

No. 765,245.

PATENTED JULY 19, 1904.

W. C. MILLS.
NUT LOCK.

APPLICATION FILED DEC. 6, 1903.

NO MODEL.

Fig. 1

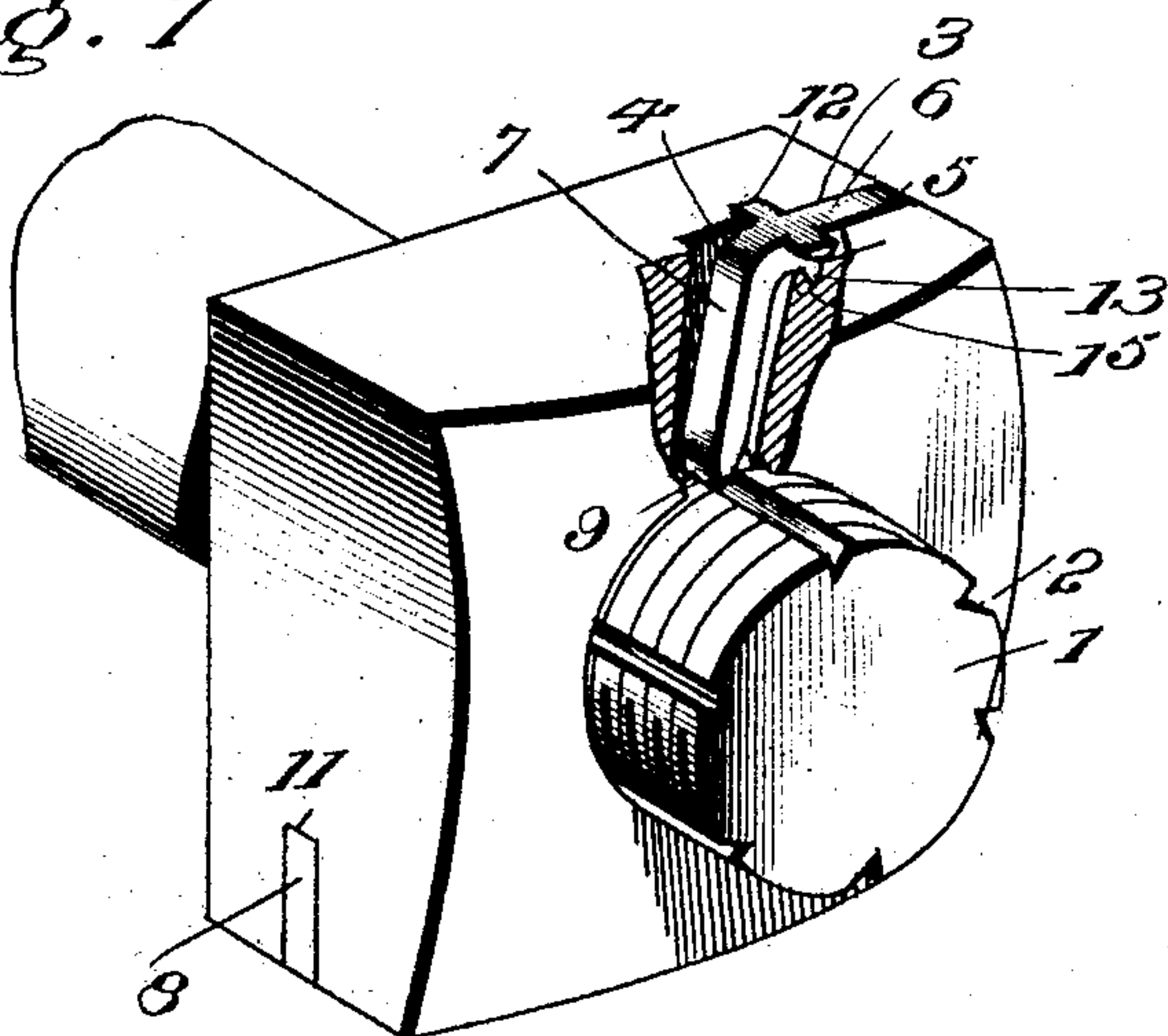


Fig. 3

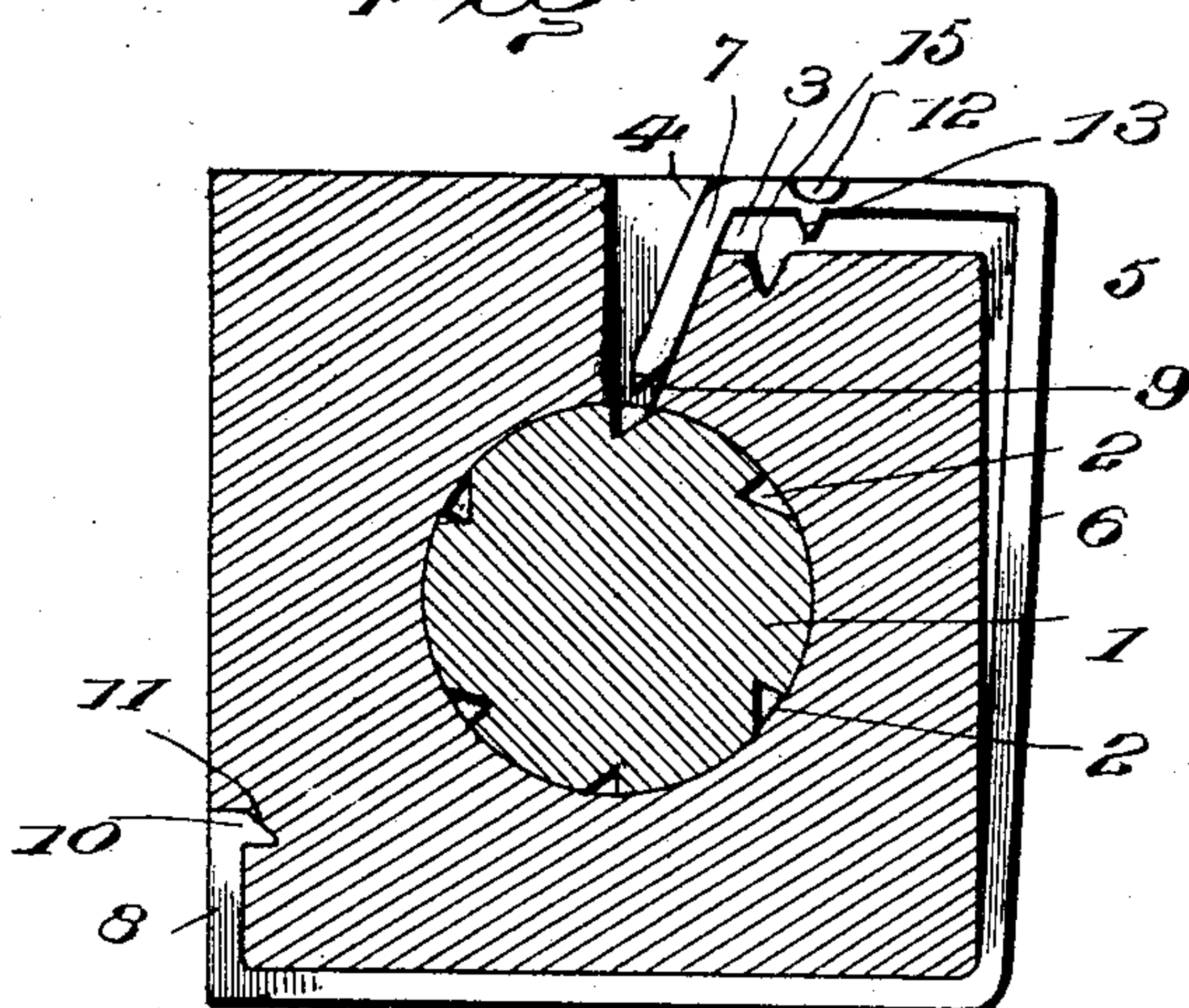


Fig. 2

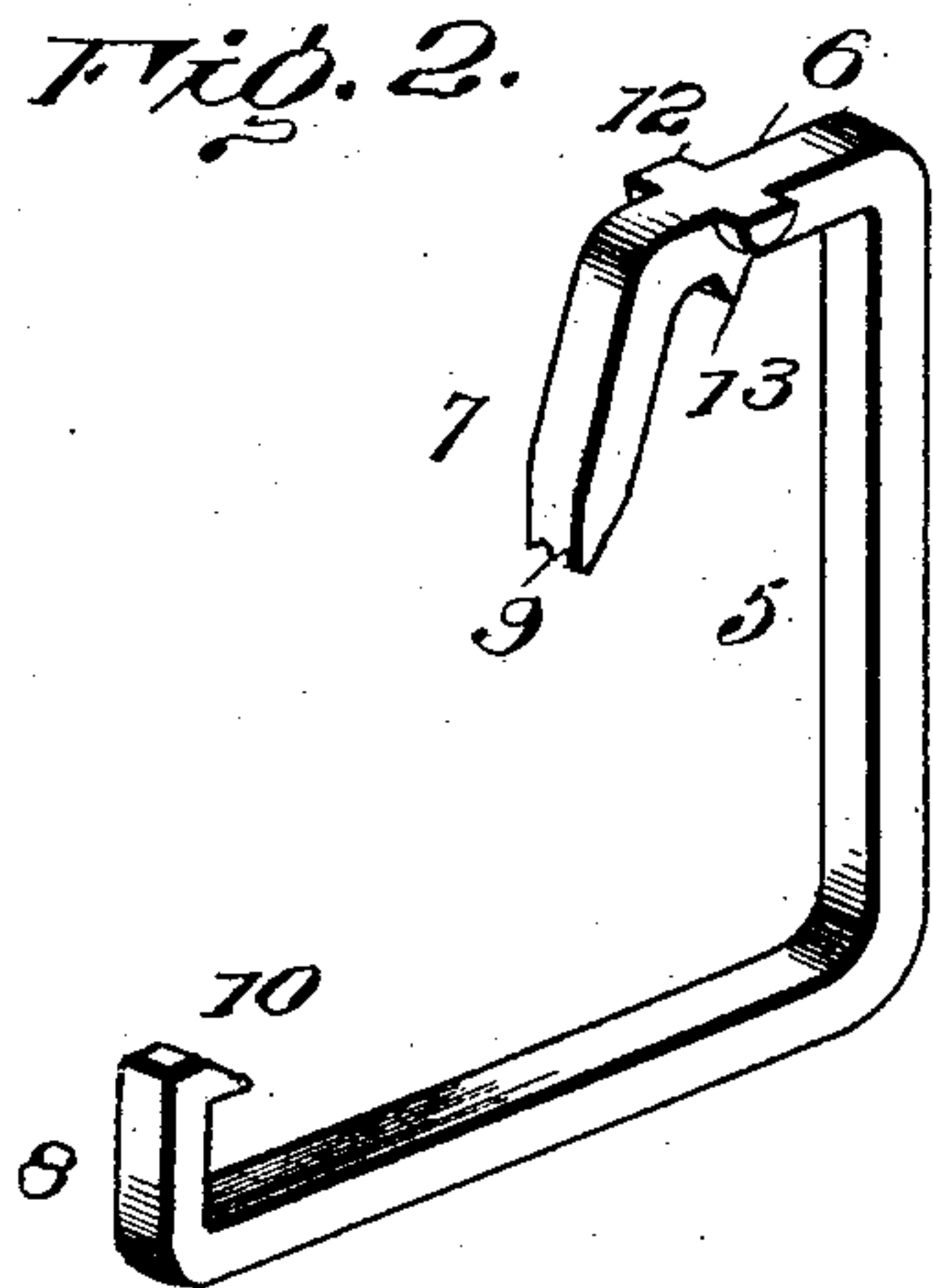
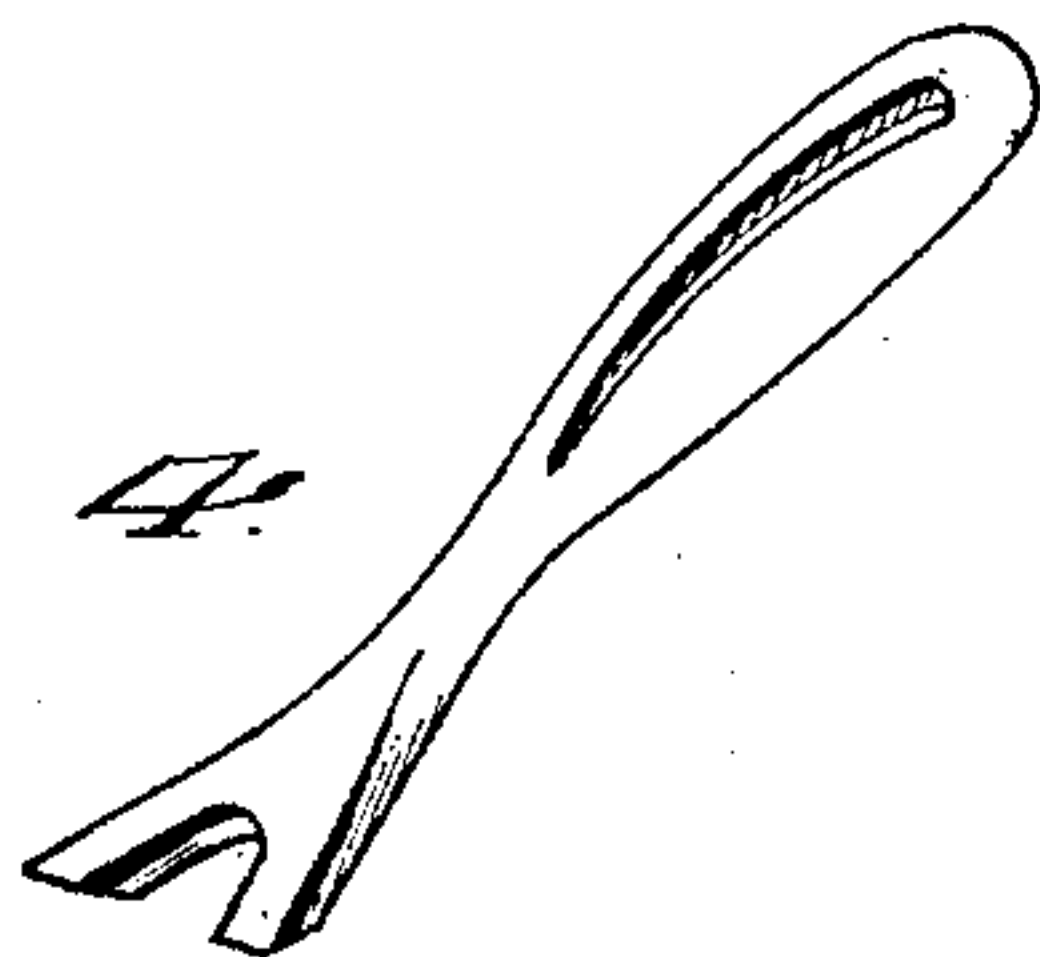


Fig. 4



Inventor

W. C. Mills

Witnesses

W. N. Woodson
W. N. Woodson.

By

Philo R. Lacy, Attorneys

UNITED STATES PATENT OFFICE.

WILBER C. MILLS, OF BANKERS, MICHIGAN.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 765,245, dated July 19, 1904.

Application filed December 5, 1903. Serial No. 183,972. (No model.)

To all whom it may concern:

Be it known that I, WILBER C. MILLS, a citizen of the United States, residing at Bankers, in the county of Hillsdale and State of Michigan, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification.

This invention provides a novel form of means for locking nuts to bolts. The special feature of the invention is a peculiar form of lock device carried by the nut, which is adapted to engage the bolt, and to thereby prevent accidental displacement of the nut after same has been screwed in position due to vibration or other of the usual causes.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the invention applied, the nut being broken away to show the specific means for locking the same. Fig. 2 is a detail perspective view of the lock-spring. Fig. 3 is a vertical sectional view showing the disposition of the engaging end of the lock-spring when the same is not in engagement with the bolt. Fig. 4 is a view of a tool which is specially adapted for disengaging the lock-spring from the bolt.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In carrying out the invention the bolt 1 is provided with a plurality of longitudinal grooves 2 upon the threaded portion thereof. The nut illustrated may be of any suitable type and is provided with a groove 3, which extends nearly around the nut, being disposed in the side portions thereof. An opening 4 leads from the outer side of a portion of the nut, extending through the body of the nut

to the threaded opening therein. The lock-spring 5 is seated in the groove 3 in the nut and consists of angularly-disposed members 6, one of said members being provided with a bolt-engaging extension 7 and the other one of the members being provided with a nut-engaging extension 8. The end of the extension 7 extends through the opening 4 of the nut, the extremity of the said end being adapted to engage the longitudinal grooves 2 of the bolt. The extreme end portion of the extension 7, which is approximate the threaded portion of the bolt, may be grooved, as shown at 9, to facilitate the engaging action thereof. The extension 8 of the lock-spring is provided with a laterally-disposed lug 10, which is received by a recess 11 in one side of the nut, said lug preventing displacement of the spring cooperating with the bolt-engaging extension. In order that the bolt-engaging extension may be disengaged from the bolt 1, projections 12 are laterally extended from the extension 7, preferably formed integrally therewith, the said projections being adapted to be engaged by a suitable tool, such as is shown in Fig. 4, which tool effects the disengagement of the end portion of the extension 7 in a manner which will be readily apparent.

In order that the extension 7 may be held out of engagement with the bolt, which is necessary in screwing the nut from the bolt, a lug 13 is provided, said lug extending laterally from the extension 7 adjacent the point at which the projections 12 are disposed, and when received in a recess 15, leading laterally from the groove 3 in the nut, the said lug holds the extension in the disengaging relation before described. The lock-spring is formed in one piece and spanning the sides of the nut is adapted to be readily sprung into engagement and held in this position.

Having thus described the invention, what is claimed as new is—

In a nut-lock, the combination with a bolt provided with a plurality of longitudinal grooves upon the threaded portion thereof, a nut having a lateral opening leading from a side thereof to the threaded opening therein, a lock-spring having its ends bent to form

bolt-engaging and nut-engaging extensions,
the bolt-engaging extension being received by
the lateral opening in the nut and having its
end proximate the threaded portion of the
5 bolt for engagement therewith, integral lat-
eral projections extended from the bolt-engag-
ing extension aforesaid, and a supporting pro-
jection also extended from and integrally
formed with the bolt-engaging extension and

adapted to hold same out of engagement with the bolt.

In testimony whereof I affix my signature in
presence of two witnesses.

WILBER C. MILLS. [L. s.]

Witnesses:

LEMUEL KIDMAN,
LEO. GUY PERIN.