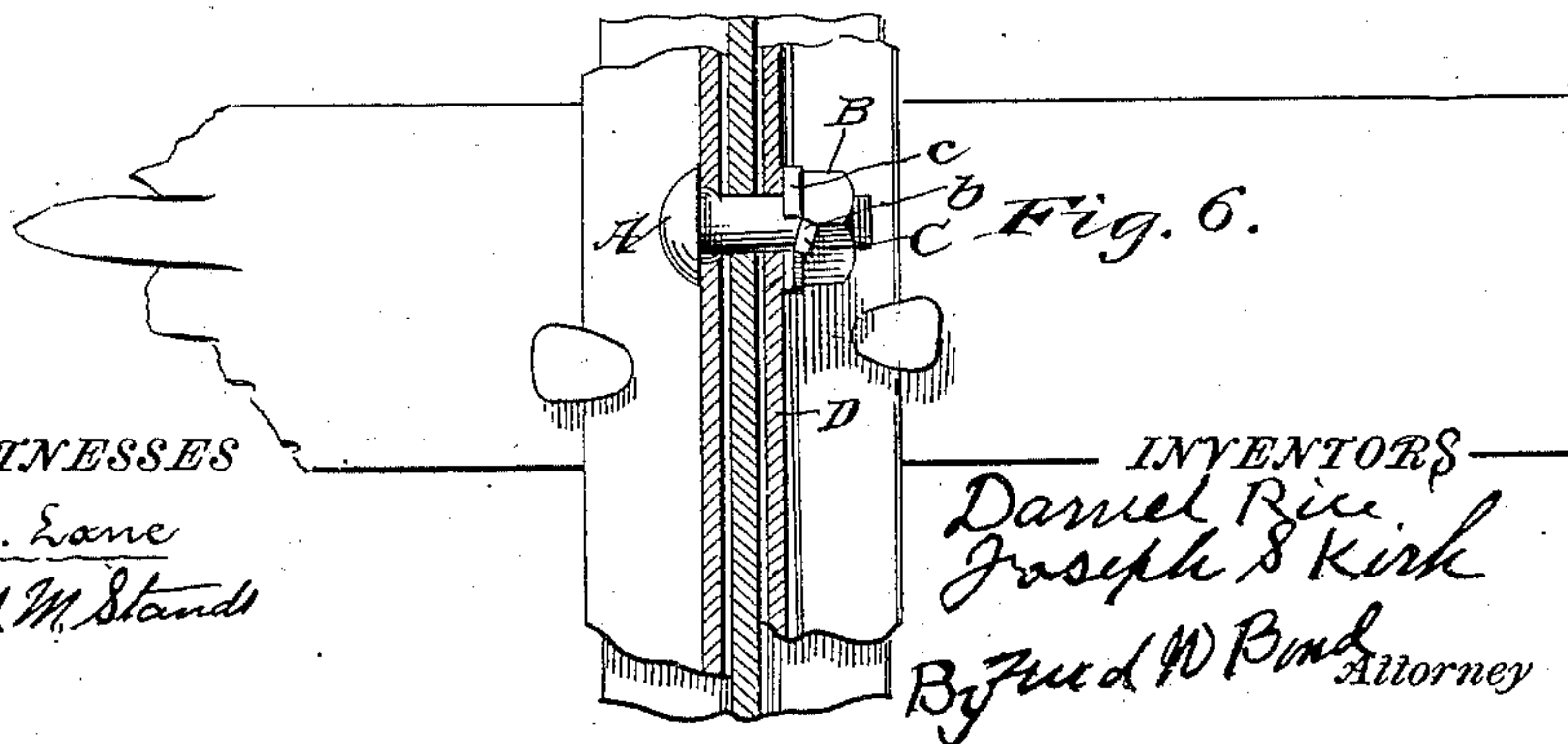
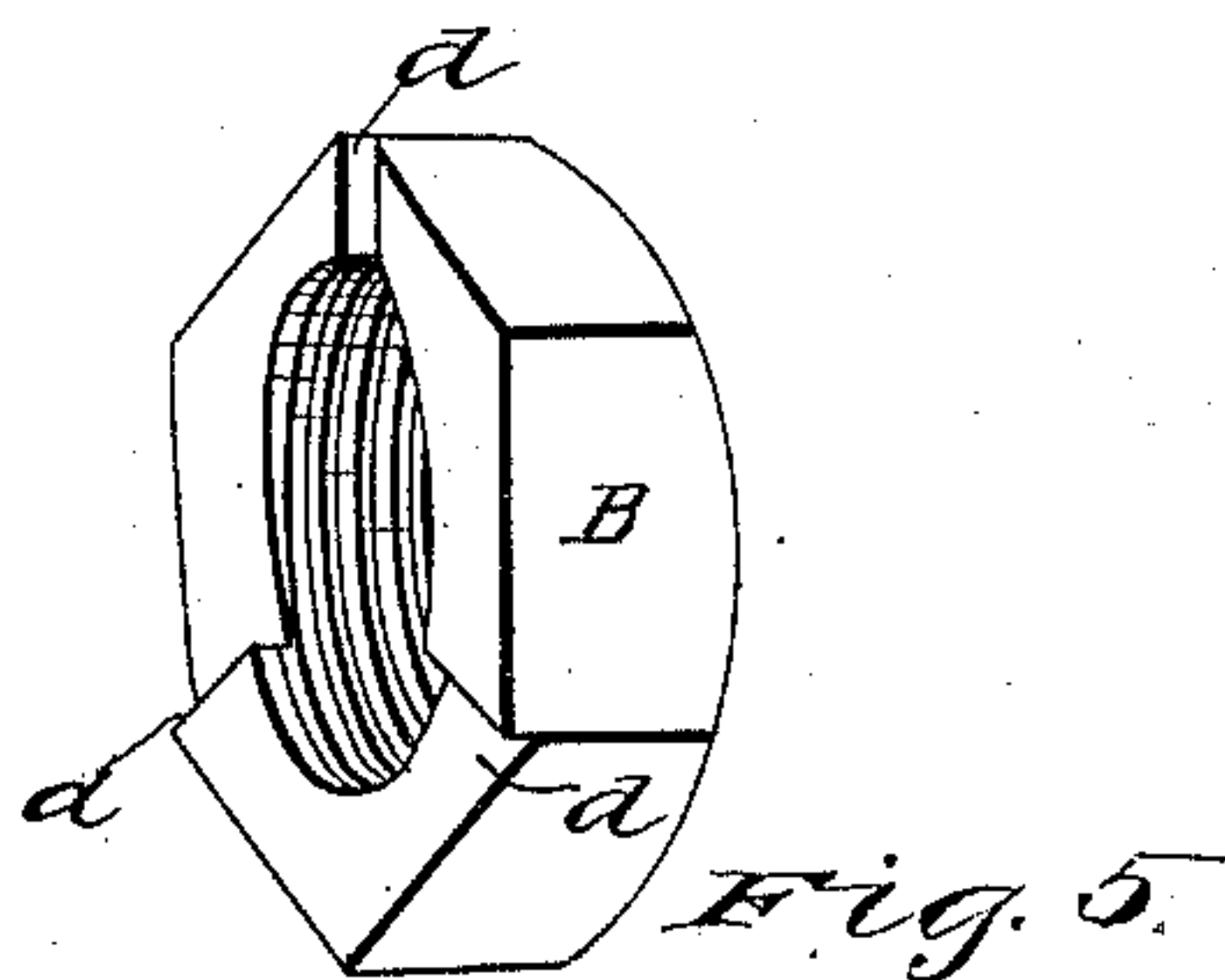
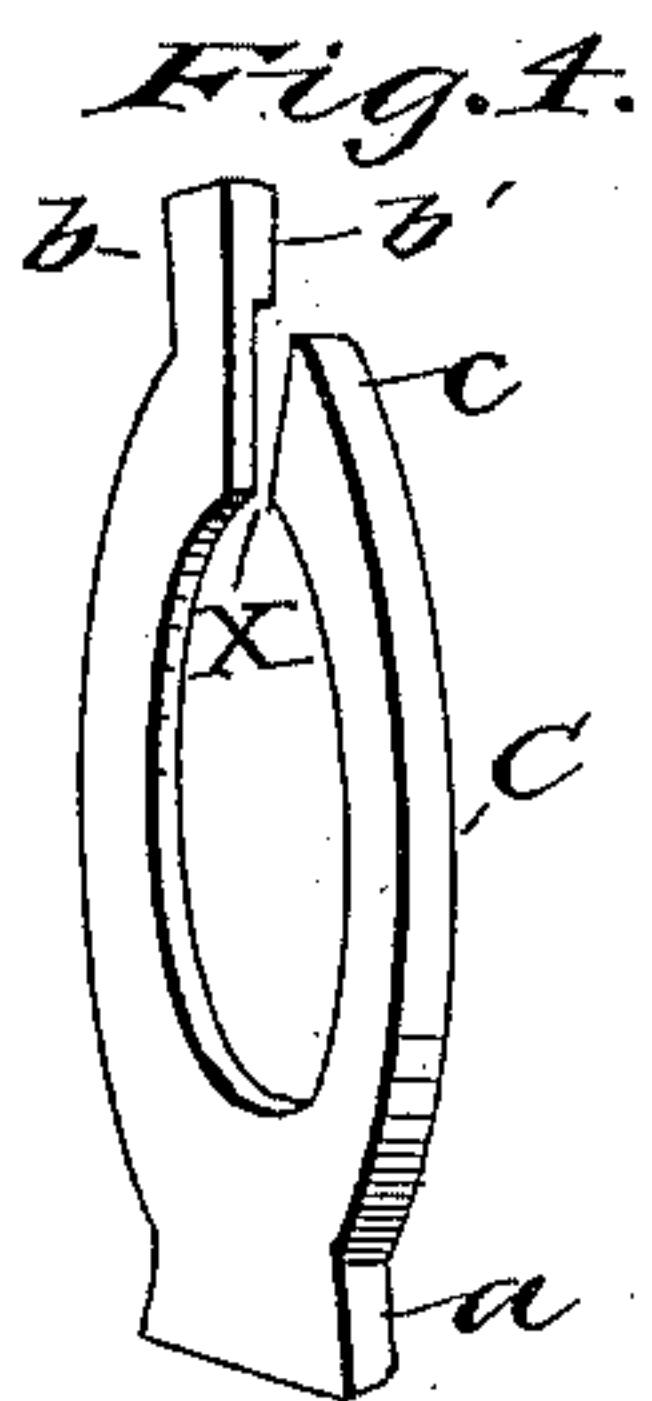
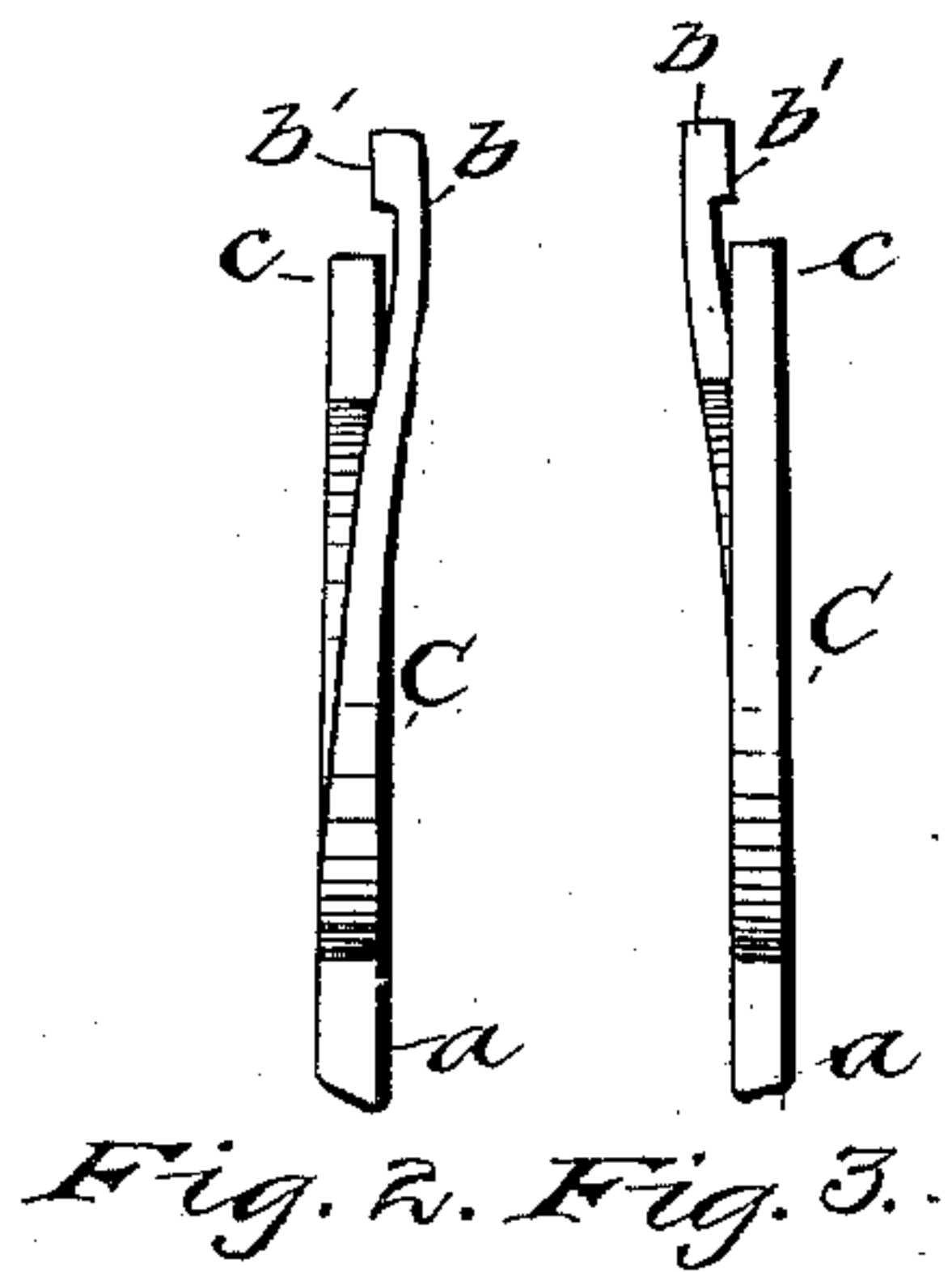
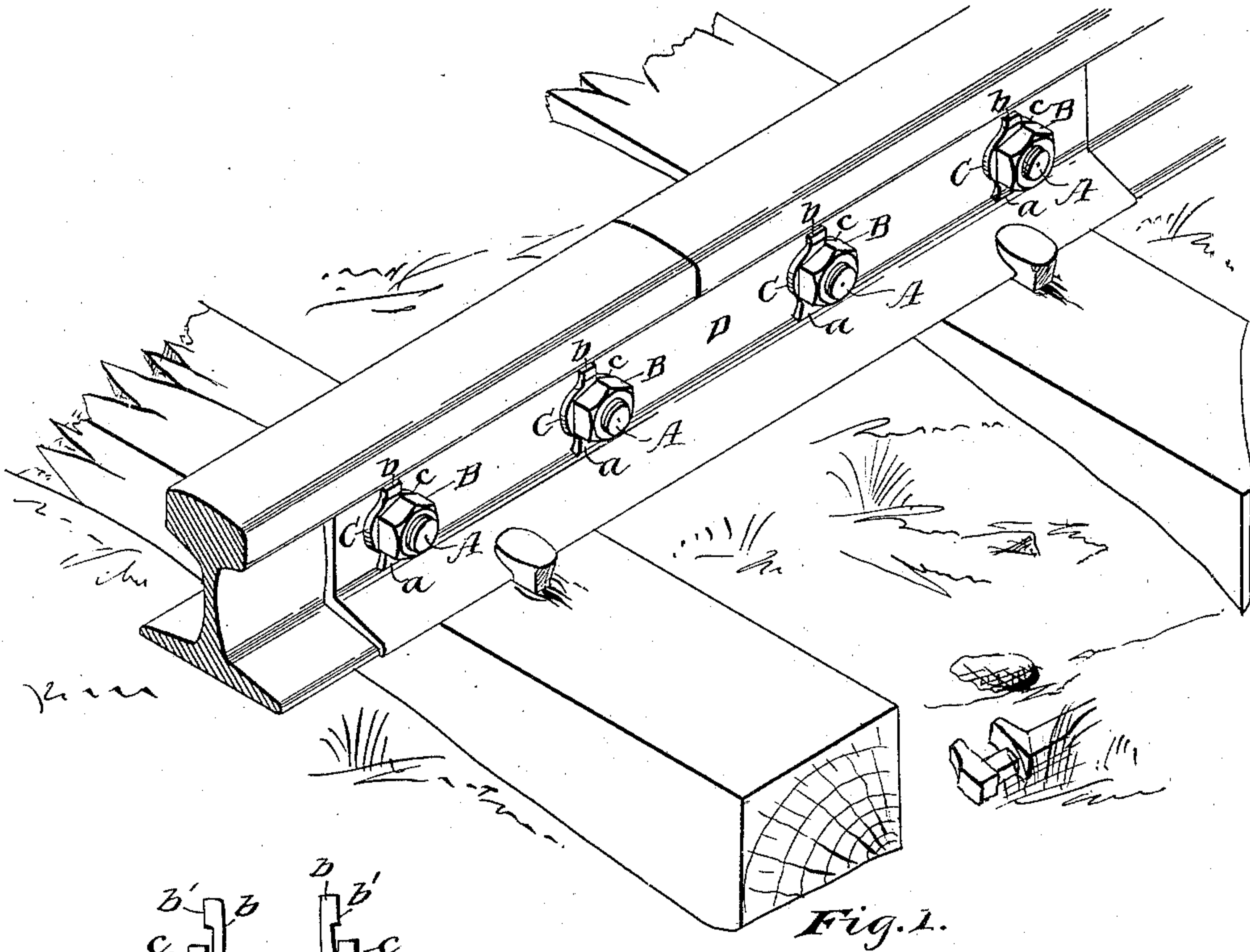


(No Model.)

D. RICE & J. S. KIRK.
NUT LOCK.

No. 468,578.

Patented Feb. 9, 1892.



WITNESSES
Ed. G. Lane
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UNITED STATES PATENT OFFICE.

DANIEL RICE AND JOSEPH S. KIRK, OF CANTON, OHIO.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 468,578, dated February 9, 1892.

Application filed November 2, 1891. Serial No. 410,608. (No model.)

To all whom it may concern:

Be it known that we, DANIEL RICE and JOSEPH S. KIRK, citizens of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Nut-Locks; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference made thereon, in which—

Figure 1 is an isometrical view showing our invention applied to securing the joints of railway-rails. Figs. 2, 3, and 4 are detached views of the spring-washer. Fig. 5 is a detached view of the nut. Fig. 6 is a longitudinal section of a portion of a railway-rail, showing the location of the bolt, washer, and nut.

The present invention has relation to nutlocks; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claim.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the bolt, which is constructed in the ordinary manner and is provided with the ordinary screw-threaded portion to receive the screw-threaded nut B. The spring-washer C is substantially of the form shown in the drawings, and, as shown, it is provided with the base or foot *a*, which is for the purpose of preventing the washer from rotating as the nut B is turned onto the bolt A and at the same time preventing the nut from becoming loose after it has been properly seated, as hereinafter described. The spring-washer C is severed, as illustrated at X, and the division *b* extended a short distance above or beyond the division *c*, and is so formed for the purpose of extending said division *b* above or beyond the periphery of the nut B. For the purpose of providing a means for permitting the division *b* to be pressed away from the face of the nut B and disengage the same from one of the inclined notches *d*, said division is formed thinner than the division *c*,

thereby leaving an opening between the bar D and the back face of said division *b*.

Heretofore it has been difficult to loosen nuts after they have been tightened, as no means have been provided for springing the catch of a lock-washer out of contact with the notches of the nut; but by our peculiar arrangement the division *b* can be easily disengaged, as hereinafter described. The division *b* is provided with the side extension *b'*, which extension laps over the periphery of the nut B, and when a wrench is applied to the nut for the purpose of loosening the same it is forced or pressed against the side extension *b'*, thereby disengaging the division *b* from one of the inclined notches *d*, at which time the nut is free to be rotated backward. For the purpose of preventing the division *c* from interfering with the wrench it is formed of such a length that it will come flush or slightly below the periphery of the nut B, which brings said division *c* out of the way of the wrench. By forming the notches *d* as shown the nut is free to turn in one direction and lock against turning in the opposite direction.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination of the bolt A, provided with a screw-threaded portion, the screw-threaded nut B, provided with the inclined notches *d*, the spring-washer C, provided with the base or foot *a* and the divisions *b* and *c*, formed of different lengths, and the division *b*, formed thinner than the division *c*, and the side extension *b'*, located upon the division *b* and extending above the periphery of the nut B, substantially as and for the purpose set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

DANIEL RICE.
JOSEPH S. KIRK.

Witnesses:

F. W. BOND,
CHAS. M. STANDS.