

(No Model.)

N. BOSMANN.

NUT LOCK.

No. 325,906.

Patented Sept. 8, 1885.

Fig. 1.

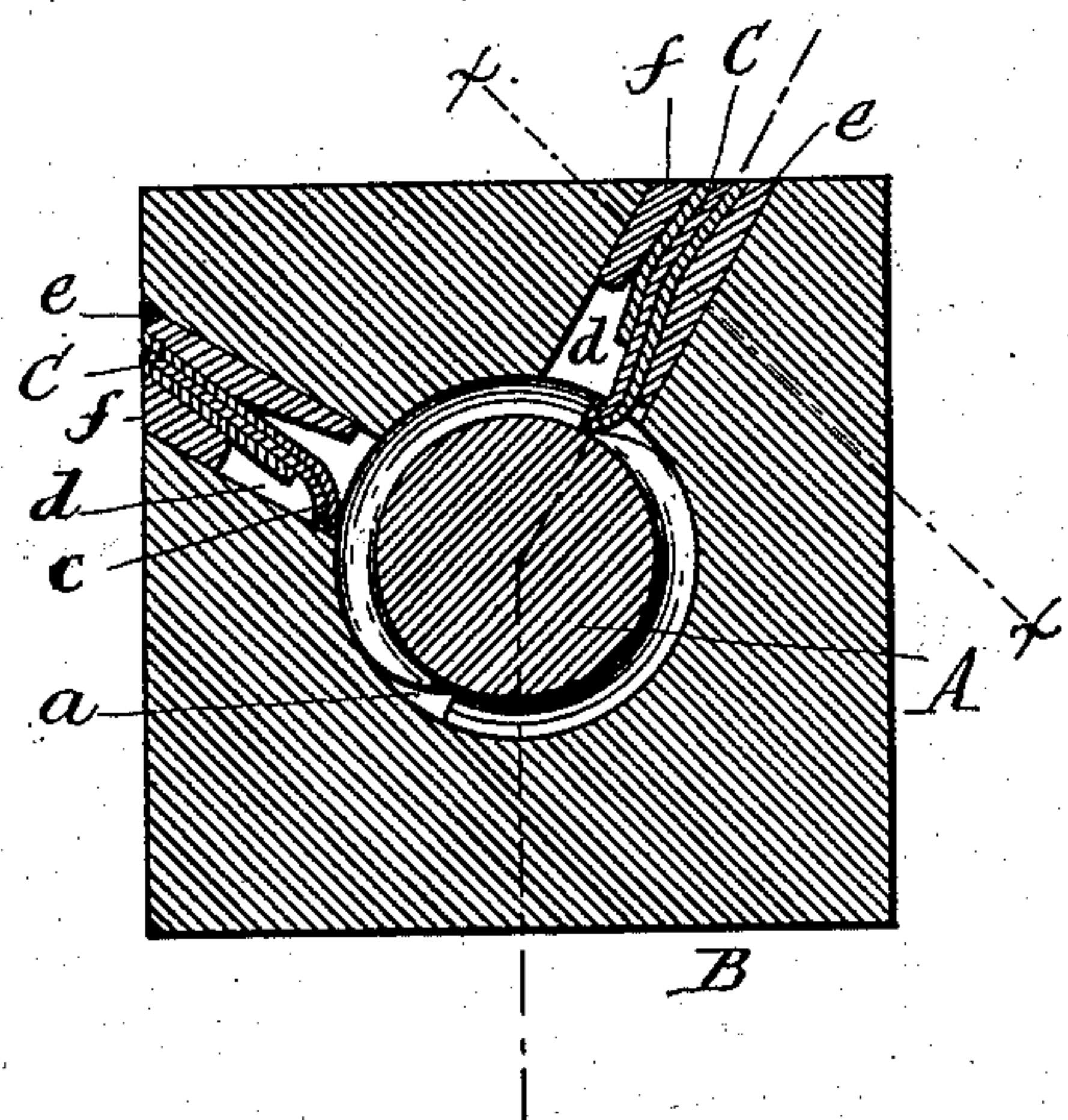


Fig. 2.

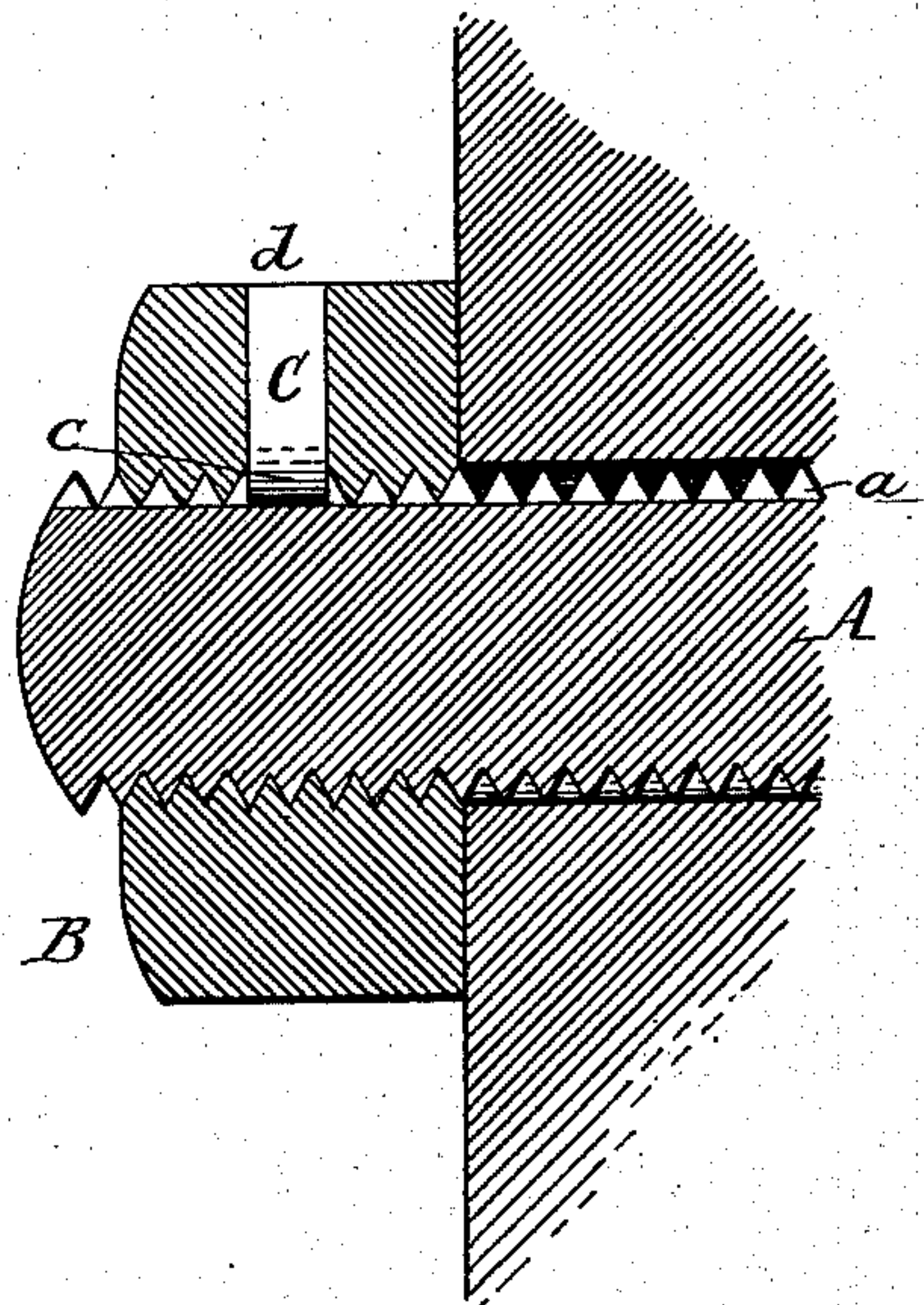
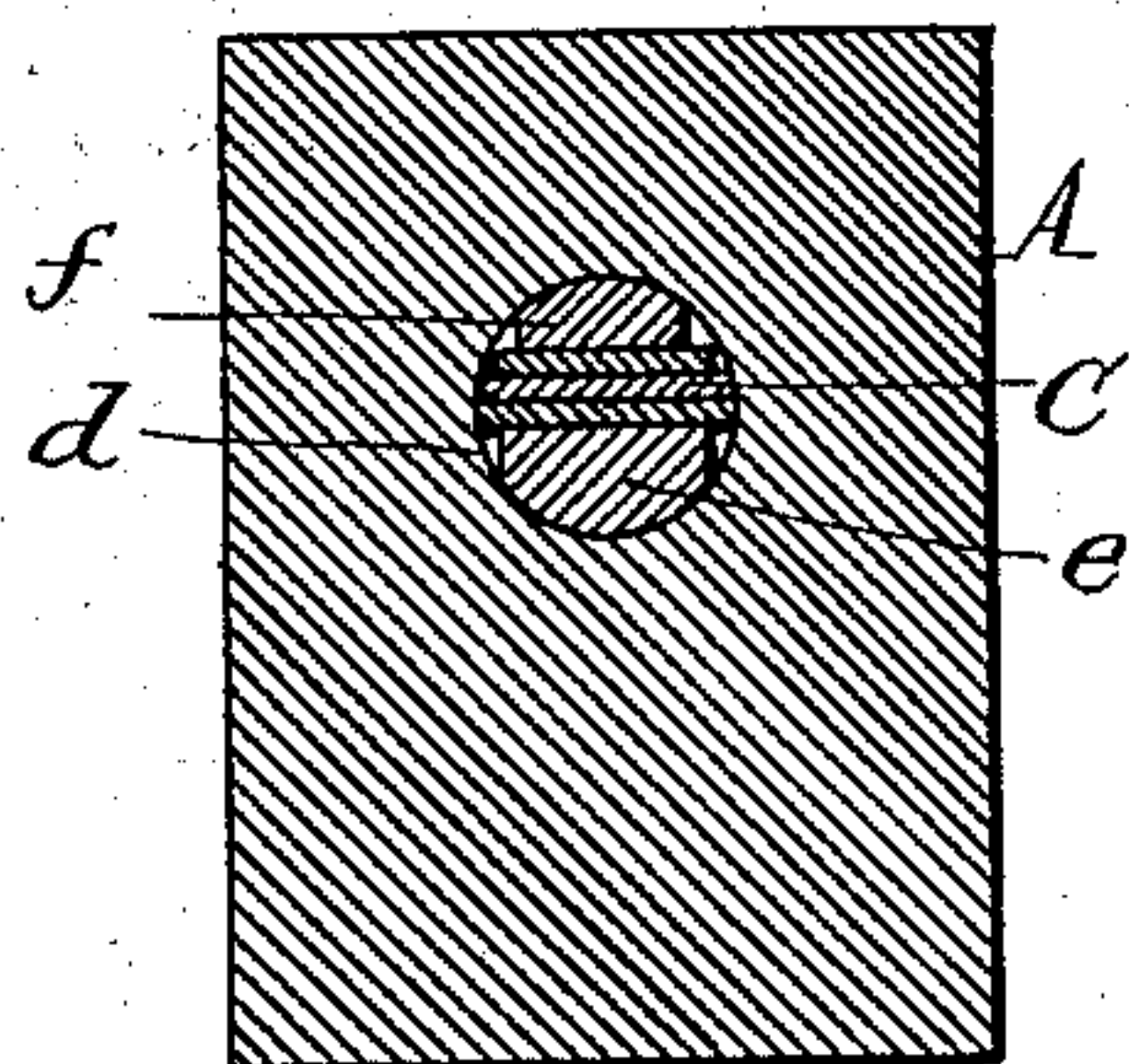


Fig. 3.



Theo. L. Popp.
Otto H. Krotz. } Witnesses.

N. Bosmann Inventor.
By Wilhelm Bonner.
Attorneys.

UNITED STATES PATENT OFFICE.

NICOLAS BOSMANN, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO
FREDERICK P. ACKERMAN, OF SAME PLACE.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 325,906, dated September 8, 1885.

Application filed May 20, 1885. (No model.)

To all whom it may concern:

Be it known that I, NICOLAS BOSMANN, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and
5 useful Improvement in Nut-Locks, of which the following is a specification.

This invention relates to an improvement in that class of nut-locks in which the nut is provided with a spring-detent, which engages in
10 a longitudinal groove formed in the screw-bolt in such manner as to prevent the nut from being turned backwardly, while permitting it to be turned forwardly.

The object of this invention is the construction of a simple, cheap, and effective nut-lock of this kind; and it consists to that end of the improvements which will be hereinafter fully
15 set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a cross-section through a screw-bolt and nut provided with my improved nut-lock. Fig. 2
20 is a longitudinal section of the same. Fig. 3 is a cross section in line *x x*, Fig. 1.

Like letters of reference refer to like parts
25 in the several figures.

A represents the threaded end of a screw-bolt, provided with a number of longitudinal grooves, *a*, having an inclined side in the direction in which the nut is turned on the screw-bolt in screwing it home, and an abrupt side
30 in the opposite direction.

B represents the screw-nut, provided with the usual internal screw-thread for screwing it upon the bolt A.

C represents spring-detents composed of plates which are constructed of elastic or spring metal rigidly secured with their outer ends in openings or cavities *d*, formed in the sides of the screw-nut, and extending into the
35 internal bore of the same. The spring detent plates C are constructed with curved inner ends, *e*, which present their abrupt ends to the abrupt sides of the grooves *a* and their curved backs to the inclined sides of said
40 grooves, so that in screwing the nut home on the bolt the inner curved ends of the detents C will slip over the abrupt sides of the grooves *a*, drop into said grooves, and then ride up on the inclined sides of the grooves. The in-

clined sides force the inner ends of the spring-detents into the cavities *d*, out of the way of the screw-thread. If it is attempted to turn the screw-nut backwardly so as to release it on the screw-bolt, the inner end of one of the spring-detents C will engage against the abrupt side of one of the grooves *a*, thereby preventing all further backward movement of the nut.

Each detent C may be constructed of a number of superposed spring-plates, as the size of the nut may require, two plates being shown in the drawings.

The outer ends of the spring-plates composing each detent are rigidly secured in the openings *d*, between a backing, *e*, and a wedge, *f*, whereby the detents are held in place in a simple and durable manner, and at the same time permitted the requisite freedom of movement to insure the reliable operation of the lock.

Two or more detents are preferably arranged in the nut to break joints with the grooves in the bolt, whereby the nut can be locked in a greater number of positions with the same number of detents than when the latter are
7 arranged to coincide with all of the grooves.

I claim as my invention—

1. The nut B, having a lateral cavity, *d*, which extends from the outside of the nut to the bore thereof, and a spring-detent plate, C, rigidly secured with its outer end in the cavity *d* by a wedge, and projecting with its free inner end into the bore of the nut to engage in a longitudinal groove in the screw-bolt, substantially as set forth.

2. The nut B, having a lateral cavity, *d*, which opens into the bore of the nut, and a spring-detent plate, C, rigidly secured with its outer end in the cavity *d* by a backing, *e*, and wedge *f*, and projecting with its free inner end
8 into the bore of the nut, substantially as set forth.

Witness my hand this 16th day of April, 1885.

NICOLAS BOSMANN.

Witnesses:

JNO. J. BONNER,
F. P. ACKERMAN.