

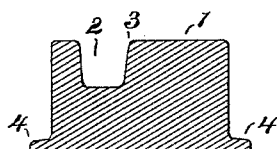
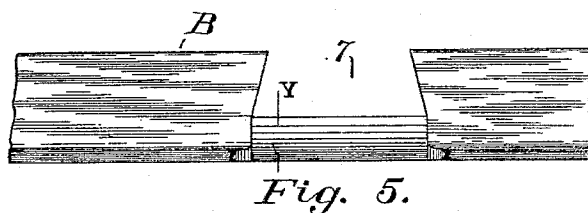
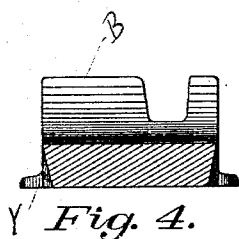
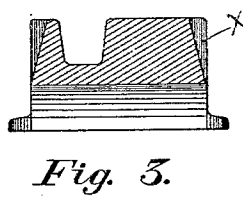
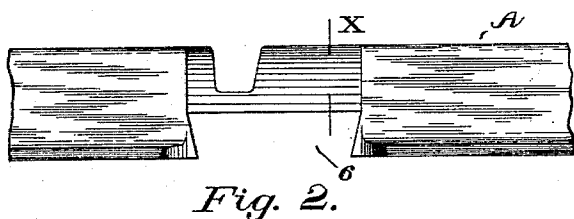
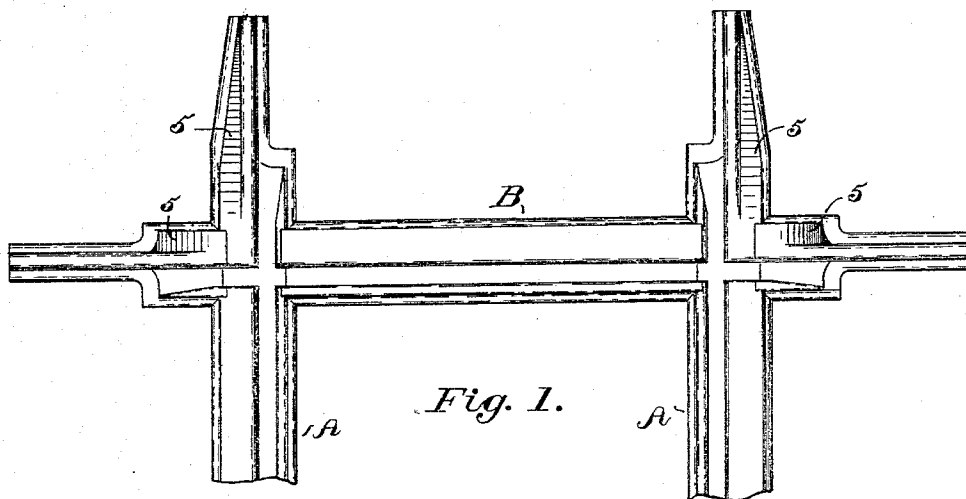
(No Model.)

2 Sheets—Sheet 1.

T. C. DU PONT.
RAILWAY CROSSING.

No. 546,229.

Patented Sept. 10, 1895.



WITNESSES:

H. H. H. H.
August von Bayer.

Fig. 6.

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(No Model.)

2 Sheets—Sheet 2.

T. C. DU PONT.
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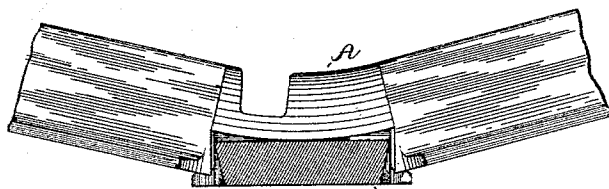


Fig. 7.

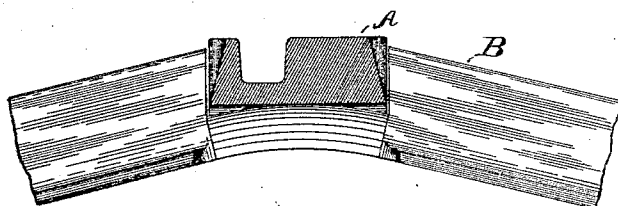


Fig. 8.

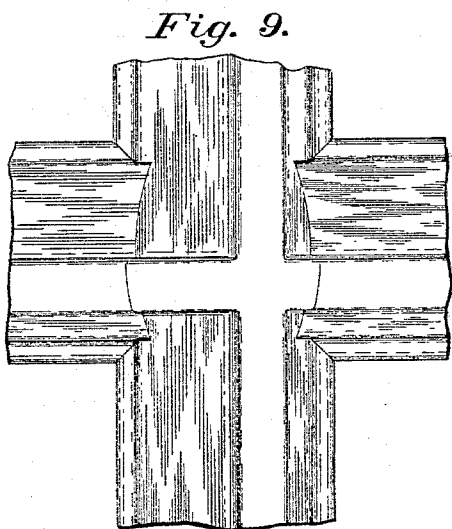


Fig. 9.

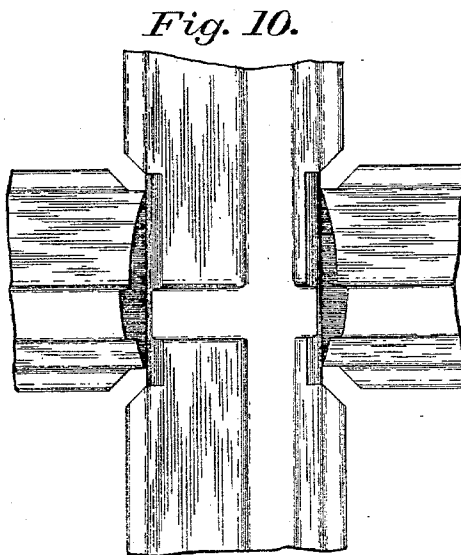


Fig. 10.

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UNITED STATES PATENT OFFICE.

THOMAS COLEMAN DU PONT, OF JOHNSTOWN, PENNSYLVANIA.

RAILWAY-CROSSING.

SPECIFICATION forming part of Letters Patent No. 546,229, dated September 10, 1895.

Application filed July 1, 1895. Serial No. 554,564. (No model.)

To all whom it may concern:

Be it known that I, THOMAS COLEMAN DU PONT, of Johnstown, county of Cambria, State of Pennsylvania, have invented a new and useful Improvement in Railway-Crossings, of which the following specification is a true and exact description, due reference being had to the accompanying drawings.

My invention relates to certain improvements in railroad-crossings, and has for its object to provide a crossing of great strength and durability and which may be easily constructed.

Referring to the drawings, Figure 1 represents a top view of one-half of a crossing embodying my invention. Fig. 2 is a side view of rail A in Fig. 1, and Fig. 3 a section of Fig. 2 on line X. Fig. 4 is a section of Fig. 5 on line Y, and Fig. 5 is a side view of rail B in Fig. 1. Fig. 6 is a cross-section of the rails of which I construct my crossing. Figs. 7 and 8 show a step in the process of construction and will be described hereinafter. Fig. 9 shows one corner of a crossing, a modification of Fig. 1; and Fig. 10 shows the crossing of Fig. 9 in process of construction, as will be hereinafter described.

In general my invention consists in forming a crossing of rails, having a substantially rectangular cross-section, and fitting them together at the crossing-points by removing the top portion of one rail and the lower portion of the other in a manner hereinafter described.

In Fig. 1 of the drawings the general form of the rails is shown, the body of the cross-section shown in Fig. 6, in which 1 is the head; 2, the groove for the wheel-flanges; 3, the gage-line, and 4 base-flange for spiking to the ties. The ends of the rails I have shown in Fig. 1 in the form of the usual T-rail of the same contour as the adjoining track-rail, thus avoiding the use of combination splice-bars. I have shown the ends of the B rail in Fig. 1 as having the same section for a distance sufficient to permit the use of a straight splice-bar. The rails may, however, be tapered as shown in the A rails and the outside splice-bar slightly bent. The inclines 5 are intended to provide a means for gradually lifting a wheel which is worn hollow so that its overhanging portion may pass over the crossing-rail without jar. The wide head in that portion of the

rails between the inclines affords a support for the overhanging portion during the passage of the wheel over the crossing. This form of rail is well known, and such I do not claim, my invention consisting in the manner in which the several rails are joined together.

In Fig. 2 is shown one of the A rails at the crossing-point. Here it will be seen that the lower half of the rail is removed, forming the dovetailed channel 6. The sides of the upper portion are also beveled, as is shown in Fig. 3. Now referring to Figs. 4 and 5, which represent a portion of the B rail, it will be seen that the lower portion of this is formed having the same shape as the recess 6 in the A rail, while in the top portion is a recess 7 of the same shape as the beveled portion of the A rail. The method of putting these together is shown in Fig. 7, which is a section of the B rail close to the A rail, and Fig. 8, which is a section through the A rail close to the B rail. Each rail is heated at the crossing point and bent, as shown, so that the dovetailed recesses open wide enough to receive the beveled portion of the other rail. They are then placed together, as shown in Figs. 7 and 8, and flattened out, which causes the several parts to securely interlock in every direction.

In Figs. 9 and 10 I have shown a modification of the construction above described. The dovetailed recesses instead of being straight-sided are formed curved, as shown, and the beveled portion is made long enough to permit the pieces being put together, as shown in Fig. 10. After the rails are heated and placed in position, as shown in Fig. 10, pressure is applied to the rails in a longitudinal direction, causing the beveled portions to upset and fill the recesses, as is clearly shown in Fig. 9. I have shown the grooves 2 as in the rails before being put together; but, if desired, the rail may be formed without the groove and it planed in them after they have been put together.

In a crossing of the type of Fig. 10 filler-blocks might be put in the grooves before upsetting to prevent the upset taking place in the metal beneath the groove.

As the rails are put together in a heated condition, the shrinkage in cooling draws the several parts into close contact, and thus forms a crossing of great strength and durability,

and without bolts, rivets, or other separate pieces.

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

1. In a railway crossing in combination, two rails, one having a dove-tailed recess across it and the other having a groove adapted to receive the remaining portion of the first named rail and a beveled portion fitting the dove-tailed recess in said rail.

2. In a railway crossing in combination, two rails, each having at the crossing point of the other rail a dove-tailed recess and a beveled

portion, the dove-tailed recess of each being adapted to receive the beveled portion of the other.

3. In a railway crossing in combination, a rail having a recess across it, said recess having curved and beveled sides, and a rail crossing the first mentioned rail and having a portion lying in and fitting within said recess.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS COLEMAN DU PONT.

Witnesses:

WM. D. McELHINNY,
D. R. McLAIN.