

(No Model.)

J. C. BUTLER.

NUT LOCK.

No. 356,745.

Patented Feb. 1, 1887.

Fig. 1.

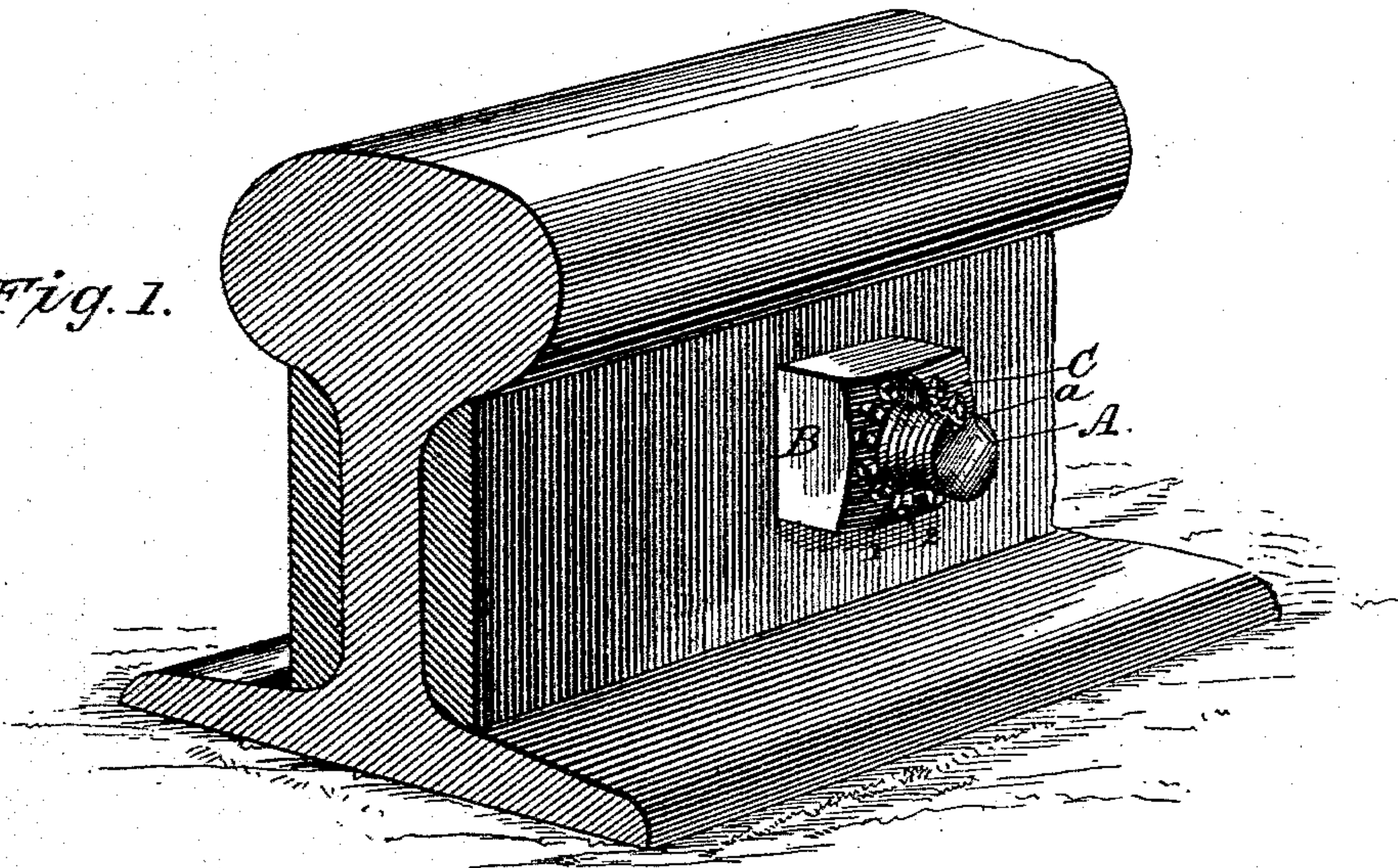


Fig. 2.

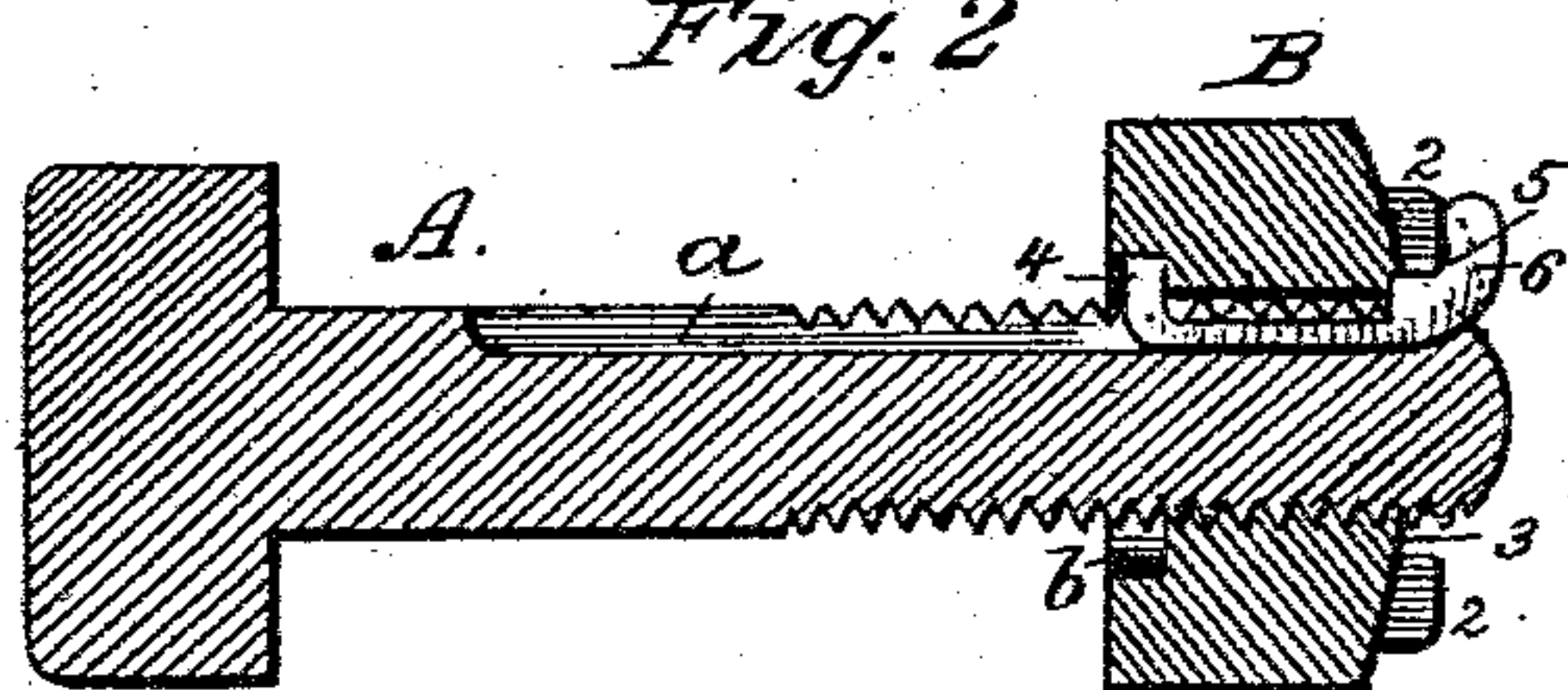


Fig. 3.

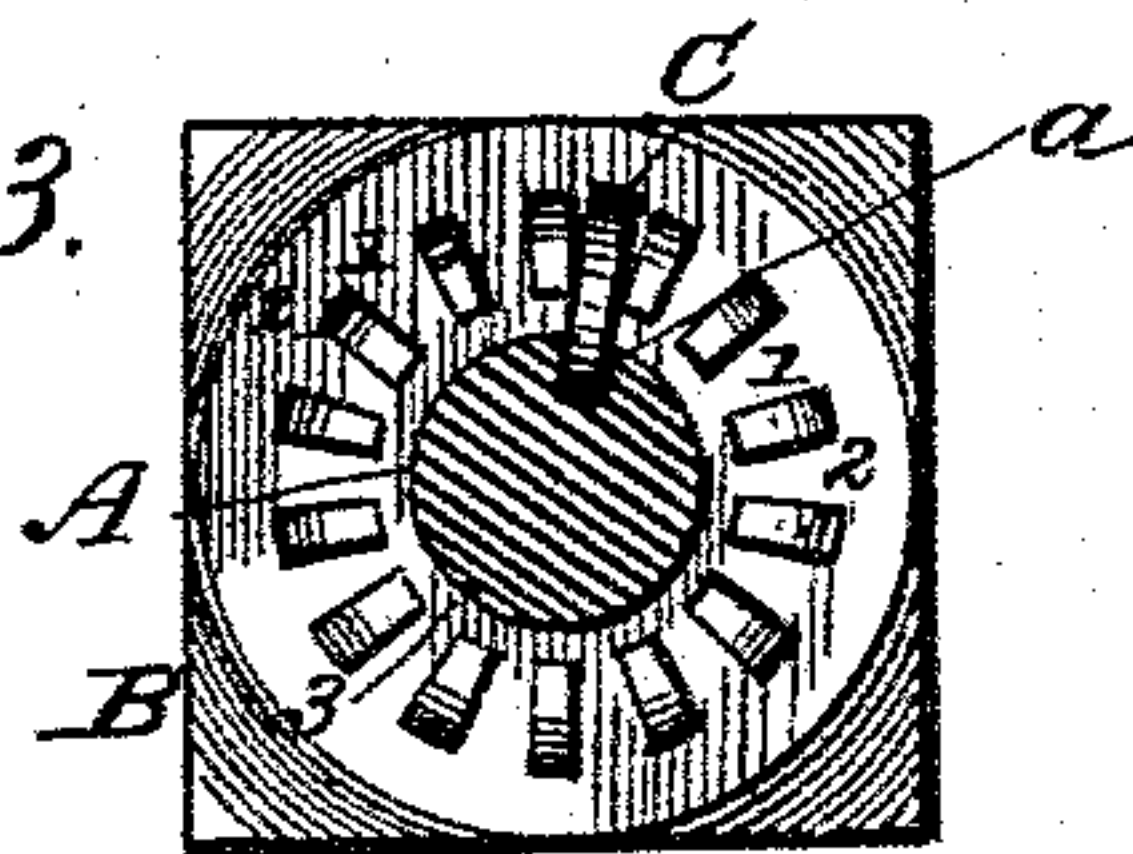


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JEREMIAH C. BUTLER, OF LEXINGTON, MISSOURI.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 356,745, dated February 1, 1887.

Application filed May 20, 1886. Serial No. 202,827. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH C. BUTLER, of Lexington, in the county of Lafayette and State of Missouri, have invented a new and useful Improvement in Nut-Locks, of which the following is a specification,

This invention is an improvement in that class of nut-locks in which the bolt is formed with a keyway, and a key extends through the top hole of the nut and rests in said keyway, and is bent to engage the nut and so lock it from turning.

The invention consists in the novel construction of the key, whereby it may be drawn off the bolt by the nut, and need not be bent out straight into the keyway of the bolt to prevent its locking portion engaging in the recesses of the nut as the latter is being turned off the bolt.

In the drawings, Figure 1 is a perspective view of my nut-lock as in use. Fig. 2 is a longitudinal section thereof drawn alongside of the key and showing the latter unlocked in full and locked in dotted lines. Fig. 3 is a face view of the nut-lock. Fig. 4 shows the key in unlocked position in full lines, and bent, as when locked, in dotted lines.

The bolt A is formed with a keyway or seat, *a*. The nut B is provided in its rear face with a recess, *b*, fitted to receive the projection on the rear end of the key, and while it is preferred to employ such recess, it may be omitted without departing from the broad principles of the invention. On its outer face or end the nut is formed with corrugations, forming alternate recesses 1 and projections 2. These projections do not extend to the top hole of the nut, but terminate short thereof, leaving a groove or way, 3, surrounding the outer end of said top hole.

The key C is formed to fit in the seat *a*, and has at its inner end a projection, 4, which extends against the rear face of the nut and rests, preferably, in the recess *b*, as shown. Near its opposite end the key is formed with a projection or shoulder, 5, which bears against the front edge of the nut and in the way 3 thereof, as shown. The key is extended at 6 in advance of the projection 5, and such extension is adapted to be bent to engage the nut, and usually into the proper one of recesses 1 between projections 2, as indicated in

dotted lines, Fig. 2, to lock the nut from turning. The projection 5 prevents the key from being forced rearwardly through the nut, as will be seen.

The following is an important advantage resulting from the formation of the key with projection 5. When the nut is locked, to unlock the same it is only necessary to bend the extension 6 out of the recess 1 to the position shown in full lines, Fig. 2, when the nut may be turned off the bolt and the key will be drawn off the bolt with the nut. Now, it will be seen that the shoulder 5, being engaged by the nut, holds the key in such position with reference to the nut that the extension 6, when bent as shown, will not be caught in the recesses or notches 2 as the nut is turned off. If the key were formed without this shoulder the nut could not be easily removed, unless the key were bent out straight and down into the keyway of the bolt, as otherwise the locking-extension of the key would be engaged from time to time by the nut and have to be released, rendering the operation troublesome. Such bending of the key is objectionable, as it frequently breaks, and in all cases strains the key, and after it has been bent once or twice to the necessary extent it becomes broken or otherwise unfit for the desired purpose. In my construction, it will be seen, the key needs only to be bent very slightly for its adjustment into locked or unlocked position, and therefore will not only be easier of adjustment off the bolt, but will be more durable, as well as more convenient in use.

Having thus described my invention, what I claim as new is—

1. In a nut-lock, a key having a projection or shoulder at one end and provided with a projection or shoulder near its other end, and having an extension beyond the latter shoulder or projection, substantially as set forth.

2. The combination of the bolt having a keyway, the nut, and the key having projections 4 and 5 and provided with an extension, 6, in advance of the projection 5, said extension being adapted to be bent to engage the nut, substantially as set forth.

JEREMIAH C. BUTLER.

Witnesses:

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ALEX. A. LESLUR.