No. 720,691. PATENTED FEB. 17, 1903.

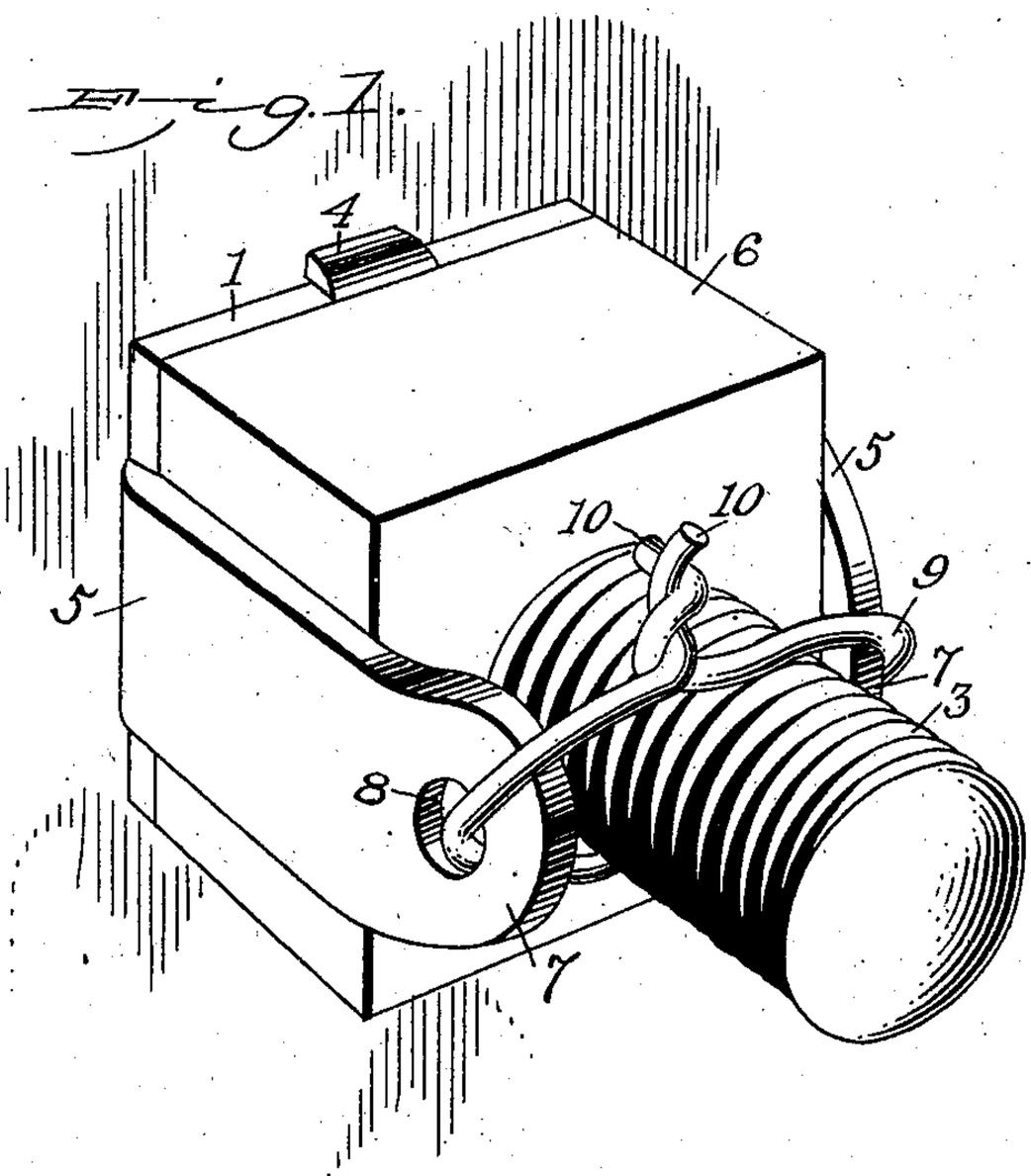
A. B. HARRIS.

NUT LOCK.

APPLICATION FILED SEPT. 2, 1902.

NO MODEL.

Fig. 1.



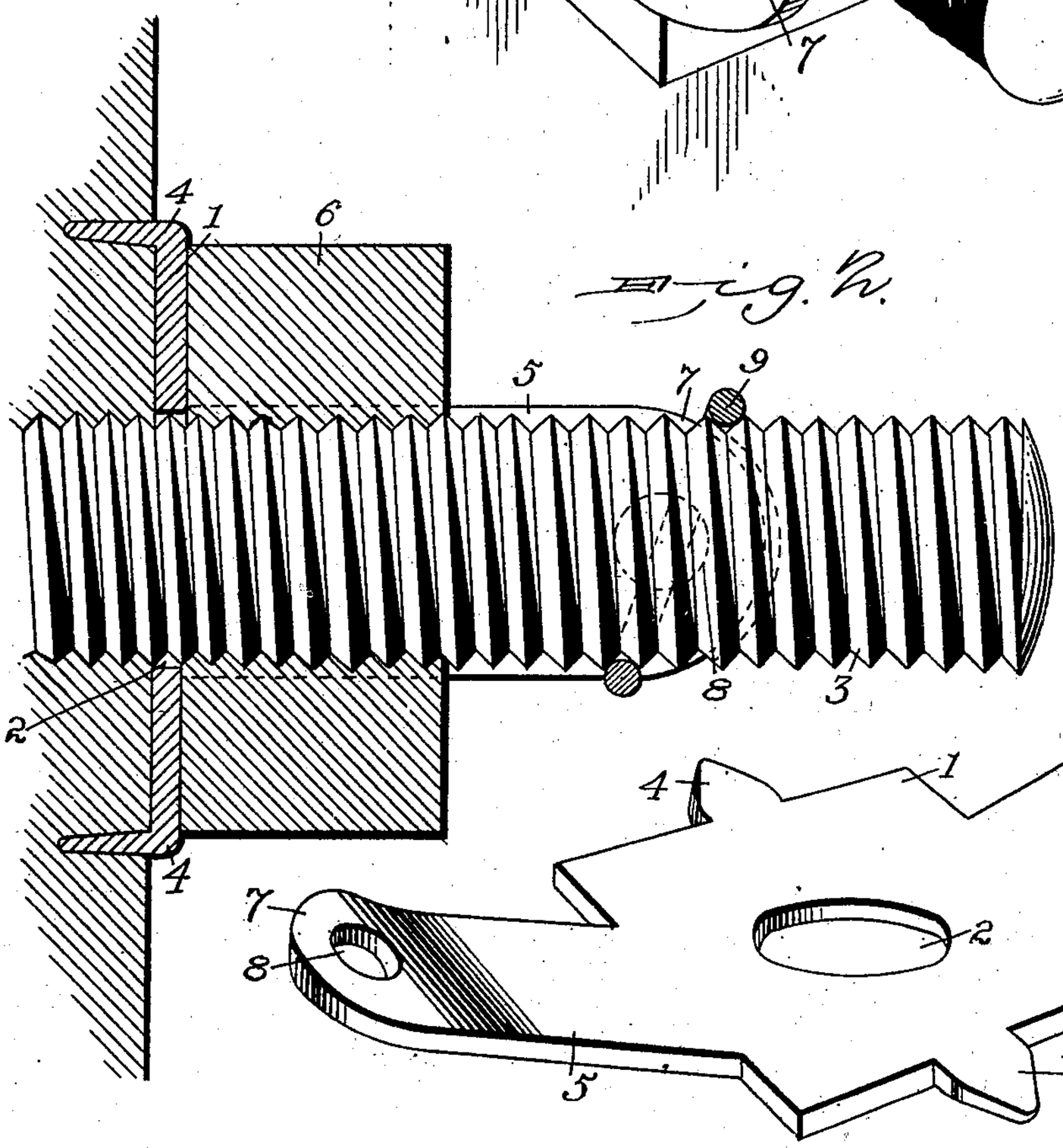


Fig. 2.

Fig. 3.

Witnesses
E. F. Stewart
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UNITED STATES PATENT OFFICE.

ABRAHAM B. HARRIS, OF ETTER, VIRGINIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 720,691, dated February 17, 1903.

Application filed September 2, 1902. Serial No. 121,895. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM B. HARRIS, a citizen of the United States, residing at Etter, in the county of Wythe and State of Virginia, have invented a new and useful Nut-Lock, of which the following is a specification.

The invention relates to improvements in nut-locks.

The object of the present invention is to improve the construction of nut-locks and to provide a simple, inexpensive, and efficient one of great strength and durability adapted to be readily applied to bolts and nuts of the ordinary construction without necessitating any alteration of the same and capable of engaging a nut, a bolt, and the adjacent surface, whereby both the bolt and nut are held against rotation.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a nut-lock constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view, the bolt and the locking-wire being shown in elevation. Fig. 3 is a detail perpective view of the locking-plate.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a locking-plate or washer provided with a central opening 2 for the reception of a bolt 3 and having inwardly-extending tongues 4 and outwardly-extending ears 5. The washer, which may be rectangular or of any other configuration, preferably conforms to the shape of the nut to which it is to be applied, and the tongues, which are located at diametrically opposite points, are tapered and are adapted to be readily driven into a wooden beam or bar; but they are adapted also to be arranged in suitable sockets of a metal plate or bar when the nut-lock is applied to the same. The nut-lock is adapted to be employed for locking nuts of bolts for various purposes, and while it is especially adapted for use on rail-joints, bridge construction, and the like it may also be advantageously employed on various kinds of machines, such as binders, harvesters, and other agricultural machines.

The outwardly-extending ears, which embrace a nut 6 at opposite sides, extend outward beyond the same and have rounded outer ends 7, provided with perforations 8 for the reception of a locking-wire 9, which extends across the outer face of the nut at a point beyond the same. The bolt has its threaded portion extended through and beyond the locking-wire, which has its terminals 10 twisted together and extended outward, as shown, and the inner and outer sides are located at different points on the threaded portion of the bolt and frictionally engage the same, whereby the bolt is locked against accidental rotation. The rounded outer ends of the perforated ears enable the loop formed by the locking-wire to be drawn tightly against the bolt to produce the necessary pressure thereon, and the terminals of the wire may be twisted to the desired extent to obtain the necessary frictional contact.

It will be seen that the nut-lock is exceedingly simple and inexpensive in construction, that it is adapted to be employed in all places where it is desired to lock a nut against accidental rotation, and that it may be readily applied to an ordinary bolt without necessitating any alteration in the construction of either the bolt or the nut and without employing skilled labor. It will also be seen that the device engages both the nut and the bolt and the adjacent surface, whereby the nut and bolt are held against accidental rotation.

What I claim is—

1. A device of the class described comprising a locking-plate having inwardly-extending tongues and provided with outwardly-extending perforated ears and a locking-wire consisting of a loop passing through the perforations of the ears and having inner and outer sides arranged at different points for engaging a bolt, substantially as described.

2. In a device of the class described, the combination with a bolt and nut, of a locking-plate having a bolt-opening and provided with inwardly-extending tongues and having outwardly-extending perforated ears projecting beyond the nut and rounded at the ends, and a locking-wire consisting of a loop ex-

tending through the perforations of the ears and having inner and outer sides located at different distances from the outer face of the nut and engaging the opposite sides of the threaded portion of the bolt between the ends thereof, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ABRAHAM B. HARRIS.

Witnesses:
W. J. DILLON,
J. H. JOCHUM, Jr.