

(No Model.)

B. F. SHAFER, Sr.
NUT LOCK.

No. 503,808.

Patented Aug. 22, 1893.

Fig. 1.

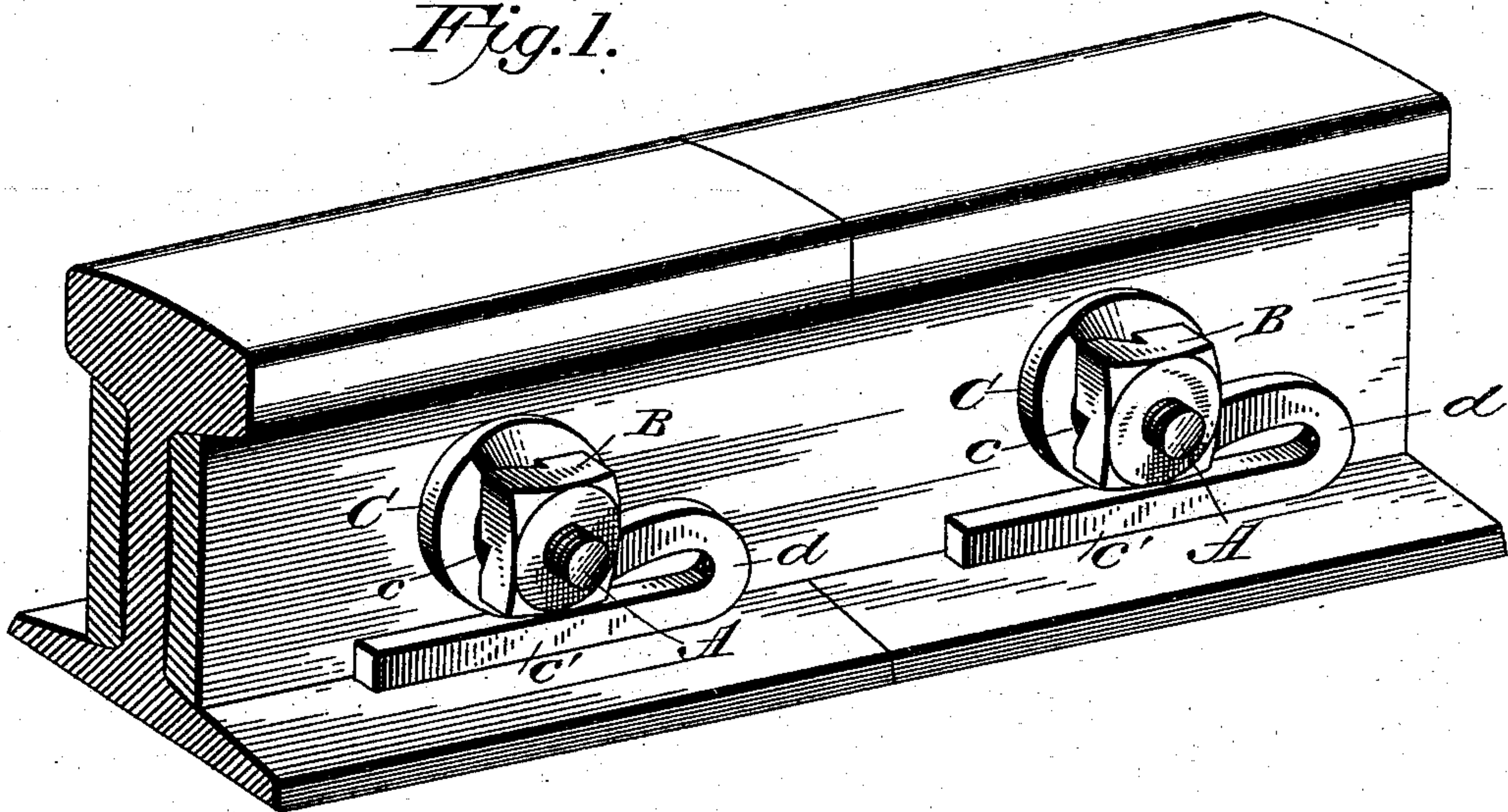


Fig. 3.

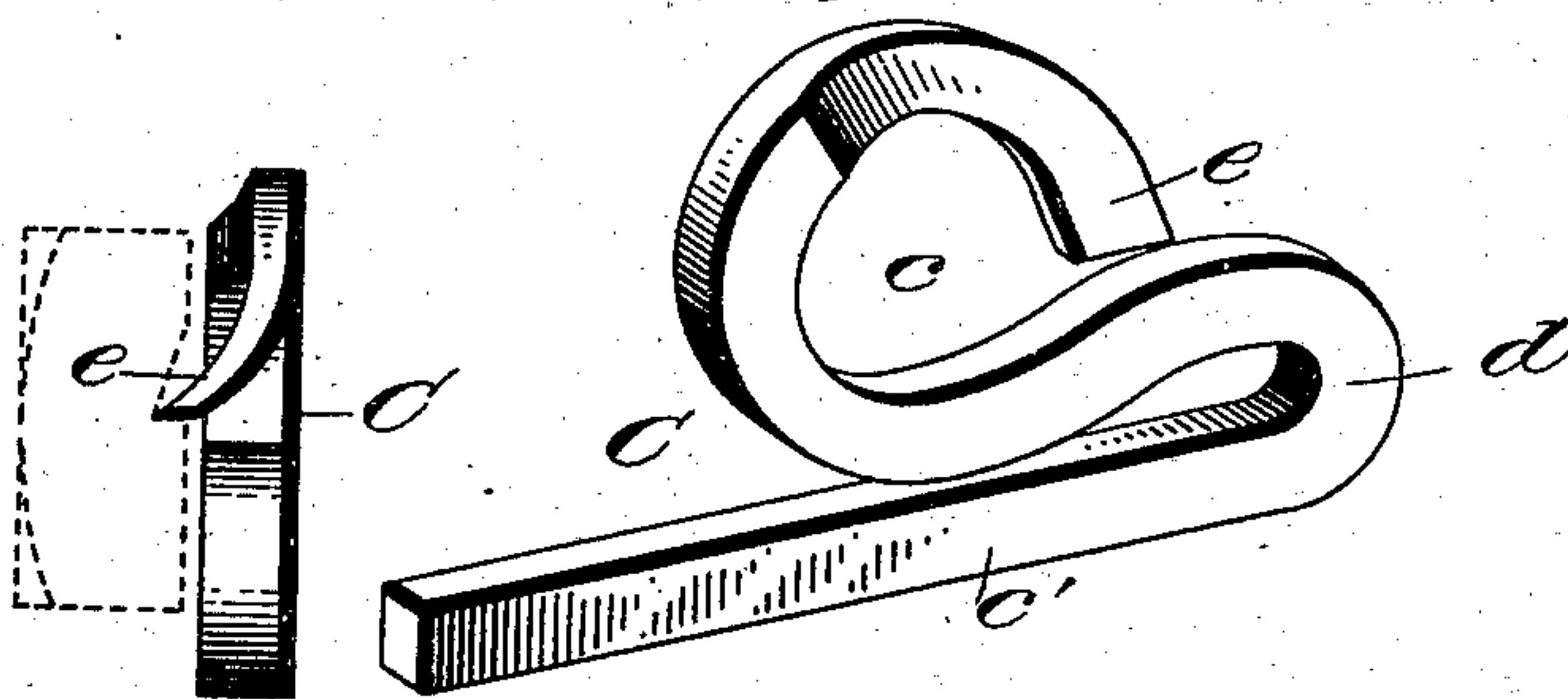
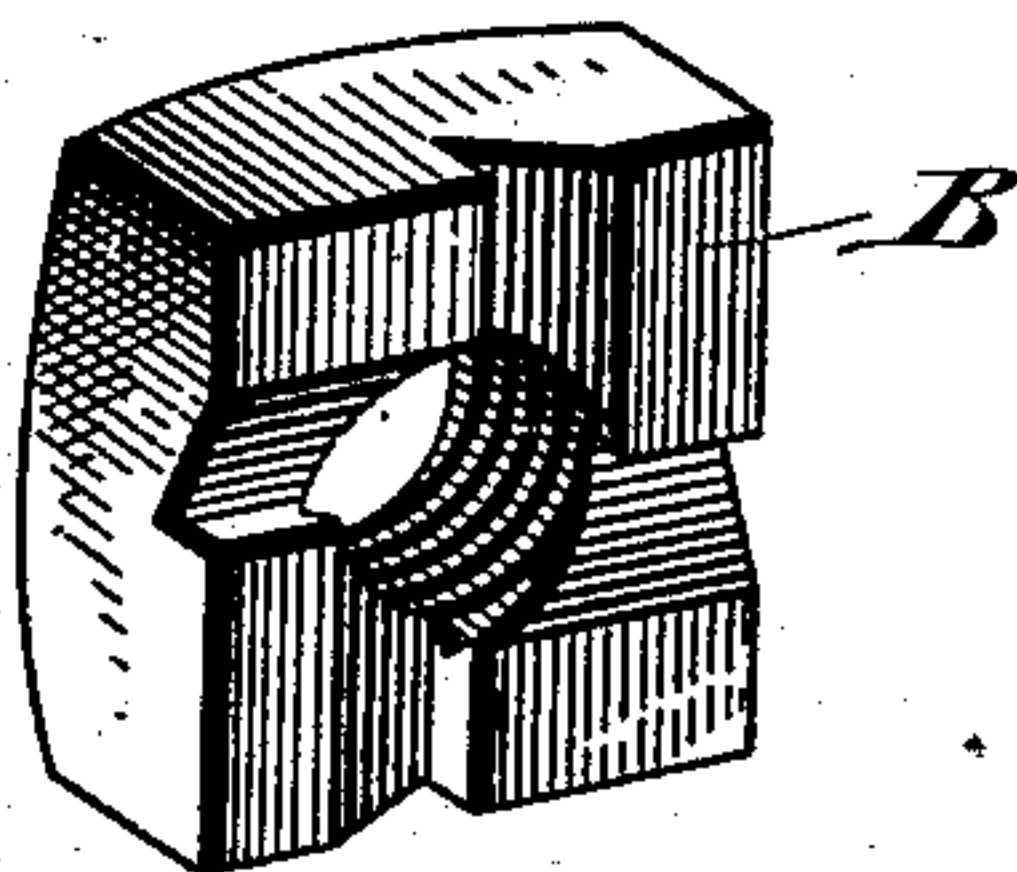


Fig. 2.

Fig. 4.



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Witnesses

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UNITED STATES PATENT OFFICE.

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NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 503,808, dated August 22, 1893.

Application filed May 25, 1893. Serial No. 475,514. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. SHAFER, Sr., a citizen of the United States of America, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in nut-locks; and it consists in the combination with a bolt and ratchet-faced nut of a locking-bar of spring metal which is adapted to engage with the bolt and ratchets on the face of the nut, said locking-bar being adapted to also bear against an adjacent stop to hold the same in position, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification: Figure 1 is a perspective view showing my improved nut-lock applied to a railroad rail. Fig. 2 is an end elevation of the locking-bar. Fig. 3 is a perspective view of the locking-bar, and Fig. 4 is a perspective view of the nut.

A designates the bolt, which is of the usual construction, and B the nut, which is provided with a ratchet-face as shown.

C designates the locking-bar, which is made up of a single bar of metal one end of which is reduced or tapered. The tapered end of the bar is bent to form an eye, *c*, through which the bolt passes, the extreme end being bent or turned out, as shown in Fig. 2, to engage with the ratchets in the face of the nut. The bar a short distance beyond the eye is looped, as shown at *d*, so as to bring the part *c'* thereof immediately beneath said eye. The bar is preferably made of steel, and by shaping the same in the peculiar manner hereinbefore described two spring movements are provided, one being in a part of the eye which surrounds the bolt, and the other in the loop

d which permits the eye to move to and from the member *c'*.

In applying my improvements the locking-bar is placed so that the eye *c* thereof will surround the bolt and the member *c'* engage with the flange, or stop, adjacent to said bolt, and in this position the spring tendency of the loop *d* will force the lower part of the eye against the bolt to provide frictional contact between the bolt and the locking-bar at this point so that the end *e* which engages with the ratchets on the nut will be kept away from the bolt and permitted to have a free movement. When the nut is placed upon the bolt and turned the ratchet face thereof will engage with the projecting end *e* of the locking-bar and be engaged thereby so as to prevent the removal of said nut. The end *e* of the locking-bar projects a slight distance beyond the side of the nut so that it can be operated upon when it is desired to remove the nut.

Having thus described my invention, I claim—

1. A nut-lock, consisting of the combination with a bolt and ratchet-faced nut of a locking-bar having a spring portion which engages with the ratchet-teeth on the nut and a loop one part of which engages with the bolt while the other engages with a flange or stop, substantially as shown, and for the purpose set forth.

2. In combination with a bolt and ratchet-faced nut, a locking-bar having an eye which is adapted to partially encircle the bolt, that end of the bar which forms a part of the eye being reduced and bent or turned out to engage with the ratchet-teeth of the nut, the locking-bar beyond the eye being looped so that the straight member *c'* thereof will engage with the flange or stop while the other member forming the lower part of the eye will be forced in contact with the bolt, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN F. SHAFER, SR.

Witnesses:

GEO. L. SHAVER,
THOMAS MCKEE.