

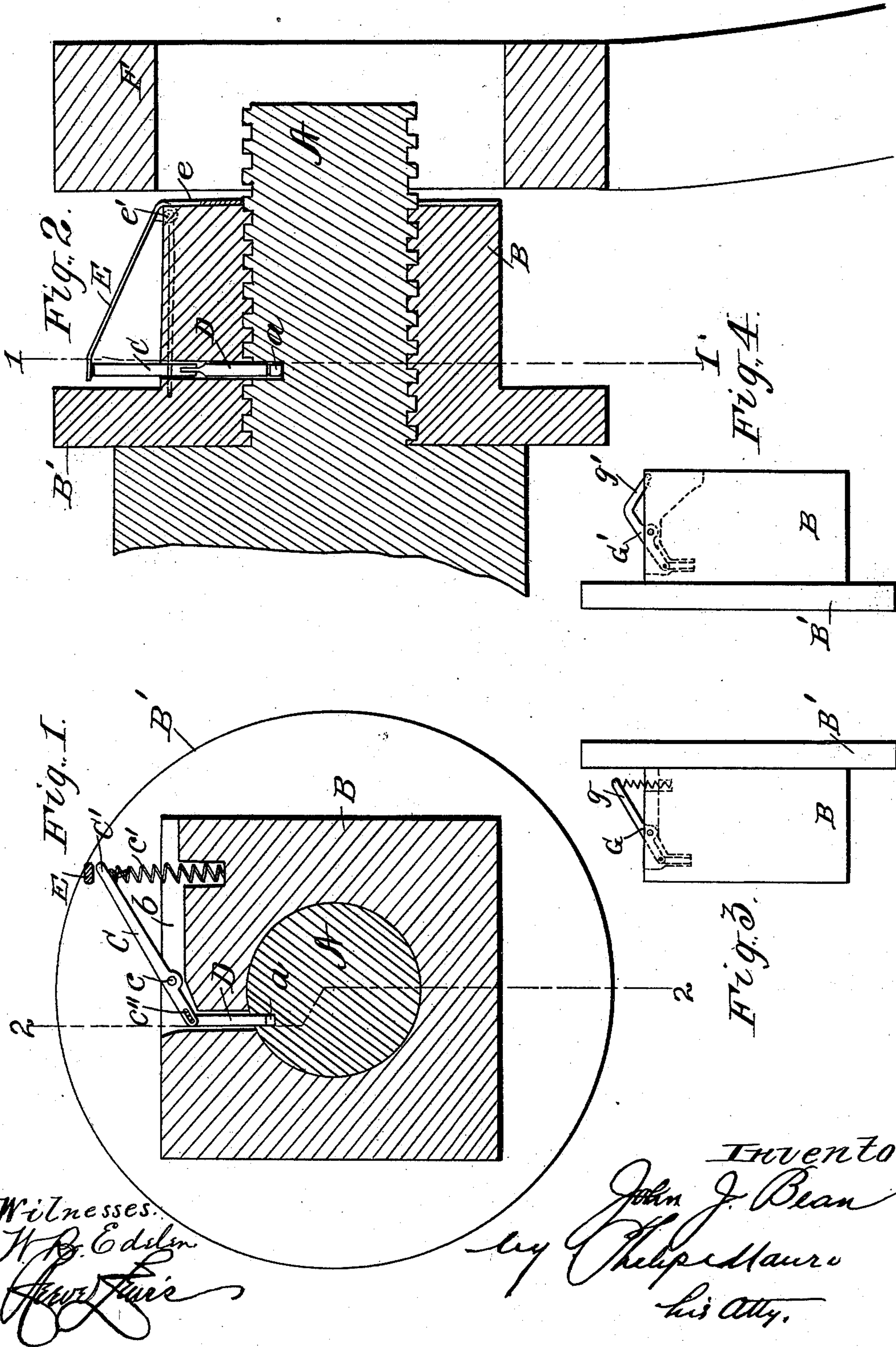
No. 647,435.

Patented Apr. 10, 1900.

J. J. BEAN.
NUT LOCK.

(Application filed Jan. 16, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOHN J. BEAN, OF NEW YORK, N. Y., ASSIGNOR OF FIFTY-THREE ONE-HUNDREDTHS TO JOSIAH GEORGE KNOWLTON, OF SAME PLACE.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 647,435, dated April 10, 1900.

Application filed January 16, 1900. Serial No. 1,674. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. BEAN, of the city of New York, in the county and State of New York, have invented a new and useful
5 Improvement in Nut-Locks, which is fully set forth in the following specification.

This invention consists of a nut-lock adapted to be released by the application of an ordinary wrench.

10 More particularly, it consists in the application to a nut-lock, that comprises a spring-pressed lever in the side of the nut whose inner arm carries a detent to engage a seat in the screw and whose outer arm extends above
15 the surface of the nut, of a guide that extends from the surface of the nut above this projecting arm of the lever.

The invention consists, further, in certain details of construction, that will be more fully
20 described.

In the drawings, Figures 1 and 2 show a preferred form of my invention, Fig. 1 being a transverse section of a nut, hub-cap, or the like, taken through dotted line 1 1 of Fig. 2,
25 while Fig. 2 is a longitudinal section of the same through dotted line 2 2 of Fig. 1. Figs. 3 and 4 are side elevations showing modifications.

A represents a threaded bolt or screw upon
30 which is screwed the threaded nut, that I have shown as consisting of the angular portion B and the flange B'. In a recess, as b, in the side of the nut is seated the lever C, pivoted at c. A detent on one end of the lever passes through
35 the wall of the nut and is normally held depressed to engage a seat a in the screw A by a spring, as c', while the other arm C' of the lever projects above the surface of the nut. This detent may consist of the turned-down
40 end of the lever, which would require a comparatively large seat in the screw A, with a corresponding weakening of the latter and an undue mutilation of its screw-threaded surface; but I prefer to employ a separate pin or
45 bolt D, pivoted to the lever at slot c'' and reciprocating freely in its own axial line. This construction requires a smaller seat in the screw A, with the attendant advantage of no lateral play of the pin D therein or of the nut
50 on its screw.

The construction I have just described is an

efficient nut-lock, but requires the projecting arm C' to be pushed down either by hand or by a specially-constructed tool to screw the nut on or off or even to permit the application
55 of an ordinary wrench. To avoid this difficulty, which is objectionable when the parts become stuck together or when the fingers are stiff with cold, I employ a guide; so that by merely applying an ordinary wrench upon the
60 nut and with no other movement the projection C' is depressed and the lock disengaged from its seat, after which the nut may be turned. This guide is represented by reference-letter E. It may be a spring secured to
65 the nut at e or it may be an arm pivoted as indicated by dotted lines at e'. It extends above the projecting arm C', as shown. A groove may be cut in the nut to permit the guide to lie flush therewith when depressed.
70

When the wrench F is applied, (moved to the left in Fig. 2,) guide E is forced down and arm C' is carried down by it until the wrench is firmly seated against flange B'. This of course
75 withdraws the detent, and the nut may be turned on or off its screw. The wrench may in many cases be dispensed with and the guide pressed down and the nut turned by hand, the guide permitting a better hold to be obtained.

Figs. 3 and 4 show modifications in which
80 the lever G or G' is placed longitudinally of the nut. In these constructions the upper surface g or g' forms the guide, and no separate guide is needed.

Having thus described my invention, I
85 claim—

1. The combination with a nut or the like and a nut-lock carried thereby and having an arm projecting beyond the surface thereof, of a separate guide extending from the surface
90 of said nut to a point above said arm, whereby on the application of a wrench said lock will be released, substantially as described.

2. The combination of a nut, a lever pivoted in the side thereof and having one arm projecting above the surface of said nut, and a detent loosely pivoted upon the other end of said lever and adapted to reciprocate in its own axial line to engage a seat in the screw of said nut, substantially as described.
95

3. The combination of a nut, a lever pivoted in the side thereof and having one arm pro-
100

jecting above the surface of said nut, a detent
pivoted upon the other end of said lever and
adapted to engage a seat in the screw of said
nut, a spring to hold said detent normally de-
5 pressed, and a guide extending from the sur-
face of said nut to a point above said project-
ing arm, whereby on the application of a
wrench said detent will be retracted, substan-
tially as described.

10 4. The combination of a nut, a lever pivoted
in the side of said nut and transversely to the
bore thereof, the inner arm of said lever car-
rying a detent normally held depressed while
the outer arm thereof normally extends above

the surface of said nut, and a guide extend- 15
ing from the surface of said nut at right an-
gles to said lever and to a point above the
outer arm of the same, whereby upon the ap-
plication of a wrench said guide forces said
outer arm down to retract said detent, sub- 20
stantially as described.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

JOHN J. BEAN.

Witnesses:

WILLIAM E. HILLS,
ELISHA K. CAMP.