No. 621,688. Patented Mar. 21, 1899.

J. B. MALCOM.

NUT LOCK.

(Application filed July 15, 1897.)

(No Model.)

Fig. 1.

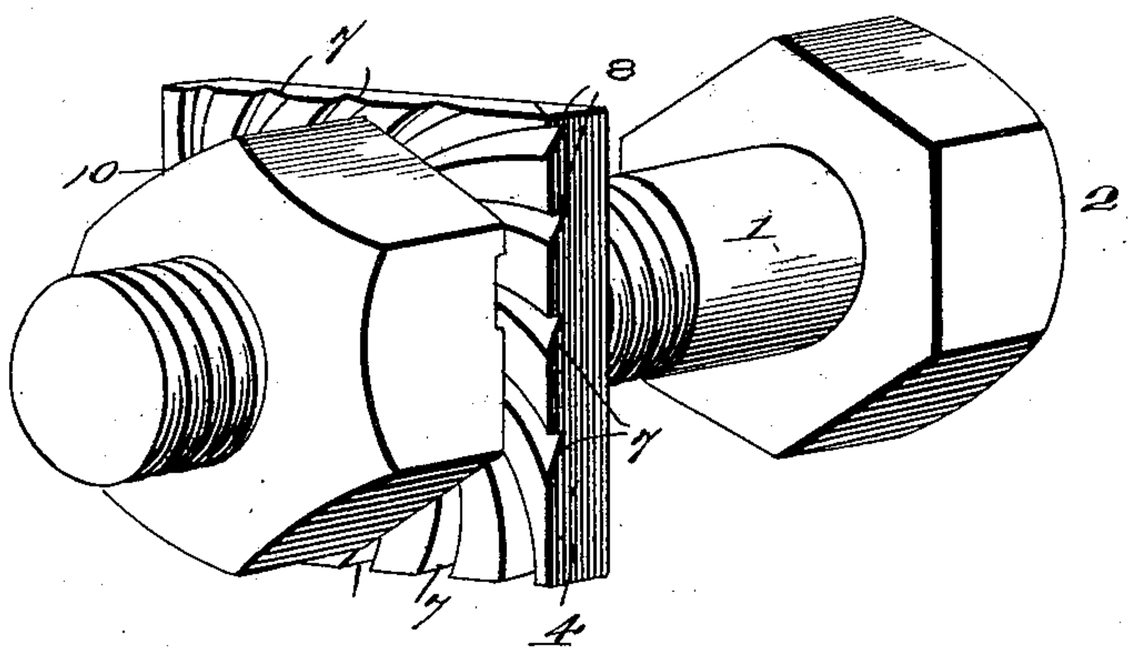


Fig. 2.

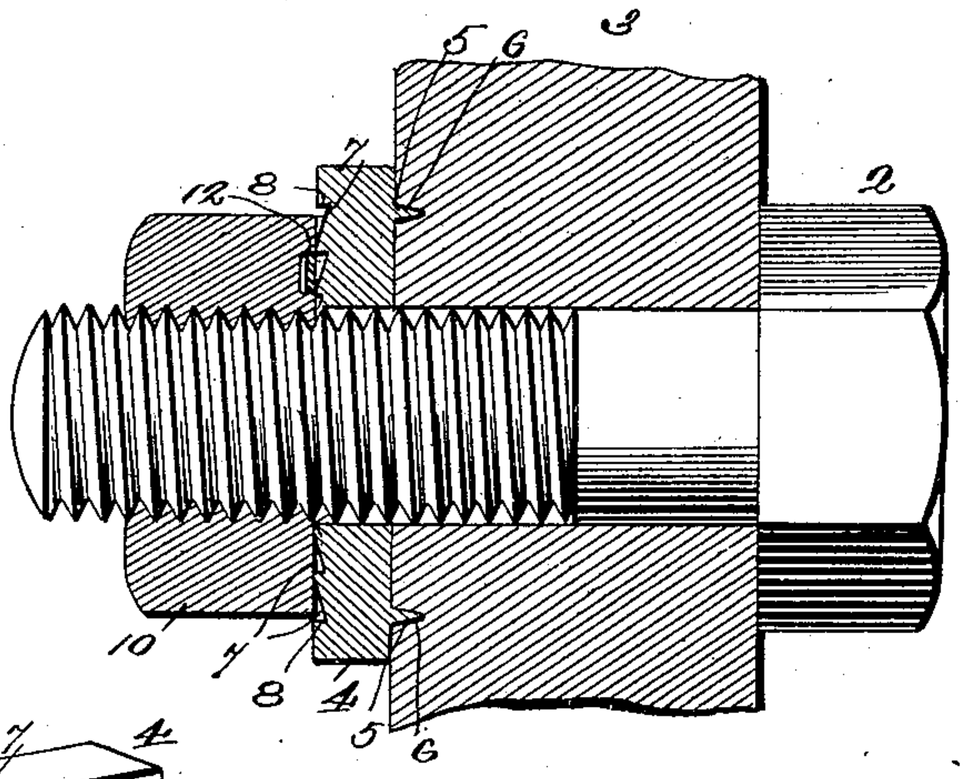


Fig. 3.

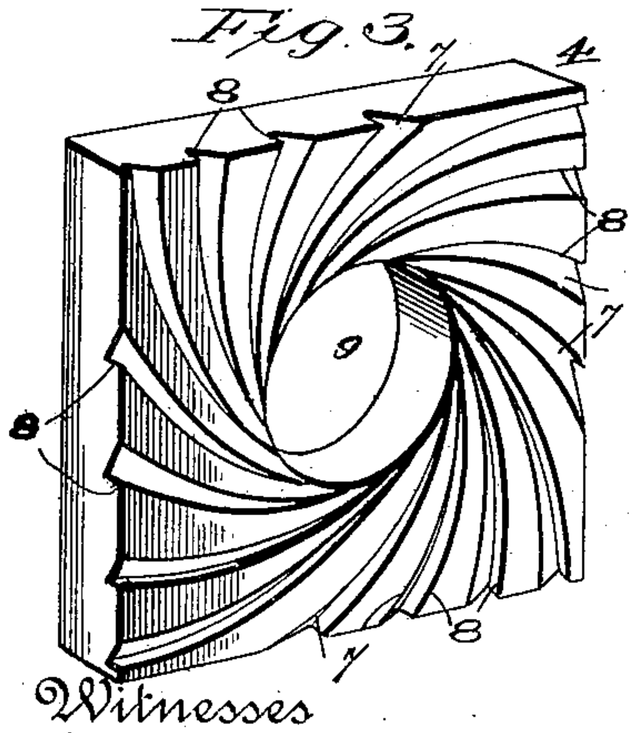
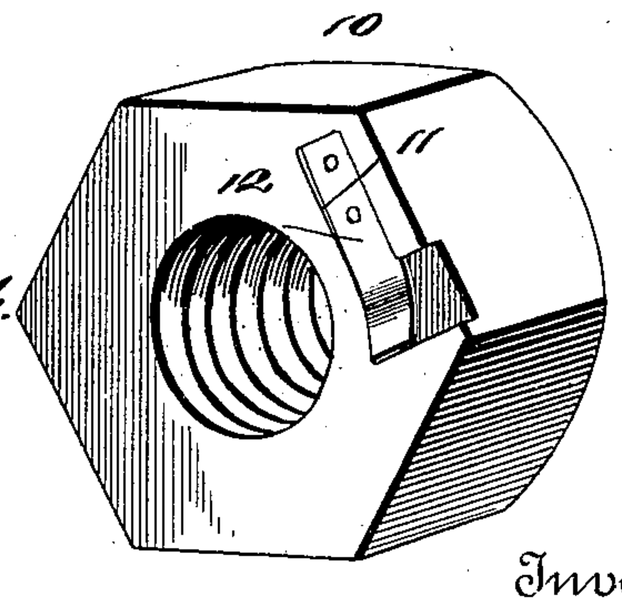


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES B. MALCOM, OF ADOLPHUS, TENNESSEE.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 621,688, dated March 21, 1899.

Application filed July 15, 1897. Serial No. 644,595. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. MALCOM, of Adolphus, in the county of Loudon and State of Tennessee, have invented certain new and useful Improvements in Nut-Locks; and I 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 appertains to make and use the same.

My invention relates to new and useful improvements in nut-locks; and it consists in the novel combination and arrangement of simple parts, as will be hereinafter described.

The object of the invention is to provide a nut-lock that will be especially simple in construction, economical, durable, and efficient in operation.

I am enabled to accomplish the objects of my invention by the simple means illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of a bolt with my improved nut-lock applied thereto. Fig. 2 is a central longitudinal section of the bolt, showing the same passing through a section of timber or metal, the nut and nut-lock being applied thereto. Fig. 3 is a perspective view of the locking-washer; and Fig. 4 is a perspective view of the nut, looking at the inner face thereof.

Referring to the drawings, the numeral 1 indicates a bolt, which is of any ordinary construction and provided with the usual square or hexagonal head 2.

The numeral 3 indicates a section of timber, metal, or other material through which the bolt passes, and the numeral 4 indicates the locking-washer, which is provided upon its rear face with short spurs or projections 5, which are adapted to enter perforations 6 in the metal or timber section 3, said spurs or projections being so located or positioned upon the rear face of the locking-washer that when in position in the perforations the said washer will be prevented from turning upon the bolt. The said washer is provided upon its front face with curved grooves 7 and circular shoulders 8, radiating from the curved opening 9 in the center of said washer.

The numeral 10 indicates the nut, which is rabbeted or recessed on one side thereof, as indicated by the numeral 11, and seated in said recess and rigidly secured to the nut is a spring-tongue 12, the free end of which normally extends some distance above the surface of the rear face of the nut. Said tongue is adapted to engage the curved shoulders on the face of the locking-washer when the nut is in position upon the bolt.

By providing the curved shoulders 8 on the outer face of the locking-washer said shoulders are disposed in a substantially tangential relation to the central opening in the washer and are thus brought into proper relation to coöperate with the free end of the spring-dog or locking-tongue 12. Such construction also enables the tongue or dog 12 to be made of greater length, so that it may extend nearly all the way across the inner face of the nut, adjacent to one of the flat wrench-engaging surfaces of said nut. This allows the tongue or dog to be secured to the nut in a more substantial way and also provides a longer free end, which renders the dog or tongue more reliable in operation. The nut is also provided with a radially-disposed groove or recess 13, which extends from one of the flat sides of the nut inward to and communicates with the recess in which the spring-tongue 12 is mounted. This enables a pointed instrument to be inserted in the recess 13, so as to pry the free end of the tongue out of engagement with the shoulders 8 for the purpose of allowing the nut to be loosened and taken off the bolt.

It will be observed that the nut-lock herein described is especially simple in construction, and on account of the same being so simple I do not deem it necessary to describe the operation of the same, as its operation is apparent.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a nut-lock, the combination with a bolt, of a nut provided upon its inner surface with a recess, a spring tongue or dog mounted in said recess, and a locking-washer having a central opening for the bolt and provided with a plurality of curved shoulders disposed in a substantially tangential relation to the central opening of the washer and designed to be engaged by the free end of said tongue, substantially as described.

2. In a nut-lock, the combination with a

bolt, of a washer having a central opening for the bolt and provided with a plurality of curved shoulders disposed in a substantially tangential relation to the central opening, a nut having in its inner face a recess extending substantially parallel to one of the flat sides of the nut and having at one end a laterally-extending groove which leads from said recess outward to the flat side of the nut, and a spring tongue or dog mounted in said recess with its free end projecting across said laterally-extending groove, substantially as and for the purpose specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES B. MALCOM.

Witnesses:
J. C. REID,
S. H. HENDERSON.