(No Model.)

T. C. DU PONT.

RAIL JOINT.

No. 567,998. Patented Sept. 22, 1896.

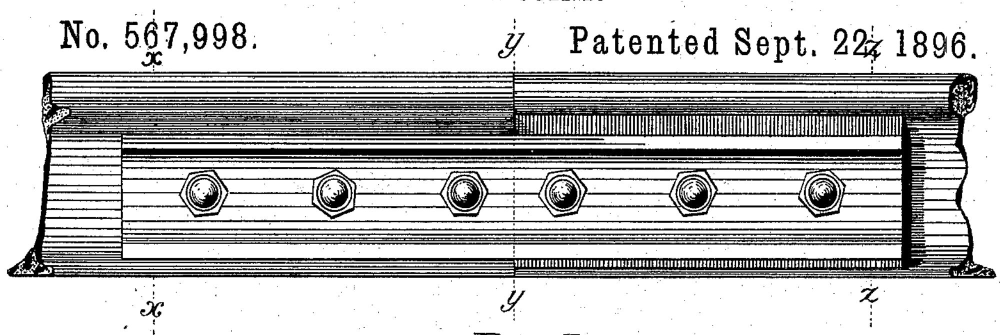
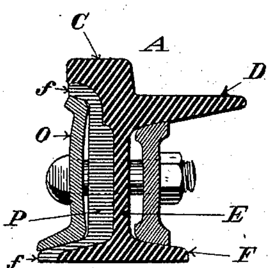
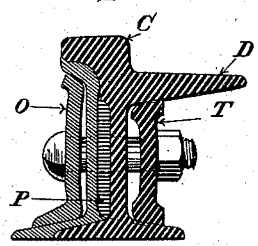


Fig. 1



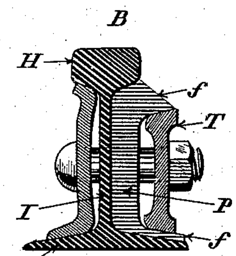
Sec. x-x

Fig. 4



Sec. y-y

Fig. 5



Sec. z-z

Fig. 6

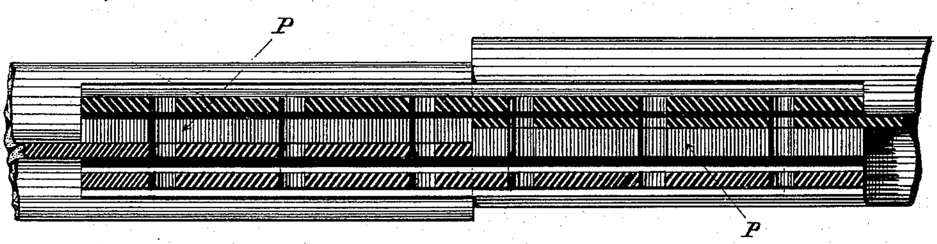


Fig. 2

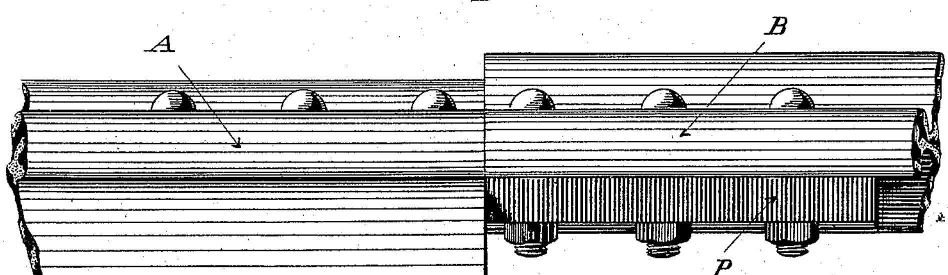


Fig. 3

WITNESSES:

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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 567,998, dated September 22, 1896.

Application filed June 2, 1896. Serial No. 594,021. (No model.)

To all whom it may concern:

Be it known that I, THOMAS COLEMAN DU PONT, of Johnstown, county of Cambria, State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following specification is a true and exact description, due reference being had to the accompanying drawings.

My invention relates to certain improvements in "combination-joints," as they are termed, that is, a joint or splice for joining two rails of unlike cross-sections together.

The object of my invention is to provide a joint that shall be stronger and more durable than those heretofore made and possessing other advantages hereinafter pointed out.

My invention has special reference to joining the usual form of girder street-car rail to what is commonly known as the T-rail. These rails have been heretofore joined by means of "combination splice-bars," as they are termed, that is, splice-bars the two ends of which fit the rail they lie against, that is to say, one half of the bar would be of a shape to fit the girder-rail, while the other half would be of a shape to fit the T-rail. These bars have been formed either by blacksmithing or forging or by welding two pieces of bar, each fitting one of the rails, together. These bars are often a source of trouble, owing to poor fitting or workmanship. By my invention I am enabled to employ the usual rolled splice-bar without any further treatment of it, thus insuring a good fit and perfect alinement of the joint.

I will now describe my invention.

Referring to the drawings, Figure 1 represents a side view of the adjoining ends of two rails joined by a joint embodying my invention. Fig. 2 is a horizontal section through the same on the line of the bolt-holes. Fig. 3 is a top view of Fig. 1. Figs. 4, 5, and 6 are respectively sections on lines X, Y, and Z of Fig. 1.

A is the girder-rail, (shown in section in Fig. 4,) having the head C, tram D, web E, and base-flanges F.

B is the T-rail, (shown in section in Fig. 6,) having head H, web I, and base-flanges L. By reference to the respective sections it will be seen that while in the case of rail B the web is located centrally beneath the head, in the case of rail A the head is thrown to one side of the web.

In general a joint embodying my invention comprises in addition to the splice-bars, one on each side, a filler block or blocks interposed between the rails and splice-bars, as hereinafter described. As the rails lie in position it will usually be found that one of the standard-bars of each section will fit against its rail and will stand away from the other rail. In my joint I fill this space up by means of a filling-block P, one face of which is adapted to fit against the rail, while the other face is fitted to receive the splice-bar. In the special sections of rails I have shown the webs are so differently located that I have been enabled to form the filling-block in one piece, thus forming a much stiffer joint. It will occur sometimes, however, that the webs are not so far from alining with each other and the filling-block must needs be made in two pieces.

Referring to Fig. 4 it will be seen that the block P is fitted closely to the side of rail A, the same as a splice-bar would. The outside of this is fitted to receive the splice-bar O, which is the standard-bar for the rail B. Likewise by referring to Fig. 6 it will be seen that the block P is fitted against the rail B on the inside, while the outside is fitted to receive the splice-bar T, which is the standard for rail A. This filling-block should be provided with the top and bottom flanges *f* or their equivalent, so that the splice-bars may get the proper top-and-bottom bearing, as they do on their respective rails. The bolts passing through the several parts serve to hold all firmly in place. It will thus be seen that I am enabled to join two rails of unlike cross-section, using the standard splice-bars, and am enabled to form a joint of great strength and durability. The block P may be made in a variety of ways. It may be cast of iron or steel, or it may be forged from steel.

Having thus described my invention, what I claim, and desire to protect by Letters Patent, is—

1. In combination with two abutting rails of unlike cross-section, a pair of splice-bars, each bar fitting one of the rails, a filling-piece between each rail and the bar not fitting it and means for securing the whole together.

2. In combination with two abutting rails of unlike cross-section, a pair of splice-bars, each bar fitting one of the rails, a filling-piece between the rail and the bar not fitting them, one end of said filling-piece being on one side of one rail and the other end being on the other side of the other rail.

3. In a rail-joint, in combination with two rails having differently-disposed webs, a splice-bar fitting one side of one rail, another splice-bar fitting the other side of the other rail, a filling-block interposed between each rail and the non-fitting bar and means for securing the whole together.

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

THOMAS COLEMAN DU PONT.

Witnesses:

JOHN H. KENNEDY,

D. R. MCLAIN.