

(No Model.)

McLEOD W. THOMSON.
RAIL SPLICE BAR.

No. 586,804.

Patented July 20, 1897.

Fig. 1.



Fig. 2.

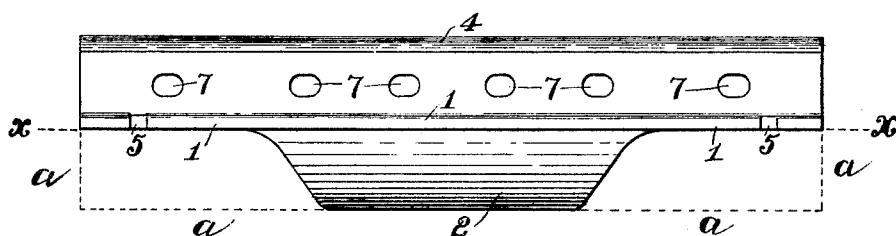
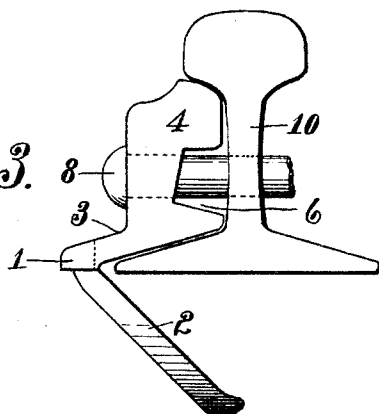


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

MCLEOD W. THOMSON, OF ALTOONA, PENNSYLVANIA.

RAIL SPLICE-BAR.

SPECIFICATION forming part of Letters Patent No. 586,804, dated July 20, 1897.

Application filed March 26, 1897. Serial No. 629,333. (No model.)

To all whom it may concern:

Be it known that I, MCLEOD W. THOMSON, a citizen of the United States, residing at the city of Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Rail Splice-Bars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a plan view; Fig. 2, a side elevation; Fig. 3, an end elevation showing the splice-bar as connected to a rail.

This invention relates especially to a rail splice-bar of substantially the character or construction of the splice-bar for which Letters Patent of the United States No. 549,945 were granted to me on the 19th day of November, 1895.

The object of the invention is to improve the construction of such splice-bar in certain features whereby it is capable, among other advantages, of being made more readily and cheaply and with increased strength and rigidity, yet retaining the sufficient resiliency of said patented bar.

The precise character of the improvement, which is a simple one, will clearly appear from the following description, reference being had to the accompanying drawings, and also, for a clear understanding, to my Letters Patent aforesaid.

In the structure shown and described in the latter there was imparted to the bloom from which the rail was to be made the contour in cross-section, (shown in Fig. 6 of the drawings of the patent,) and a section (marked *x* in Fig. 5 of said drawings) was cut out of the flange *C C'*, which flange was bent inwardly at an angle of about forty-five degrees to the side of the head of the bar and along the entire length of the outer part of the foot portion of the bar. Then the end sections *C'* of the flange were bent outwardly at right angles to the side of the head portion and were provided with spike-holes whereby the bar was adapted to rest upon the cross-ties and to be spiked thereto.

In carrying out my improvement I form or roll the bloom from which the bar is to be made in the general contour of that of the bar shown in Fig. 6 of my said patent, the in-

bent flange then extending the entire length of the bar; but I now make a rib (marked 1 in the drawings hereunto annexed) along the whole length of the junction of the said in-
bent flange 2 and the foot 3 of the bar, the
lower edge of the said rib being above the
base of the rail. I then cut away the end
portions of the flange, as indicated by the
dotted outlines *a a*, Fig. 2, on the line *x x*—
that is, on the line of the lower edge of the
rib 1. It will be observed (see Fig. 3) that
the outer edge of this rib projects some distance beyond the junction of the remaining
part of the flange with the rib and foot. This
rib, located as described, serves to brace or
stiffen the splice-bar vertically along its entire length. It serves also to stiffen the bar
laterally throughout its length, and it provides a spiking-flange of sufficient width
from the outer side of the head portion 4 of
the bar to the outer edge of the rib to afford
sufficient room for spike-slots 5 and the heads
of the spikes used to secure the splice-bar to
the ties. It will also be seen, by comparison
of the description and drawings of my said
Patent No. 549,945, with those of the improvement hereinbefore described, that, while
in the structure of the patent only a small
portion of the inbent flange is cut away and
the end portions of the latter afterward bent
out to a horizontal position to form a base or
support to rest upon the cross-tie, now the
inbent flange is cut away at the ends, as
herein described, and thus the splice-bar,
when in place, is wholly out of contact with
the tie, as indicated in Fig. 3, the under side
of the rib 1 being above the under side of the
base of the rail 10 at the same time that it
projects beyond the edge of said base, which
latter rests upon the tie. (Not shown.)

The splice-bar of my said patent may be said to be in the nature of a bridge resting upon the two cross-ties as abutments, and stresses received at the point where the ends
of the two rails come together may be carried back through the splice-bars and delivered to the cross-ties through the bases or
lugs of the bars resting upon the ties, whereas
in my present improvement, the entire end
portions of the inbent flange being cut away,
as described, each set or pair of splice-bars

acts exclusively as a splicing structure, and stresses received on the vertical line of the junction of the two rails are not carried back to the ties except as they are carried through the rails themselves.

The head 4 and the foot 3 are substantially of the same forms, respectively, as those of the same parts shown in my said patent, the former being provided with the longitudinal groove 6, Fig. 3, and the transverse holes 7, Fig. 2, for the usual bolts 8, Fig. 3.

Having thus described my invention, I claim—

1. In a rail splice-bar of the character described the combination with the head and foot portions and the inbent flange, of the longitudinal stiffening and supporting rib; the end portions of the bar being devoid of

the flange, substantially as and for the purpose described.

2. In a rail splice-bar of the character described the combination of the head and foot portions, the inbent flange, and the longitudinal stiffening and supporting rib, having its outer edge projecting beyond the line of junction of the rib with the said flange, and the end portions of the bar being devoid of the flange, substantially as specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

McLEOD W. THOMSON.

Witnesses:

E. M. JONES,
WM. C. HOAR.