

No. 750,913.

PATENTED FEB. 2, 1904.

F. W. UMBREIT.
RAILWAY CROSSING.
APPLICATION FILED SEPT. 8, 1903.

NO MODEL.

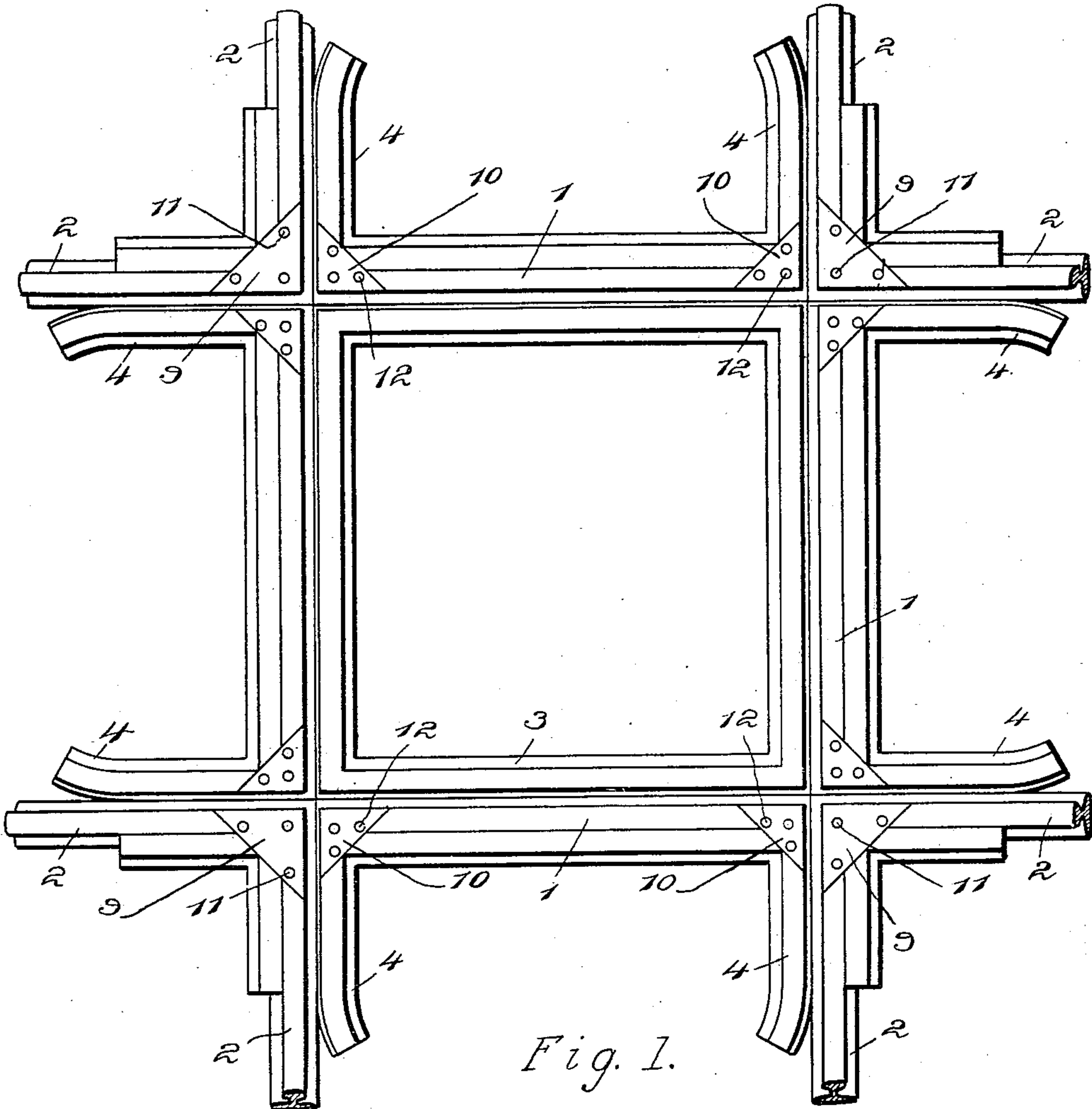


Fig. 1.

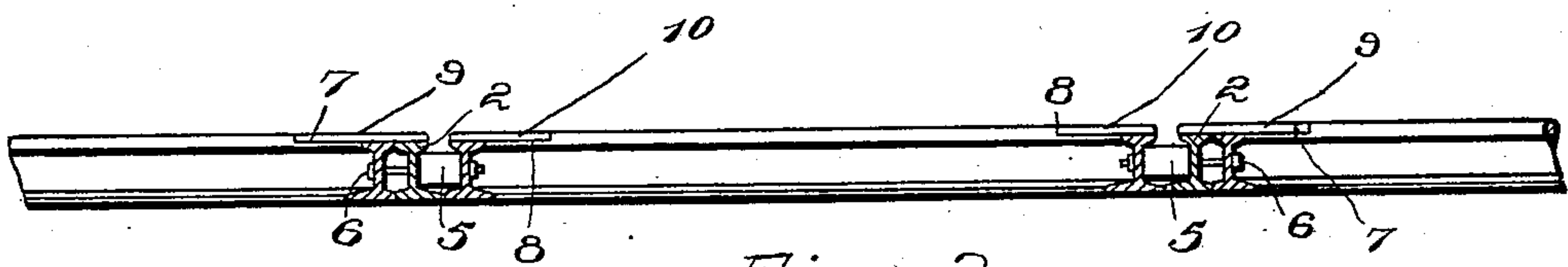


Fig. 2.

WITNESSES:

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FREDRICH W. UMBREIT, OF CLARION, IOWA.

RAILWAY-CROSSING.

SPECIFICATION forming part of Letters Patent No. 750,913, dated February 2, 1904.

Application filed September 8, 1903. Serial No. 172,292. (No model.)

To all whom it may concern:

Be it known that I, FREDRICH W. UMBREIT, a citizen of the United States, residing at Clarion, in the county of Wright and State of Iowa, have invented new and useful Improvements in Railway-Crossings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to improvements in railroad-crossings, and has for its object to provide a simple, inexpensive, and efficient railway-crossing of great strength and durability, in which the portions usually subjected to the greatest wear will be not only reinforced and enabled to withstand the wear for a much greater length of time than ordinary rails, but which will also admit of the ready renewal of such worn parts without taking up or discarding the rails.

A further object of the invention is to enable the railroad-crossing of this character to be constructed in the usual manner and of ordinary railway-rails.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described and shown, and particularly pointed out in the appended claims.

In the drawings forming part of this specification, and in which like numerals of reference designate corresponding parts, Figure 1 is a plan view of a railway-crossing constructed in accordance with this invention. Fig. 2 is a side view of the same, partly in section.

Referring to the drawings, 1 and 2 designate intermediate and end sections of the main rails of the crossings, the main rails of one track being arranged at right angles to the main rails of the other track in the usual manner, as clearly shown in Fig. 1 of the drawings; but it will be readily understood that the tracks may be arranged at any other desired angle without departing from the spirit of the invention. The crossing is provided with inner guard-rails 3, arranged in the form of a rectangle and suitably connected together at their ends, and these guard-rails may either be constructed of separate pieces

or sections or be formed of a single integral piece, as is usual in the construction of railroad-crossings of this character. The crossing is also provided with short outer guard-rails 4, which extend from the ends of the intermediate sections of the main rails, and their outer terminals are preferably curved away from the main rails, as clearly shown in Fig. 1. If desired, spacing-blocks 5 may be interposed between the rails, as shown in Fig. 2, and the bolts 6 may pierce the adjacent rails and the blocks. In practice the rails will be spiked to the cross-ties in the usual manner; but any other suitable means may be employed for mounting the railway-crossing in position to adapt it to the track construction for which it is intended.

The angles formed by the adjacent end sections of the main rails and the adjacent ends of the intermediate sections of the main rails and the short outer guard-rails are provided at their upper faces with triangular recesses 7 and 8, in which are arranged detachable triangular plates or shoes 9 and 10, constructed of steel or other suitable material and arranged to receive the wear incident to the wheels of a car or a train passing over the crossing, and these removable plates or shoes are designed to present a much harder surface to the wheels than the treads of the ordinary rails, whereby rails provided with such plates or shoes are enabled to last much longer without repair than rails of the ordinary construction, and when the plates or shoes after long use become worn they are adapted to be readily removed and replaced by new plates or shoes without the labor and expense of removing the rails and without discarding the latter. These plates or shoes, which have their outer contact edges arranged flush with the adjacent edges of the heads of the rails, are designed to be constructed of an angle to fit the angle formed by the angle of the rails, and their upper faces, which receive the rims of the wheels, are arranged flush with the adjacent portions of the treads of the rails, so that they present a continuous smooth upper surface and will not cause any more jar or vibration than rails of the ordinary construction.

In order to enable the plates or shoes to be

readily detached when worn, they are secured to the rails by fastening devices 11 and 12, preferably consisting of screws having countersunk heads; but rivets, bolts, or any other fastening means may be employed for this purpose. Three of the plates or shoes are arranged at each corner of the crossing and are located at the points which receive the flanges of the wheels, it being unnecessary to protect the inner guard-rails in this manner.

What I claim is—

1. In a railway-crossing, the combination with main and guard rails, provided at the corners or angles receiving the rims of the wheels with recesses located at the heads of the rails, and arranged in the upper faces or tread, thereof, of removable plates or shoes fitted in and filling the recesses and having upper faces arranged flush with the treads of the rails, said plates or shoes having outer edges arranged at an angle and disposed flush with the adjacent side edges of the heads of the rails, substantially as described.

2. In a railway-crossing, the combination with main and guard rails provided at their corners or angles receiving the rims of the wheels with recesses located at the heads of the rails, and arranged in the upper faces or tread there-

of, of removable plates or shoes fitted in and filling the recesses and having upper faces arranged flush with the treads of the rails, said plates or shoes having outer edges arranged at an angle and disposed flush with the adjacent side edges of the heads of the rails, and vertical fastening devices piercing the plates or shoes and the rails and detachably securing the former to the latter, substantially as described.

3. The combination of a railway-crossing, having guard-rails located at the inner and outer side of the crossing, the latter being also provided with recesses at the three outer angles of each corner formed in the upper faces of the heads of the rails, the plates or shoes removably fitted in the said recesses and located at the three outer angles of each corner of the crossing and fastening devices piercing the plates or shoes and the rails, and detachably securing the former to the latter, substantially as described.

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

FREDRICH W. UMBREIT.

Witnesses:

E. B. ROBLEIS,

C. D. YOUNG.