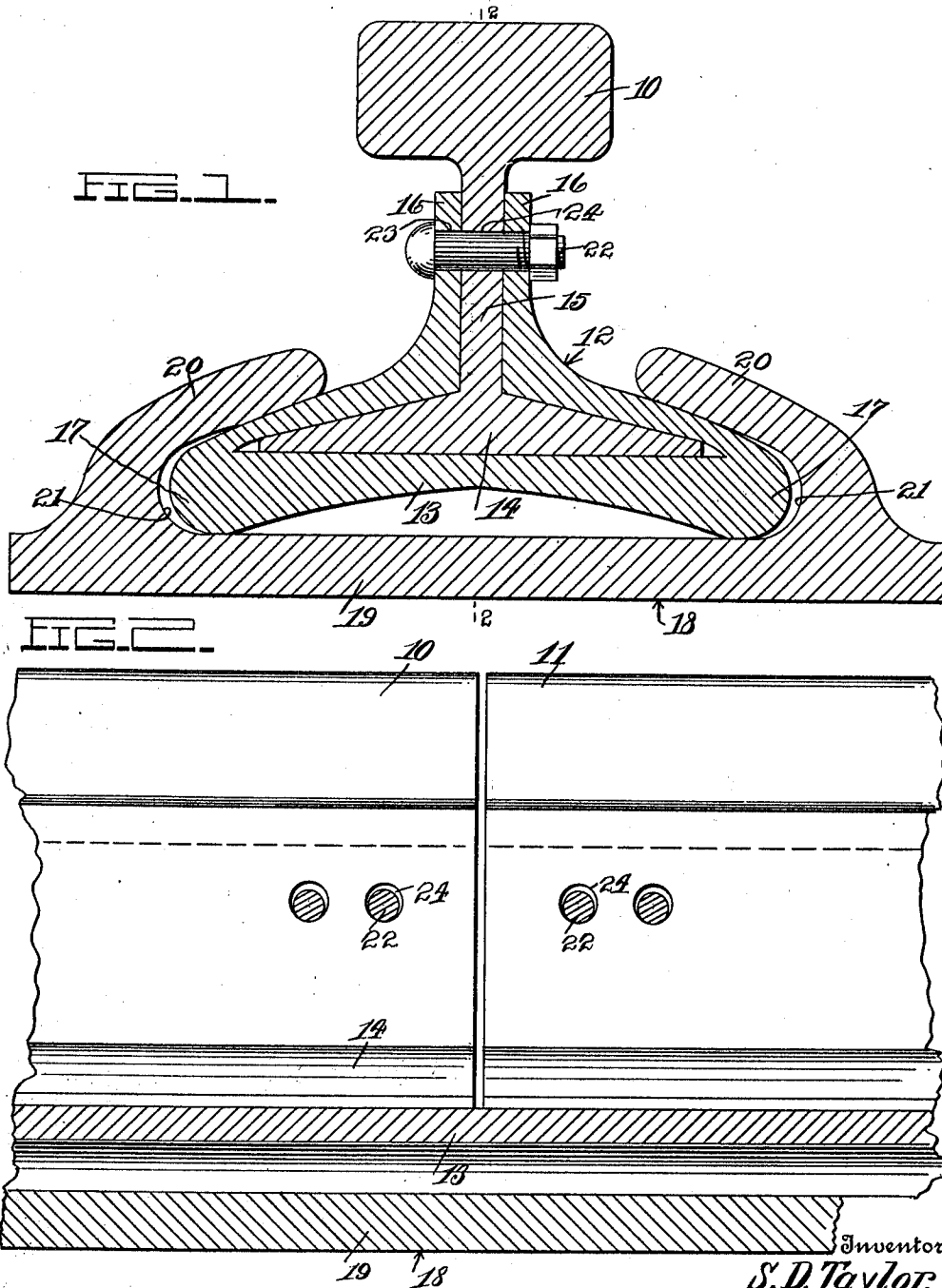


S. D. TAYLOR.
RAIL JOINT.
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1,004,217.

Patented Sept. 26, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

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RAIL-JOINT.

1,004,217.

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To all whom it may concern:

Be it known that I, SAMUAL D. TAYLOR, a citizen of the United States, residing at Unionville, in the county of Appanoose, State of Iowa, have invented certain new and useful Improvements in Rail-Joints; and I 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.

This invention relates to rail joints and has for an object to provide a device of this character which will automatically grip the rails when subjected to load so that rattling is prevented, and a further object of the invention is to provide a rail joint including an anchoring plate that will permit of the rail chair yielding when subjected to load without danger of displacement or breaking of any of the parts.

With these and other objects in view the invention resides specifically in the novel anchor plate and more generally in certain novel features of construction and combinations of parts which will be hereinafter fully described and claimed.

In the accompanying drawing forming part of this specification, Figure 1 is a vertical cross section through a rail joint embodying the present improvements, parts being shown in elevation, Fig. 2 is a section on the line 2—2 Fig. 1 with the rail in side elevation.

Referring now to the drawing in which like characters of reference designate similar parts, 10 and 11 denote abutting rail ends, and these rail ends are supported upon a rail chair designated in general by the numeral 12. The rail chair comprises an arched seat 13, the same being hollow and conforming in inner contour substantially to the contour of the rail base flanges 14 and the rail webs 15, and this seat is provided with upstanding fish plates 16 which extend nearly to the rail heads. The seat and fish plates are formed in a single piece and are constructed of resilient metal, the seat being adapted to yield when subjected to load, this yielding of the seat causing the lateral edge portions 17 thereof to move outwardly from

each other in order to secure the rail chair to a railway tie, an anchor plate 18 is designed to be used in connection with the chair and consists of a flat plate 19 having on its top face jaws 20, these jaws being inclined upwardly and inwardly toward each other and engaging the chair seat.

As clearly shown in Fig. 1 each jaw is formed adjacent its root with a curved surface 21 which confronts the adjacent lateral edge of the chair seat, and is so spaced from the latter that an approximately crescent-shaped opening exists between the root of the jaw and longitudinal end of the seat, this space providing clearance for the yielding of the chair seat when subjected to load so that breaking off of the jaws is prevented while yielding of the chair seat is unobstructed.

Spikes or similar fasteners (not shown) may be utilized in securing the anchor plate to the railway ties.

For maintaining the treads of the rails 10 and 11 in alinement, bolts 22 are passed through registering openings 23 and 24 formed in the fish plates and rail webs respectively, these openings being of slightly greater diameter than the diameter of the bolts so as to permit of expansion of the rails and seats.

When the rails are subjected to the weight of a car, there will be a tendency for the seat of the chair to be depressed, thereby causing the fish plates to tightly bind against the rail webs and present a tight, strong and practically noiseless rail joint.

What is claimed, is:—

1. In combination, a rail chair including a hollow arched resilient seat conforming substantially in inner contour to the contour of a rail base flange, and having fish plates upstanding from said seat; and an anchoring plate supporting said seat, and having jaws inclined upwardly toward each other and engaging over said seat, there being spaces existing between the lateral edges of said seat and confronting faces of said jaws for permitting of yielding of said seat.

2. In combination, a rail chair including an arched hollow resilient seat conforming in inner contour substantially to the contour

of a rail base flange, fish plates upstanding
from said seat, bolts loosely engaged through
said fish plates; and an anchor plate having
upwardly and inwardly inclined jaws en-
5 gaging over said seat, there being spaces
existing between the inner faces of said jaws
and confronting lateral edge faces of said
seat, and between said arched seat and the

underlying face of said anchor plate for per-
mitting of yielding of said chair. 10

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

SAMUAL D. TAYLOR.

Witnesses:

A. H. GRAY,

W. P. TAYLOR.

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