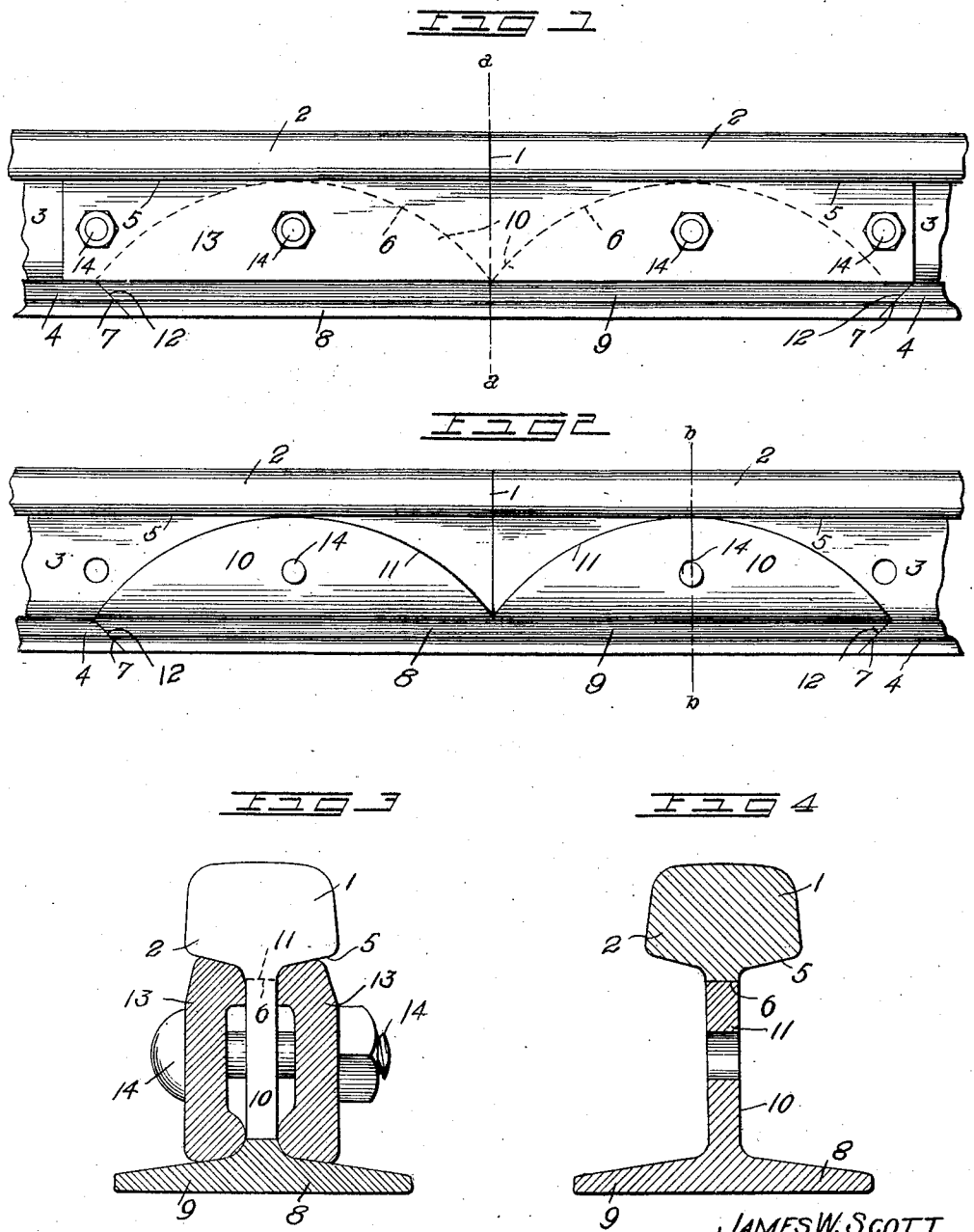


J. W. SCOTT.
RAILWAY JOINT.
APPLICATION FILED JUNE 12, 1912.

1,058,473.

Patented Apr. 8, 1913.



Witnesses
Raymond L. Gilbert
Joe Garner

JAMES W. SCOTT,
 INVENTOR
By Victor J. Evans
 Attorney

UNITED STATES PATENT OFFICE.

JAMES W. SCOTT, OF ALLENDALE, MICHIGAN.

RAILWAY-JOINT.

1,058,473.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed June 12, 1912. Serial No. 703,277.

To all whom it may concern:

Be it known that I, JAMES W. SCOTT, a citizen of the United States, residing at Allendale, in the county of Ottawa and State of Michigan, have invented new and useful Improvements in Railway-Joints, of which the following is a specification.

This invention relates to improvements in railway rail joints and especially with reference to the construction of a novel splice bar and the meeting ends of the rails so that the splice bar coacts with the meeting ends of the rails to lock the latter together and to sustain the rail ends to prevent them from yielding under the pounding of the train wheels, the invention consisting in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawing:—Figure 1 is a side elevation of a railway rail joint constructed in accordance with my invention, showing the meeting ends of a pair of rails and a splice bar constructed in accordance with my invention. Fig. 2 is a similar view of the same, with the near fish plate removed. Figs. 3 and 4 are vertical transverse sectional views on the planes indicated by the lines *a— a* and *b— b*, respectively, of Fig. 1.

In accordance with my invention, the meeting ends of a pair of rails 1, which may be otherwise of usual construction, each having a head 2, a web 3, and a base 4, are provided with overhanging projecting portions 5, the webs of the said projecting portion being provided with curved segmental recesses 6 in their under sides and the bases of the rails presenting inclined, downwardly converging shoulders 7 at the outer ends of the said recesses 6. In other words, the bases of the rails are cut away for a distance from their ends and provided with inclined shoulders 7 and one of the recesses 6 is formed in the under side of the overhanging portion of the web of the rail. I also, in accordance with my invention, provide a splice bar 8 which comprises a base 9 that corresponds in size and shape cross sectionally with the bases of the rails and a web 10 which is medially arranged on and projects upwardly from the said base 9, the said web presenting a pair of segment portions 11 which are adapted to fit in the correspondingly shaped recesses 6 of the overhanging portions of the rail ends, and the

ends of the base 9 of the splice bar being beveled or undercut so that the ends of the splice bars converge downwardly as at 12 and are adapted to bear and to fit against the inclined or beveled ends 7 of the bases of the rails. Owing to the construction of the base of the splice bar with the overhanging upper portions and the correspondingly shaped construction of the ends of the bases of the rails, the rails serve to support the splice bar and prevent it from dropping. The splice bar is held in place also by means of fish plates 13 which are arranged on opposite sides of the webs of the splice bar and rails, and bolts 14, some of which pass through the webs of the rails and others pass through the web of the splice bar, all of the said bolts passing through the fish plates. Owing to the segmental form of the seats or recesses 6, in the overhanging portions of the webs of the rail ends, and the portions of the web of the splice bar which fit in said seats or recesses the splice bar effectually locks the rail ends together against independent longitudinal movement. Moreover, the construction of the rail ends with the curved segmental recesses in their webs and the construction of the splice bar with the correspondingly shaped segments to fit in said recesses causes each segment of the splice bar to act as a filler and brace for each rail end, independently of the other rail end, and to counteract the pounding effect of passing train wheels in bending down the rail ends so that my improved splice bar, owing to its novel construction and the corresponding construction of the rail ends not only prevents vertical movement of the rail ends but also prevents the rail ends from being bent down. Preferably the splice bar is arranged on one or more cross ties so that the splice bar serves to prevent vertical movement of the rail ends and the pounding of the train wheels.

I claim:—

In combination with a pair of railway rails arranged end to end and each having a base, a web and a head, the end portions of the rails being provided with projecting and overhanging webs and heads, the bases of the rails presenting downwardly converging opposing shoulders and the overhanging web portions of the rails being provided each with a segmental recess in its under side so that the said segmental recesses of the rail bases are spaced apart and on op-

posite sides of the joint between the rail
ends, a splice bar having a base provided
with undercut inclined ends bearing on the
shoulders of the rail bases and also having a
5 web formed with segmental portions spaced
apart and respectively engaging the recesses
of the overhanging webs of the rails, fish
plates arranged on opposite sides of the
webs of the rails and splice bar and bolts

securing the fish plates, the splice bar and 10
the rail ends together.

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

JAMES W. SCOTT.

Witnesses:

MILLARD DURHAM,
WALTER SCOTT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
