J. KEETON.

RAIL.

APPLICATION FILED JUNE 1, 1908.

935,310. Patented Sept. 28, 1909

Fig. 1.

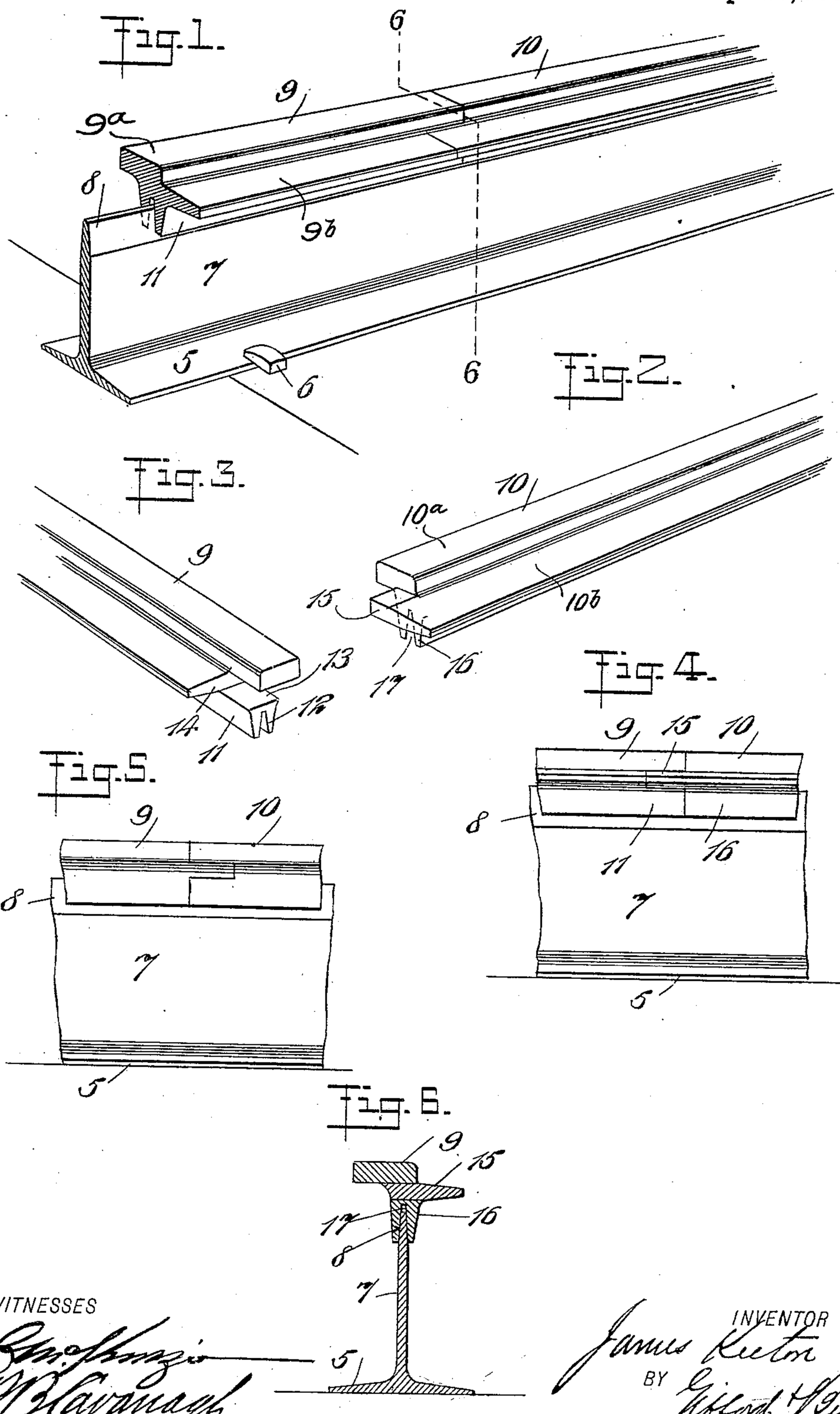

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

WITNESSES

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JAMES KEETON, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO SOL B. RAINS, OF BROOKLYN, NEW YORK.

RAIL.

935,310. Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed June 1, 1908. Serial No. 436,049.

To all whom it may concern:

Be it known that I, JAMES KEETON, a citizen of the United States, and a resident of New York city, borough of Brooklyn, in the county of New York and State of New York, have invented certain new and useful Improvements in Rails, of which the following is a specification.

The present invention relates to certain novel and useful improvements in railway rails and in carrying out the invention it is my purpose to provide a rail embracing the desired features of cheapness, simplicity and durability. Furthermore, it is my purpose to provide a rail, the tread surface of which is formed of sections which may be easily connected together and taken apart, said sections being of such construction and so mounted upon and coöperating with the web carried by the base of the rail that the tread surface under constant pounding and use, occasioned by the passage of the cars or trains thereof, will tend to more securely engage with the web.

A further object of the invention is to obviate the use of all bolts and the like at the rail joints.

The invention consists in the combination, construction and arrangement of parts set forth in and falling within the scope of the appended claims.

In the accompanying drawings I have shown my invention as embracing one form, that is to say, showing it applied to a type of rail commonly used in street railways, although I wish it to be understood that the invention is not limited in its useful application to this particular purpose or to this particular type of rail.

In the accompanying drawings, Figure 1 is a perspective view of a section of a rail embracing my improvements; Fig. 2 is a similar view showing one of the rail sections carrying a tongue adapted to engage with a slot or groove in an adjacent rail section; Fig. 3 is a perspective view of a portion of a rail showing the grooved end thereof adapted to receive the tongue of a section, such as shown in Fig. 2; Figs. 4 and 5 are views in side elevation of a portion of an assembled rail, showing the location of the joints when the rail sections are brought together; Fig. 6 is a cross sectional view taken on the line 6—6 of Fig. 1.

Referring now to the accompanying drawings in detail, 5 designates the base of the rail adapted to be fastened to the ties by means of spikes 6, or by any other suitable means, and in some instances it is preferable to use chairs for securing the rail. Extending upward from the base 5 is the web 7, the upper edge 8 of which is tapered as clearly seen in Fig. 1, so that said edge is practically in the form of a wedge.

The tread surface of the rail is formed of sections which may be respectively indicated by the numerals 9 and 10, said tread portions consisting respectively of the upper portions 9^a, 10^a and the lower portions 9^b, 10^b, respectively. Depending from beneath the tread surface of the section 9 is a longitudinal flange 11 grooved as at 12, for the reception of the wedged edge 8 of the web 7. It will be noted by reference to Figs. 1 and 3 that the groove 12 tapers, that is, is widest at its entrance or mouth and narrower at its termination. At one end the section 9 is slotted or cut away as at 13, the upper tread portion of the rail 9^a terminating substantially in the same vertical plane as the end of the flange 11, while the lower part of the tread portion 9^b of the rail is cut to terminate short of the ends of the tread 9^a and flange 11, as is shown at 14. This slotted end is adapted to receive the projecting tongue 15 of the rail section 10, this section 10 also being provided with a depending longitudinal flange 16 formed with an inclined slot or groove 17 similar to the groove 12 and adapted to receive the wedge-shaped edge of the rail web 7. The tongue 15 just described is formed by cutting the main tread portion 10^a and the grooved flange 16 so that the ends thereof terminate short of the end of said tongue which is formed by the lower portion of the tread, the end faces of the flange and upper tread being at substantially right angles to the upper and lower faces of the tongue.

In practice, the web section of the rail is of course first secured to the ties and then the sections of the tread surface are joined together by inserting the tongue 15 in the groove 13 and the tread sections thus joined are then driven and secured upon the rail, as shown in Fig. 1.

It will be evident that the more the pressure is brought upon the top of the rail the tighter the wedging effect will be, and at the same time the novel form of rail joint pro-

vides a smooth continuous tread surface, one which holds the sections securely locked together and obviates the use of all cumbersome rail joints and the like, at the same time permitting of expansion and contraction.

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

1. In a rail of the character described, the combination of a web and removable tread parts, the web having a tapered upper portion, and the removable tread sections each having a longitudinal depending flange formed with a tapered groove to set over and form a taper friction joint with the web, one of said tread sections having a portion of its tread cut away to provide a transverse recess and a projecting tread and flange portion, and the adjacent section having a portion of its tread and its flange cut away to provide a projecting tread portion, said projecting tread portion being adapted to enter the recess in the other section whereby the meeting ends of rails are joined.

2. In a rail of the character described, the combination of a web and removable tread sections, the web having a tapered upper portion, and the removable tread sections each having a longitudinal depending flange formed with a tapered groove to set over and form a taper friction joint with the web, said tread sections having upper and lower tread portions, one of said sections being cut away transversely so that the upper tread portion and flange project beyond the lower tread portion to provide a recess, and the other tread section having its flange and upper tread portion cut-away whereby the lower tread portion projects beyond the upper tread portion and flange, said projecting portion being adapted to enter the recess in the other section whereby the meeting ends of rails are joined.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES KEETON.

Witnesses:
EDWARD SPON,
SOL B. RAINS.