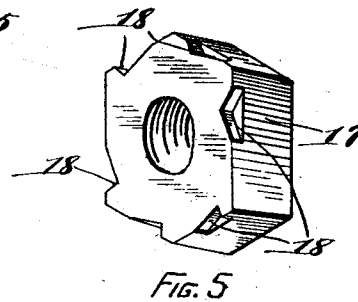
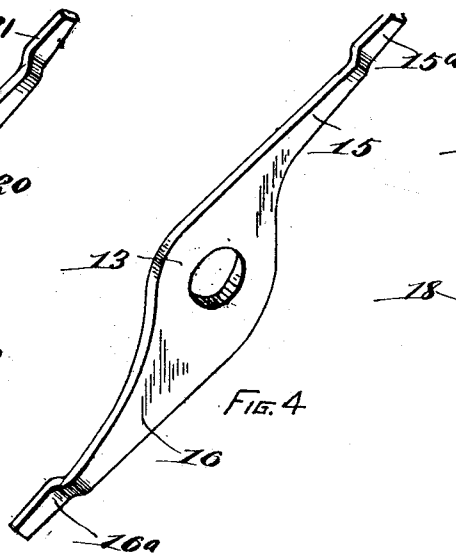
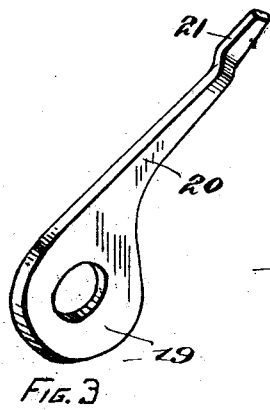
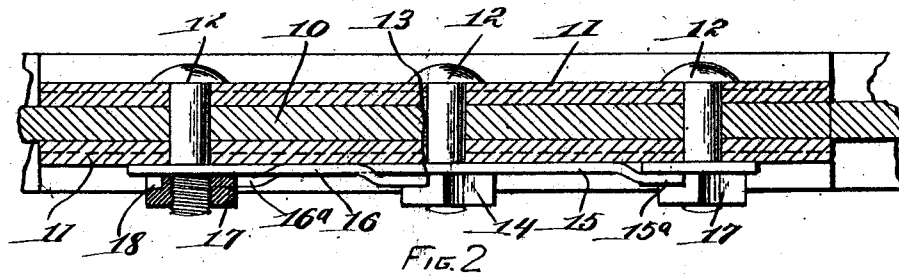
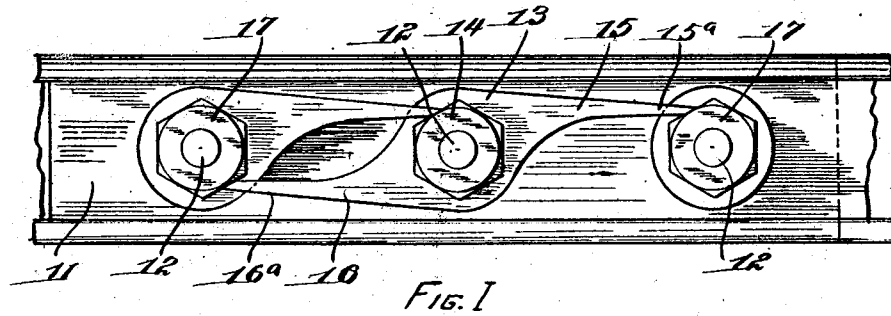


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NUT LOCK.
APPLICATION FILED DEC. 12, 1911.

1,052,838.

Patented Feb. 11, 1913.



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UNITED STATES PATENT OFFICE.

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NUT-LOCK.

1,052,838.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed December 12, 1911. Serial No. 665,221.

To all whom it may concern:

Be it known that I, GEORGE F. MARTIN, a citizen of the United States, residing at Monterey, in the county of Monterey and State of California, 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.

This invention relates to nut locks, and is designed to provide a means whereby the nuts operating upon the bolts securing the fish plate to the webs of rails may be retained from movement which is usually caused by the jar of the trains over the joints.

There have been many locks invented and constructed heretofore, but it has been necessary to entirely change the structure of the fish plates, nuts and bolts. The present invention does not require any such change, the only change being made in the nut locks, thereby increasing the practical value of the present invention over the preceding devices.

With the above and other objects in view, this invention consists in the combination, construction and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of a rail joint illustrating the nut lock, forming the subject matter of the present invention, applied thereto; Fig. 2 is a central horizontal section thereof; Fig. 3 is a perspective view of the extreme spring pawl operating upon the central nut; Fig. 4 is a similar view of a double spring pawl acting upon the nuts; and Fig. 5 is a perspective view of one of the nuts.

In applying the present invention, the usual fish plates are secured to each side of the rail joint, and are pierced by three bolts, this number being stated for the purpose of illustration and description only. A central bolt carries a double spring pawl, one arm of which extends longitudinally with respect to the fish plates above the center of the bolt, while the opposite arm extends below the center of the bolt, the terminals of said arms or spring pawls being offset outwardly for engagement with the

nuts of the extreme bolts. One of the extreme bolts carries a single spring pawl which extends longitudinally with respect to the fish plate, and has its terminal offset outwardly for engagement with the central nut. The nuts of all of the bolts are provided with notches or serrations for the reception of the terminals of the spring pawls. It will, therefore, be understood, that the nuts cannot be rotated in such a direction that the same would be removed from the bolts, without first disengaging the spring pawl.

Reference being had more particularly to the drawings, 10 indicates the webs of two abutting rails having disposed on each side thereof the usual fish plates 11. Each web 10 is pierced by three bolts 12, this number being stated for the purpose of illustration and description only. The central bolt 12 of each rail is encircled by a plate or washer construction 13 which is constructed of spring material and is retained upon the central bolt by a nut 14 cooperating therewith. An upper spring pawl 15 is formed from and extends longitudinally with respect to the adjacent fish plate 11 and has its terminal offset to form a nut engaging portion 15^a. This arm is located above the center of the cooperating bolt 12. A similar arm or spring pawl 16 extends below the center of the cooperating nut, and is provided with the offset nut engaging portion 16^a at its terminal. The nuts 17 operating upon the extreme bolts 12 are provided with a plurality of annular depressions 18 adjacent to the inner face thereof, said depressions being of such a construction that they are adapted to receive the opposite terminals 15^a and 16^a respectively. It will clearly be understood that when the spring pawls are in their operative position upon the central bolt 12, the nuts 17 are retained from rotation upon the extreme bolts 12.

In order to provide a means whereby the central nut 14 will be retained from rotation, said central nut being constructed exactly similarly to the nut 17, a single washer or plate 19 is mounted on one of the extreme bolts 12, and is provided with a spring pawl arm 20 extending toward the central nut, said arm being provided with an opposite nut engaging portion 21 for the engagement of the recesses of annular depressions formed in the nut 14.

Having thus fully described my invention, what I claim as new, and desire to secure by U. S. Letters Patent, is:

1. The combination with a plurality of bolts, of notched nuts coöperating therewith, a double spring pawl carried by one of said bolts adapted to engage the notches of the adjoining nuts, and means whereby the intermediate nut may be retained from movement.

2. The combination with a plurality of bolts, of notched nuts coöperating therewith, a double spring pawl carried by one of

the said bolts adapted to engage the notches of the adjoining nuts, a single pawl carried by one of the extreme bolts, adapted to coöperate with the nut of the adjoining bolt carrying the double pawl for retaining the same from movement.

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

GEORGE F. MARTIN.

Witnesses:

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B. L. WEYMOUTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."