C. W. REINOEHL & B. L. WEAVER.

H. B. REINOEHL, ADMINISTRATRIX OF C. W. REINOEHL, DEC'D.

SLIDE PLATE FOR RAILROAD SWITCHES.

APPLICATION FILED APR. 6, 1910.

**987,402.**

Patented Mar. 21, 1911.

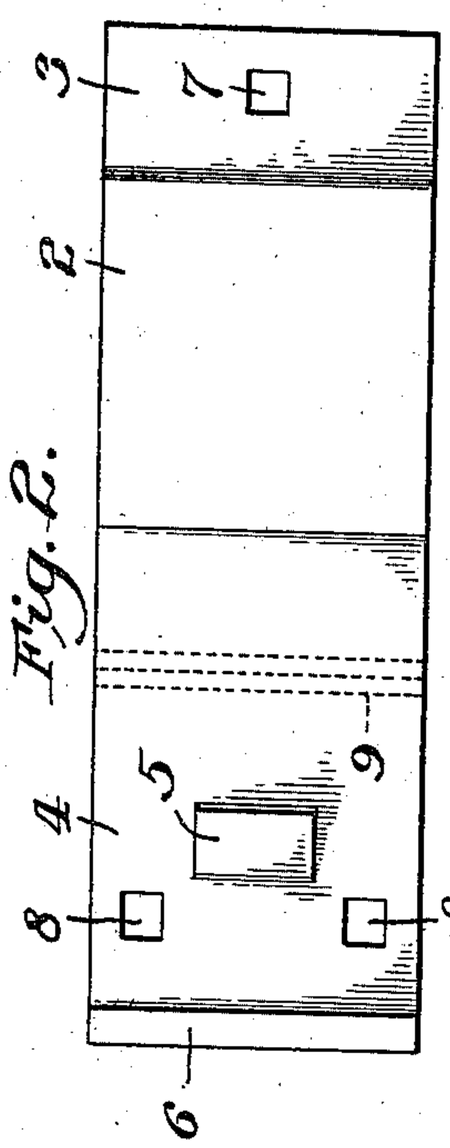

Fig. 2.

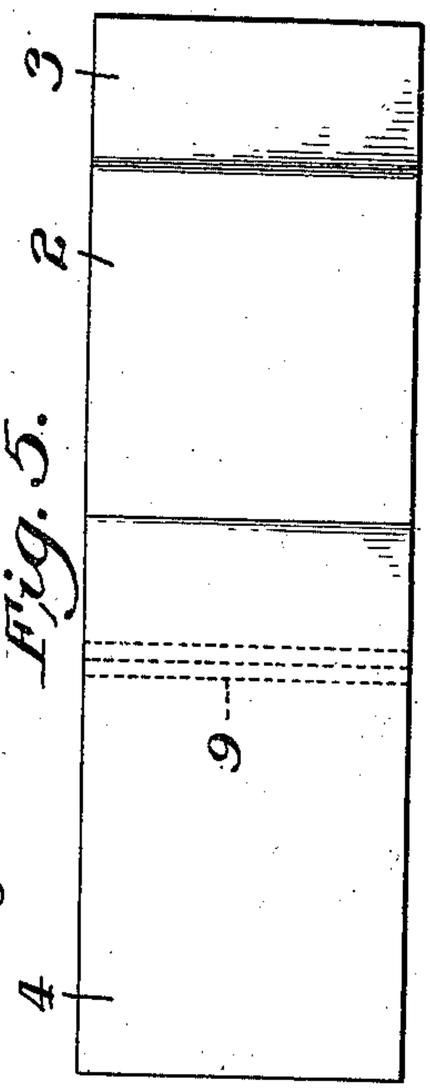

Fig. 5.

Fig. 6.

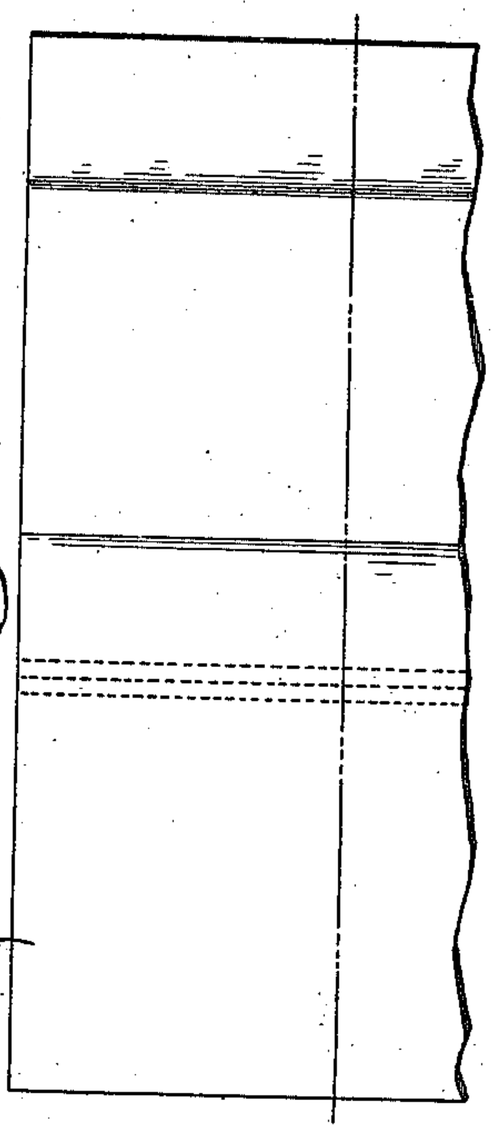

Fig. 4.

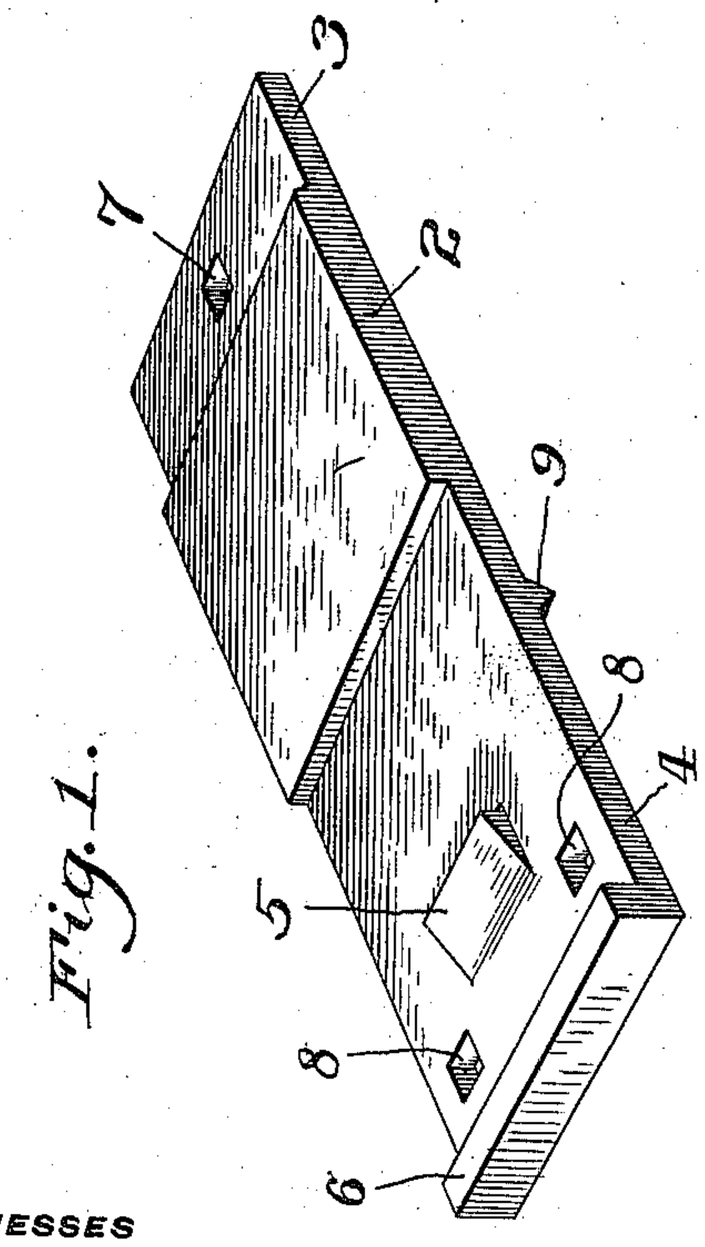

Fig. 1.

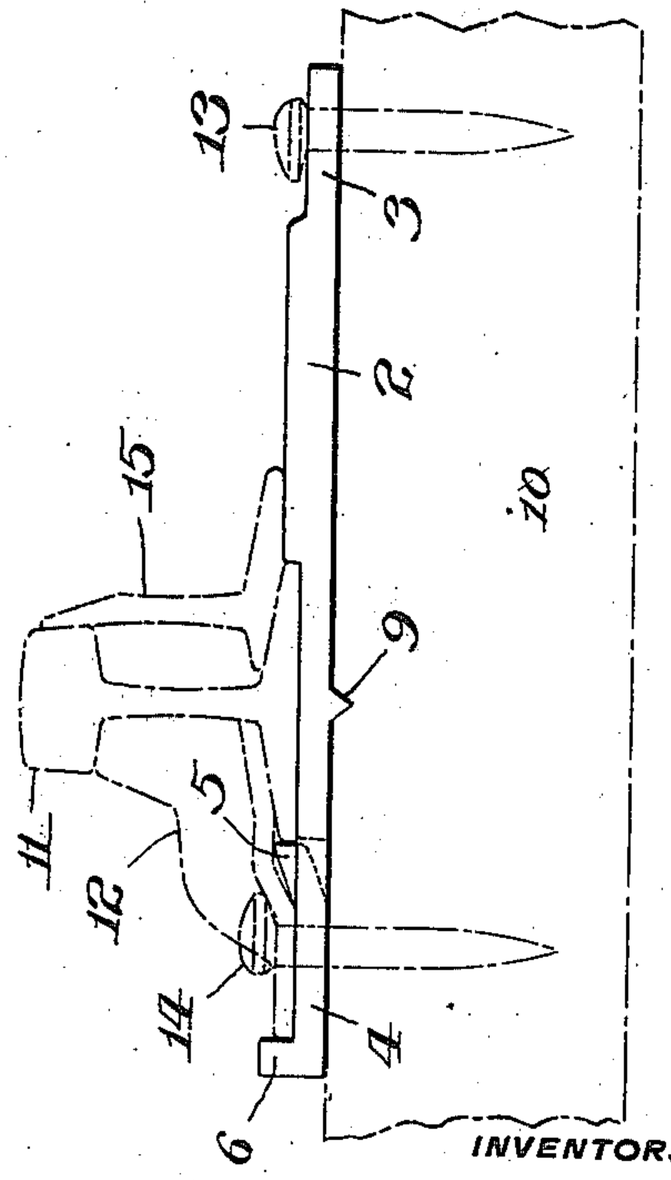

Fig. 3.

WITNESSES

W. Harrison Smith

H. B. Darnell

INVENTORS:

Charles W. Reinoehl

and Bent L. Weaver

BY A. V. Gooch

ATTORNEY

# UNITED STATES PATENT OFFICE.

CHARLES W. REINOEHL AND BENT L. WEAVER, OF STEELTON, PENNSYLVANIA; HELEN B. REINOEHL, OF STEELTON, PENNSYLVANIA, ADMINISTRATRIX OF SAID CHARLES W. REINOEHL, DECEASED.

## SLIDE-PLATE FOR RAILROAD-SWITCHES.

987,402. Specification of Letters Patent. **Patented Mar. 21, 1911.**

Application filed April 6, 1910. Serial No. 553,857.

*To all whom it may concern:*

Be it known that we, CHARLES W. REINOEHL and BENT L. WEAVER, citizens of the United States, residing at Steelton, Dauphin county, State of Pennsylvania, have invented certain new and useful Improvements in Slide-Plates for Railroad-Switches, of which the following is a specification.

This invention relates to that class of slide plates for railroad switches wherein two bearing surfaces on different horizontal planes are provided, the lower surface being adapted to support the main or fixed rail and the upper surface being adapted to support the movable switch rail.

The object of our invention is to provide a novel slide plate formed of rolled steel and having provision whereby the main rail and the switch may be properly supported relatively to each other, whereby the slide plate may be firmly held in place upon the underlying cross-tie, whereby outward movement of the main rail may be prevented, and whereby outward movement of a brace engaged with the main rail may be prevented.

With this object in view the invention will be hereinafter described in detail and particularly claimed.

In the drawings:—Figure 1 is a perspective view of our improved slide plate. Fig. 2 is a plan view thereof. Fig. 3 is a side elevation thereof in use, the slide plate being shown by full lines and the parts cooperating therewith being shown by dot-and-dash lines. Fig. 4 is a plan view of a bar of rolled steel from which a blank of rolled steel may be cut and our improved slide plate made from the blank. Fig. 5 is a plan view of a blank cut from the bar. Fig. 6 is an edge view of the blank.

The slide plate is provided with a thick portion 2 inwardly of the ends of the plate and relatively thinner end portions 3 and 4 on each side of the thick portion 2. These thick and thin portions 2, 3 and 4 extend the full width of the plate due to the rolling operation transversely of the plate in producing the blank of rolled steel from which the plate is made, as will be hereinafter described. The thick portion 2 and the thin portion 4 provide upper faces on different horizontal planes adapted to support the switch rail and the main rail, respectively, of a railroad switch.

The thin portion 4 is provided with a toe 5 spaced from the thick portion 2 a sufficient distance to permit the insertion of the base of the main rail of a railroad switch between the toe 5 and the thick portion 2. This toe 5 is formed by cutting the three sides of the toe from the main body of the thin portion 4 of the plate and then bending the toe upwardly as shown in the drawings. The outer edge of the thin portion 4 is provided with an upwardly extending rib 6 which is formed by bending the outer edge of the thin portion 4 upwardly into the position shown in the drawings. The inner face of this rib 6 is adapted to engage the outer edge of a rail brace, the inner end of which is engaged with the outer portion of the main rail of the switch.

The thin portions 3 and 4 are provided with suitable spike holes 7 and 8, respectively, which are cut in the plate after the blank from which the plate is made is rolled.

The bottom of the plate is provided with a downwardly projecting rib 9 which extends transversely of the plate the full width thereof. This rib is rolled into shape during the rolling operation and it is adapted to be embedded in an underlying cross-tie to prevent displacement of the plate laterally of the railroad rails.

Referring now to Fig. 3 in which the parts coöperating with the slide plate when in use are shown by dot-and-dash lines:—10 designates the underlying cross-tie upon which the slide plate rests and in which the rib 9 is embedded. The base of the main or fixed rail 11 rests upon the thin portion 4 between the thick portion 2 and the toe 5 as shown, the thick portion 2 preventing inward displacement of the base of the rail 11 and the toe 5 preventing outward displacement thereof. The rail brace 12 rests upon the thin portion 4 of the plate with its outer edge in engagement with the rib 6 and its inner portion in engagement with main rail 11. The rail brace 12 and the slide plate are secured to the underlying cross-tie 10 by spikes 13 and 14 driven into the cross-tie and through the holes 7 and 8, respectively, in the slide plate, the spikes 14 being also driven through suitable holes in the rail brace 12.

The movable switch rail 15 rests upon the upper face of the thick portion 2 of the

slide plate, and is supported thereon in proper relation to the main rail 11 in a manner to permit the switch rail to slide upon the thick portion 2 as it is moved toward and from the main rail 11 to close and open the switch.

In Figs. 5 and 6 we have shown a blánk from which the slide plate is constructed. This blank is cut from the bar 16 shown in Fig. 4, the thick portion 2, the thin portions 3 and 4 and the rib 9 being formed during the rolling operation. After a blank has been cut from the bar 16, the toe 5 is cut from the thin portion 4 and bent upwardly, the spike holes 7 and 8 are cut in the plate and the rib 6 is bent or formed into shape after reheating the outer end of the thin portion 4.

By constructing a slide plate as hereinbefore described, we are enabled to construct the plate of rolled steel, rolled in the direction of the width of the plate by first rolling a long bar, as shown in Fig. 4, and then cutting the bar transversely into blanks, as shown in Figs. 5 and 6, of any desired width from which the slide plates may be constructed.

We claim:—

A slide plate for railroad switches, comprising a rolled steel body, rolled in uniform longitudinal section throughout its width; and having relatively thick and thin portions adapted to support the movable rail and the fixed rail, respectively, of a railroad switch; the thin portion having a toe bent upwardly therefrom in spaced relation to the thick portion and adapted to engage the outer edge of the base of the fixed rail; and the outer edge of said thin portion being bent upwardly forming a rib adapted to engage a rail brace for the fixed rail.

In testimony whereof we affix our signatures in the presence of two witnesses.

CHARLES W. REINOEHL.
BENT L. WEAVER.

Witnesses:
A. V. GROUPE,
WM. HARRISON SMITH.

Correction in Letters Patent No. 987,402

It is hereby certified that in Letters Patent No. 987,402, granted March 21, 1911, upon the application of Charles W. Reinoehl and Bent L. Weaver, of Steelton, Pennsylvania, for an improvement in "Slide-Plates for Railroad-Switches," an error appears requiring correction as follows: In the grant and in the heading to the printed specification Helen B. Reinoehl is erroneously described as "Administratrix of said Charles W. Reinoehl, deceased," whereas she should have been described as *Executrix* of said Reinoehl; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 13th day of June, A. D. 1911.

[SEAL.]

C. C. BILLINGS,

*Acting Commissioner of Patents.*