

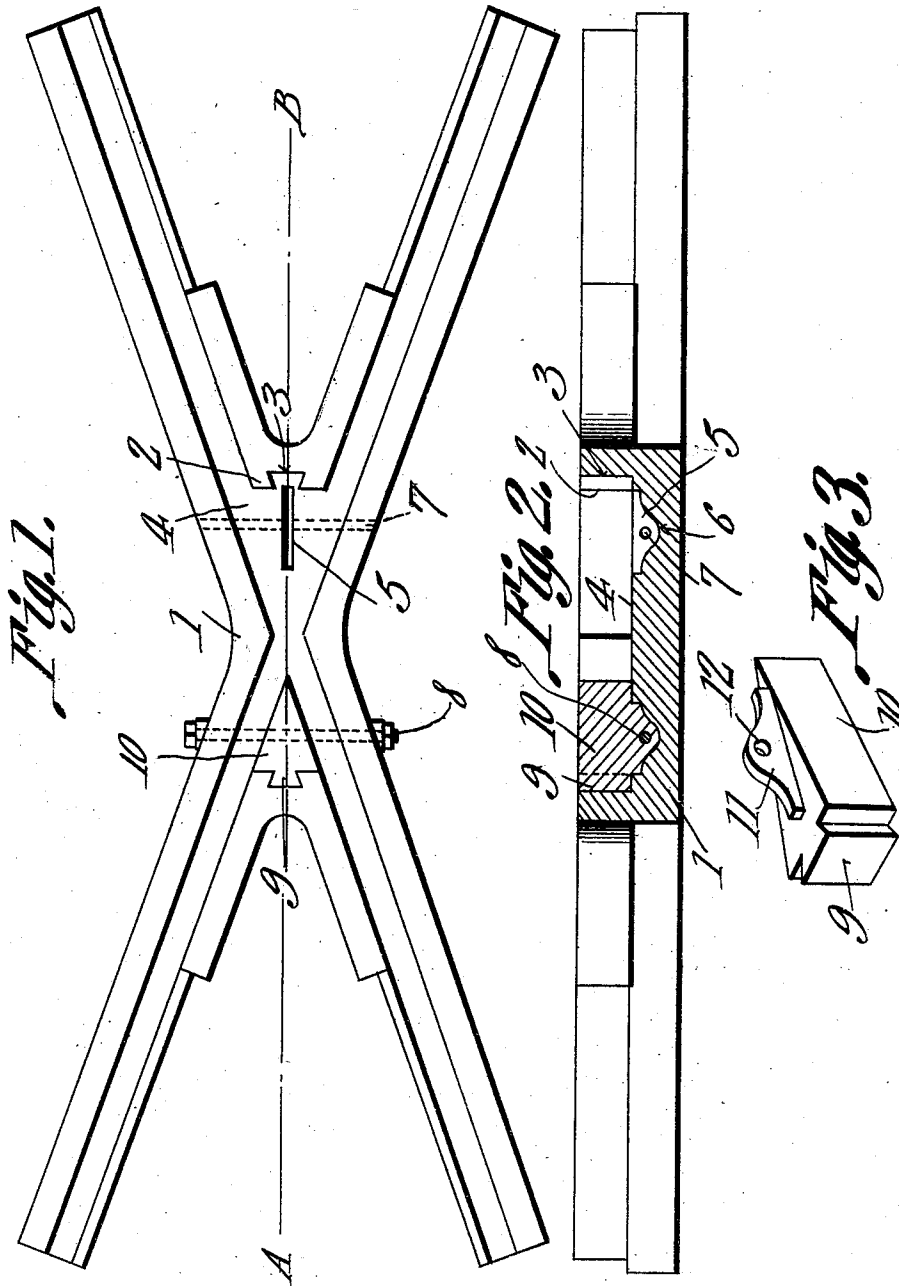
M. M. TAWNEY.

FROG POINT.

APPLICATION FILED MAY 2, 1910.

979,048.

Patented Dec. 20, 1910.



Witnesses

J. C. Hamilton
Herbert D. Lawson

Millard M. Tawney,
Inventor

by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

MILLARD M. TAWNEY, OF HARRISBURG, PENNSYLVANIA.

FROG-POINT.

979,048.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed May 2, 1910. Serial No. 558,870.

To all whom it may concern:

Be it known that I, MILLARD M. TAWNEY, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Frog-Point, of which the following is a specification.

This invention relates to railway frogs and more particularly to devices of this character having detachable points whereby, when a point becomes worn to an undesirable extent a new one can be substituted therefor without the necessity of providing an entirely new frog.

Another object is to provide a point which is mounted in a novel manner whereby accidental displacement thereof relative to the remainder of the frog is prevented and there is no danger of the point working loose.

With these and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a plan view of a frog constructed in accordance with the present invention, one of the points being removed therefrom. Fig. 2 is a section on line A—B Fig. 1. Fig. 3 is a perspective view of one of the frog points inverted.

Referring to the figures by characters of reference 1 designates a frog of the usual construction with the exception that the usual points are cut away so as to form transversely extending shoulders 2 each of which has a vertically extending dove-tail groove 3 in the central portion thereof. The bottom of the recess 4 formed by the removal of the point, has a longitudinal groove 5 therein the bottom of which is concaved longitudinally as shown at 6 in Fig. 2. This concavity extends a suitable distance into the frog casting and a bolt hole 7 extends transversely through the frog as indicated at 7 so that the bolt 8, when extended through this opening, will intersect the groove 5.

The points used in connection with the frog are preferably substantially triangular and the butt end of each of these points has a dove-tailed tongue 9 extending therefrom

and adapted to be seated within one of the grooves 3. The point, which has been indicated at 10, has a web 11 depending from the bottom thereof and so shaped as to fit snugly within one of the grooves 5 and its depression or concavity 6. An opening 12 extends transversely through the web and is adapted to register with the bolt hole 7.

When it is desired to place a point upon the frog, the tongue 9 thereof is slipped downwardly into the groove 3, and the web 11 thus becomes seated within the groove 5 and concavity 6. A bolt 8 may then be inserted transversely through the frog and will pass through the web 11 thus securely fastening the point in position. Should the frog point become worn, it can be readily removed by first withdrawing the bolt 8. A new point can then be quickly substituted.

Obviously, by forming the frog with a detachable point, it becomes possible to make said point of very hard metal and the cost of maintaining the frog in proper condition is reduced to the minimum.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A frog having transversely extending shoulders at the meeting portions of the channels within the frog, a point abutting against each shoulder, cooperating means upon each shoulder and point for holding the point and shoulder against separation, and cooperating means upon the point and bottom of the frog for reinforcing the point against lateral pressure.

2. A frog having a transversely extending shoulder at the meeting portions of the channels within the frog, said shoulder having a groove extending upwardly therein, a point removably mounted within the frog and abutting the shoulder, said point having an integral portion seated within and engaging the walls of the groove to hold the point against longitudinal displacement relative to the frog and a depending web upon the point and seated within a groove in the frog, said web constituting means for reinforcing the point against lateral strain.

3. A frog having a transversely extending shoulder at the meeting portions of the channels within the frog, said shoulder having a groove extending upwardly therein, a

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the point and seated within a groove in the
frog, said web constituting means for rein-
forcing the point against lateral strain and

a tie bolt extending transversely through 10
the frog and web.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature
in the presence of two witnesses.

MILLARD M. TAWNEY.

Witnesses:

HARRY H. WALTON,
SIMON PAGE.