

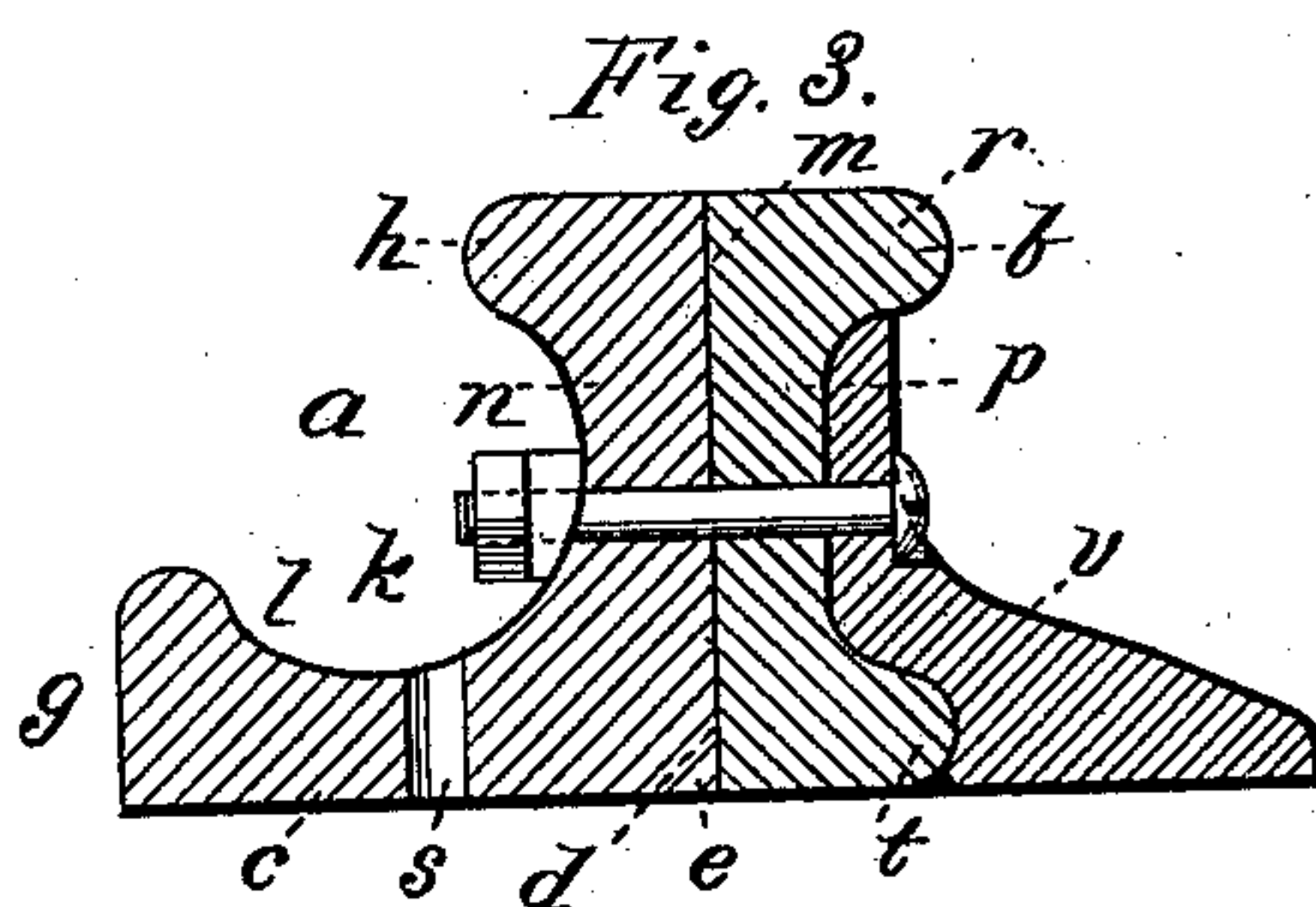
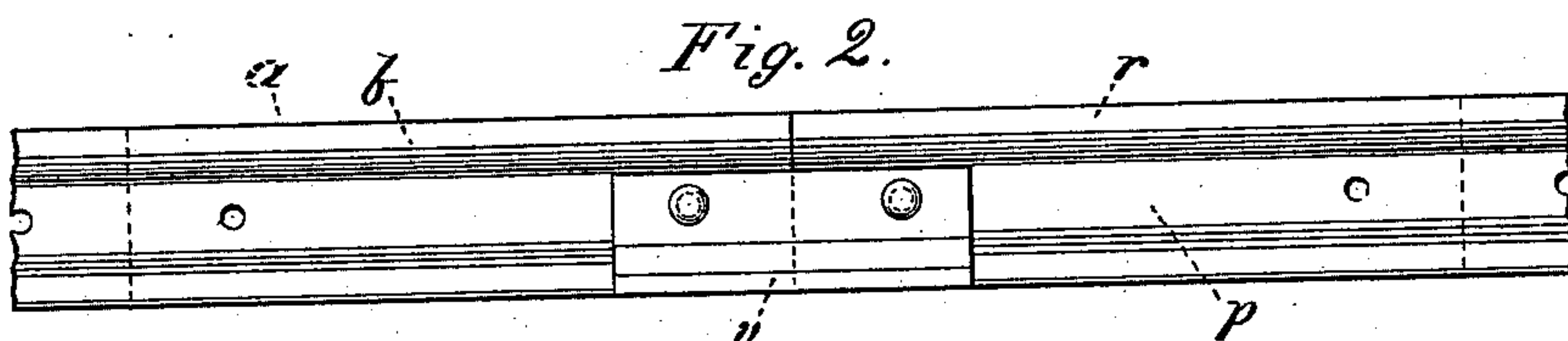
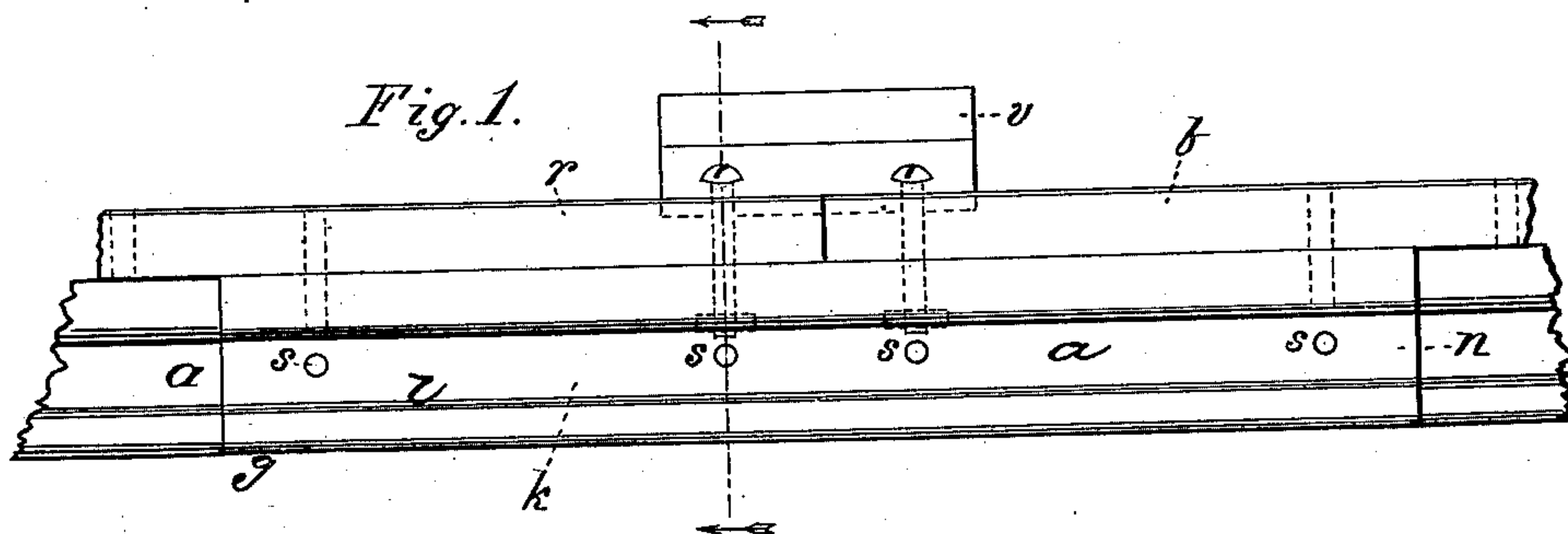
(No Model.)

H. D. NORRELL.

REVERSIBLE SECTIONAL LAP JOINT RAILWAY RAILS.

No. 294,743.

Patented Mar. 4, 1884.



WITNESSES

Villette Anderson.
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UNITED STATES PATENT OFFICE.

HANSFORD D. NORRELL, OF RICHMOND, VIRGINIA.

REVERSIBLE SECTIONAL LAP-JOINT RAILWAY-RAIL.

SPECIFICATION forming part of Letters Patent No. 294,743, dated March 4, 1884.

Application filed August 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, HANSFORD D. NORRELL, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Reversible Sectional Lap-Joint Railway-Rails; and I do 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention, and is a top view. Fig. 2 is a side view. Fig. 3 is a vertical section.

This invention has relation to lap-rails for railway-tracks; and it consists in the construction and novel arrangement of the reversible lapping sections, all as hereinafter set forth, and particularly pointed out in the appended claims.

In the accompanying drawings, the letter *a* designates the section which is employed on the outer side, and *b* the inner section. The section *a* is right angular in form in cross-section, being rolled with the plane faces *c* and *d* meeting each other at the base-angle *e*, and with the half-heads *g* and *h* and intermediate hollow, *k*, extending longitudinally, so that the necks *l* and *n* are at right angles to each other. This section affords a broad base, and may be spiked down through the bolt-holes *s* of the

lower or horizontal neck, if desirable. The section is **L** form. The section *b* is **I** form, having the vertical plane face *m* and the channeled outer face, *p*, having the upper half-head, *r*, and the lower half-head, *t*. In using the sections *b*, the coupling-plates *v* are employed, these plates being placed on the inside of the rail, where the ends of the sections *b* abut against each other at the middle of the opposite section *a*. In this manner a lap-rail is formed of great strength, which can be easily repaired, when the half-head of any section is worn, by simply reversing the section. This construction not only strengthens the rail at the joints, but facilitates repair within the length of a single section by reversal.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The **L**-form railway-rail section having plane faces meeting at right angles to each other, and half-heads arranged, respectively, in vertical and horizontal position, substantially as specified.

2. A lap-joint railway-rail composed of the reversible **L**-shaped sections *a*, the reversible **I**-form sections *b*, the coupling-plates *v*, and coupling-bolts, substantially as specified.

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

HANSFORD D. NORRELL.

Witnesses:

THEO. MUNGEN,
EMORY H. BATES.