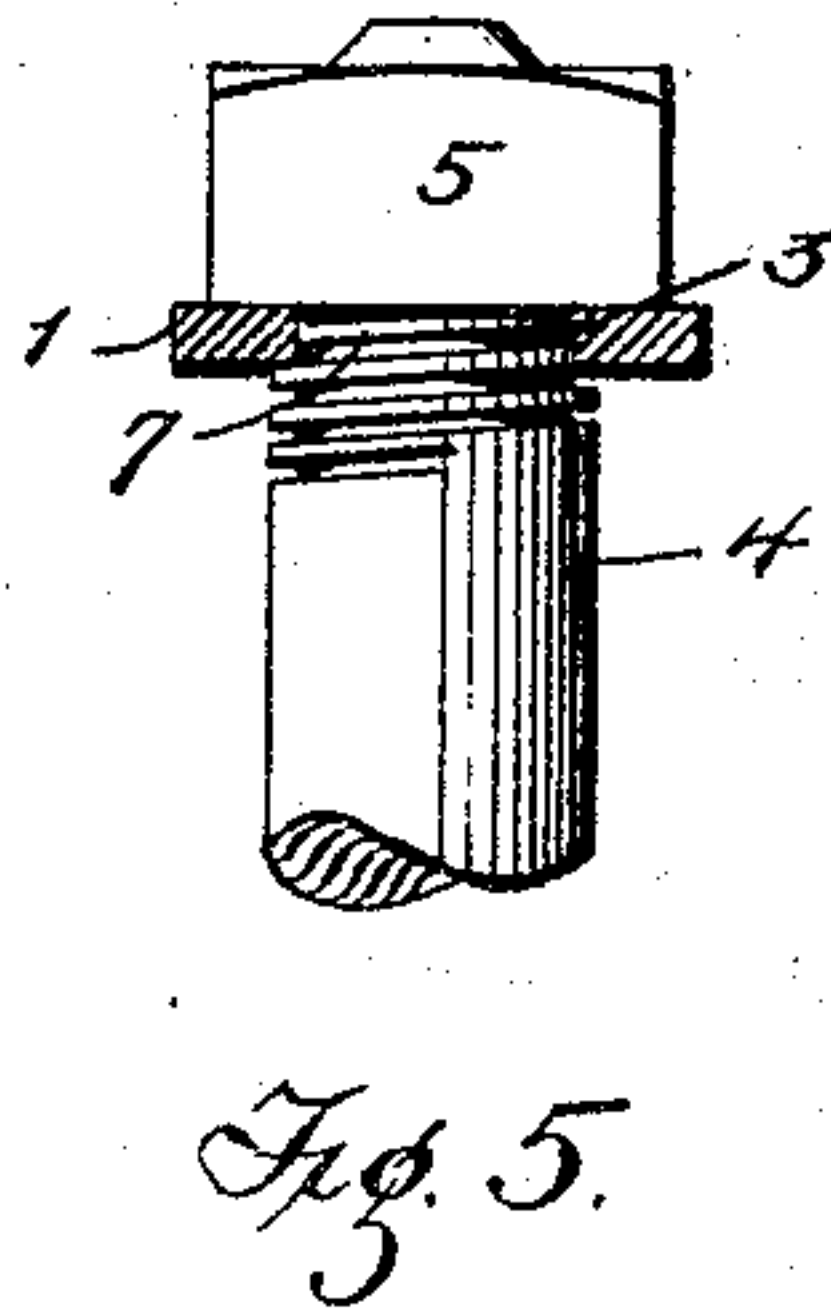
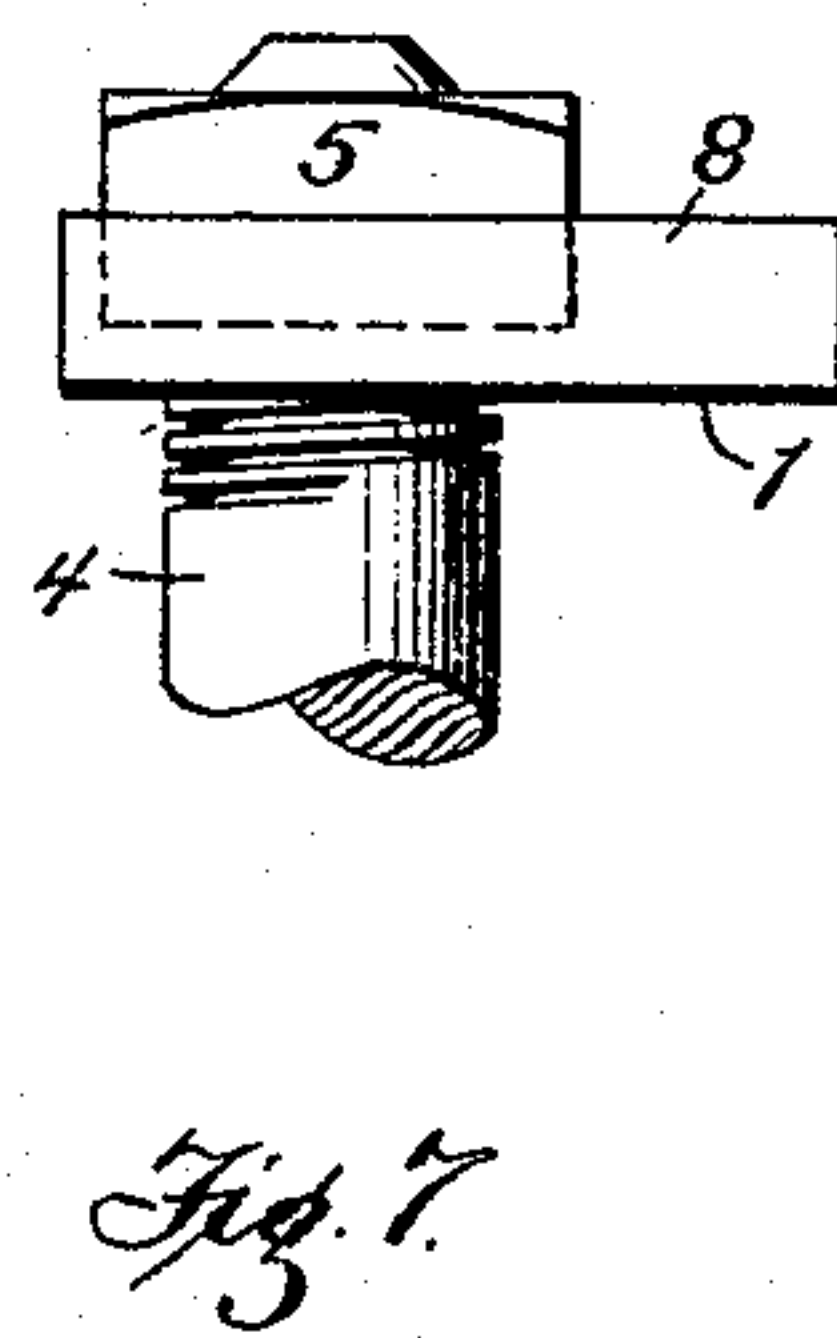
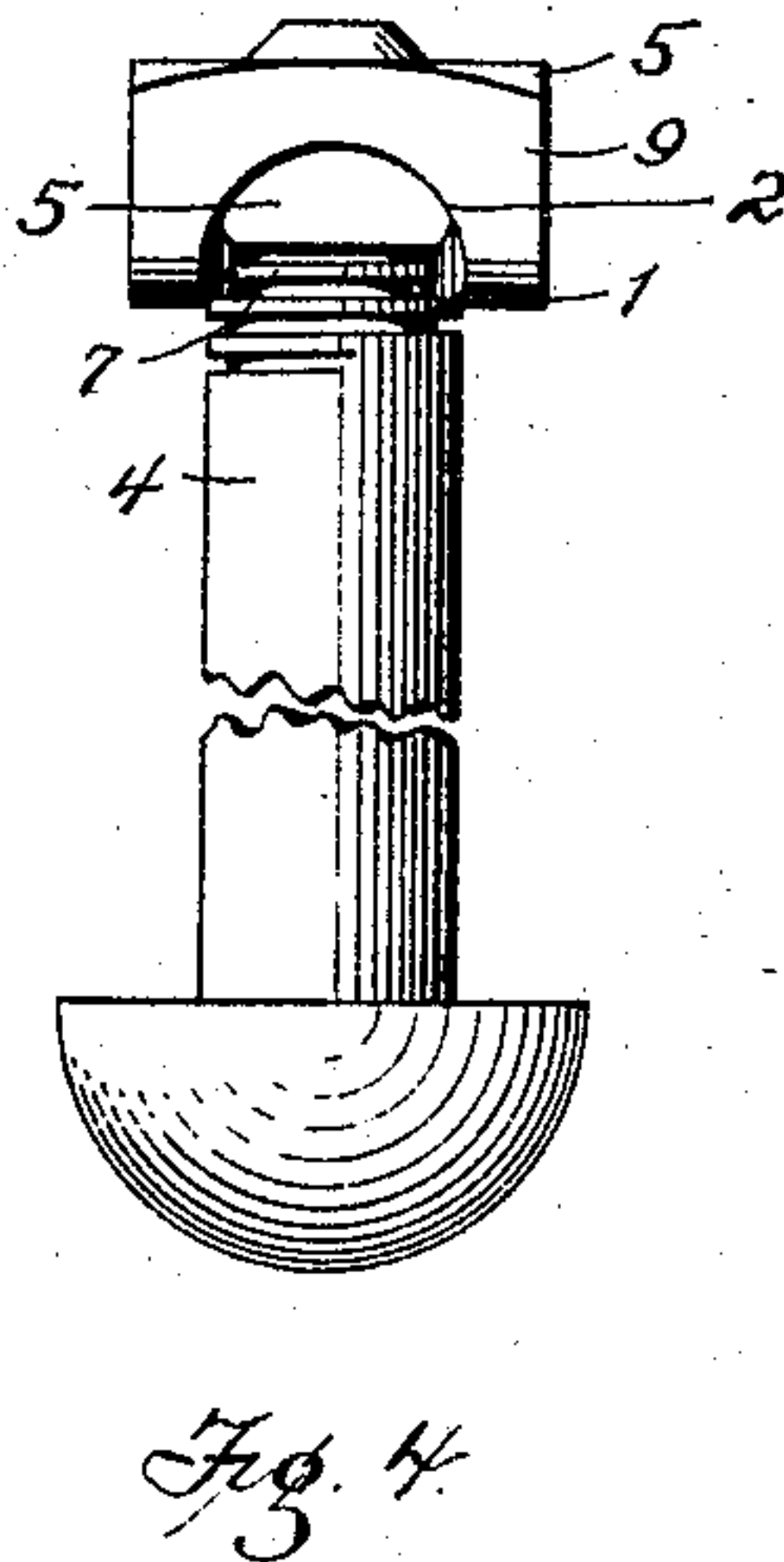
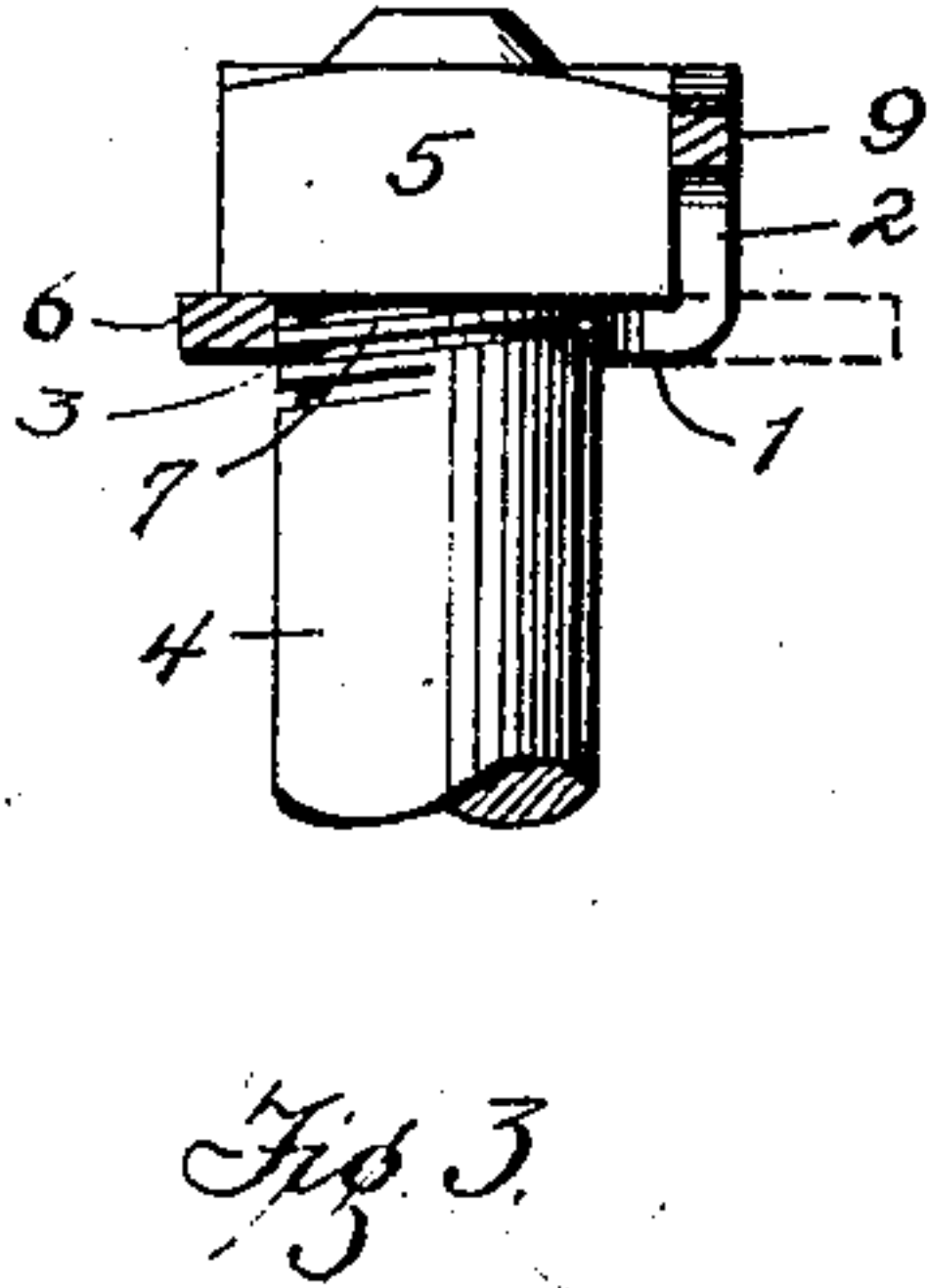
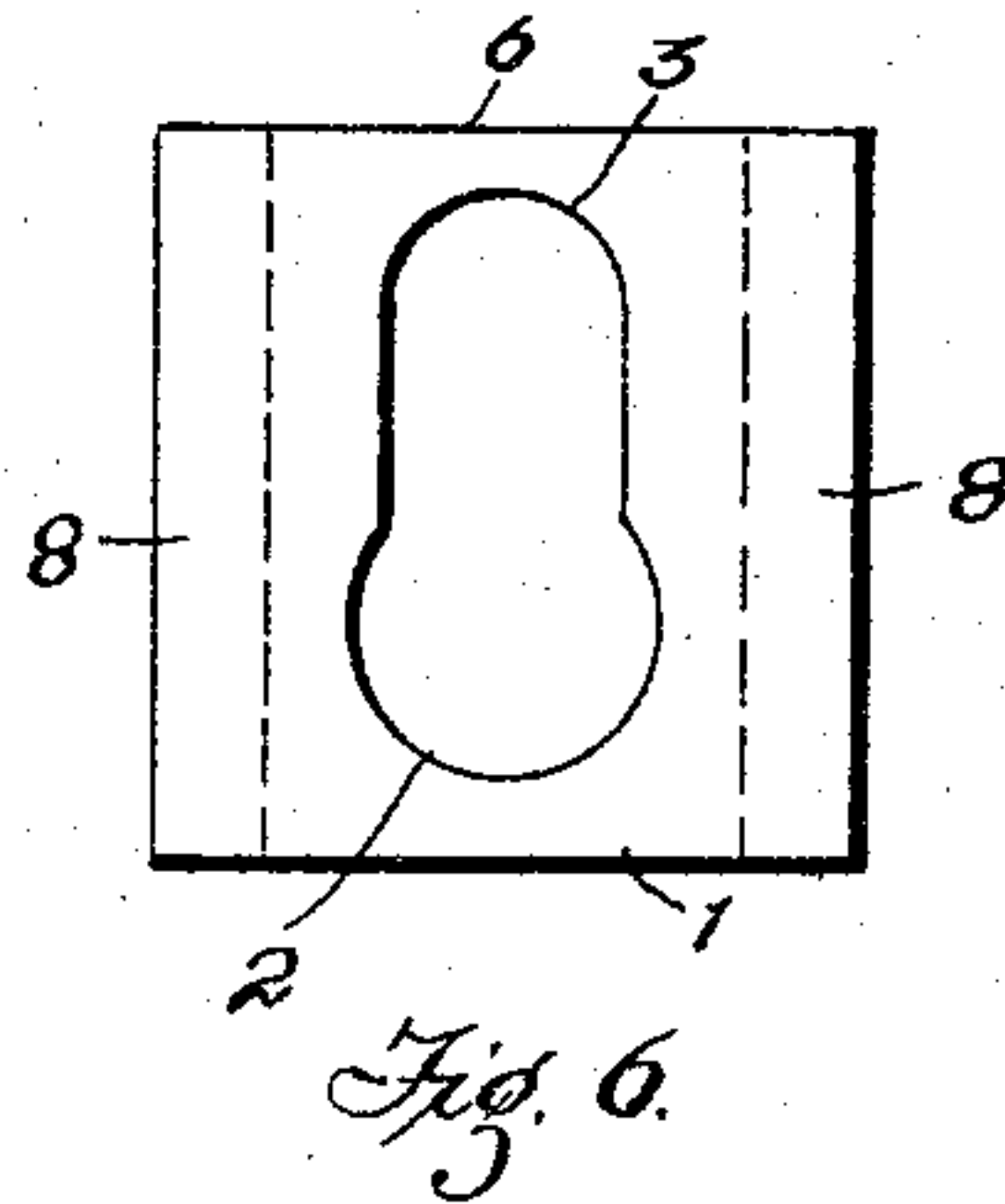
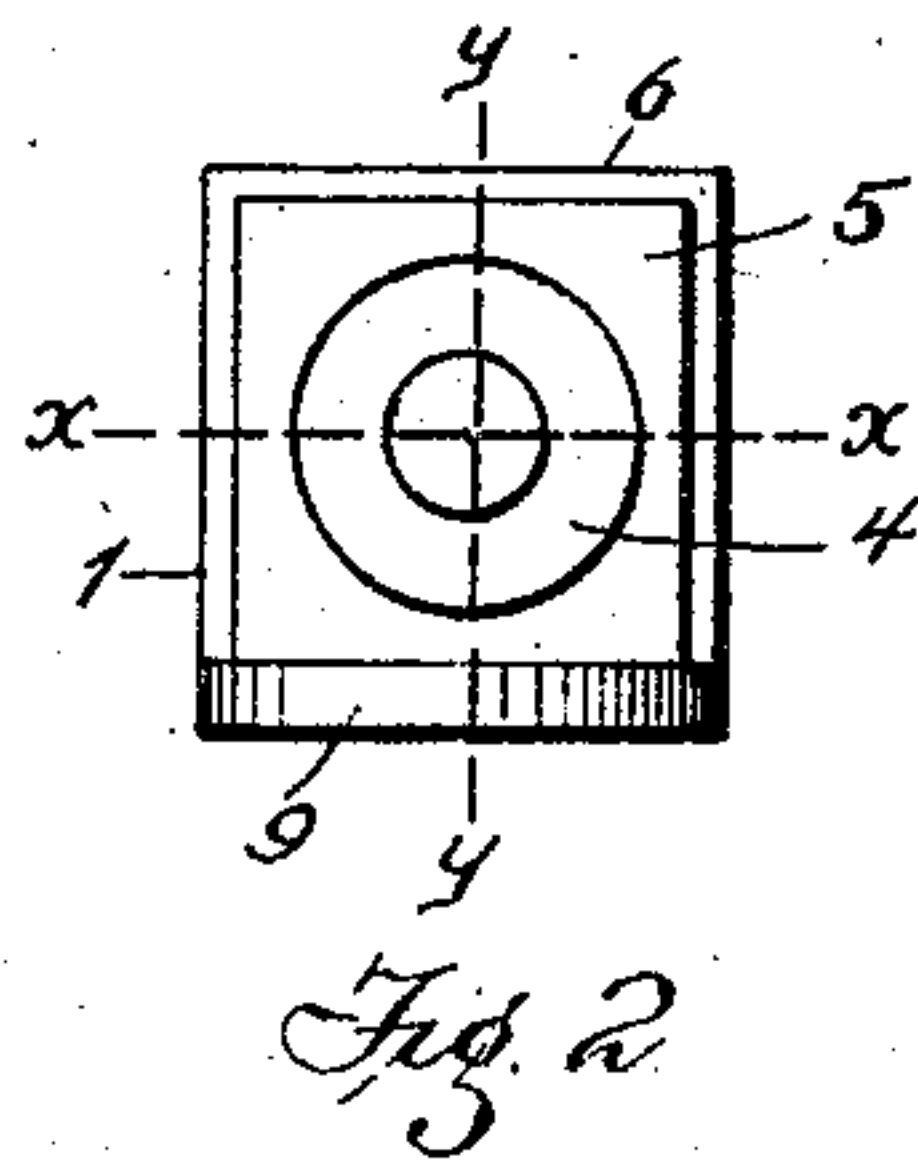
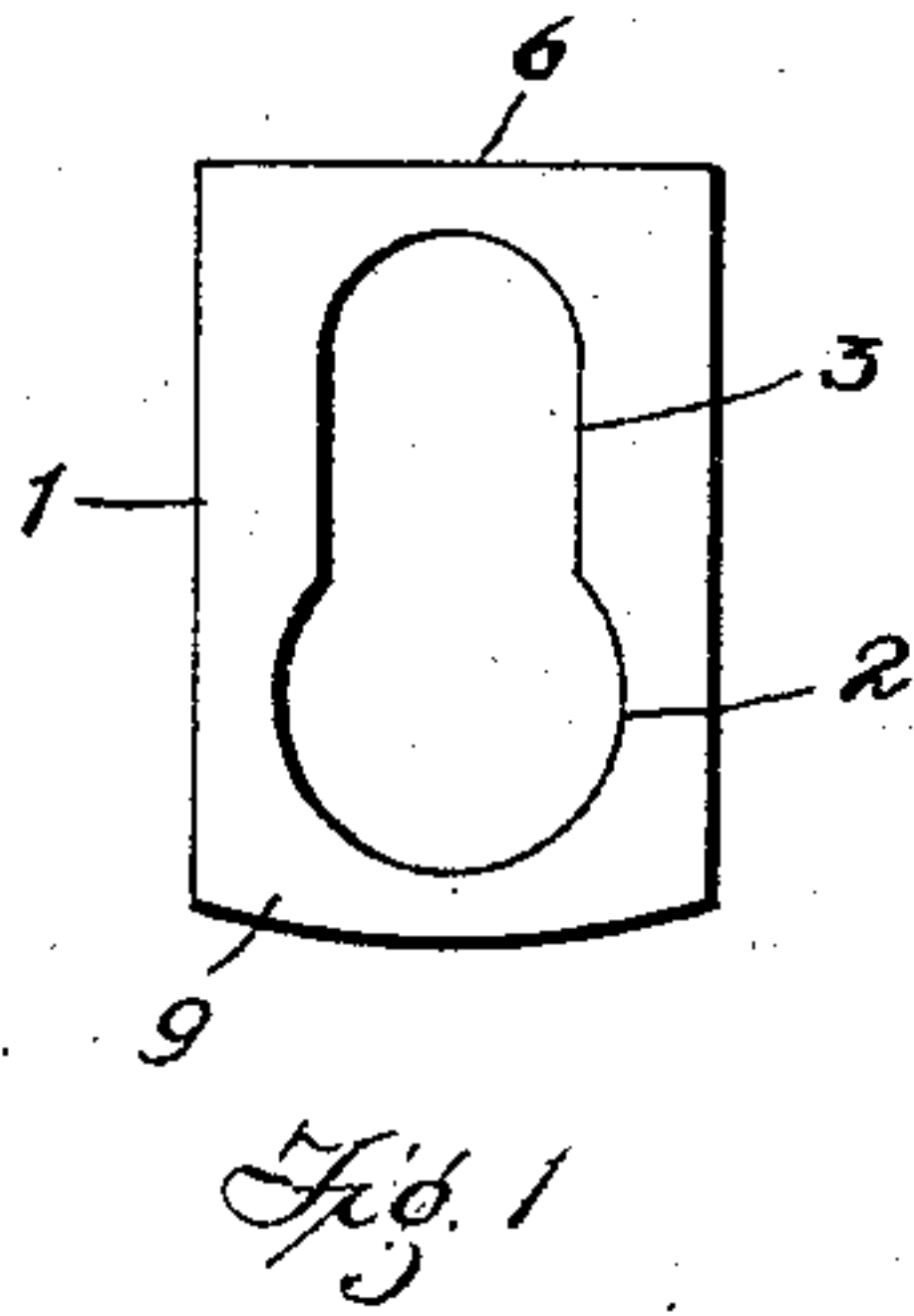


No. 782,329.

PATENTED FEB. 14, 1905.

H. K. FORBIS.  
NUT LOCK.

APPLICATION FILED APR. 18, 1904.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HARBERT K. FORBIS, OF COLUMBUS, OHIO.

## NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 782,329, dated February 14, 1905.

Application filed April 18, 1904. Serial No. 203,658.

*To all whom it may concern:*

Be it known that I, HARBERT K. FORBIS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Nut-Locks, of which the following is a specification.

This invention relates to a new and useful improvement in nut-locks.

The object of the invention is to provide a locking-plate provided with an opening having a contracted end, which contracted portion serves to mash the threads when the plate is drifted on the bolt, and thus securely hold the locking-plate without mutilating the bolt to such an extent that the nut cannot be turned past the mashed threads.

Another object resides in a locking-plate which may be applied to any ordinary bolt and at the same time to obviate such antecedent steps as forming grooves and notches in the bolt or flattening the sides thereof.

Finally, the object of the invention is to provide a device of the type set forth that will be strong, durable, and efficient, and simple and inexpensive to make, and one which is not liable to get out of working order.

With the above and other objects in view the invention consists of the novel details of construction and operation, a preferable embodiment of which is described in the specification and illustrated in the drawings, wherein—

Figure 1 is a plan view of the locking-plate. Fig. 2 is a plan view of a coupled nut and bolt, showing the locking-plate in place. Fig. 3 is a longitudinal sectional view taken on line *y y* of Fig. 2. Fig. 4 is a front elevation of a nut and bolt, showing the locking-plate. Fig. 5 is an elevation showing the locking-plate in transverse section on line *x x* of Fig. 2. Fig. 6 is a plan view of a slightly-modified form of locking-plate, and Fig. 7 is a side elevation showing the modified locking-plate applied to a nut and bolt in its locking position.

In the drawings the numeral 1 designates the locking-plate, which is preferably rectangular in shape and formed of any suitable metal. The

plate is formed with a keyhole-slot having the enlarged portion 2 and the contracted portion 3. The portion 2 is preferably formed slightly larger than the diameter of the bolt to which the plate is to be applied, thus allowing the same to be readily slipped on the bolt over the threads thereof, while the contracted portion 3 has a width equal to the diameter of the bolt between the threads. In applying the plate the bolt 4 is inserted through the opening 2 and the nut 5 turned down on the threads until it impinges the plate. The plate is then given a few sharp blows upon its rear end 6, which drifts it forward, causing the contracted portion 2 to mash down the threads 7 of the bolt and to stand about the same, as shown in Figs. 3 and 5. It will be readily seen that the plate and the bolt are thus fixedly connected and that it is impossible for the plate to turn on the bolt, or vice versa. The forward end 9 of the plate is then bent upward against the front face of the nut 5, forming a right-angular seat for the same and securely locking it against turning. Should it be desired to remove the nut, it is only necessary to bend the forward end of the plate downward to a horizontal position, as shown by dotted lines in Fig. 3, and force the same backward by a few sharp blows, causing the bolt to stand in the enlarged portion 2 of the slot, when the nut may be turned off the bolt and the plate removed.

In Figs. 6 and 7 I have shown a slightly-modified form of locking-plate. The plate 1 is provided with projecting side portions 8, which when the plate is applied to the bolt, as hereinbefore described, are bent up at right angles to the plate to form flanges which impinge the opposite sides of the nut, thus preventing the latter from turning. It is evident that the bolt-body proper is in no way mutilated or injured and that merely the threads engaged by the locking-plate are mashed on their opposite sides and that by slightly increasing the energy exerted in turning the nut on the bolt it may be easily carried over the mashed threads. The locking-plate may be readily applied to a bolt without disconnecting the same from its position as no alter-



ation to the bolt proper is necessary, as is the case where grooves, notches, and flattened surfaces are employed.

I do not wish to limit myself to the exact  
5 details of construction and operation set forth,  
as I may make various changes in the same  
without departing from the spirit of my invention.

Having now fully described my invention,  
10 what I claim, and desire to secure by Letters  
Patent, is—

In a nut-lock, the combination with a nut

and a bolt, of a locking-plate having an opening through which the bolt freely passes, and an extension of said opening of less width 15 whereby said locking-plate being driven laterally on the bolt mashes the threads thereof, and a portion of said plate being turned up to lock the nut against rotation.

HARBERT K. FORBIS.

In presence of—

M. B. SCHLEY,

W. L. MORROW.