

No. 835,565.

PATENTED NO

G. D. SHOOP.
NOISELESS RAILWAY CROSSING.

APPLICATION FILED APR. 30, 1906.

2 SHEETS-SH

Fig. 1.

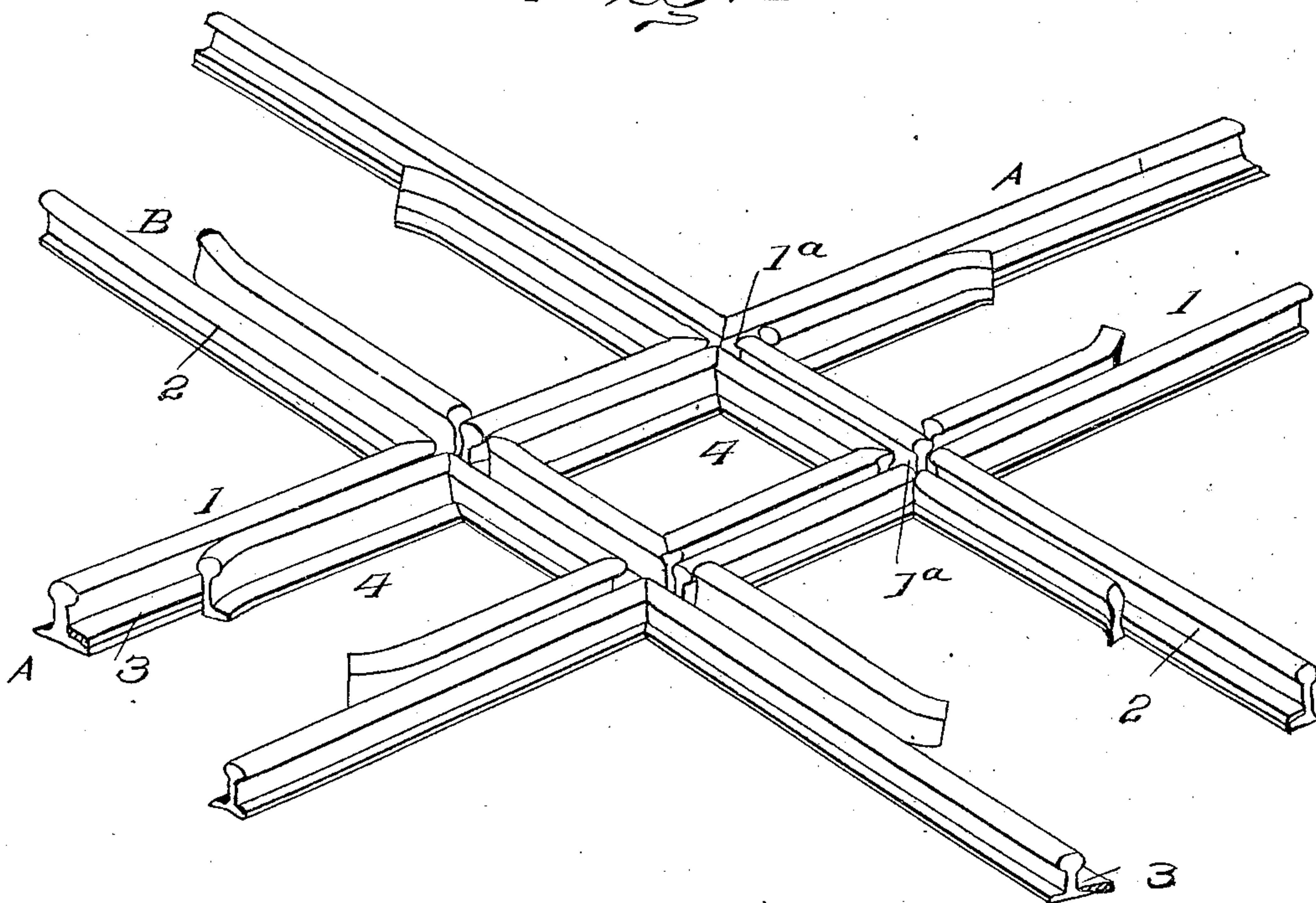
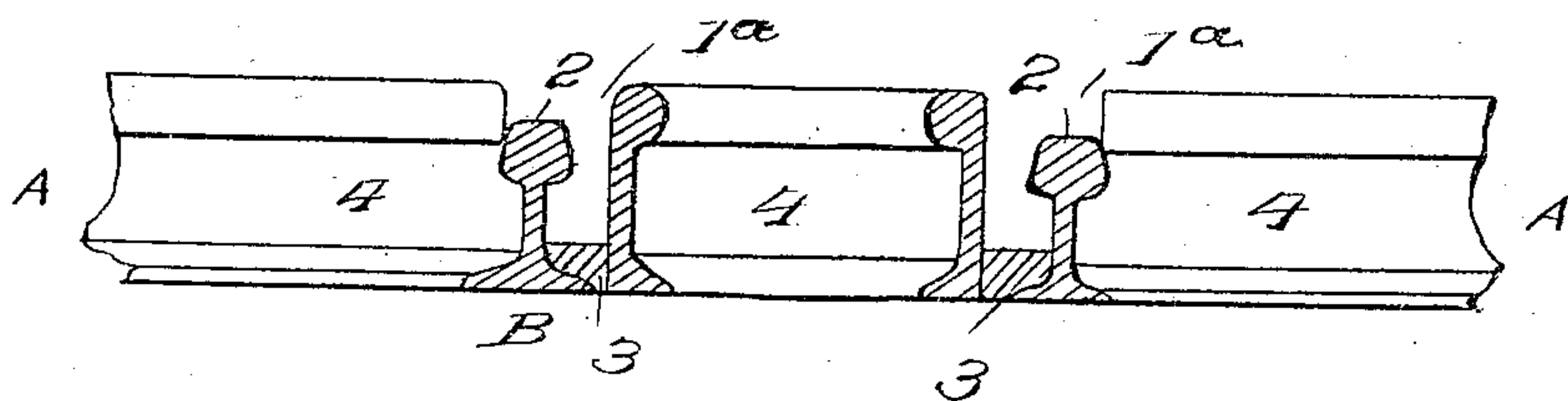


Fig. 2.



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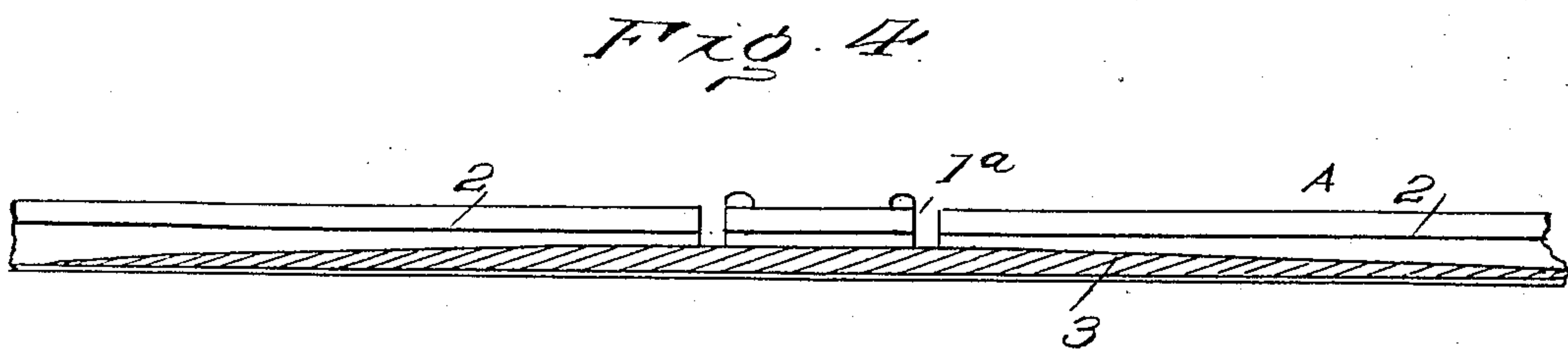
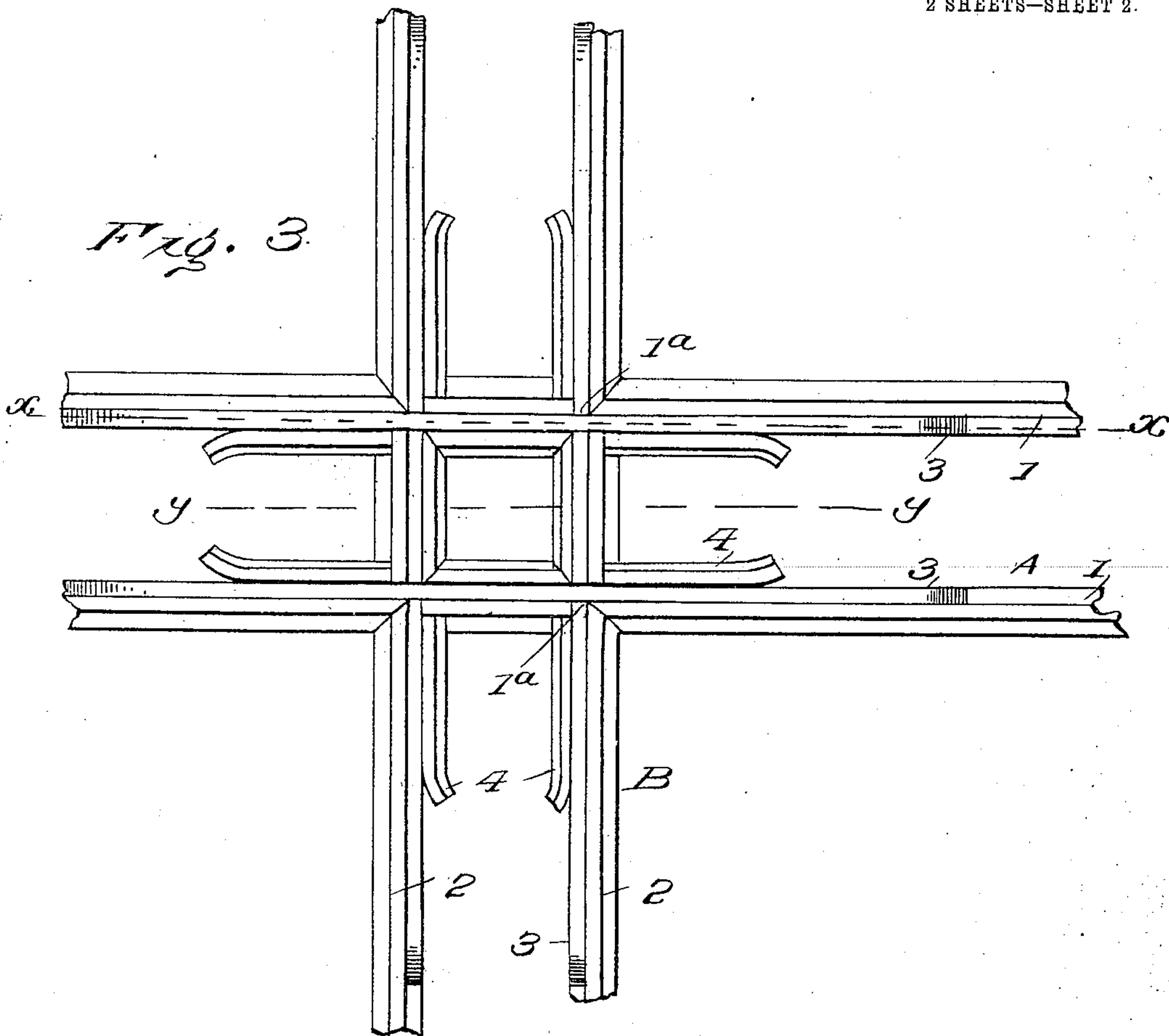
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UNITED STATES PATENT OFFICE.

GEORGE D. SHOOP, OF ROCK ISLAND, ILLINOIS.

NOISELESS RAILWAY-CROSSING.

No. 835,565.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed April 30, 1906. Serial No. 314,522.

To all whom it may concern:

Be it known that I, GEORGE D. SHOOP, a citizen of the United States, residing at Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Noiseless Railway-Crossings, of which the following is a specification.

The object of this invention is to do away, if possible, with the noise, vibration, and wear incident to the passage of wheels of rolling-stock over the rails at railway-crossings, the invention being susceptible, however, of a broad application to tracks the rails whereof have the tread portions spaced.

In carrying out the invention it is contemplated to provide a wheel-flange bearing spanning the space between spaced tread portions of rails and adapted to support the wheels of cars or rolling-stock by engagement with the flange portions thereof as the wheels travel over the aforesaid spaced portions of the treads of the rails. The flange-bearing is so formed that a continuous bearing for the wheels either at the tread or flange portions is afforded in the travel of the rolling-stock, and rounding off or wear on spaced ends of rails is eliminated, as well as the objectionable noise incident to the passage of the wheels over such spaced tread portions of rails.

For a full understanding of the invention and the merits thereof, and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view showing the invention as when applied to a railway-crossing. Fig. 2 is a sectional view taken on the line Y Y of Fig. 3. Fig. 3 is a top plan view of the crossing. Fig. 4 is a longitudinal sectional view through the auxiliary tread, which comprises the wheel-flange bearing of one of the rails.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the drawings the invention is shown in its specific adaptation to a railway-crossing, and it is well known that at crossings of this type spaces are formed between the tread portions of adjacent rails of the tracks which cross each other, and the bearings of the wheels on the rails is broken at the points

where the rails cross, giving rise to disadvantages hereinbefore premised.

The numeral 1 indicates the rails of the track A, and the numeral 2 the rails of the track B, which crosses the track A in the customary way. To permit of the crossing of the tracks and proper travel of the rolling-stock thereover, it is necessary that the tread portions of the rails 1 be separated or spaced, as shown at 1^a, while the similar portions of the rails 2 are likewise spaced, as indicated at the same reference character 1^a. In other words, the tread-surfaces of the rails 1 and 2 are interrupted or broken, and it is customary to prevent rounding or wear on the rails at the crossed portions by chilling or hardening the metal at this point. This operation of course involves considerable expense and labor to accomplish and may be dispensed with in the practical embodiment of the present invention. The wheels of the rolling-stock comprise the tread, which moves on the tread-surface of the rails, and also the flange formed at one edge of the tread.

As above mentioned, the invention contemplates the provision of a continuous flange-bearing for the wheel at the point of separation or break in the rails of the track and indicated at 1^a in the drawings. The flange-bearing consists of a supplementary tread 3, located at one side of each rail and consisting of a plate applied to the rail longitudinally of the same. The plate or supplementary tread 3 in the illustration in the drawings is continuous and is preferably attached to the base portion of each rail of the track A by means of suitable fastenings.

Each of the tread plates or members 3 inclines or slopes downwardly at its ends until its extremities are about flush with the base portion of the rail to which it is applied, this construction permitting the flange of each wheel of the rolling-stock to gradually come into contact and secure a bearing upon the auxiliary tread 3 of the rail and gradually raise the tread portion of the wheel from the main tread or ball portion of the rail.

It will be understood that one of the tread plates or members 3 will be used for each rail of the tracks, and, further, it is contemplated that this auxiliary tread may be either integrally formed or separably formed with the rail to which it is applied, such being immaterial within the scope and spirit of the invention. The auxiliary treads 3, forming the flange-bearings of the rails 1, are continu-

ous, while those for the rails 2 are in sections, snugly fitting against the treads of rails 1 at the points of meeting.

It will be understood that the end sections 5 of the auxiliary treads 3 of the rails 2 will incline downwardly toward the outer extremities in order to gradually lift the tread portions of the wheels of the rolling-stock from the ball or head portions of the rails, so that 10 the weight of the body carried on the wheels will be maintained or supported by the flanges thereof, which flanges have a continuous bearing across the spaces between the meeting or crossed portions of the rails 1 15 and 2.

Further, it will be understood that, if desirable, transversely-arranged auxiliary treads of the rails 1 and 2 may be integrally formed with one another and applied as a body or 20 whole when being placed in position. This would only apply to the separable formation of the auxiliary treads, however.

Guard-rails 4, of the usual type are provided for the rails 1 and 2 of the tracks A 25 and B.

Having thus described the invention, what is claimed as new is—

In combination with a crossing for railway-

tracks embodying the usual crossed rails 1 and 2, having spaced ball or tread portions at 30 the points of crossing, the wheel-flange bearings 3 comprising auxiliary treads at the base portions of the rails at the points of crossing and spanning the spaces at such points, said auxiliary treads being adapted 35 to support the wheels by engaging the flanges thereof so as to prevent the treads of the wheels from moving down as they pass over said spaces, one auxiliary tread being provided for each rail and extending some distance 40 beyond the points of spacing of the main treads of said rails, said auxiliary treads inclining downwardly toward the outer extremities thereof for the purpose specified, the auxiliary treads 3 of the rails 1 45 being continuous throughout the length thereof, while the similar treads of the rails 2 are made in sections snugly fitting against the treads 3 of the rails 1.

In testimony whereof I affix my signature 50 in presence of two witnesses.

GEORGE D. SHOOP. [L. s.]

Witnesses:

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JAMES F. MURPHY.