(No Model.)

H. E. FORD.

RAILROAD JOINT AND SUPPORT, &c.

No. 505,978. Patented Oct. 3, 1893.

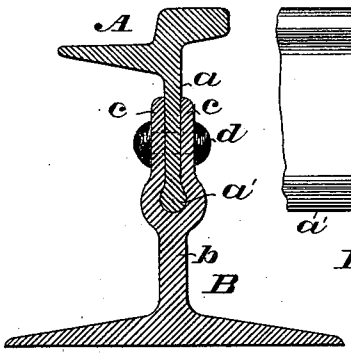

Fig. 1.

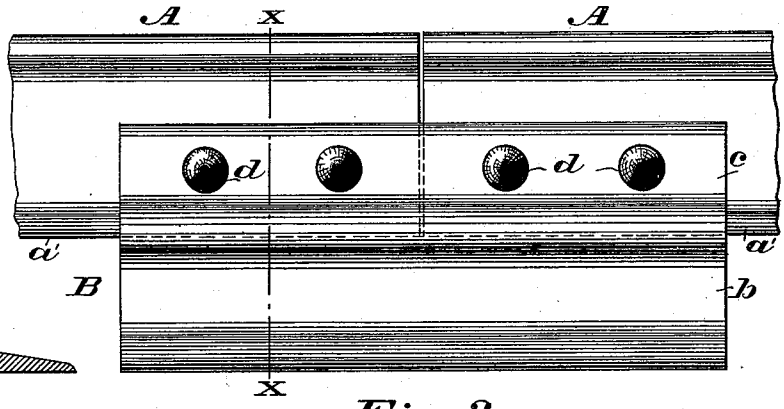

Fig. 2.

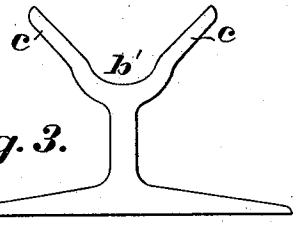

Fig. 3.

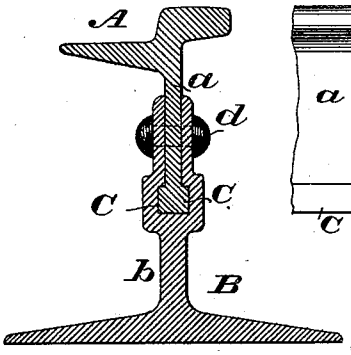

Fig. 4.

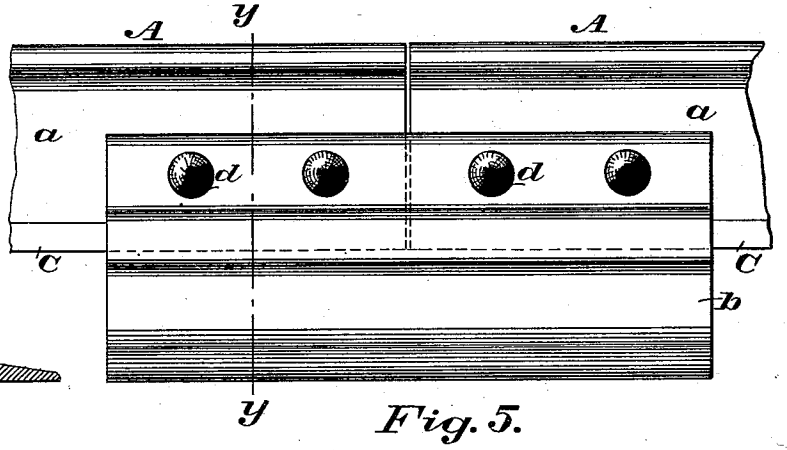

Fig. 5.

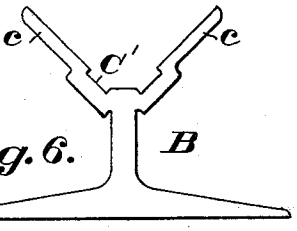

Fig. 6.

WITNESSES:
Elmer Marsh
Samuel E. Clarkson.

INVENTOR
Hamilton E. Ford
BY
E. W. Cady
ATTORNEY.

UNITED STATES PATENT OFFICE.

HAMILTON E. FORD, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE JOHNSON COMPANY, OF PENNSYLVANIA.

RAILROAD-JOINT AND SUPPORT, &c.

SPECIFICATION forming part of Letters Patent No. 505,978, dated October 3, 1893.

Application filed July 11, 1892. Serial No. 439,723. (No model.)

To all whom it may concern:

Be it known that I, HAMILTON E. FORD, of Johnstown, Pennsylvania, have invented a new and useful Railroad-Joint and Support and Method of Forming and Securing the Same Together, of which the following is a specification.

My invention consists of a new and improved railroad joint and support and method of forming and securing the same together.

In the accompanying drawings: Figure 1 is a vertical cross section of a rail joint and support on the line X—X Fig. 2, constructed in accordance with this invention. Fig. 2 is a side view of the rail joint and its support. Fig. 3 is an end view of the support showing its shape before the joint is formed, and Figs. 4, 5 and 6 are views similar to Figs. 1, 2, 3, showing a modified form of support, Fig. 4 being a vertical cross section on the line Y—Y Fig. 5.

In illustrating this joint, I have used what are known as side bearing girder rails but I do not intend to limit myself to any particular form of the heads of the rails, the rails shown being used as a type for illustrating my invention. The abutting rails are formed with a head and web and a lateral projection or bead at the bottom of the web. The support of the two abutting rails of the joint is formed with a base and an upward projection or web, and, at the top of this upward projection or web, with a pocket and flanges projecting from said pocket, so that said pocket and flanges may be pressed upon the webs of the abutting ends of the rails to surround the beads or projections thereon and rest against the webs of the rails; that is, the flanges of the support are formed so as to be adapted to conform to the webs of the rails and their beads or projections.

A, A indicate abutting railroad rails formed by rolling or otherwise with a web *a*, having at its bottom a bead or projection *a'*.

B indicates a support for the rail joint, formed by rolling or otherwise, with a web *b*, having at its top a pocket as *b'* with upwardly projecting flanges *c*, shown as inclined outward. The pocket *b'* is of such shape as to conform to the shape of the bead or projection *a'* when the flanges *c* are compressed against the webs *a* of rails A, A.

The rail joint is formed by resting the ends of the abutting rails A, A, upon the support B, the beads or projections *a'* being located in the pocket *b* and then bending inward and compressing or forcing against the web of the support B the flanges *c* by any suitable mechanical means, so that the pocket will clamp the beads or projections *a'* of the rails A, A, as shown. This bending and clamping of the flanges *c* of the support against the webs of the rails with the pocket surrounding the beads or projections *a'* will firmly unite the rails and their support together. The rails and supports are then fastened together by suitable means, as for example by bolts *d* with riveted heads.

In Figs. 4, 5 and 6 is shown a rail joint and support similarly constructed to that already described, except that the projection C of the rails is of a square shape instead of a bead, the pocket of the support being of a square shape, as shown at C', to conform to the projection C.

It will be seen that in the construction of rail joint herein described, the flanges *c*, serve as fish plates, thereby affording a rail joint and support formed with a small number of parts and readily secured together, forming a strong and firm rail joint, which is simple in construction and economical.

I claim—

1. An improved railroad rail joint and support, consisting of abutting rails and a support provided with a single web and flanges bent against and bolted to the webs of both the abutting rails.

2. An improved railroad rail joint and support, which consists of abutting rails having enlargements at the lower end of the webs and a support provided with a single web and flanges bent against and bolted to the webs of the rails.

3. An improved railroad rail joint and support, consisting of abutting rails provided with a web and a bead, or projection on said web, and a support provided with a single

web and flanges bent around said beads or projections and resting parallel with the webs of the rails.

4. An improved railroad rail joint and support, consisting of abutting rails provided with a web and a bead or projection on said web, and a support provided with a single web and flanges bent around said beads or projections and resting parallel with the webs of the rails and bolted thereto.

5. An improved railroad rail joint and support, which consists of abutting rails having their webs formed with a bead or projection and a support formed with a single web and a pocket at the top of the web with flanges, said pocket and flanges bent around the bead or projections on the rails and said flanges clamped and bolted to the webs of the rails.

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

HAMILTON E. FORD.

Witnesses:
ELMER MARSH,
EDWARD M. BOLSINGER.