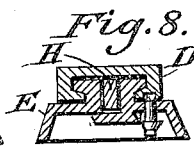
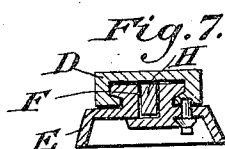
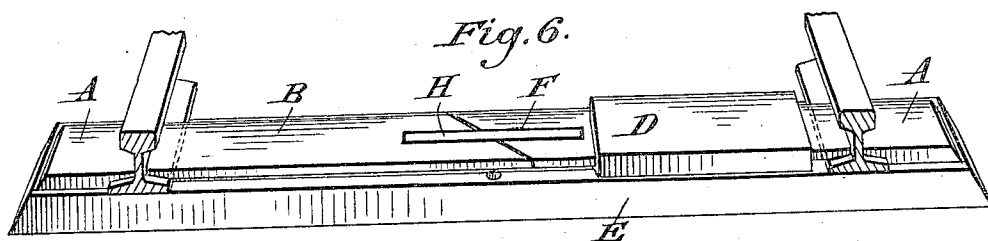
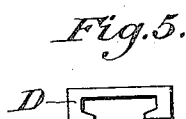
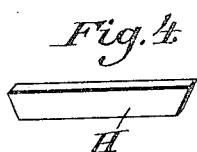
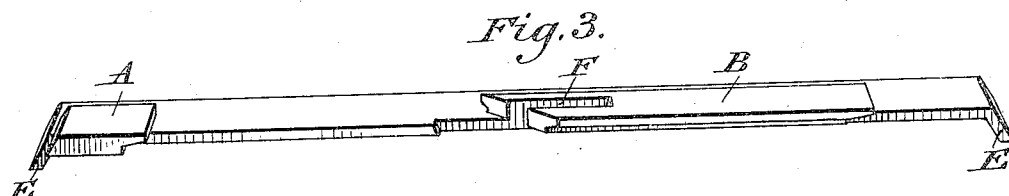
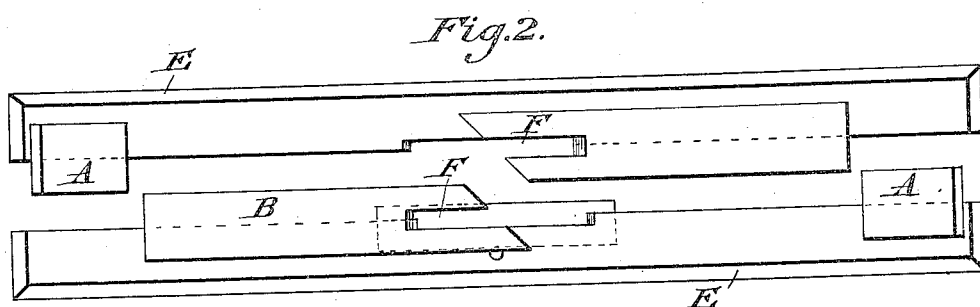
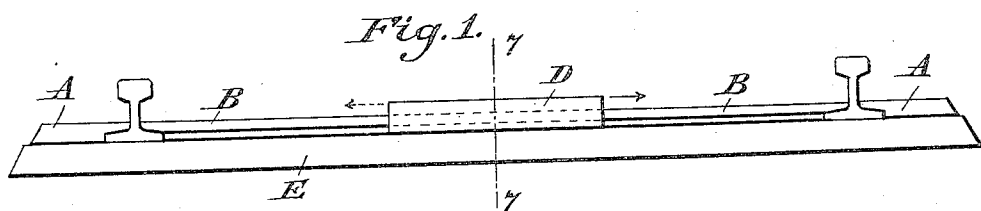


A. J. SCHNEIDER.
 SELF ADJUSTING STEEL RAILWAY TIE.
 APPLICATION FILED JAN. 30, 1909.

942,754.

Patented Dec. 7, 1909.



Witnesses:
 Daniel Reid
 Arthur Schneider

Inventor:
 Albert J. Schneider.

UNITED STATES PATENT OFFICE.

ALBERT J. SCHNEIDER, OF IRONWOOD, MICHIGAN.

SELF-ADJUSTING STEEL RAILWAY-TIE.

942,754.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed January 30, 1909. Serial No. 475,282.

To all whom it may concern:

Be it known that I, ALBERT J. SCHNEIDER, a citizen of the United States, residing at Ironwood, in the county of Gogebic and State of Michigan, have invented a new Self-Adjusting Steel Railway-Tie, of which the following is a specification.

My invention relates to improvements in steel railway ties in which the two principal parts running beneath both rails operate in conjunction with a wedge and a protecting slide; and the objects of my improvements are, first, to provide a tie that sets and preserves the rails in perfect relative positions; second, a tie durable, strong, and which affords a solid foundation for the rails; third, a tie that can be taken out and put in at will without disturbing the relative positions of the rails; fourth, one that assimilates itself with the existing conditions in temperature by having the wedge movement which is explained later; fifth, one that contains no bolts or screws as holding portions of the tie. I attain these objects by the mechanism illustrated in the accompanying drawings, in which;

Figure 1 is a direct side view of the tie complete. Fig. 2 is a plan view of the two main or principal parts of the tie. Fig. 3 is a perspective view of one of the principal parts. Fig. 4 is a perspective view of the wedge. Fig. 5 is an end view of the protecting slide. Fig. 6 is a perspective view of the tie complete with the protecting slide moved to one side. Fig. 7 is a cross-sectional view showing the plug for a fastening for the protecting slide. Fig. 8 is a cross-sectional view showing the plug partially removed.

Similar letters refer to similar parts throughout the several views.

A and A represent the outer rail-engaging-lugs. B and B the inner rail-engaging-lugs. E the flange on the base of the tie. F the space for the expansion wedge. The two main parts of the tie which are identical in form when placed in position form a continuous space at F in which the wedge is placed, which in turn expands the main parts of the tie to a degree to tightly fasten the rails in position, the protecting slide D sliding in the grooves on the inner rail-engaging-lugs B. E the flange helps to give the rails a solid foundation.

It may be seen that the outer and inner rail-engaging-lugs not only fasten upon the

lower portion of the rails but also upon the webs of the rails, thus giving a much greater resisting hold than otherwise. The protecting slide D is one-third as long as the distance between the rails. In Fig. 3 flange E running about the outer edge of the base of this part of the tie forms a concave surface in the base of the tie, thus affording a large surface for a foundation. The base of the tie to which the flange E is attached is a flat piece of steel, the inner and outer rail-engaging-lugs being welded or cast upon this base.

Fig. 4 shows the wedge to be placed in the space F in Fig. 2. The wedge H is cut at an angle on the respective ends as shown, and thus causes the tie to continually tighten its grasp upon the rails. It may be seen here that the space F in Fig. 2 has its respective ends cut at the same angle as that of the wedge in order that expansion may take place.

Fig. 5 shows the protecting slide serving the double purpose of holding the parts in position and preventing the removal of the wedge either by external force or from contraction.

A thin sheet of steel can be placed under the space F and permanently fixed to the tie to prevent the ground from forcing the wedge upward. As a fastening for the slide a plug is shown in Figs. 7 and 8 running from the bottom of the tie through the main part into the protecting slide.

I am aware that prior to my invention steel railway ties have been made for use. I therefore do not claim the steel material as used for railway ties, but

I claim:

1. The combination, in a railway tie, of two complementary cooperating parts, each having a lug to engage the inner side of one rail and another to engage the outer side of the other rail, the inner lugs being provided with lateral grooves, and a protecting plate adapted to slide in said grooves.

2. A railway tie comprising two complementary parts meeting in an oblique joint, and having a vertical wedge shaped slot intersecting said joint, a wedge adapted to fit the slot for pushing the complementary parts into engagement with the rails.

A. J. SCHNEIDER.

Witnesses:

CHAS. GUTEKUNST,
ARTHUR SCHNEIDER.