(No Model.)

J. L. POPE.

NUT LOCK.

No. 348,235. Patented Aug. 31, 1886.

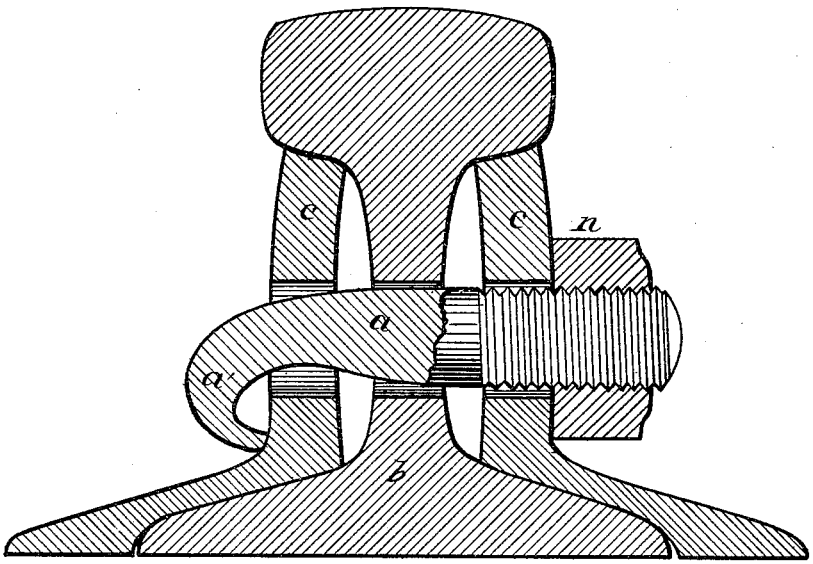

Fig. 1.

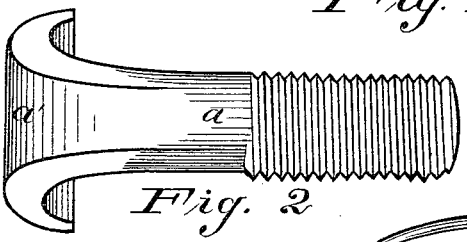

Fig. 2.

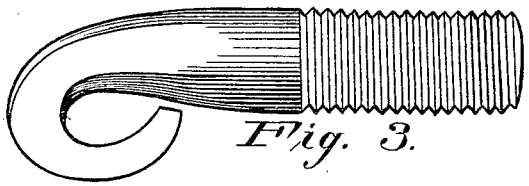

Fig. 3.

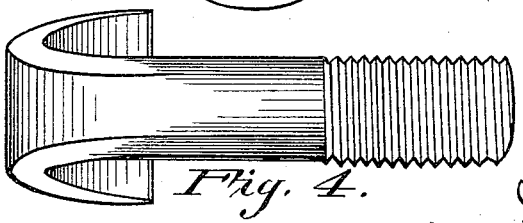

Fig. 4.

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NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 348,235, dated August 31, 1886.

Application filed January 20, 1886. Serial No. 189,150. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. POPE, a citizen of the United States, residing at the city of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Spring-Bolts for Railway-Joints, of which the following is a specification.

The main purpose of my invention is to secure fish-plates to railway-rails in a way to prevent the joint becoming loose from jarring or wear of the fish-plates.

My invention consists of a spring-bolt flattened and bent, as hereinafter described, and of sufficient strength and elasticity to hold the fish-plates firmly against the rails and prevent them from becoming loosened by being worn, or by the jar to which they are subjected by trains of cars passing over them.

In the drawings forming a part of this specification, Figure 1 represents a side view of the bolt *a* and a nut, *n*, and a cross-section of a railway-rail, *b*, and fish-plates *c c*. Fig. 2 is a top view of the bolt, and Figs. 3 and 4 represent a modified form of the bolt.

The bolt *a*, as shown in Figs. 1 and 2, is formed of a round rod flattened and curved at one end to form a spring, which acts as the head of the bolt, and the other end is threaded to receive a nut. The bolt is gradually flattened to form tapering sides to the end *a'* of the bolt, as shown in Fig. 1, in order to give the requisite degree of strength and resiliency to all portions of the curved part *a'*, forming the spring, and at the same time give a flaring shape to the end which forms or operates as the head of the bolt, as shown in Fig. 2, and also serves to keep the bolt from turning.

I prefer to make the bolt from a round rod by flattening and bending it to the hook-like form shown in Figs. 1 and 2.

When nut *n* is turned to tighten the bolt, the end of the spring *a'* comes in contact with the fish-plate, and yields more or less, according to the pressure, in order to give the proper degree of resilience to the bolt.

In the modified form shown in Figs. 3 and 4 the spring-head *a'* is flattened and bent around into a somewhat loop-like shape, so that the curved side, instead of the end, will come in contact with the fish-plate.

I claim as my invention—

A cylindrical screw-bolt having a bent and flattened spring head portion, substantially as described.

JOHN L. POPE.

Witnesses:
JNO. M. WILCOX,
H. M. CROSBY.