

(No Model)

H. M. SVEBILIUS.
RAILROAD RAIL JOINT.

No. 586,253.

Patented July 13, 1897.

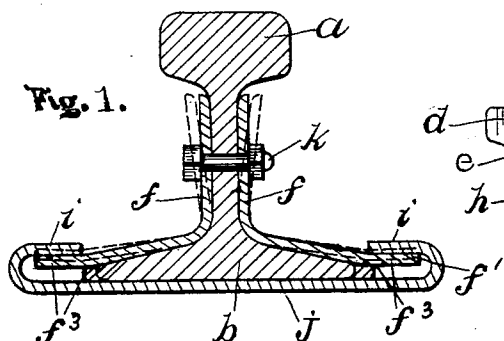


Fig. 3.

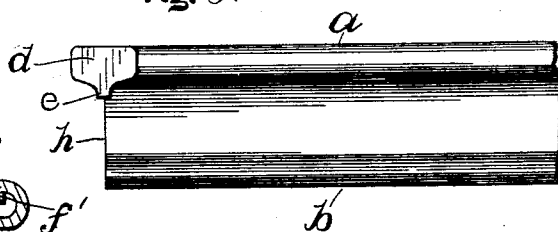


Fig. 2.

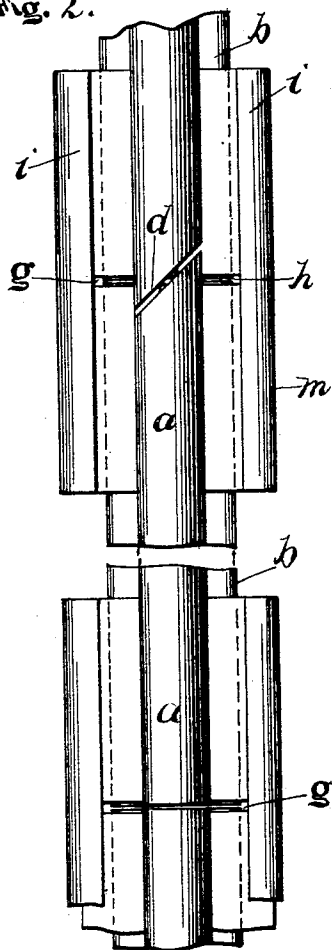


Fig. 4.

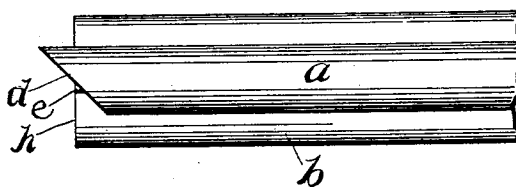


Fig. 5.

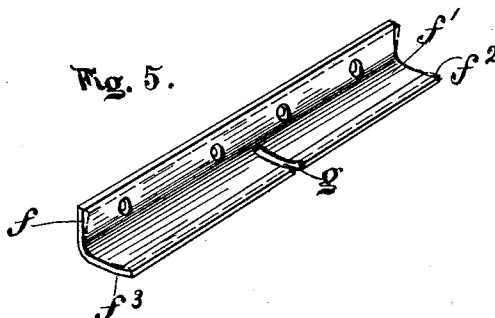
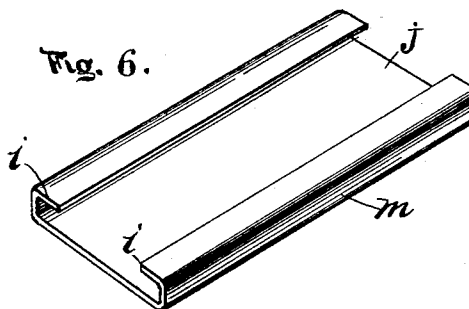


Fig. 6.



Witnesses:

E. Jaeger.
C. Carlson

Inventor.

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UNITED STATES PATENT OFFICE.

HENRY M. SVEBILIUS, OF CHICAGO, ILLINOIS.

RAILROAD-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 586,253, dated July 13, 1897.

Application filed April 14, 1897. Serial No. 632,161. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. SVEBILIUS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad-Rail Joints, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part hereof, in which—

Figure 1 shows an end sectional view of my said improved railroad-rail joint. Fig. 2 shows the same in plan view in two forms. Fig. 3 shows a rail end in side elevation. Fig. 4 shows Fig. 3 in plan view. Fig. 5 shows my splice-bar or flanged fish-plate in perspective. Fig. 6 shows my clasp for the flanged fish-plates or splice-bars in perspective.

Like letters of reference denote like parts. The object of my invention is to produce a railroad-rail joint which shall answer the purpose more effectually than those now in use. To attain said desirable end, I construct my said new device in substantially the following manner, namely:

I make a fish-plate f with a flange f' , provided with a border or edge f^2 about an inch or more in width, which is turned upward from said flange, as shown by a distinct line between the two surfaces. Said entire flange part has a central transverse cut g at the joint of the rails for the purpose of letting each part on each side of said cut on each rail end adapt itself to the thickness of the rail-flange or foot of the rail. Over said flanges is placed a clasp consisting of a base j with upward and intumed flanges i . Said clasp and splicing-pieces are placed in their proper position before the bolts are inserted. The said several parts are formed to engage with each other and resist the pressure of the bolts k before the parts f are up to the rail-web. Said parts are all made of steel having sufficient spring for the purpose, as is indicated by the broken outlines shown in Figs. 1 and 5, showing the normal or free condition of the plates. A fulcrum f^3 at the inner line of the border f^2 causes the outer and upper edge of the border f^2 to lift under the flange i of the splice m , thus bringing the bottom j of said splice and the rails strongly in contact, and immediately thereafter the parts f' are brought down upon the upper side of the flanges of

the rail, and following that the vertical plate f by the force of the bolts k is bent into contact with the web h of the rail. Said elastic resistance brings every part of this device into close and strong contact with its opposing part and makes a very rigid and practically unyielding joint.

To eliminate the jarring due to yielding rails I cut the rail ends through the cap at an angle of about forty-five degrees down to the web or point e , and from that point down, and the foot thereof I cut at right angles to the rail, as shown in Figs. 2, 3, and 4. By means of said beveled joint the car-wheel is passed from one rail to the other without jar, even when the rail is somewhat depressed, thus avoiding the pounding and destruction due to transversely-cut rails. Said beveled cut is, however, not indispensable to the construction of my new rail-joint mechanism.

In use my plates f are not to be bolted so tightly as to prevent the slip required for change of temperature, and the spring-pressure of said elastic part on the bolts makes an efficient nut-lock.

What I claim is—

1. A railroad-rail joint consisting of abutting ends of rails, and a clasp with a base in contact with the base of the foot of the rails, provided with intumed flanges and therewith operating yielding fish-plates with flanges transversely cut at center having an outer upturned border with a fulcrum on the rail-foot engaging under the flanges of the clasp, and bolts to bend said fish-plate to the rail, substantially as specified.

2. A railroad-rail joint consisting of abutting rails whereof the cap is cut to a bevel and the web and foot thereof at right angles thereto and a clasp with a base in contact with the base of the rail provided with intumed flanges and therewith operating yielding fish-plates with flanges transversely cut, at center, having an outer upturned border with fulcrum on the rail-foot engaging under the flange of the clasp, and bolts to bend said fish-plate to the rail, substantially as specified.

HENRY M. SVEBILIUS.

Witnesses:

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C. O. CARLSON.