E. A. STARK.

RAIL JOINT.

APPLICATION FILED MAR. 21, 1908.

912,913.

Patented Feb. 16, 1909.

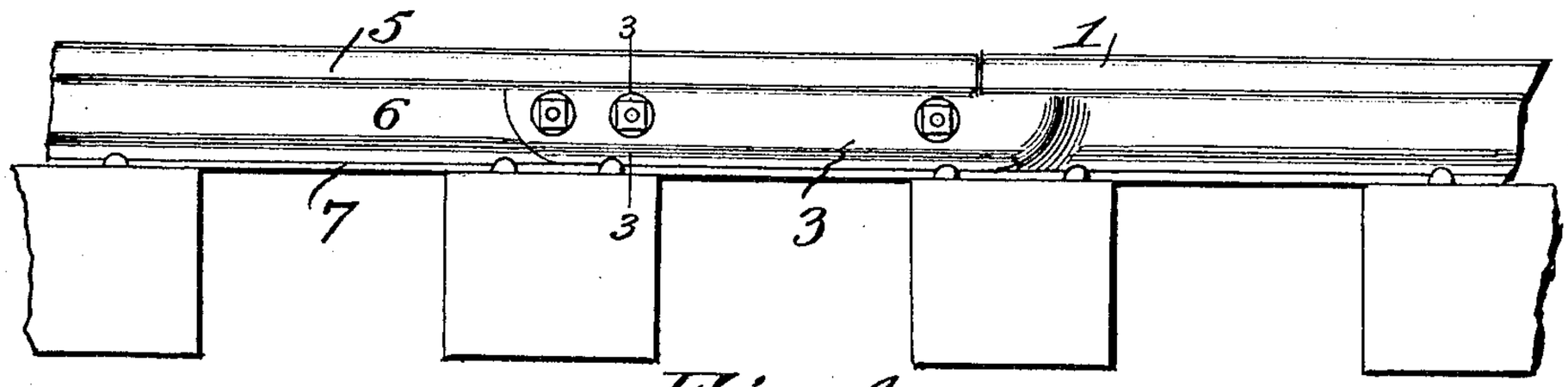


Fig. 1.

Fig. 2.

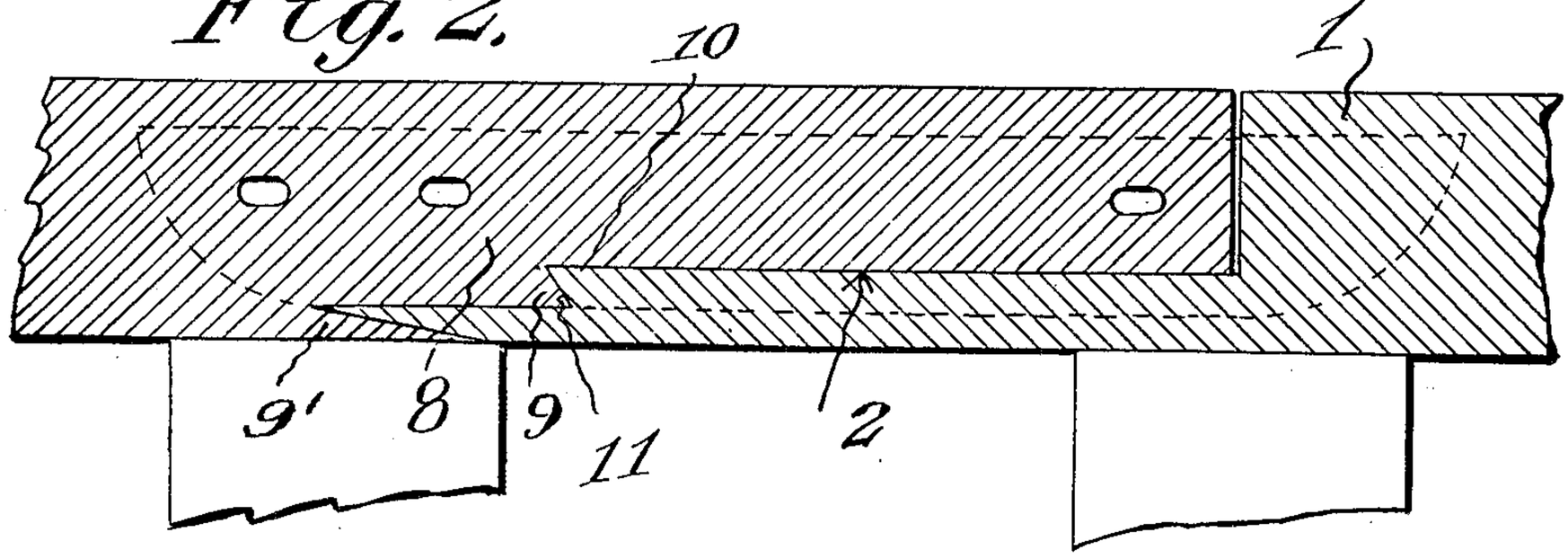


Fig. 3.

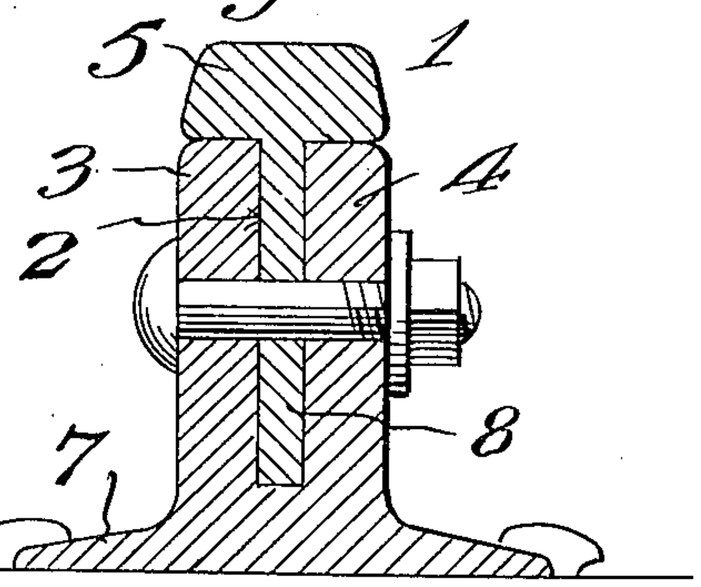
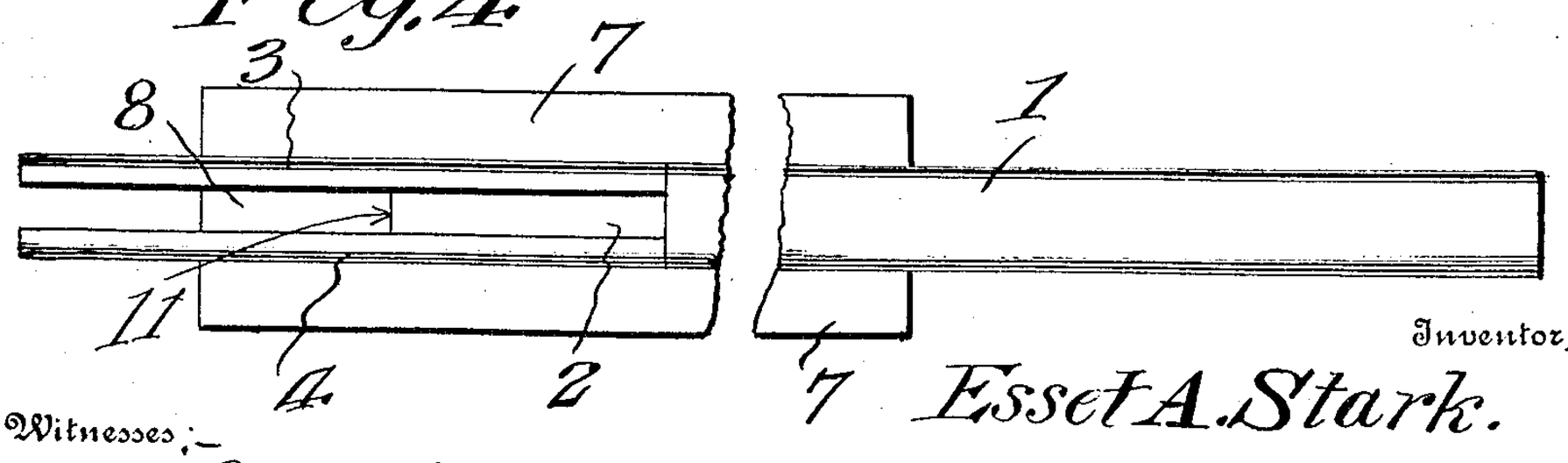


Fig. 4.



Witnesses:—

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UNITED STATES PATENT OFFICE.

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RAIL-JOINT.

No. 912,913. Specification of Letters Patent. Patented Feb. 16, 1909.

Application filed March 21, 1908. Serial No. 422,566.

To all whom it may concern:

Be it known that I, ESSET A. STARK, a citizen of the United States, residing at Hope, in the county of Hempstead and State of Arkansas, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints and the object of the invention is to construct the contiguous meeting ends of a pair of rails in a novel and peculiar manner whereby the use of fish plates in connecting the rails is entirely obviated, and whereby a jointure of the rails is effected so as to present a substantially continuous rail wherein lateral or other displacement of the rails is successfully overcome.

With these and other objects in view the invention resides in the novel construction of rails hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a pair of rails constructed in accordance with my invention. Fig. 2 is a central longitudinal section through the meeting ends of the rails. Fig. 3 is a transverse sectional view upon the line 3—3 of Fig. 1, the section being enlarged to more clearly illustrate the parts. Fig. 4 is a top plan view of a complete rail.

In the accompanying drawings and more clearly illustrated by Fig. 4 thereof, my improved rail is provided near one of its ends with an enlarged portion slightly less than the width of the head 1 of the rail. This enlargement is provided with a central channel 2 upon either side of which are the walls 3 and 4. The channel 2 is of a width approximately equaling that of the web of the rail. The body of the rail is constructed in the ordinary manner, comprising a head 5, web 6 and base flanges 7. The base flange 7 is continued below the channel 2 for a suitable distance, and is provided near its end with a depression or pocket 8. The transverse wall of the pocket 8 is under cut or inclined as at 9, and the edge of the base flange may be likewise under cut should it be desired. The walls 3 and 4 are of a height equaling that of the rail between the base and beneath the head of the rail. The walls are continued at a suitable curve from their connection with the edge of the base flange, and are provided with suitable openings adapted for the reception of retaining elements, as will be hereinafter more fully described. The opposite end of the rail has its base flange 7 cut away from its end a distance corresponding with the distance between the edge of the base flange and the transverse wall of the channel 2. The web 6 of this end of the rail is provided with a downwardly extending portion comprising a lug 10, having a beveled face 11, adapted to be received within the beveled portion 9 of the pocket 8. The under face of this portion 10 terminates in a transverse wall 12, coinciding with the edge of the base flange provided upon the opposite end of the rail. This wall 12 may be inclined or beveled to coincide with the edge of the base flange upon the opposite end of the rail should it be desired. The base flanges 7 upon each side of the web 6 adjacent the wall 12 are suitably inclined or curved to correspond with the curved ends of the walls 3 and 4. The web at this end of the rail is provided with suitable transverse openings, adapted to aline with the openings provided upon the web at the adjacent end of the rail.

In connecting a pair of rails constructed in accordance with my invention, the end of the rail having its base flange cut away is inserted upon the end of the rail having the walls 3 and 4, the inclined wall 11 of the tongue 10 engaging the inclined wall 9 of the pocket 8, the transverse wall 12 of the flange engaging the end of the flange provided upon the walls 3 and 4, the curved ends of the walls engaging the curved portions of the base flange and the head of the rail resting upon the walls 3 and 4, the end of the web and head being positioned against the transverse wall of the channel 2 and the cut away portion of the head provided by the walls. Retaining elements are positioned within the openings provided by the web 6 and the walls 3 and 4, and the meeting ends of the rails effectively secured together.

From the above description it will be seen that I have provided a simple, strong and effective means for connecting the meeting ends of rails. Rails constructed in accordance with my invention and connected as described are effectively secured against lateral transverse or sagging movements, it being understood that the openings provided in the web 6 are sufficiently elongated to allow for the contraction and expansion of the rails, and when the securing elements are positioned the rails are effectively secured.

Having thus fully described the invention what is claimed as new is:

1. In a rail joint, the combination with a pair of rails, one of said rails being provided with a central channel having stepped horizontal floors, the opposite rail section having its web and base flange and head cut away to engage the channel of the opposite rail section, and the means for connecting the sections together.

2. In a rail joint, the combination with a pair of rails, one of said rails being provided with a central channel having stepped floors, the transverse edges of said floors being beveled, the opposite rail having its web and flange cut away and stepped and provided with transverse bevels to engage the beveled floors of the channels and means for securing the rail sections together.

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

ESSET A. STARK.

Witnesses:
J. E. TARPLEY,
T. W. WATSON.