

No. 848,541.

PATENTED MAR. 26, 1907.

M. ELLIS & E. A. BOWEN.

NUT LOCK.

APPLICATION FILED APR. 30, 1906.

Fig. 1.

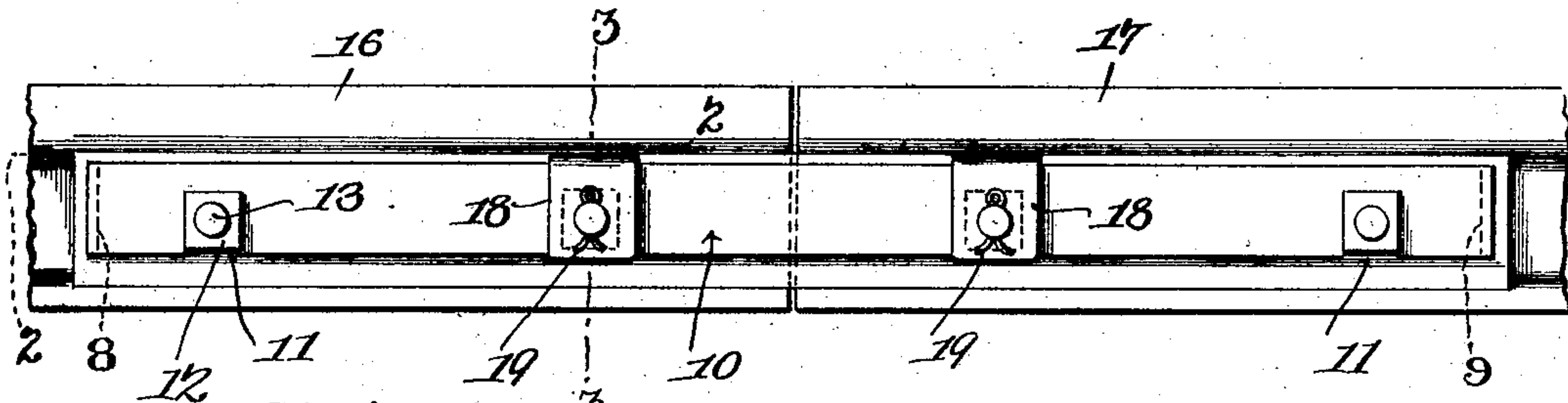


Fig. 2.

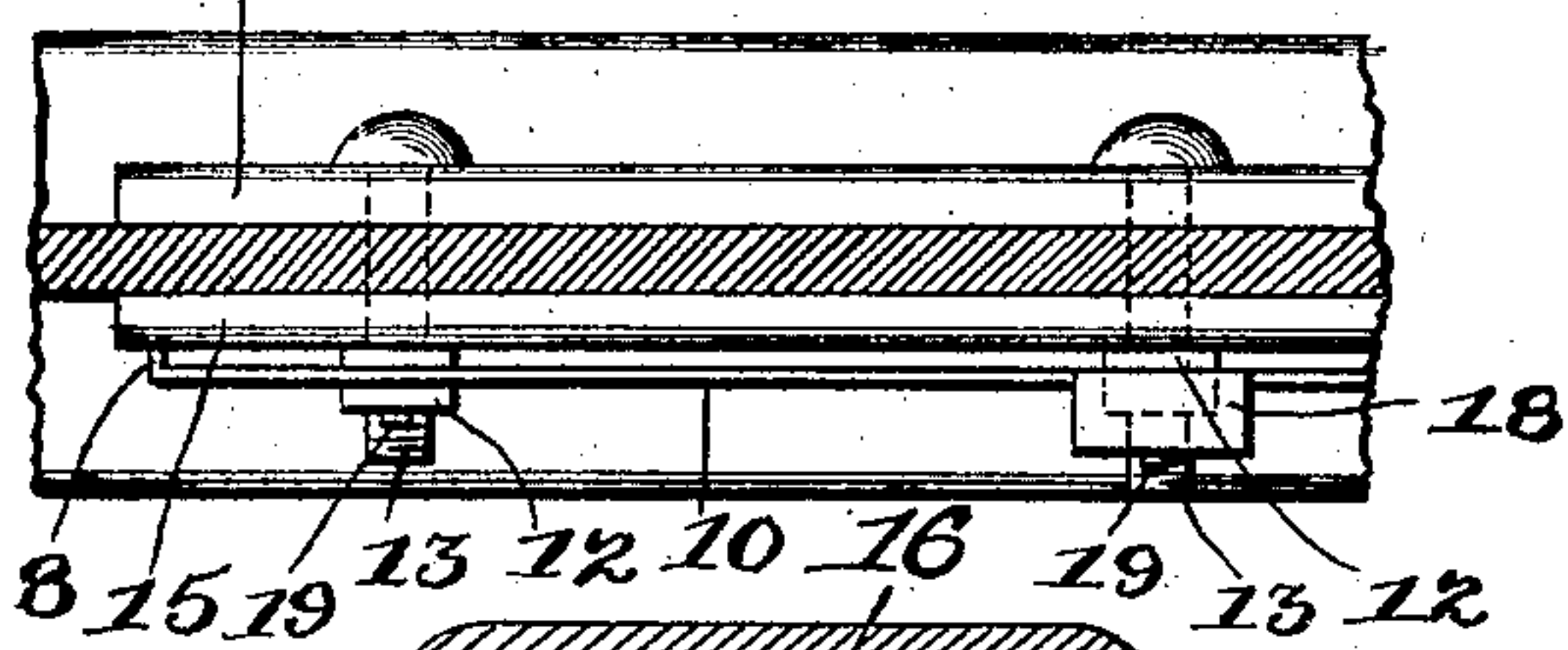


Fig. 3.

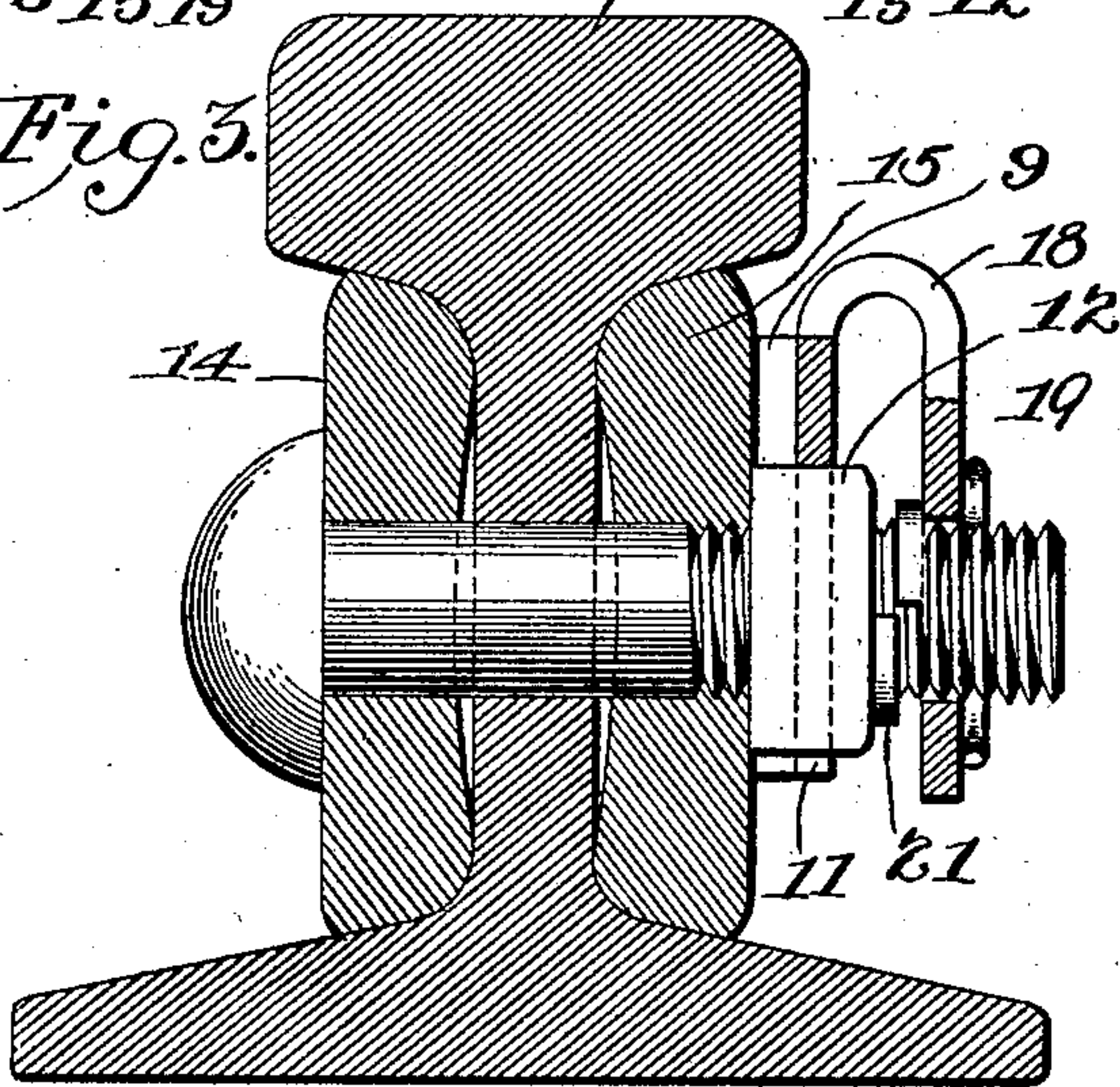


Fig. 5.

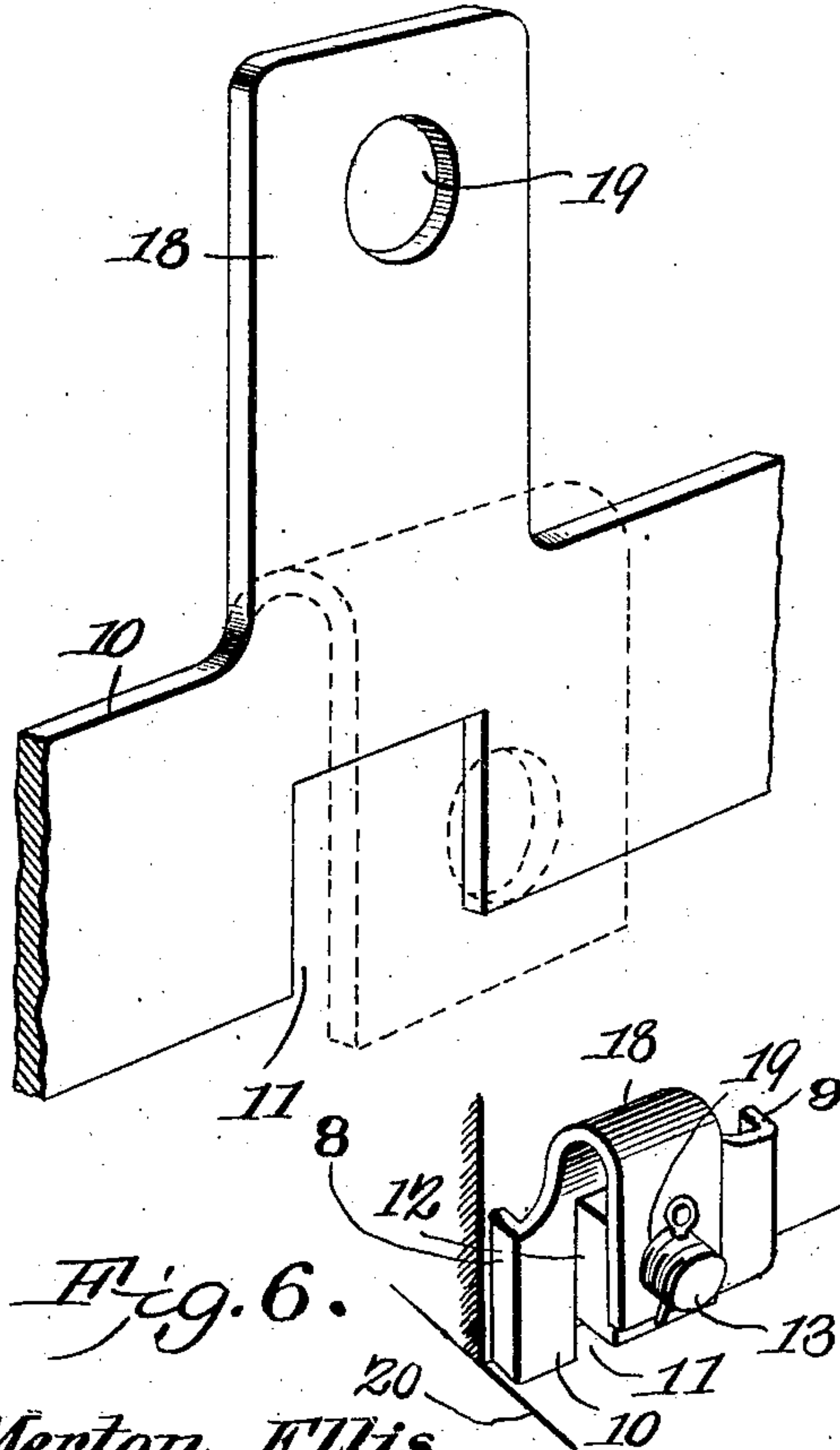
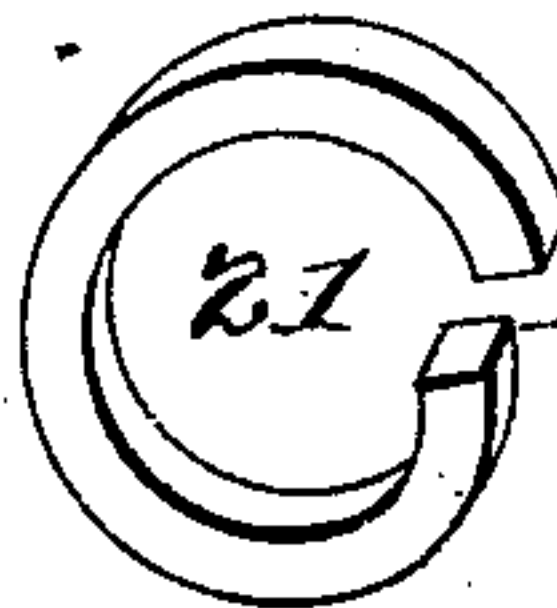


Fig. 4.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

MERTON ELLIS AND EDWARD AUGUSTUS BOWEN, OF HUNTINGTON,  
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## NUT-LOCK.

No. 848,541.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed April 30, 1906. Serial No. 314,493.

*To all whom it may concern:*

Be it known that we, MERTON ELLIS and EDWARD AUGUSTUS BOWEN, citizens of the United States, residing at Huntington, in the county of Cabell and State of West Virginia, have invented a new and useful Nut-Lock, of which the following is a specification.

This invention relates to nut-locks applicable to nuts employed for any purpose, but more particularly applicable for locking the nuts employed upon railway-rail joints, and has for its object to improve the construction and increase the efficiency of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation.

In the drawings, Figure 1 is a side elevation of a railway-joint with the improvement applied to the clamping nuts and bolts of the same. Fig. 2 is a detail view in section on the line 2 2 of Fig. 1. Fig. 3 is a transverse section, enlarged, on the line 2 2 of Fig. 1. Fig. 4 is a perspective view of the spring-ring detached. Fig. 5 is a perspective view, enlarged, of a portion of the locking-plate detached. Fig. 6 is a perspective view of the improved device applied to a structure other than a railway-rail joint.

The improved device may be applied to nuts used singly, as in Fig. 6, or to a plurality of associated nuts in railway-rail joints, as in Figs. 1, 2, and 3.

In the illustration shown in Figs. 1, 2, and 3 the rails are represented at 16 17, the clamp-plates at 14 15, the clamp-bolts at 13, and the nuts at 12 of the usual construction.

The improved device comprises a plate 10, having recesses 11 for bearing over the nuts 12, the plate being long enough and provided with recesses enough to bear over all the nuts of the series with which it is associated, and with the ends extended laterally, as at 8 and 9, or at right angles to the plate and bearing against the body of the plate 15 to cause the

plate to engage the nuts midway of the same, as shown in Figs. 2 and 3. Located at one or more points upon the plate 10 are projections or arms 18, provided with apertures 19 and adapted to be folded over with the apertures bearing over the portion of the bolt which projects beyond the nut, as shown in Figs. 1 and 2. A resilient washer, preferably of metal, as at 21, is associated with the nut and the turned-over portion of the arm, and a pin 19 is inserted through the bolt 13, as shown in Fig. 3, and operating to prevent accidental displacement of the parts.

By this means a strain is applied to the plate and all rattling or looseness prevented. When employed upon a railway-rail joint, two of the arms 18 will preferably be employed, as shown in Fig. 1.

By this simple means the plate 10 is firmly locked in position upon the bolt, while the spaced recesses 11 effectually prevent the rotation of the nuts, and thus form a very effectual and simple nut-lock.

The pins 19 will preferably be of the "spring-key" form, so that they can be readily inserted and removed when required and may be repeatedly used, so that the locking member may be detached when required without injury thereto.

The device is strong and durable, may be readily applied to all forms of nuts and to nuts employed for various purposes, and may be made of any size or strength desired.

When employed upon a single bolt, as shown in Fig. 4, the plate 10 will be arranged to bear at the lower edge upon a portion of the structure through which the bolt 13 passes, as represented at 20, to prevent the rotation of the plate upon the nut.

Having thus described the invention, what is claimed is—

1. A device for locking nuts consisting of a plate having the ends bent at right angles thereto and with a perforated arm extending from one edge and a nut-engaging recess in the other edge, said recessed edge and bent ends adapted to bear against the structure engaged by the bolt and holding the plate from turning and said arm adapted to be bent over the nut and engaging the bolt in advance thereof by its aperture.

2. The combination with a body and a clamp-bolt and its nut, of a locking device for said nut consisting of a plate having an intermediate recess and laterally-projecting ends



and with an arm projecting therefrom opposite said recess and provided with a transverse aperture, said recess adapted to bear over said nut, with the lateral ends bearing 5 against the body and the perforation of the arm bearing over the bolt in advance of the nut, a resilient washer associated with said nut, and fastening means carried by the bolt and bearing against the perforated arm.

10 3. The combination with a railway-rail joint including the adjacent rail ends clamp-plates and the clamp-bolts and their nuts, said bolts having transverse apertures through 15 their threaded portions, of a locking-plate having a plurality of recesses corresponding to and adapted to bear over said nuts with one or more extending arms adapted to be folded over one or more of the nuts and provided with apertures for bearing over the ad- 20 jacent bolts, and locking-keys adapted to engage the apertures in the bolts exteriorly of the arms.

4. The combination with a railway-rail joint including the adjacent rail ends clamp-plates and their nuts, of a locking device con- 25 sisting of a plate having lateral projections at the ends for bearing against the clamp-plate and with spaced recesses for bearing over the nuts, said plate having one or more 30 arms provided with transverse apertures and adapted to be bent over the bolt and bear over the same, a resilient washer associated with said nut, and fastening means carried by said bolt and bearing upon said perforated arm.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses. 35

MERTON ELLIS.

EDWARD AUGUSTUS BOWEN.

Witnesses:

F. M. ADKINS,

S. V. WILLIAMS.