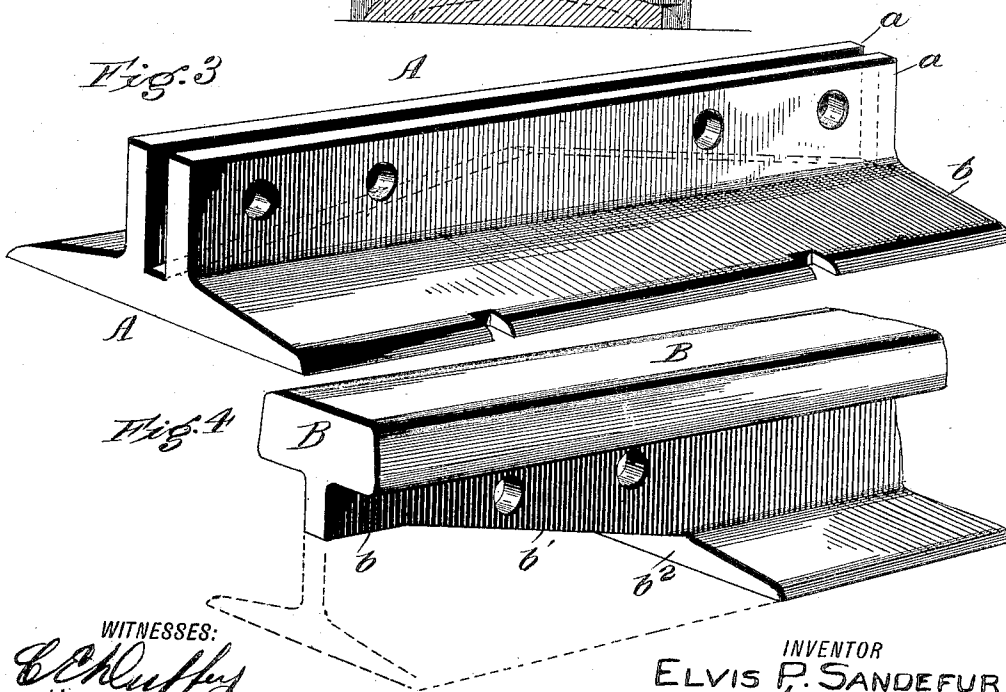
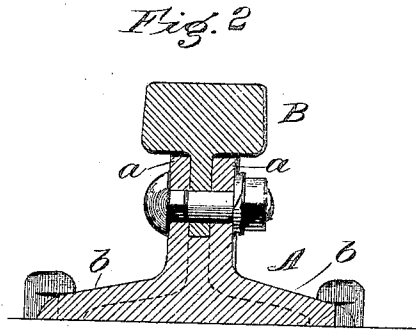
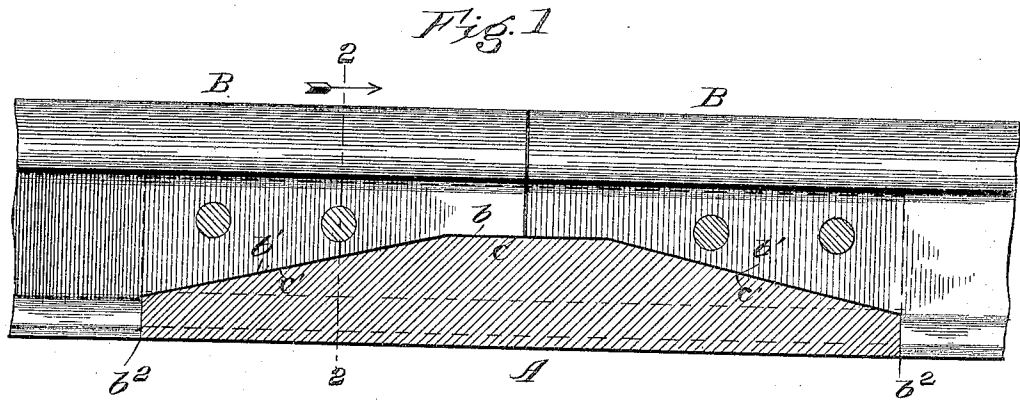


No. 818,298.

PATENTED APR. 17, 1906.

E. P. SANDEFUR.
RAILROAD RAIL JOINT.
APPLICATION FILED JAN. 16, 1905.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ELVIS PERY SANDEFUR, OF MANDA, KENTUCKY.

RAILROAD-RAIL JOINT.

No. 818,298.

Specification of Letters Patent.

Patented April 17, 1906.

Application filed January 16, 1905. Serial No. 241,390.

To all whom it may concern:

Be it known that I, ELVIS PERY SANDEFUR, a citizen of the United States, residing at Manda, Ohio county, Kentucky, have invented a new and useful Improvement in Railroad-Rail Joints, of which the following is a specification.

My invention relates to new and useful improvements in railroad-rail joints, and has for its object the construction of a railroad-rail joint which will stand on a level with the rail under the heaviest train, thereby preventing low joints.

My object also is to make a railroad-rail joint which will always be ready for use, one which when fastened in its place a train can pass over without danger or delay should the bolts from accident or other cause be out.

I obtain these objects by the mechanism illustrated by the accompanying drawings, in which—

Figure 1 is a longitudinal section of the rail-joint including the meeting ends of two alined rails. Fig. 2 is a vertical cross-section on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the joint or coupling bar proper; and Fig. 4 is a perspective view of the end of one of the rails.

The rail or joint-bar A comprises two vertical flanges *a* (see Fig. 3) and a horizontal base *b*, which is extended laterally and provided with notches to receive spikes for securing it to ties. The flanges *a* are separated by a space sufficient to receive the webs of two alined rails B. The bottom or floor of the groove or open slot thus formed between the flanges *a* is inclined downward each way from the central portion, which is flat and horizontal. The central portion is indicated in Fig. 1 by *c* and the inclines or slopes by *c'*. At the end of each rail B the web and base are cut away, as shown in Fig. 4, a portion of the web being horizontal, as shown at *b*, and another portion inclined, as shown at *b'*, corresponding to the portions *c c'* of the bottom of the groove in the joint-bar A. Further, the base of the rail where cut away is vertical, as shown at *b''*, Fig. 4, so that it abuts the end of the joint-bar A, as indicated in Fig. 1.

As shown in Fig. 1, the ends of the alined rails abut and the portions *b b'* rest upon and

abut the corresponding portions *c c'* of the bar A.

In practice the joint-bar constitutes a chair for and means of connection between the rail ends B, and it is so spaced as to rest upon adjacent cross-ties. Preferably it will be made long enough to rest on three ties, so that one tie will be directly under the center of the bar. The rails are secured to the bar by four bolts, two for each rail, and the same are located far enough below the head of the rail to avoid contact of their heads and nuts with the flanges of the wheels of a car.

It will be seen that by constructing the joint-bar in the manner described it is greatly strengthened at the center, where the strain is greatest, so that the meeting ends of the rails are firmly supported.

By providing the central level or horizontal portion *c* it will be seen that the rails may contract and expand and still remain firmly supported, so as to withstand the shock due to the passage of wheels over the joint.

What I claim is—

1. The combination, with the alined ends of railroad-rails whose web and base are cut away, the web thus having a horizontal and inclined portion, of a joint-bar having a broad base and vertical flanges which are separated by a space adapted to receive the webs of the meeting rails and having the bottom of the groove between said flanges formed with a central, horizontal portion and other portions sloped therefrom toward the respective ends of the bar, substantially as described.

2. The improved joint-bar for railroad-rails, comprising a broad base, vertical, longitudinal flanges which are separated by a space adapted to receive the ends of the meeting rails, and having the bottom of the groove between said flanges sloped from the central portion downward toward the ends, substantially as described.

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

ELVIS PERY SANDEFUR.

Witnesses:

D. B. RHOADS,
C. D. CHICK.