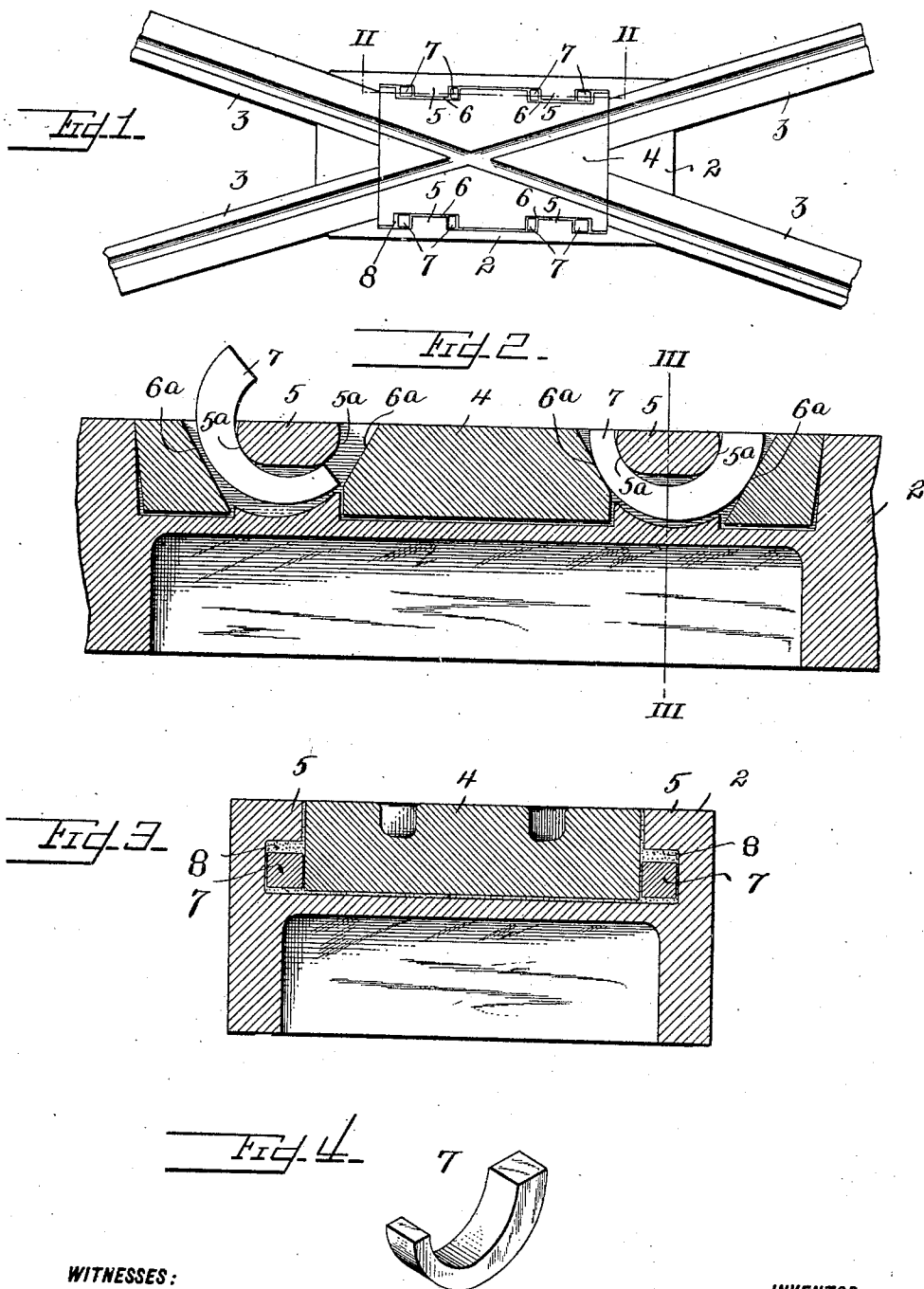


No. 829,945.

PATENTED SEPT. 4, 1906.

W. M. BROWN.
RAILWAY TRACK STRUCTURE.
APPLICATION FILED JAN. 4, 1906.



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RAILWAY-TRACK STRUCTURE.

No. 829,945.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM MILTON BROWN, of Johnstown, Cambria county, Pennsylvania, have invented a new and useful Improvement in Railway-Track Structures, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of a railway-track structure embodying my invention. Fig. 2 is a section on the line II II of Fig. 1, showing one of the keys or fastening members partly removed. Fig. 3 is a cross-section on the line III III of Fig. 2, and Fig. 4 is a detail perspective view of one of the fastening members or keys.

My invention has relation to railway-track structures of that class in which a removable and renewable center or intersection plate is employed, and has particular relation to means for removably securing the plates to the body of the structure, my object being to provide fastening means of simple character which can be quickly applied, which will hold the plates securely in place under the severe loosening conditions to which they are subjected in service, and which can be readily released and removed from the surface of the structure without disturbing the adjacent pavement.

With these objects in view my invention consists in the novel structure, arrangement, and combination of parts, all substantially as hereinafter described, and pointed out in the claims.

In the drawings, 2 designates the body portion of a track structure, and 3 the diverging rail members thereof, the particular structure shown being a frog or curve-cross. The body portion 2 and the rail members 3 may be cast in one integral piece, or the rail members may consist of pieces of rail placed in a mold, with a body portion 2 cast on their adjacent ends. In either case the structure is provided with a pocket in which is seated the intersection-plate 4, having track-surfaces which are in alinement with the track-surfaces of the rail members 3. The side walls of this pocket are provided with inwardly-extending projections 5, and the lateral edges of the plate 4 are formed with recesses 6 to receive the projections 5, with a space at each side of each projection and the adjacent wall of the recess. The edges of the projections 5

are preferably rounded, as shown at 5^a, and the end walls of the recesses 6 are beveled or inclined, as shown at 6^a, to form seats for keys or fastening members 7. These keys or fastening members are each of curved tapered form, being of the proper shape to be inserted in the seats above described, with their central portions extending underneath the projections 5 and their end portions lying between the edges of these projections and the beveled walls 6^a and having a wedge-bearing on one or both of said walls.

The keys 7 are inserted in the manner shown in Fig. 2 by driving upon the larger ends thereof until the key comes into the position shown at the left-hand side of that figure. Ordinarily it would be difficult to secure a proper bearing for these keys or fastening members upon both of the inclined surfaces 6^a and rounded edges 5^a; but this, in fact, is unnecessary to the proper hold of the key, and a tight wedging bearing is always insured at at least one of these places. The space around and below the keys and below the bottom of the plate is preferably filled with spelter or similar material, as indicated at 8, which prevents any tendency which the keys might otherwise have to shake or jar loose under the severe pounding action which the plates receive in service.

When it is desired to remove one of the plates, a suitable drift is applied to the small ends of the keys, and by driving thereon the keys can be readily driven out, the operation being the reverse of that employed when they are inserted.

In the particular structure shown in the drawings I have shown four of these keys, two at each side of the structure; but the number used and also their location will depend upon the shape and size of the intersection-plate, my invention being applicable to various forms of track structures, such as tongue-switches, mates, crossings, and slot structures such as are used in cable and underground electric-track construction.

Other changes in details may be made without affecting my invention.

The advantages of my invention result from the simplicity of the fastening, the ease with which it can be applied, no special fitting of the parts being required, and in the facility with which the fastening can be released from the surface of the structure when necessary.

What I claim is—

1. In a railway-track structure, the combination with a body portion having a pocket and a plate seated therein, said plate and
5 pocket having interfitting projections and recesses forming key-seats, of curved and tapered keys adapted to the seats and to be seated by driving upon one end thereof and to be unseated by driving on the opposite end
10 thereof, said interfitting projections and recesses being arranged to provide between them seats for both end portions of each key; substantially as described.

2. In a railway-track structure, the combination with a body portion having a pocket,
15 and a plate seated in the pocket, of tapered curved keys engaging adjacent lateral portions of the plate and pocket to secure the plate in place and arranged to be seated by
20 driving upon one end and to be unseated by driving on the opposite end, both end portions of each key being seated between opposing surfaces of the body portion and plate, and the central portion of each key engaging
25 the body portion of the structure; substantially as described.

3. In a railway-track structure, the combination

with a body portion having a pocket, and a lateral projection overhanging the pocket, of a plate seated in the pocket and
30 having a recess to receive the said projection, adjacent walls or surfaces of the projection and recesses being separated to provide key-seating spaces at each side of the projection, tapered curved keys seated in said spaces,
35 and engaging said projections from the under side, and means for normally preventing the keys from jarring loose; substantially as described.

4. In a railway-track structure, a body
40 portion having a pocket whose lateral wall is formed with an inward overhanging projection, a plate having a recess embracing the projection, key-seats formed by the projection and the adjacent walls of the recess, and
45 a tapered curved key adapted to said seats, and to extend underneath the said projection; substantially as described.

In testimony whereof I have hereunto set my hand.

WILLIAM MILTON BROWN.

Witnesses:

JESSE B. HELLER,
H. W. SMITH.