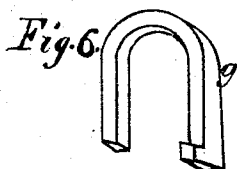
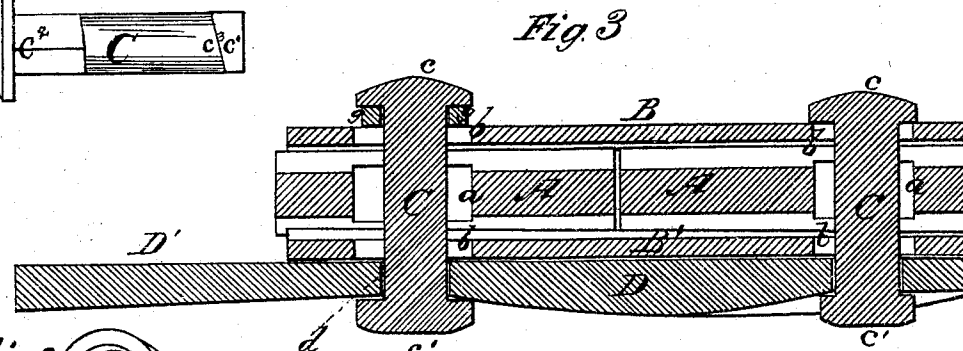
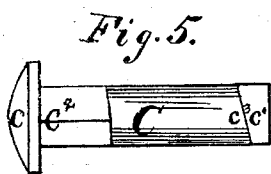
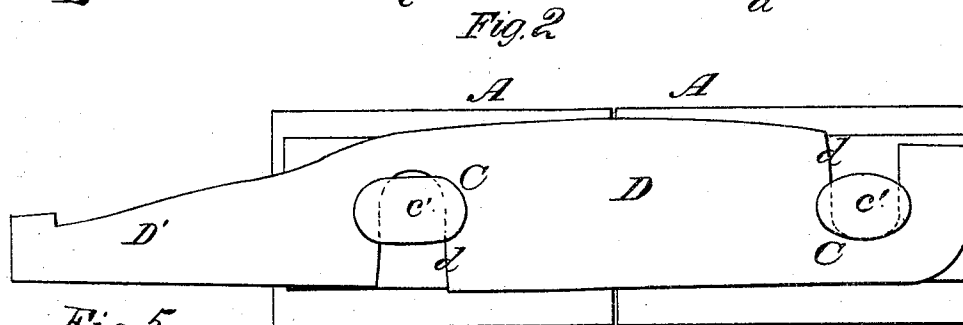
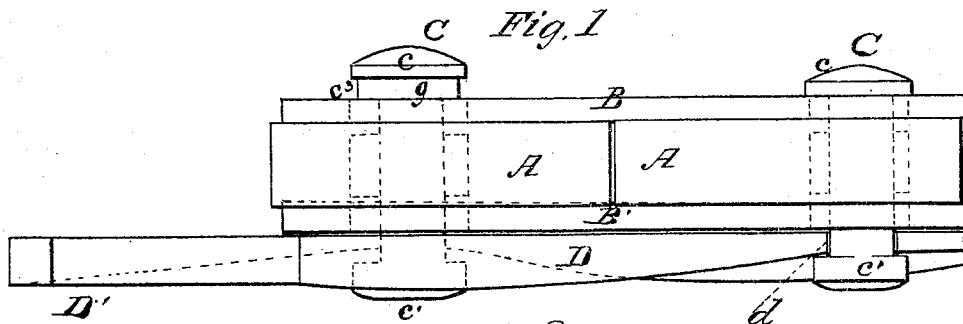


W. M. SPACHT.

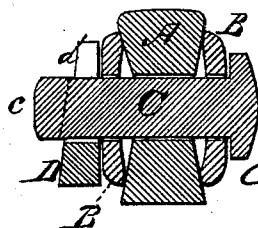
Nut-Locks.

No. 147,187.

Patented Feb. 3, 1874.



Witnesses.
George C. Uphaul,
Jas. B. Loomis.



Inventor
William M. Spacht.
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Attys.

UNITED STATES PATENT OFFICE.

WILLIAM M. SPACHT, OF DUNKIRK, OHIO.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **147,187**, dated February 3, 1874; application filed December 6, 1873.

To all whom it may concern:

Be it known that I, WILLIAM M. SPACHT, of Dunkirk, in the county of Hardin and State of Ohio, have invented a new and valuable Improvement in Bolt-Locks; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my bolt-lock. Fig. 2 is a bottom view of the same. Figs. 3 and 4 are sectional, and Figs. 5 and 6 detail, views of the same.

This invention has relation to means for locking bolts which are used for railroad-rail-joint splices. It consists in the use of a wedge-shaped locking-bar, in combination with double-headed bolts and rail-joint splices having oblong holes through them, for receiving the said bolts, as will be hereinafter explained.

The following is a description of my improvements:

In the annexed drawings, A A represent the ends of two rail-sections of the reversible kind, and B B' represent two splicing-plates, which are applied to the sides of the rail-sections, across the joint thereof. The splicing-plate B presents parallel sides, but the splicing-plate B' is tapered longitudinally, for a purpose hereinafter explained. C C' represent double-headed bolts, which are used to confine the splice-plates to the rail. Each bolt C is constructed with a circular head, *c*, a square portion, *c*², next this head, and an elliptical head, *c*³, the inner surfaces of which are beveled, as shown in Fig. 5. The plates B B' have oblong holes *b b* through them, and the neck of the rail also has oblong holes *a a* through it. These holes allow the elliptical bolt-heads *c*³ to pass through them. I sometimes make the holes *b*, which are through the tapered splice-plate B', longer than the holes through the splice-plate B, for the purpose of allowing

this plate B' to be tightened from time to time by driving it endwise. D represents a locking-wedge, which is constructed with an extension, D', and two notches, *d d*, which latter are intended to receive the rounded stems of the bolts C when the plate D is in its place, as shown in the drawings. The notches *d d* are made in the opposite edges of the piece D, at which points this piece is beveled, so as to present transverse wedges that are confined between the beveled surfaces *c*³ of the elliptical heads *c*³ and the plate B', as shown in the drawings.

When the wedge-piece D is forced into its place, it may be secured by means of a spike driven into a cross-tie, so that the head of the spike will hook over the extension D' of said piece; or, instead of a spike, a bolt or a clasp may be employed for the same purpose. After the piece D has been adjusted in its place, as described, the plates B B' are forcibly drawn to the sides of the rail-sections by driving up the wedge-shaped splice-plate B'.

Should the inner surfaces *c*³ of the bolt-heads *c*³ be considerably worn, and the space between the heads be elongated thereby, washers *g* may be applied between the heads *c* and the plates B.

It will be seen from the above description that the locking wedge or key D and double-headed bolts will rigidly confine the plates B B' to the rail-sections, and that the wedge-shaped splice-plate B', with its long bolt-holes, allows the joint to be tightened at pleasure.

What I claim as new, and desire to secure by Letters Patent, is—

The locking-piece D, notched and beveled, as described, in combination with double-headed bolts C and splicing-plates, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM M. SPACHT.

Witnesses:

WILLIAM P. COWER,
DAVID JARELL.