

J. PILLIG.
NUT LOCK.

APPLICATION FILED JUNE 11, 1910.

Patented Sept. 6, 1910.

969,404.

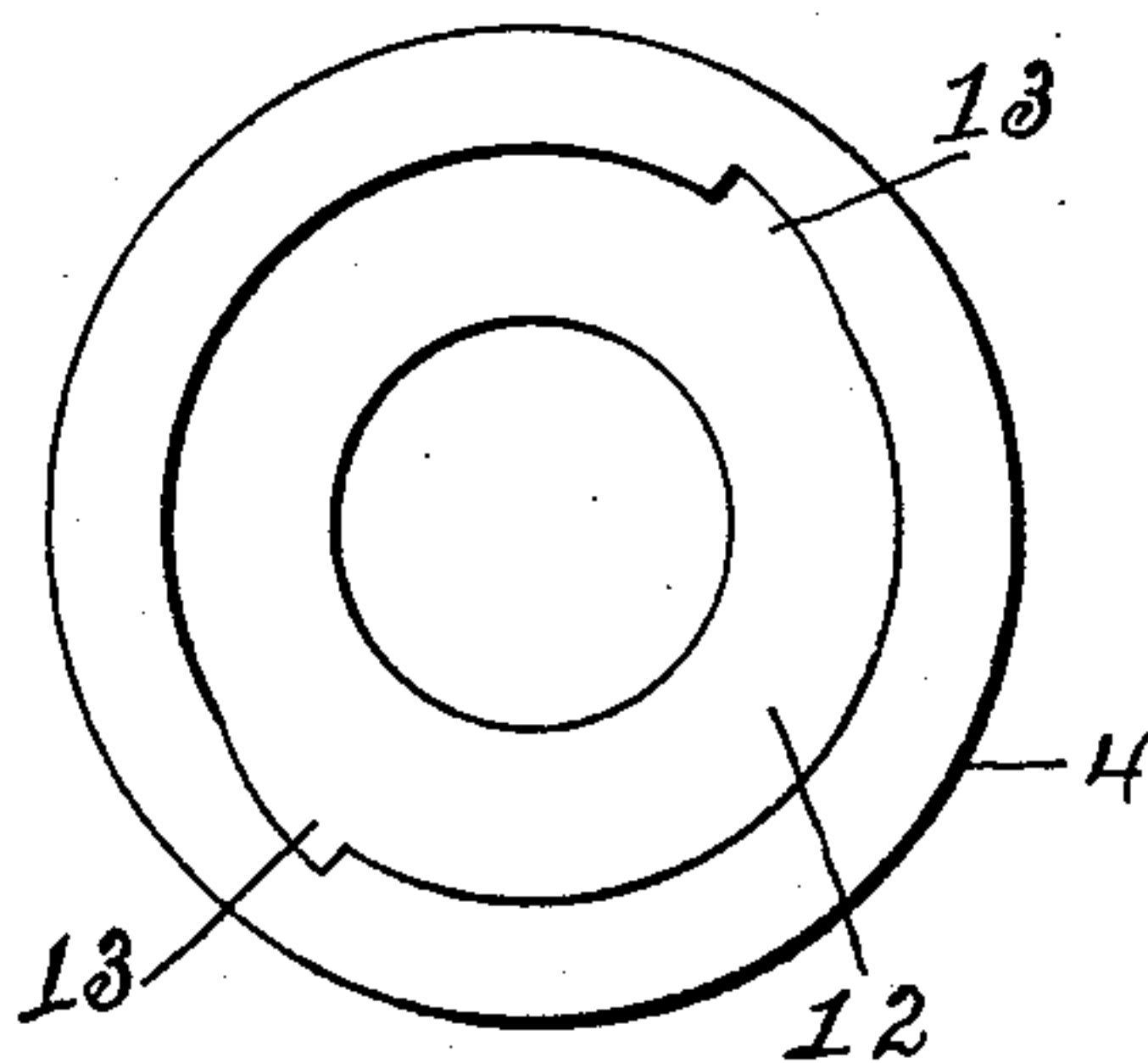
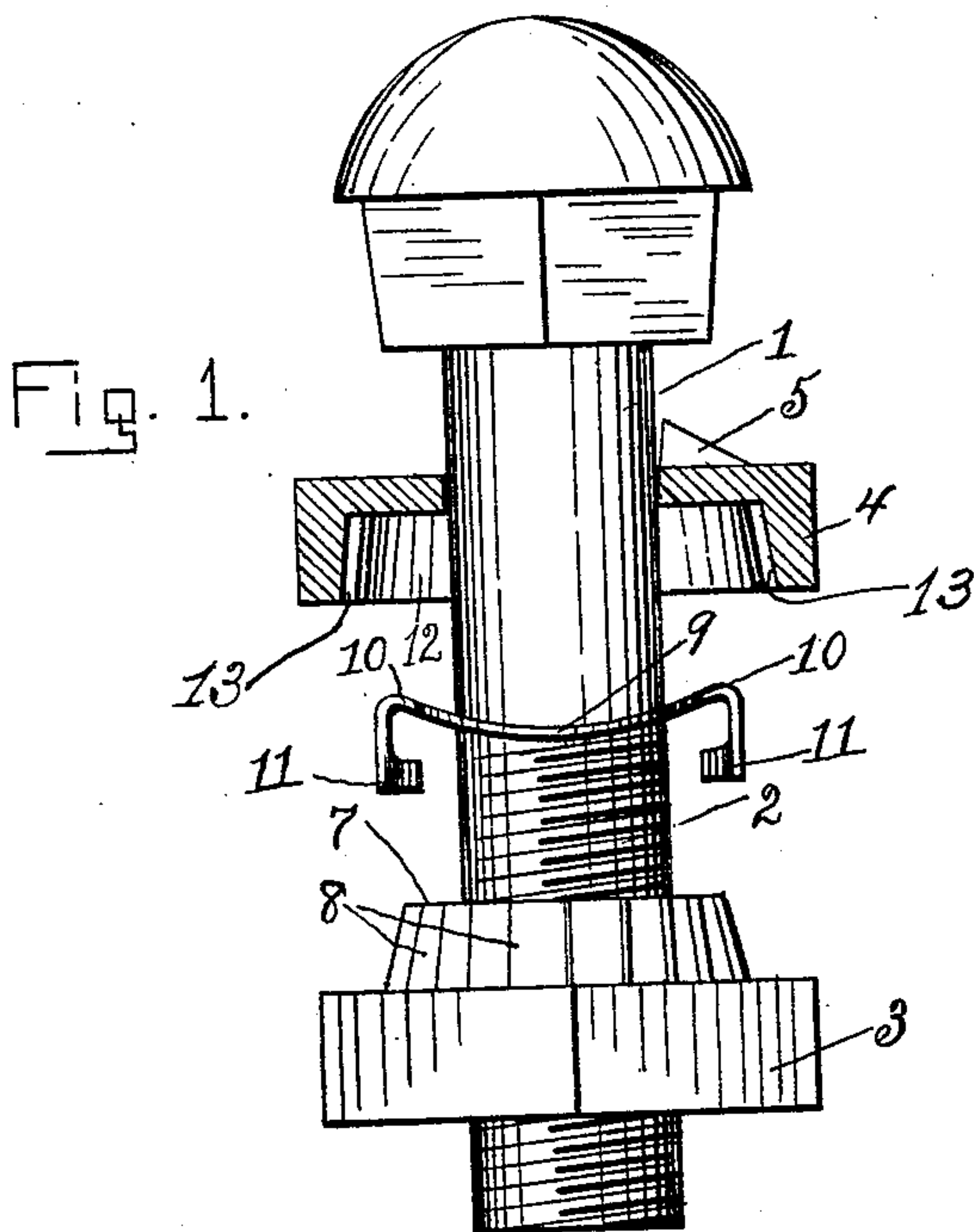


Fig. 3.

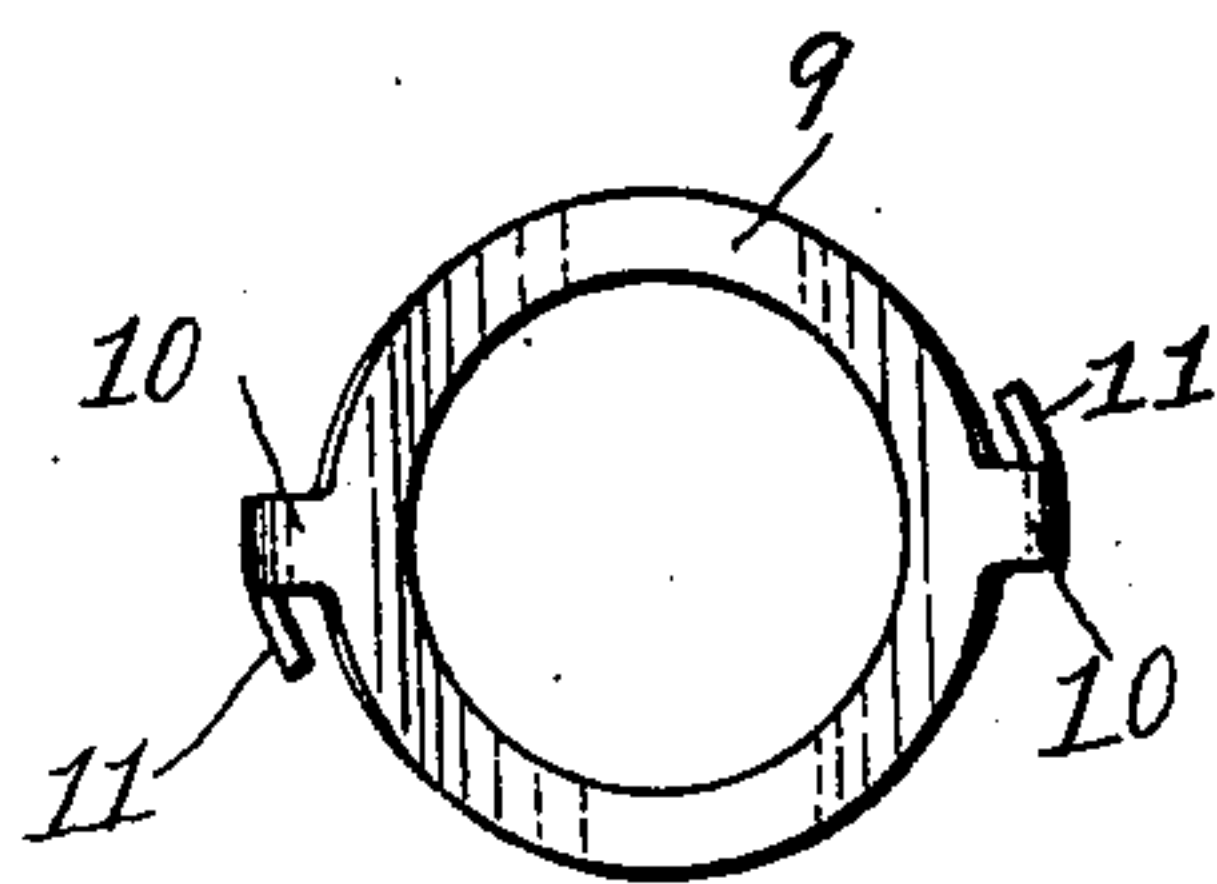
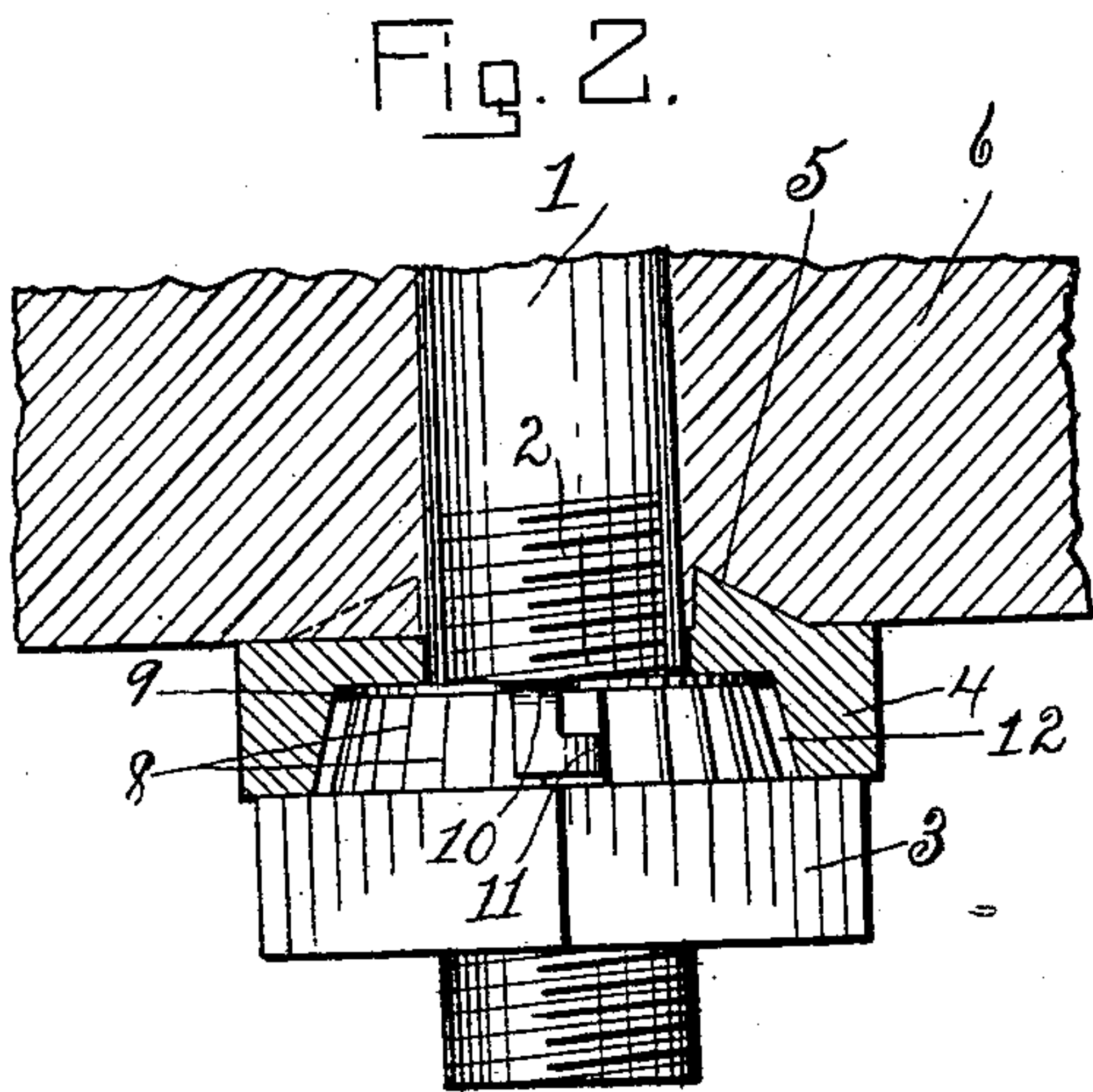


Fig. 4.

WITNESSES:

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NUT-LOCK.

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Specification of Letters Patent.

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To all whom it may concern:

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

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in side elevation of the bolt, nut, and spring-washer of my improved nut-lock, with the main washer shown in cross-section. Fig. 2 is a similar view showing the nut locked in position, the head-portion of the bolt being broken away. Fig. 3 is a bottom plan view of the main washer detached. Fig. 4 is a top plan view of the spring-washer detached.

The principal object of the invention is to effectively lock a nut upon a screw-bolt by means which can be intentionally readily rendered inoperative, and which can be readily and cheaply replaced to render the lock again effective.

Referring to the drawings wherein the invention is shown in preferred form, 1, represents an ordinary screw-bolt, screw-threaded at 2, to receive a nut, 3, adapted to engage a main washer, 4, provided with a spur, 5, to penetrate or enter a recess in the body, 6, to which the bolt is applied, whereby said washer, 4, is prevented from rotation.

The nut, 3, is formed with a boss, 7, on its inner side, the periphery of which boss is cut in the form of ratchet-teeth, 8, facing in a direction the reverse of that in which the nut requires to be turned to screw it upon the bolt.

Loosely inclosing the bolt is a spring-washer, 9, having at two diametrically opposite points outwardly extending wings, 10, terminating in dogs, 11, adapted to cooperate with the ratchet-teeth, 8, on the nut 3.

The main washer, 4, is formed with a recess, 12, adapted to receive the boss, 7, and the body of the washer, 9, and with notches, 13, extending outward from said recess, 12,

to receive the wings 10. The portions of the spring-washer, 9, adjacent to the respective wings, 10, are bent upward out of the plane of the body of said washer, as shown in Fig. 1, and said spring-washer is made of resilient sheet-metal so that when the nut is screwed tightly against the washer, 4, the bent spring-washer will be compressed and straightened between the bottom of the recess, 12, and the boss, 7, as shown in Fig. 2, thus causing the dogs, 11, to swing inward into a close engagement with the ratchet-teeth, 8, on the nut, to prevent backward rotation of the nut. A forced backward rotation however can be imparted to the nut by the use of a wrench, resulting in breaking the dogs, 11, and rendering them inoperative for further use. To adapt the device for further use, it is necessary merely to replace the spring-washer, 9, which being stamped out of comparatively thin sheet-metal is inexpensive.

I prefer to have the boss, 7, taper inwardly as shown, to facilitate its entrance between the dogs, 11, said dogs thus being gradually forced into tighter engagement with the ratchet-teeth by reason of both the straightening of the spring-washer, 9, and the increasing diameter of the boss, as the nut is screwed into position.

What I claim as new and desire to secure by Letters Patent is—

1. In a nut-lock, and in combination, a screw-bolt; a nut fitting said bolt, and having on its inner side a boss formed with ratchet-teeth on its periphery; a main washer adapted to be engaged by said nut, and provided in its outer side with a recess adapted to receive said boss; means to prevent rotation of said main washer; a spring-washer adapted to be clamped between said boss and the bottom of said recess in the main washer, said spring-washer and main washer being formed to interengage to prevent relative rotation; and a dog on said spring-washer adapted to engage the ratchet-teeth on said boss.

2. In a nut-lock, and in combination, a screw-bolt; a nut fitting said bolt, and having on its inner side a boss formed with ratchet-teeth on its periphery; a main washer adapted to be engaged by said nut, and provided in its outer side with a recess adapted to receive said boss, and with notches opening from said recess; means to prevent rota-

tion of said main washer; a spring-washer adapted to be clamped between said boss and the bottom of said recess, said spring-washer having portions normally bent away from said boss; and wings projecting from said bent portions of said spring-washer adapted to occupy said notches in the main washer, and terminating in dogs adapted to engage the ratchet-teeth on said boss when

said spring-washer is clamped and straight-ened. 10

In testimony whereof, I have hereunto set my hand this 7th day of June, 1910.

JOHN PILLIG.

Witnesses:

D. Cady Bartlett,
W. Safford.