

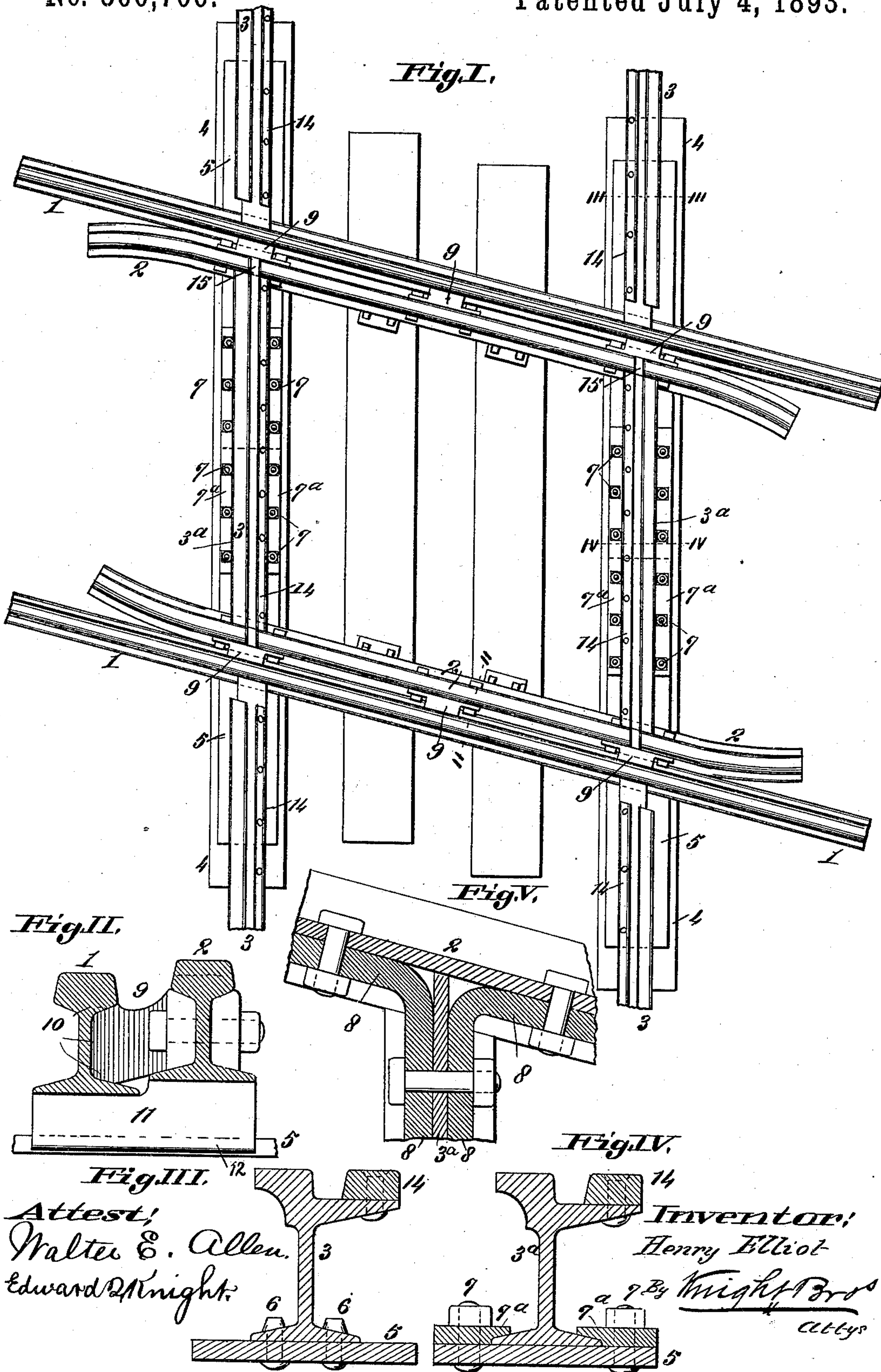
(No Model.)

2 Sheets—Sheet 1.

H. ELLIOT.
RAILROAD CROSSING.

No. 500,706.

Patented July 4, 1893.



(No Model.)

2 Sheets—Sheet 2.

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RAILROAD CROSSING.

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Fig. VI,

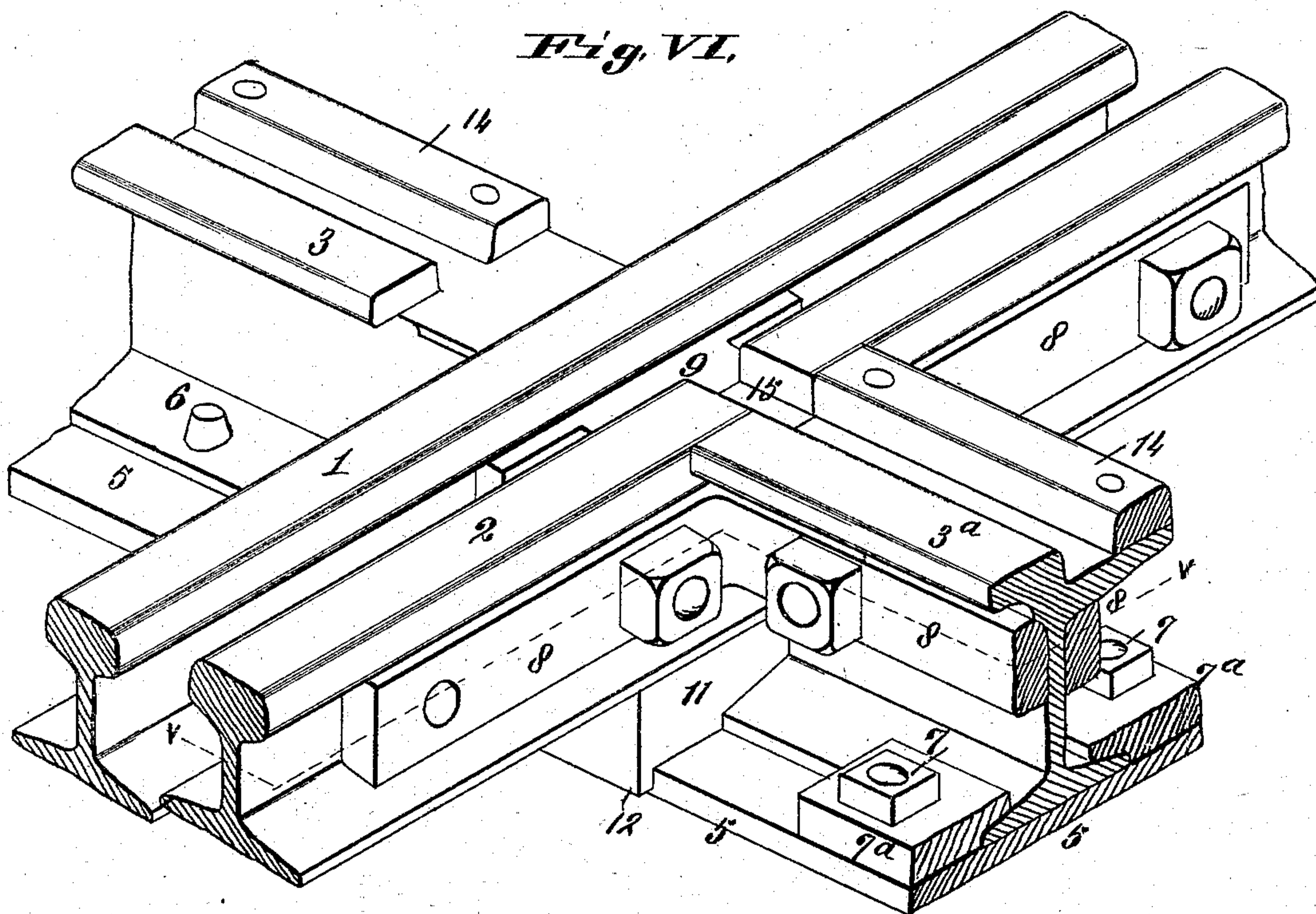
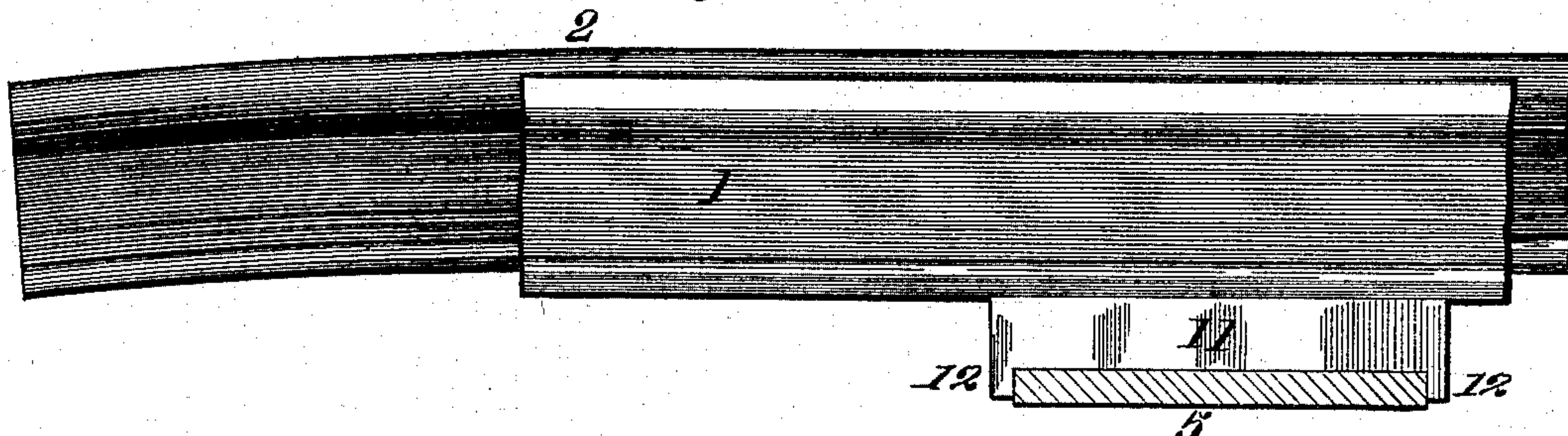


Fig. VII,



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UNITED STATES PATENT OFFICE.

HENRY ELLIOT, OF ST. LOUIS, MISSOURI.

RAILROAD-CROSSING.

SPECIFICATION forming part of Letters Patent No. 500,706, dated July 4, 1893.

Application filed August 5, 1892. Serial No. 442,253. (No model.)

To all whom it may concern:

Be it known that I, HENRY ELLIOT, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Railroad-Crossings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to construct a crossing in such a manner that endwise or longitudinal movement of the rails of one of the tracks will not affect the rails of the other track by moving them laterally, and at the same time produce a crossing which will cause as little jolting as possible to passing cars.

My invention is well adapted for the crossing of a street railway track with that of a steam railway track, and by following my invention, the necessity of notching the main rails of a steam car track, and the necessity of disturbing the rails of the steam track (in putting down the rails of the street car track) are both avoided.

My invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a top or plan view, illustrative of my invention. Fig. II is a transverse, vertical section, taken on line II—II, Fig. I. Fig. III is a similar view, taken on line III—III, Fig. I. Fig. IV is a similar view, taken on line IV—IV, Fig. I. Fig. V is a detail, horizontal section, taken on line V—V, Fig. VI. Fig. VI is an enlarged, perspective view of one corner of the crossing. Fig. VII is a detail elevation or side view.

Referring to the drawings, 1 represents the rails of a steam car track, and 2 the guard rails of this track.

3 represents the rails of a street car track, and 4 the sleepers upon which they rest.

5 represents plates which extend beneath the rails 1 of the steam car track, and to which the rails of the street car track, on each side of the steam car track are riveted or bolted, as shown at 6, Figs. III and VI, thus making each rail 3 of the street car track continuous.

3^a represents a section of the street car track secured to each plate 5 between the guard rails 2 of the steam car track, by means of bolts or rivets 7 and plates 7^a. The ends of these sections 3^a preferably abut against the

guard rails 2, as shown, and are secured thereto by angle brackets 8, (see Figs. V and VI.)

9 represents distance blocks located between the guard rails 2 and the main rails 1 of the steam car track, and which are secured to the guard rails and bear against the base, head and web of the main rails, as shown at 10, Fig. II.

11 represents blocks placed between the plates 5 and the rails 1 and 2 of the steam car track. These blocks are grooved to receive the plates 5 thereby forming flanges 12 on each side of the plate 5 to prevent the blocks from moving laterally on the plates, and they are held from moving longitudinally on the plates from the fact that the street car rails 3 and the sections 3^a of the street car track abut against them.

14 represents guards secured to the rails 3 and the sections 3^a of the street car track, to prevent lateral deflection of the car passing over the crossing. These guards are particularly useful when the two tracks cross at other than a right angle.

The guard rails 2, except at their extreme ends, are elevated above the main rails of the steam car track, as shown in Figs. II, VI and VII, and they are notched, as shown at 15 for the passage of the flanges of the wheels of the street car. The upper surface or tread of the rails of the street car track are on line, or at the same elevation as the upper surface of the guard rails 2, and thus, when a street car is passing over the crossing, the tread of the wheels of the car pass from the rails of the street car track just as the flanges of the wheels strike the main rails of the steam car track, practically no jar taking place, owing, as stated, to the fact that the rails of the steam car track are lower than the tread or upper face of the rails of the street car track; then, as the wheels pass over the rails of a steam car track, and just as their flanges are leaving the rails, the tread of the wheels come in contact with the elevated guard rails, and the flanges of the wheels pass through the notches 15 of the guard rails, and, as stated, the upper surface of the rails of the street car track being of the same elevation as the upper surface of the guard rails, there is no jar as the wheels move from one onto the other. It will thus be seen that the jolting of the car will

be reduced to a minimum by my improved construction. It will also be seen that, by using the plates 5, the rails of the street car track are continuous, (or are secured together 5 on opposite sides of the steam car track;) and it will also be seen that as the rails 1 of the steam car track are not secured to the plates 5, and are not connected to the distance blocks 9, the longitudinal movement of the rails of 10 the steam car track will not cause a lateral movement of the rails of the street car track, and thus the alignment will be perfectly maintained.

In the claims the sections 3^a of the street 15 car track are included in the general term "rails of the street car track."

I claim as my invention—

1. In a railway crossing, the combination of 20 the main rails and the guard rails of a steam car track, and the rails of a street car track; the upper surface of said street car rails being at a higher elevation than the upper surface of the steam car rails, and the said guard rails being notched and being elevated to bring 25 their upper surfaces on line with the street

car rails; substantially as and for the purpose set forth.

2. In a railway crossing, the combination of the main and guard rails of a steam car track, the rails of a street car track, plates passing 30 beneath the rails and the guard rails of the steam car track and to which the rails of the street car track are secured, and distance blocks located between the rails and guard 35 rails of the steam car track, and which are secured to but one of said rails, substantially as and for the purpose set forth.

3. In a railway crossing, the combination of the main and guard rails of a steam car track, the rails of a street car track, plates passing 40 beneath the main and guard rails of the steam car track, and to which the rails of the street car track are secured and brackets connecting the rails of the street car track to the 45 guard rails of the steam car track, substantially as, and for the purpose set forth.

HENRY ELLIOT.

In presence of—

ALBERT M. EBERSOLE,
ED KNIGHT.