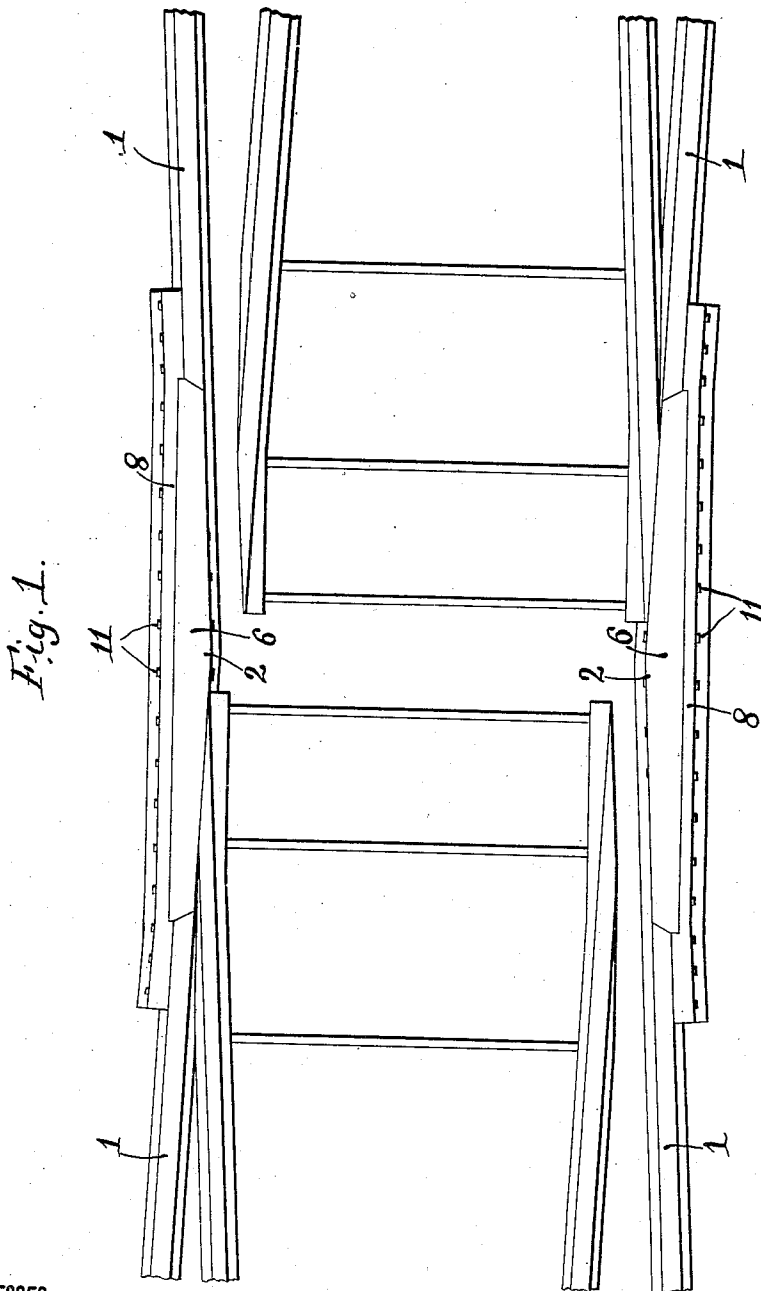


W. M. HENDERSON.
MOVABLE POINT CROSSING.
APPLICATION FILED OCT. 2, 1907.

898,644.

Patented Sept. 15, 1908.

2 SHEETS—SHEET 1.



WITNESSES:

Ella M. Ware
J. Gamble

INVENTOR

William M. Henderson
BY

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ATTORNEY.

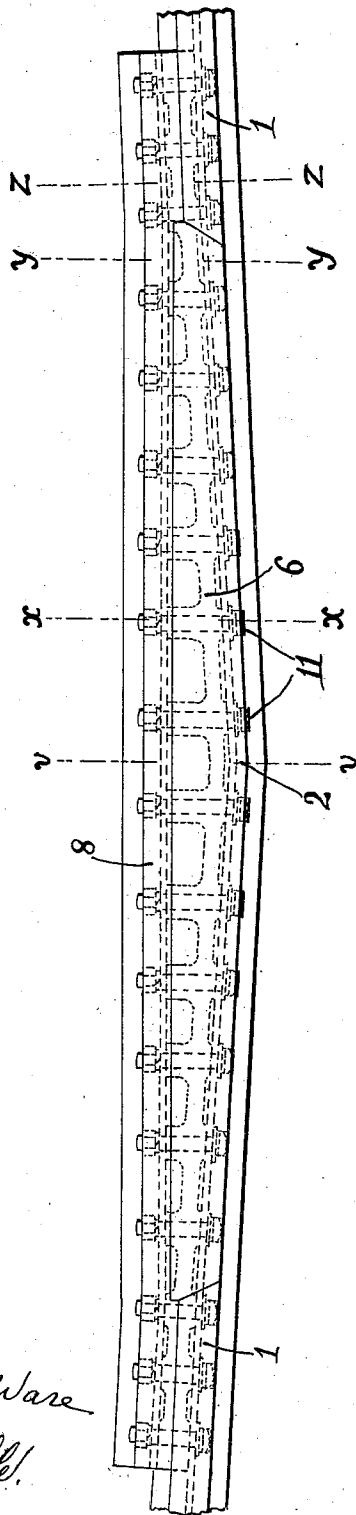
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Fig. 2.



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Fig. 6.

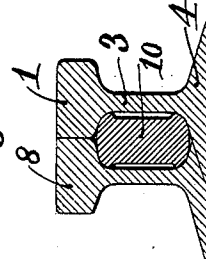


Fig. 5.

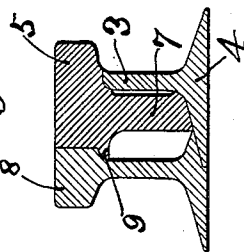


Fig. 4.

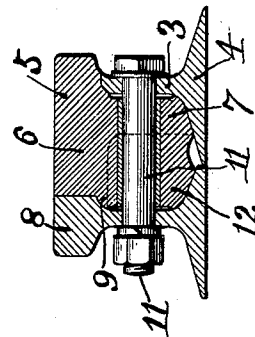
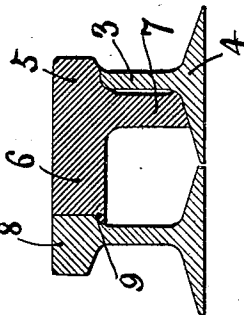


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM M. HENDERSON, OF STEELTON, PENNSYLVANIA.

MOVABLE-POINT CROSSING.

No. 898,644.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed October 2, 1907. Serial No. 395,611.

To all whom it may concern:

Be it known that I, WILLIAM M. HENDERSON, citizen of the United States, and resident of Steelton, Dauphin county, State of Pennsylvania, have invented certain new and useful Improvements in Movable-Point Crossings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a plan view of a movable point crossing, showing my invention applied thereto. Fig. 2 is an enlarged plan view of one of the main track-rails, embodying my invention; showing the reinforcing rail, the hard-metal wear-piece constituting the knuckle, and means for securing them in place to the main track rail. Fig. 3 is a section on the line $v-v$, Fig. 2; Fig. 4, a section on the line $x-x$, Fig. 2; Fig. 5 a section on the line $y-y$, Fig. 2; and Fig. 6, a section on the line $z-z$, Fig. 2.

The object of this invention is to provide in a movable point crossing, a track rail or knuckle rail in which the bearing part of the knuckle portion shall comprise a hard-metal piece or casting, taking the place of a cut-away portion of the head of said rail, and which hard-metal piece or casting is supported upon and reinforced on its inner side by the web and base of the track rail, and on its outer side by a rail to which it is fitted; whereby a knuckle rail of great strength and durability is attained.

The precise character of the invention will appear from the following description.

In the drawings, 1 designates the main or track-rail, bent to form the usual knuckle, 2. The head of the said track-rail is cut away and removed for some distance on both sides of the knuckle, but the web, 3, and the base, 4, remain intact. Replacing said cut-away portion of the head of the track-rail; that is, with its inner side or gage lines in line with the track-rail head, and meeting at an apex intersected by the line $v-v$, to form the usual knuckle, 2, is the head portion, 5, of a hard metal block or piece, 6, which is, however, somewhat wider than the said cut-away portion of the head of the track-rail. Said hard metal block has a downwardly extending web portion, 7, supported upon the base of the track-rail, the head portion, 5, resting upon and being supported by the web, 3, of said track-rail.

Extending along the outer side of the

block, 6, and beyond the same, at each end, adjacent the track-rail, is a rail, 8, having a recess in the inner side of its head, to which said block, 6, is fitted, the block, 6, having also a portion, 9, under lying said head of the rail, 8, throughout its length, preventing any tendency of the outer edge of said block, 6, to be elevated. Also, at each end the block 6 is provided with an extension, 10, which serves as a filler between the ends of the rail, 8, and the track-rail. The track-rail, block, 6, and rail, 8, are secured together by means of suitable fastening means, such as the bolts, 11, passing through the webs thereof; the block, 6, being preferably provided at intervals with lugs, 12, extending from the web, 7, thereof, to the web of the rail, 8, and through which lugs said bolts pass. It will be observed that, by this construction, the hard metal block, 6, is not only securely held in place, but is supported both vertically and horizontally by the rails 1 and 8; the effect being that the hard metal block, 6, usually of cast metal, is supported substantially on all sides by rolled metal, which is much less liable to fracture than is the cast metal block. So that, should the latter become fractured, it would not become displaced.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a movable point crossing, a track-rail bent to form the usual apex or "knuckle," and having its head cut away and removed on both sides of said knuckle, the hard metal piece having the head portion replacing the said cut-away portion of the track-rail, said hard-metal portion resting upon and being supported by the web of the track-rail, the reinforcing rail extending the length of and beyond the ends of said hard metal piece, and having the recess in the inner side of its head to which said hard metal piece is fitted, together with means for securing said track-rail, hard metal piece, and reinforcing rail together, substantially as set forth.

2. In a movable point crossing, a track-rail bent to form the usual apex or "knuckle," and having its head cut away and removed on both sides of said knuckle, the hard metal piece having the head portion replacing the said cut-away portion of the track-rail, said hard-metal portion resting upon and being supported by the web of the track-rail, the reinforcing rail extending the length of and beyond the ends of said hard metal piece, and

the end portions of the head of which reinforcing rail lie against the track-rail head, said reinforcing rail having a recess to which said hard metal piece is fitted, said hard
5 metal piece also being provided with end extensions between the track-rail and the reinforcing rail, together with means for securing said track rail, hard metal piece, and

reinforcing rail together, substantially as set forth.

In testimony whereof, I have hereunto affixed my signature.

WILLIAM M. HENDERSON.

Witnesses:

BURT L. WEAVER,
WM. R. MILLER.