

(No Model.)

F. M. PARMELEE.
GUARD RAIL.

No. 419,022.

Patented Jan. 7, 1890.

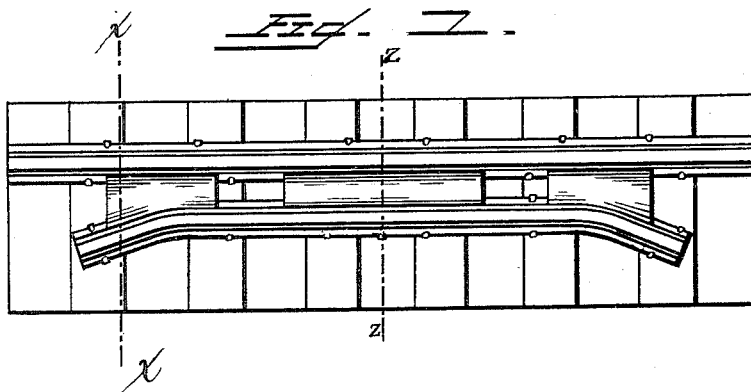


Fig. 2.

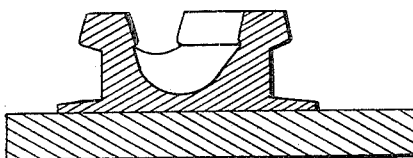
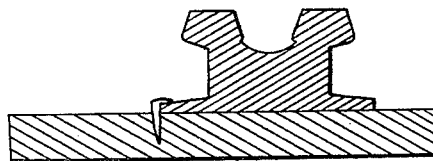


Fig. 3.



WITNESSES
A. J. Schwartz
C. S. Fry

Frank M. Parmelee
INVENTOR
by *W. Fitzgerald*
Attorney

UNITED STATES PATENT OFFICE.

FRANK M. PARMELEE, OF GRAND RAPIDS, MICHIGAN.

GUARD-RAIL.

SPECIFICATION forming part of Letters Patent No. 419,022, dated January 7, 1890.

Application filed September 14, 1889. Serial No. 323,903. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. PARMELEE, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Guard-Rails; 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.

My invention relates to improvements in guard-rails; and it consists in certain novel features hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of my improved guard as joined to the contiguous section of the main rail. Fig. 2 is a cross-section on a line with X X, Fig. 1, while Fig. 3 is a cross-section on a line with Z Z.

My invention consists, essentially and wholly, in the integral formation of the guard-rail and the contiguous cross-section of the main rail by forging or casting the same so that said rails will be sufficiently separated from each other by means of an intervening reach of metal between them.

The guard-rail is to be bent in the usual manner inwardly at each end, the well-known object of which is to receive and guide the flanges of the wheels so that said flanges will remain snugly alongside of the main rail when the opposite wheel is passing the frog.

The usual construction of the guard-rail consists simply in securing a short section of track-iron to the ties in the usual manner alongside of the main rail opposite the frog, and as it frequently happens that the guard-rail by the severe strain placed upon it by the flanges of the wheels is loosened from its bearings when the opposite wheel follows the wrong groove in the frog, thereby derailing the car. As my improved guard practically forms a part of the main rail, it is an impossibility for the guard to be separated from such main rail. The metal forming the connection between the main rail and the guard is to be properly shaped upon its upper surface, so as to readily admit of the flange of the wheel.

Having thus described my invention, what I desire to secure by Letters Patent is—

The improved guard consisting of the main rail, the guard arranged parallel with the main rail, and a metal connection between the main rail and the guard-rail, said connection being formed integral with the main and guard rails, as set forth.

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

FRANK M. PARMELEE.

Witnesses:

FRANK G. HOLMES,
CLYDE J. HOLMES.