No. 709,043. Patented Sept. 16, 1902.

G. H. ROBERTS, Sr.

NUT LOCK.

(Application filed Sept. 14, 1901.)

(No Model.)

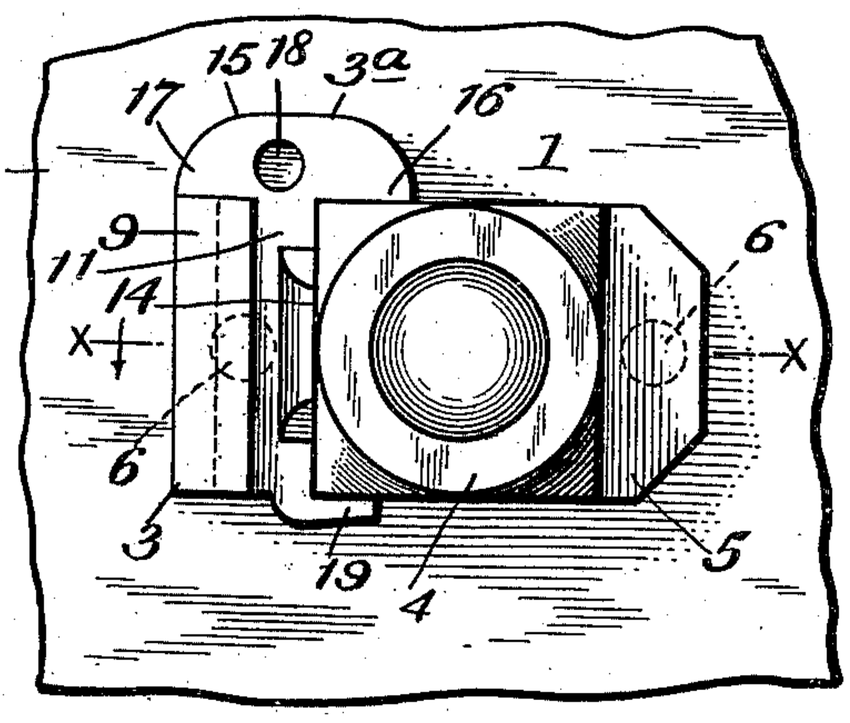

Fig. 1.

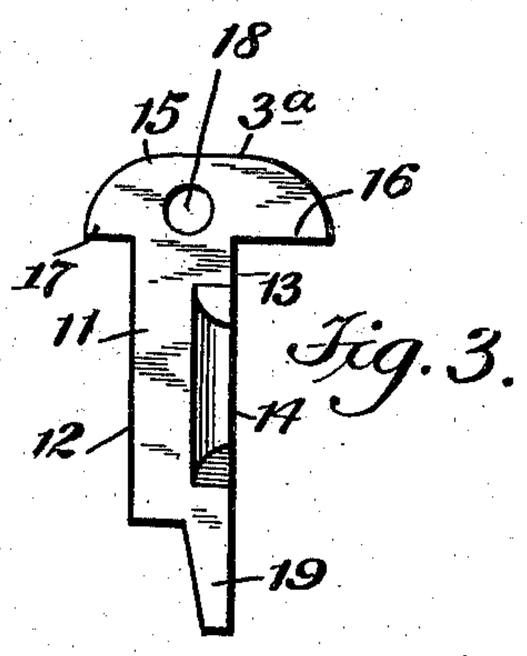

Fig. 3.

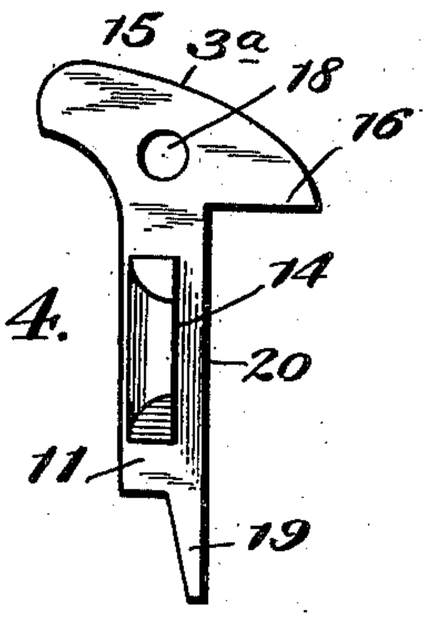

Fig. 4.

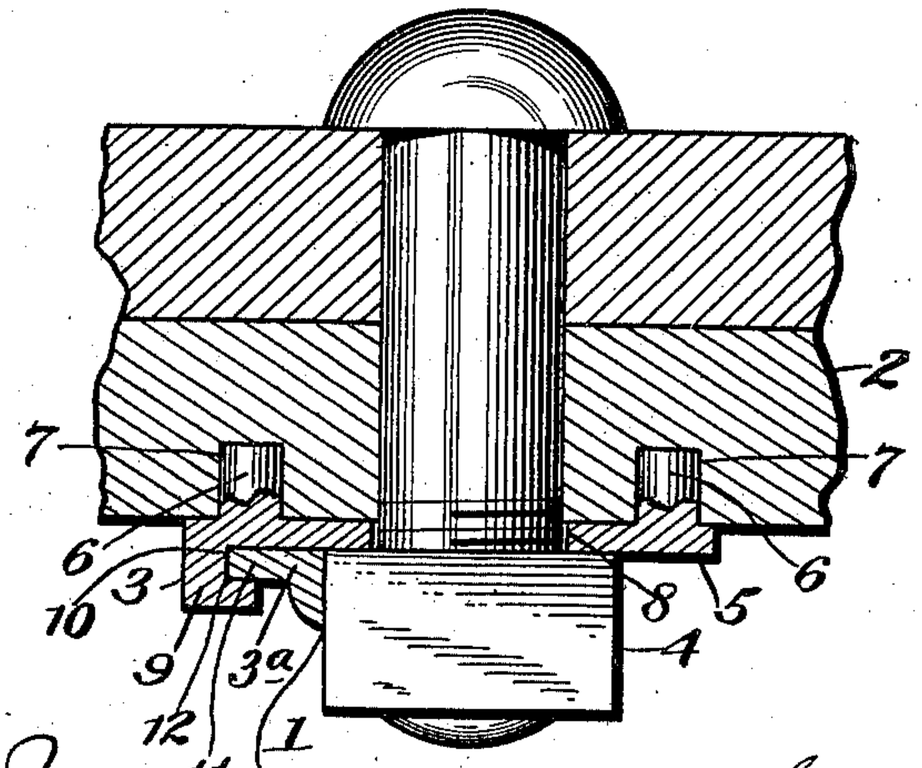

Fig. 2.

WITNESSES:

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GEORGE H. ROBERTS, SR., OF NEW YORK, N. Y.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 709,043, dated September 16, 1902.

Application filed September 14, 1901. Serial No. 75,396. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. ROBERTS, Sr., a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification.

This invention relates to nut-locks; and it has for its object to provide an improved device of this class which will be superior in point of positiveness of operation, simplicity of construction, facility of connection and disconnection, and general efficiency and durability.

In the drawings, Figure 1 is a face view of my improved nut-lock, showing the same in use. Fig. 2 is a detail transverse sectional view taken upon the line *x x*, Fig. 1. Fig. 3 is a detail view of an element of my improved nut-lock in detached position. Fig. 4 is a similar view showing a modified form of construction.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates my improved nut-lock, which operates in connection with the work 2 to effectually lock the nut against detachment or unscrewing. The improved nut-lock embodies a stop member 3, which is securely attached to the work 2, and a key member 3^a, which operates in connection with the stop member and with the nut 4. The stop member 3 is preferably carried by a base-plate 5, which is carried by the work 2, and may be provided with fixed studs or plugs 6, which are secured in openings 7 in the work 2. The base-plate 5 is provided with a centrally-arranged bolt-opening 8, through which the bolt projects from the work, and the studs or plugs 6 are preferably arranged at opposite sides of the opening 8 to firmly center the base-plate 5 with respect to the bolt. The stop member 3 is arranged at one side or end of the base-plate 5. In the preferred form of construction the stop member 3 consists of an angular piece or block 9, and the key member 3^a is formed to closely fit said angular piece or block 9 and to bear upon one or more faces of the nut, the angular formation of the piece or block forming an angular seat 10 for the key member. The key member 3^a consists of a straight shank portion 11, one side edge 12 of which is formed to fit the angular seat 10, embodied in the stop member, and the other side edge portion 13 of which is formed to engage with one of the faces of the nut and may be provided with an enlargement forming a shoulder 14, whereby a more effectual engagement with the face of the nut is obtained. The shank portion 11 is provided with a head 15, one side edge of which, 16, is formed and arranged at the proper angle with the side edge 13 of the shank for operative engagement with another face of the nut 4. The opposite side of the head 15 embodies a side edge portion 17, which is formed and arranged at the proper angle with the side edge portion 12 of the shank 11 for engagement with the end of the stop member 3 or angular piece or block 9 to maintain the key member in proper operative position. The head 15 may also be provided with an opening 18, through which any suitable securing device (not shown) may be passed for further securing the key member in position.

At the end of the shank portion 11 opposite that on which the head 15 is formed a narrow prong or finger 19 is arranged and normally projects in alinement with and as an extension of the shank 11. The prong or finger 19, when the key member is in operative position in engagement with the stop member and with the nut, may be bent into engagement with still a third face of the nut, as shown in Fig. 1, to more effectually lock the nut in position.

In the modified form of construction illustrated in Fig. 4 the shoulder 14 is arranged upon the opposite side edge portion of the shank 11, whereby it may be engaged with the stop member 3 and whereby the other side edge portion 20 may be engaged in a suitable recess formed in the nut. This construction is a mere reversal of that shown in Figs. 1, 2, and 3, the main parts of the key member being the same as that shown in the figures above referred to.

The operation and advantages of my improved nut-lock will be readily understood. The nut is firmly screwed home against the base-plate 5 and is brought into proper position to admit the key member 3^a between the same and the stop member 3. The key-shank

11 is then slidably inserted into the seat 10 of the stop member, so that the shoulder 14 and the side edge portion 13 of the same bear against the face of the nut, and the side edge portions 16 and 17, respectively, of the head 15 of the key member bear against the nut 4 and the end of the stop member 3. The prong or finger 19 upon the key-shank is then bent into engagement with the adjacent face of the nut. It will be noted that the nut is firmly engaged in locked position upon three of its faces by the shoulder 14 and the side edge portion 13 of the key-shank, by the side edge portion 16 of the key-head, and by the prong or finger 19, respectively, and that the nut is thus firmly maintained in locked condition in connection with the work. To release the nut, the prong or finger 19 is straightened out and the key member is withdrawn from the seat 10 of the stop member.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

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

1. A device of the class described, comprising a base-plate provided with means to prevent the rotation thereof and at one side of its upper surface with an upwardly-projecting rib having at the top thereof an inwardly-extending shoulder and a locking device fitting under said shoulder and against said rib and pressing against the nut and provided with a head bearing on one side against one face of the base-plate and on the other side against one face of the nut and with the end portion adapted to be bent into engagement with another face of the nut.

2. A device of the class described, comprising a base-plate provided with means to prevent the rotation thereof and at one side of its upper surface with an upwardly-projecting rib having at the top thereof an inwardly-projecting shoulder and a locking device fitting under said shoulder and against said rib and between the nut and base-plate and provided with a shoulder bearing against the nut and with a head projecting from opposite sides of said device and bearing against the base-plate and nut and with an end portion bent into engagement with another face of the nut.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

GEORGE H. ROBERTS, Sr.

Witnesses:
J. R. Littell,
Hartwell P. Heath.