

E. F. ODELL.
RAIL JOINT.
APPLICATION FILED JUNE 20, 1912.

1,051,511.

Patented Jan. 28, 1913.

Fig. 1.

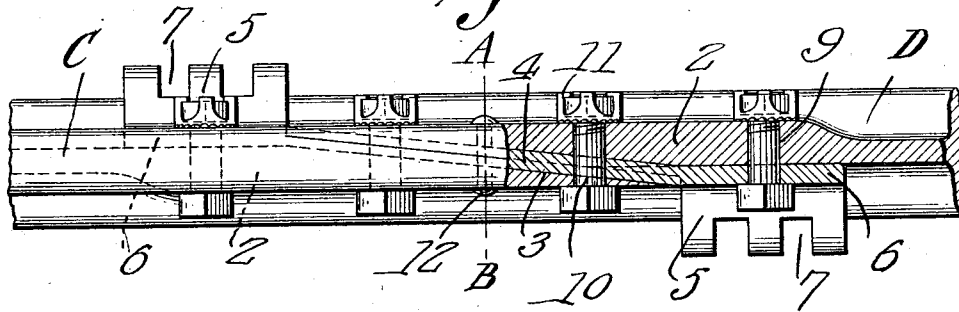


Fig. 2.

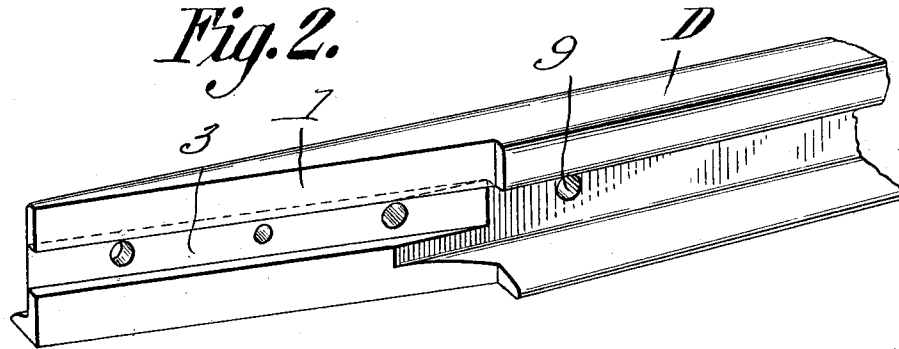
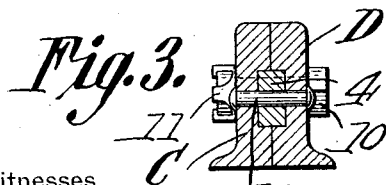
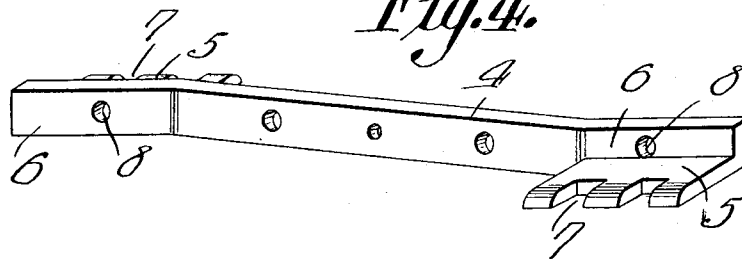


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD F. ODELL, OF MCKINNEY, TEXAS.

RAIL-JOINT.

1,051,511.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD F. ODELL, a citizen of the United States, residing at McKinney, in the county of Collin and State of Texas, have invented a new and useful Rail-Joint, of which the following is a specification.

This invention relates to rail joints, one of its objects being to provide a joint made up of lapping rail ends, means being combined therewith whereby sagging of the joint and consequent pounding of wheels passing thereover, is prevented.

A further object is to provide a novel form of spline for preventing either of the members of the joint from sagging relative to the other member, said spline having means combined therewith whereby creeping of the rails is prevented.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a view partly in plan and partly in section of a joint constructed in accordance with the present invention. Fig. 2 is a perspective view of one end of a rail forming part of the joint. Fig. 3 is a section on line A—B Fig. 1. Fig. 4 is a perspective view of the spline.

Referring to the figures by characters of reference C and D constitute two rails each of which is provided at one end with a beveled face 1 from which the ball and the base flange of the rail are removed on one side, the opposed portion of the rail being preferably thickened, as shown at 2. A groove or channel 3 is formed longitudinally within the beveled face of each rail and is of a width substantially equal to the height of the web of the rail. The beveled ends of the meeting portions of two adjoining rails are oppositely disposed so as to lap with their beveled faces in contact and with the grooves or channels 3 registering.

These channels receive a spline 4 which fits snugly therein and has its end portions deflected so as to fit snugly against the sides of the webs of the rails at points remote from the beveled faces. Flanges 5 extend from the ends 6 of the spline and are preferably formed with notches 7 or the like for the reception of spikes or other securing means. Openings 8 extend transversely through the spline and register with corresponding openings 9 formed in the end portions of the rails. These openings are designed to receive bolts 10 which, if desired, may be provided with suitable locks such as shown generally at 11.

A rivet 12 may be extended through the lapping portions of the rails and through the spline, this rivet constituting a bond whereby the joint is rendered suitable for use along electric railways or where electric block signals are employed.

It will be apparent that, by arranging the spline 4 within the channels 3, sagging of one rail end independently of the other rail end of the joint is prevented and there is therefore, no danger of wheels pounding while passing over the joint. Furthermore, as the ends of the spline are deflected as shown at 6, the spline cannot shift longitudinally within the channels 3. Thus, by fastening the flanges 5 to the ties or other rail supporting elements, the rails will not only be prevented from sagging by the spline 4 but will also be held against creeping longitudinally.

What is claimed is:—

1. A rail joint comprising lapping rails having beveled contacting faces, there being registering grooves in said faces, a spline removably mounted in the grooves, and means for securing the end portions of the spline to a rail supporting structure.

2. A rail joint including lapped rails having beveled contacting faces, there being registering longitudinal grooves in said faces, a spline fitted within the grooves and having its end portions bearing against the webs of the rails and beyond the inclined faces, and means for securing the ends of the spline to the rail supporting elements.

3. A rail joint including lapped rails having beveled contacting faces, there being registering longitudinal grooves within said faces, a spline detachably fitted within the grooves and having its ends deflected and fitting snugly against the sides of the webs

of the rails at points beyond the beveled faces, and fastener engaging portions extending laterally from said ends and beyond the rails.

5 4. A rail joint including lapped rails having beveled contacting faces, there being registering longitudinal grooves within said faces, a spline removably seated within the
10 from the ends of the spline for engagement by rail fastening means.

5. A rail joint including lapped rails having beveled contacting faces, there being registering longitudinal grooves within said

faces, a spline removably seated within the 15
grooves, flanges extending laterally from the ends of the spline for engagement by rail fastening means, and means for securing the lapped portions of the rails and the spline together. 20

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EDWARD F. ODELL.

Witnesses:

WM. BACON,
J. S. KELLY.

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