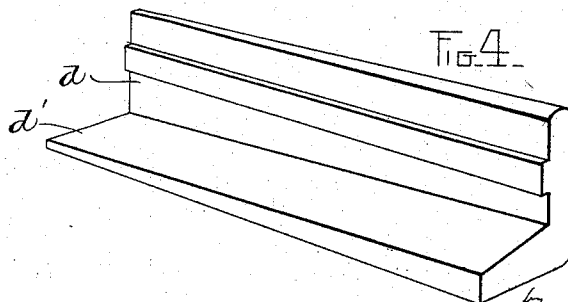
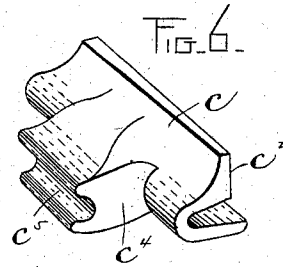
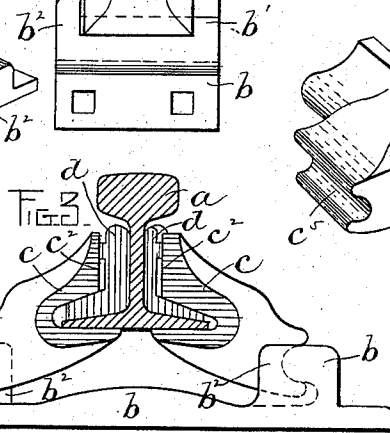
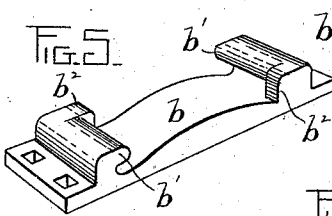
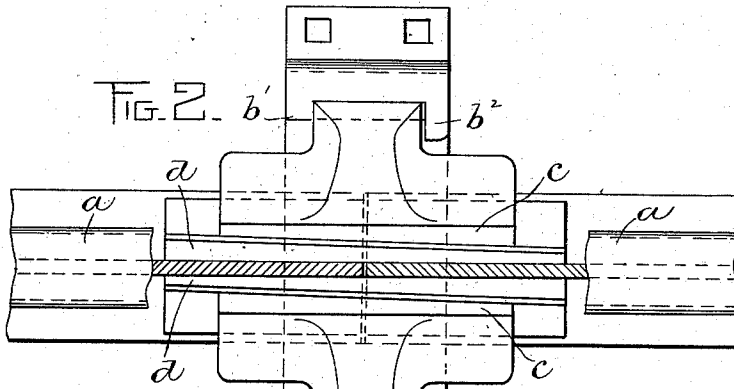
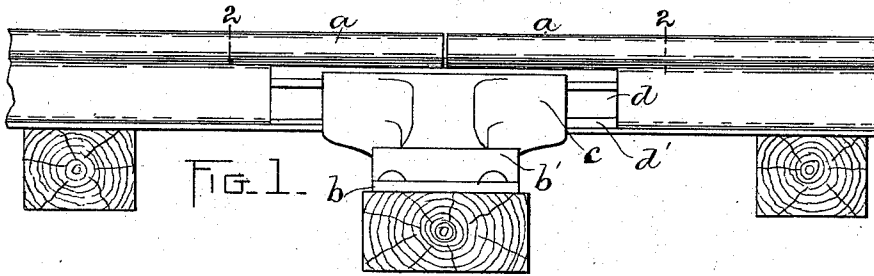


(No Model.)

J. H. WILLIAMS.  
RAIL JOINT OR COUPLING.

No. 565,653.

Patented Aug. 11, 1896.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN H. WILLIAMS, OF BOSTON, MASSACHUSETTS.

## RAIL JOINT OR COUPLING.

SPECIFICATION forming part of Letters Patent No. 565,653, dated August 11, 1896.

Application filed June 1, 1896. Serial No. 593,717. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. WILLIAMS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Rail Joints or Couplings, of which the following is a specification.

This invention relates to that class of rail joints or couplings in which a pair of angular jaws are pivoted on opposite sides of the rails, having arms which extend under the base of the rails and clamping-faces confronting the webs of the rails, the design being to produce pressure of the clamping-faces against the webs by downward pressure of the rail upon the arms of the jaws which extend under them.

My invention has in view the provision of means in a rail-joint of this character for adapting the jaws to different thicknesses of the base of the rails; and it consists in a number of novel constructions and combinations of parts recited in the appended claims.

The accompanying drawings illustrate an embodiment of the invention.

Figure 1 shows a side elevation of the improved rail-joint. Fig. 2 shows a plan view and a section on line 2 2 of Fig. 1. Fig. 3 shows an end view with one of the rails in section. Fig. 4 shows a perspective view of one of the fish-plates. Fig. 5 shows a perspective view of one of the base-castings. Fig. 6 shows a perspective view of one of the angular jaws.

*a a* designate two rails whose ends meet, and which are to be connected together by the improved joint or coupling. This joint or coupling is of the following description. A base-casting *b* rests upon and is secured to certain of the ties in the road-bed, and the said casting is formed near its ends with up-standing ears *b'*. Angular jaws *cc* are fitted to work on the ears, the said jaws being formed with lugs *c'*, having semicircular sockets *c''* in their outer sides for engagement with the ears *b'*. The lower arms of the jaws extend under the bottom of the rails, said arms being extended so as to engage both rails. The upper arms of the jaws extend over the upper side of the base of the rails, and they are extended laterally, so as to pro-

vide clamping-faces *c''*, confronting the webs of the rails on opposite sides.

It will be seen that downward pressure of the rails on the lower arms of the jaws has the effect of moving the clamping-faces *c''* inward toward the webs of the rails. It is desirable that both sets of arms of the jaws fit closely against the base of the rails, and as the thickness of the base varies in different rails I provide means for adjusting the jaws to any thickness of the base. The clamping-faces *c''* are obliquely arranged, as shown in Fig. 2. Fish-plates *d* are provided to fit between the clamping-faces *c''* and the rails, and these fish-plates are provided with flanges *d'*, formed to interlock with the jaws by projecting between the jaws and the base of the rail. Both the fish-plates and their flanges are wedge-shaped, as shown in Figs. 2 and 4, so that the act of driving the fish-plates between the rails and the jaws has a tightening effect, the wedge-shaped flanges *d'* causing the fish-plates to press downwardly on the base of the rail.

Stops *b'' b''* are provided at the ends of the ears *b'* *b'* to bear against the ears *c'* and prevent endwise displacement of the jaws *c* during the operation of driving in the fish-plates.

What I claim as my invention is as follows:

1. A rail joint or coupling, comprising a pair of angular jaws pivoted on opposite sides of the rail and having arms extending under the rail, and clamping-faces confronting the web of the rail; and fish-plates between the said clamping-faces and the web of the rail, and interlocked with the jaws, with provision for vertical adjustment to suit the thickness of the base of the rail.

2. A rail joint or coupling, comprising a pair of angular jaws pivoted on opposite sides of the rail and having arms extending under the rail, and oblique clamping-faces confronting the web of the rail, and wedge-shaped fish-plates having wedge-shaped flanges for engagement with said jaws, and adapted to bear on the base of the rail.

3. A rail joint or coupling, comprising, first, a base having upwardly-projecting ears, each provided at one end with a stop; secondly, angular jaws having lugs formed to rock on said ears, and to abut against the stops, arms

extending under the rail, and oblique clamping-faces confronting the web of the rail; and thirdly, wedge-shaped fish-plates interlocked with the jaws between the said clamping-faces  
5 and web.

In testimony whereof I have signed my name to this specification, in the presence of

two subscribing witnesses, this 25th day of May, A. D. 1896.

JOHN H. WILLIAMS.

Witnesses:

C. F. BROWN,

A. D. HARRISON.