signature.

ROBERT LEE PASSAUER.