

No. 620,167.

Patented Feb. 28, 1899.

R. B. McLEAN.

NUT LOCK.

(Application filed Nov. 25, 1898.)

(No Model.)

Fig. 2

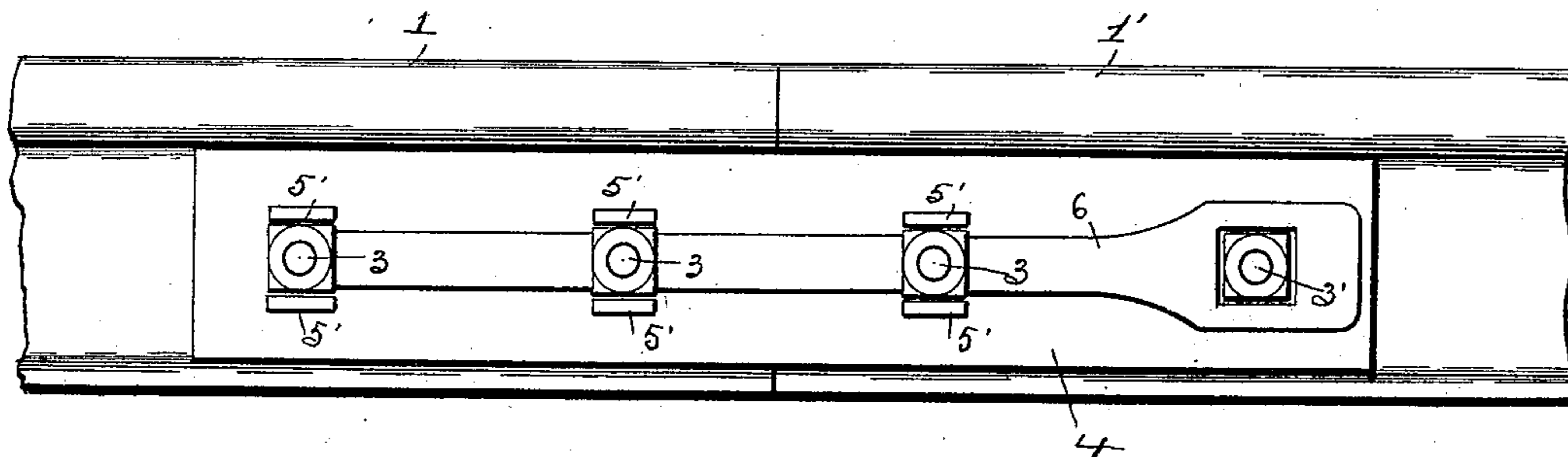


Fig. 1

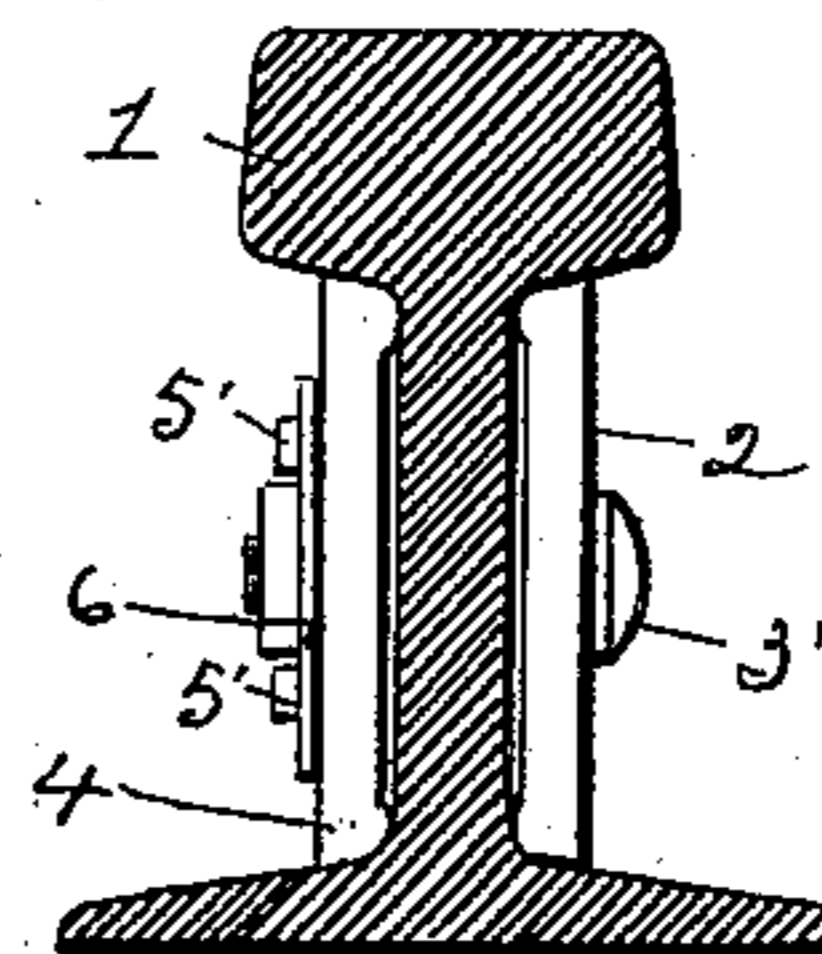


Fig. 4

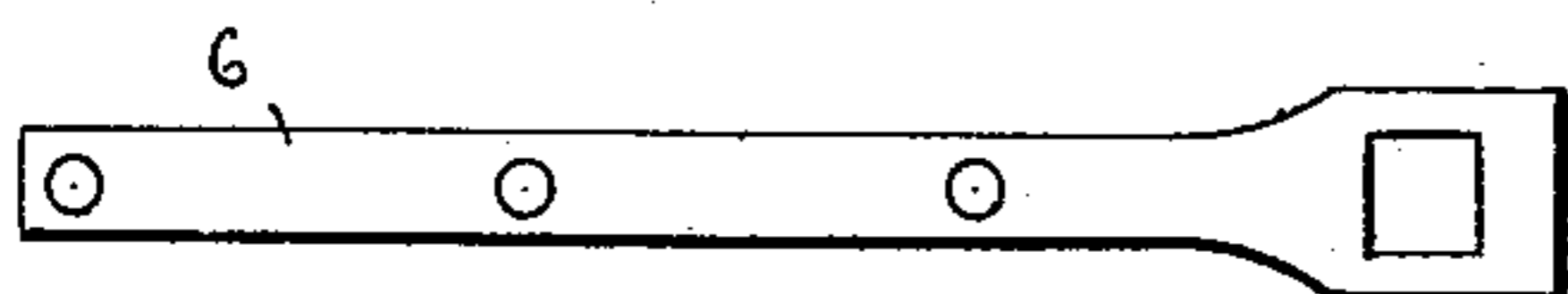


Fig. 3

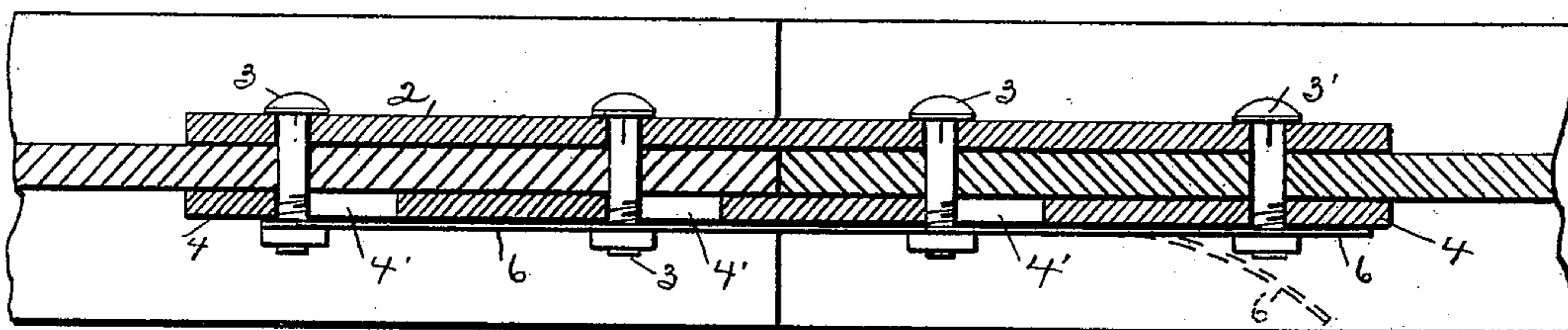


Fig. 5

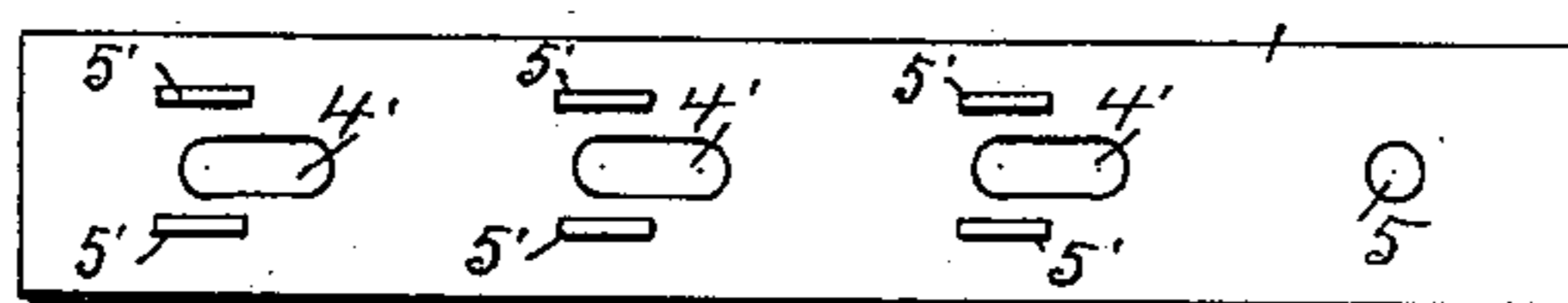
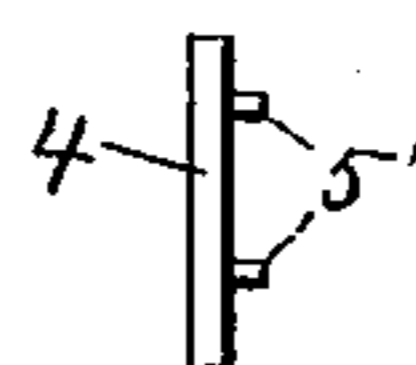


Fig. 6



W. H. Messers,  
H. J. Lewis  
W. Hunter

Inventor  
R. B. McLean  
By O. W. Lewis  
Att'y

# UNITED STATES PATENT OFFICE.

ROBERT B. McLEAN, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO LEOPOLD KRESS AND JAMES HAMILTON, OF SAME PLACE.

## NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 620,167, dated February 28, 1899.

Application filed November 25, 1898. Serial No. 697,356. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT B. McLEAN, a citizen of the United States of America, residing at Pittsburg, 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 thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in nut-locks.

The invention has for its object the provision of a means of locking nuts, and is particularly adapted for use upon rail-joints, being simple in construction, strong, durable, and not liable to get out of order.

With the above object in view the invention finally consists in the novel construction, combination, and arrangement of parts, as will be hereinafter more specifically described in detail.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference designate like parts throughout the different views, in which—

Figure 1 is an end sectional view of a rail-joint having my improvements attached. Fig. 2 is a longitudinal side elevation of the same. Fig. 3 is a longitudinal plan elevation of the same in section. Fig. 4 is a side view of the spring reduced in size and removed from the rail. Fig. 5 is a side view of one of the fish-plates removed. Fig. 6 is an end elevation of the same.

In said drawings the numerals 1 and 1' designate the ends of two rails. 2 is one of the fish-plates, having the bolts 3 and 3' passed through the openings of the same and that of the rail. 4 is the fish-plate at the opposite side, the openings within this plate somewhat differing from those of the other fish-plate inasmuch that the openings 4' are all made of oblong form excepting the one 5 at the one end, this opening being of the plain circular form. This fish-plate is also provided with the projections or lugs 5' to prevent the nuts from turning when in position. In applying this plate to the rail the bolt 3' is removed and the plate applied over the ends of the re-

maining bolts, so that they will enter the oblong openings at the right-hand ends—that is, the ends away from the projections or lugs 5'. The spring 6 is then placed in position over the ends of the bolts and the nuts applied. After the nuts are applied the fish-plate is driven or shifted forward to the right, so that the sides of the nuts will enter between the lugs or projections 5 at the opposite ends of oblong holes, as seen at Figs. 2 and 3. After this is accomplished the bolt 3' is inserted and the end of the spring 6 bent outwardly, as seen by dotted lines on Fig. 3, to permit the nut to be applied, and when this is applied the spring is released, so that the square opening therein will engage this nut to prevent it turning. By this means I am able to effectually lock all the nuts in position without any possibility of any of them becoming detached or unscrewed by other than human force. The spring acts as washers between all the nuts and fish-plates, except the one at the right.

The operation of removing the plates and nuts will be readily understood from the foregoing explanation of attaching the same.

Having thus fully shown and set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

A nut-lock for rail-joints comprising in combination with the rail ends and the fish-plate 2 and connecting-bolts and nuts of the opposite fish-plate 4, having one of its openings for the bolt of a circular form and the remainder of such openings of oblong form, a spring adapted to form washers between the nuts and said fish-plate over said oblong openings said spring having one of its ends free with an opening therein to engage over the remaining nut, and the lugs or projections 5' formed upon said fish-plate for engaging the nuts at said oblong openings, all arranged and combined as shown and set forth for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

ROBERT B. McLEAN.

Witnesses:

JAS. V. McMASTERS,  
E. L. RITCHIE.