

(No Model.)

J. H. STEWART & J. A. FAW.
RAILROAD RAIL.

No. 419,086.

Patented Jan. 7, 1890.

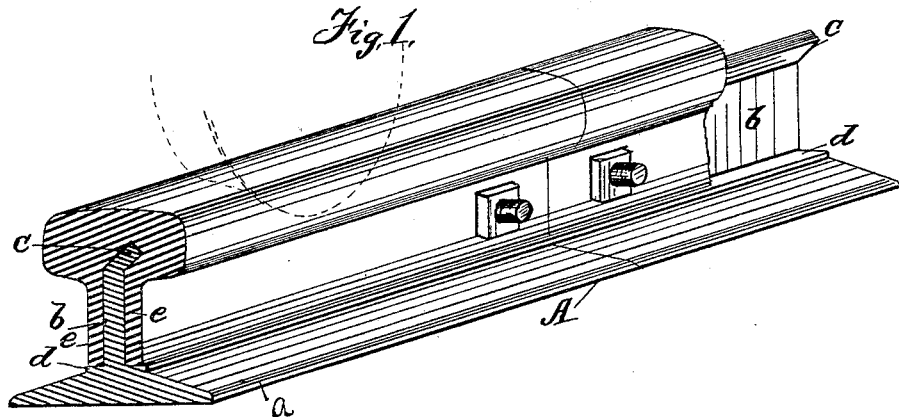
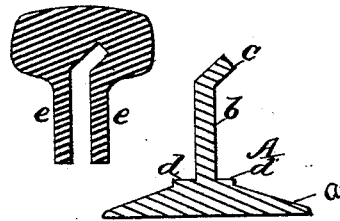


Fig. 2.



Witnesses

Horace Beall.

E. M. Johnson

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Inventors

By his Attorneys

[Signature]

UNITED STATES PATENT OFFICE.

JOSEPH H. STEWART, OF BLUFF CITY, AND JOHN A. FAW, OF BRISTOL,
TENNESSEE; SAID STEWART ASSIGNOR TO JOHN H. CALDWELL, OF
BRISTOL, TENNESSEE.

RAILROAD-RAIL.

SPECIFICATION forming part of Letters Patent No. 419,086, dated January 7, 1890.

Application filed September 5, 1889. Serial No. 323,045. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH H. STEWART and JOHN A. FAW, citizens of the United States of America, respectively residing at Bluff City and Bristol, in the county of Sullivan and State of Tennessee, have invented certain new and useful Improvements in Railroad-Rails; and we do hereby 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 of reference marked thereon, which form a part of this specification.

Our invention relates to railway-rails; and it consists in the improved construction hereinafter described and set forth, whereby a sectional rail is provided wherein the tread and base, though independent, are readily adapted for relative adjustment, and are so arranged as to break or lap joints with regard to each other, and thus present a durable and efficient rail.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a section of rail embodying our improvements, and Fig. 2 is an end view showing the base and tread section detached.

As represented, the base-section A, constituting the lower member of the rail, has its bottom part *a* similar in construction to the ordinary railway-rail base, or is provided centrally with a vertical longitudinal web *b*, the upper portion of which is inclined or deflected, as indicated by *c*. The bottom section of the base A, adjacent to its connection with the vertical web, is provided with two longitudinally-extending shoulders *d*, forming the supporting-faces for the lower edges of the vertical parallel and depending sides *e* of the tread-section B, the said depending sides forming between them a vertical longitudinal space adapted to receive the web, while the body of the tread proper at the upper end of the vertical recess has an inclined slot intersecting said recess and adapted to receive a deflected portion of the web.

From the foregoing it will be apparent that a rail embodying our improvements can be rendered more rigid than the ordinary form of rail, and that its general character is simplified by the absence of the necessity for the employment of fish-plates and locking means, since each tread-section can be so adjusted relative to the abutting ends of the base-sections that it will span or loop the same. While of course it will be desirable to employ bolts transversely piercing the sides *e* and web *b*, the number of said bolts and points of location will be considerably lessened, owing to the presence of the deflected portion of the web, which in itself affords a permanent engaging feature against the vertical removal or vibration of the tread-section.

It will ordinarily be found desirable to make the bolt-holes through which the transverse bolts pass slightly elongated, in order to provide for the expansion and contraction of the several parts.

The most important feature of our invention consists in the fact that the deflected portion of the web is inclined in an inward direction with relation to the track, so that the strain exerted by the tread of the wheels passing over the track, which might be sustained by the deflected portion, will be counteracted by the lateral or bracing effect of the flanges of said wheels.

The parts are few and simple, and, as will be quite obvious, can be readily produced at a comparatively small expense.

Having thus described our invention, we claim—

1. The combination of the base-section made in a single piece and having the single central vertical longitudinal web provided with an upper deflected portion, together with lateral integral flanges formed at the base thereof, and an independent tread-section provided with a central recess corresponding with said deflected web and adapted to be slid longitudinally into engagement therewith to snugly receive the same, substantially as described.

2. The combination, with the base-section having the central vertical flange provided

with upper deflected portion and longitudinal
shoulders *d* at the bottom thereof, of the rail-
section provided with a longitudinal recess
corresponding with said deflected web and
5 designed to have its sides bear upon the
shoulders *d*, in connection with securing-
bolts, substantially as set forth.

In testimony whereof we affix our signatures
in presence of two witnesses.

JOSEPH H. STEWART.

JOHN A. FAW.

Witnesses:

E. W. JOHNSON,

WILLIAM PAXTON.