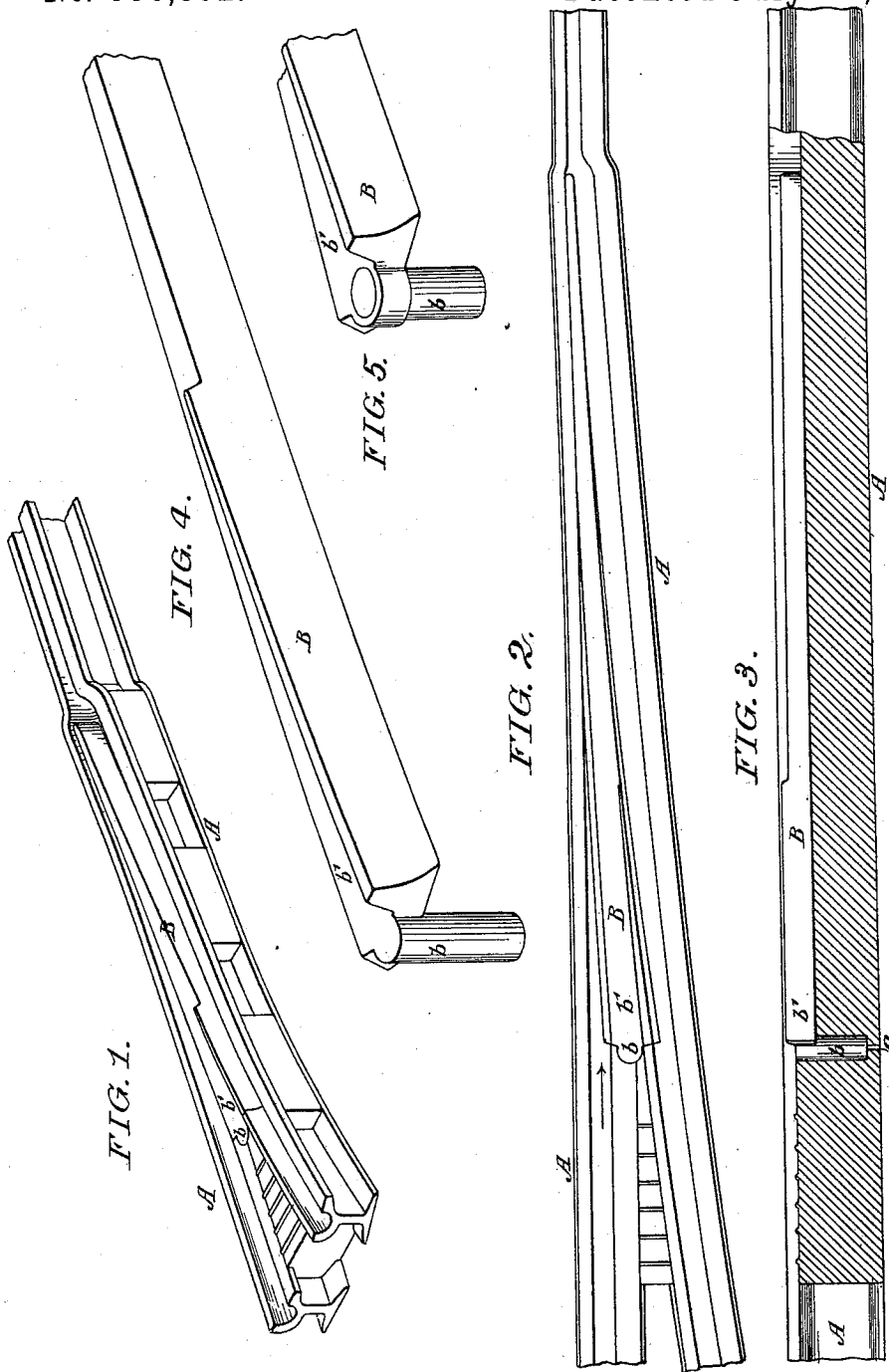


(No Model.)

V. ANGERER.
RAILWAY SWITCH.

No. 586,892.

Patented July 20, 1897.



Witnesses:

R. Schlicher.
Wm. A. Barr.

Inventor:

Victor Angerer
by his Attorneys
Hewson & Hewson

UNITED STATES PATENT OFFICE.

VICTOR ANGERER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF SAME PLACE.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 586,892, dated July 20, 1897.

Application filed April 11, 1896. Serial No. 587,140. (No model.)

To all whom it may concern:

Be it known that I, VICTOR ANGERER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Railway-Switches, of which the following is a specification.

The object of my invention is to so construct a tongue of a switch that the blow of the car-wheel in going from the rail onto the
10 root of the tongue will tend to press the point of the tongue down upon the track structure.

A further object of the invention is to prevent the throwing of the tongue between the wheels when the car is passing the switch
15 point on.

These objects I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a movable-point switch made in accordance with my invention. Fig. 2 is a plan view. Fig. 3 is a
20 longitudinal sectional view. Fig. 4 is a perspective view of the tongue detached, and Fig. 5 is a view of a modification.

In movable-point switches heretofore made the pin has invariably been placed directly
25 under the root of the tongue, so that when the car-wheels move in the direction of the arrow, Fig. 2, onto the tongue they tend to lift the point of the switch by bearing upon the root of the tongue back of the pivot, and in some cases the side bearing of the wheel presses that portion of the tongue at the rear of the pivot in, tending to throw the switch
30 across the groove for the passage of the wheels.

In carrying out my invention I provide the tongue B with a pivot-pin *b*, set back of the root end *b'* of the tongue. This pivot-pin is adapted to a bearing in the switch structure
35 A, which is either of the type shown in Fig. 1 or of any type now in common use, as it will be understood that my invention can be applied to either a solid switch structure or a built-up switch structure.

I preferably form a bottom bearing *a* in the structure A, on which the pin *b* rests, thus providing a step-bearing for the pin, so that
40 even if the flange of the wheel should strike the head of the pin it will not have a tendency to tip the switch-tongue.

It will be seen that the root of the tongue stops forward of the center of the pin in Fig. 2, although in some instances the tongue may extend to the center of the pin.

By my improvement the wheel passing onto the switch-tongue in the direction of the arrow, Fig. 2, will pass the center of the pivot
45 *b* before it comes in contact with the root of the tongue, so that the blow of the wheel in going from the rail to the tongue will tend to press the tongue down at the point and will also tend to force the tongue against the side of the switch structure, so that the groove
50 will be clear for the passage of the flange of the wheel.

It occasionally happens in using a switch structure having the old-style tongue that the tongue is thrown between the wheels of the car running point on (if the tongue is shorter
55 than the distance between the wheels of the car) by the front wheel pressing against the root end of the tongue beyond the pivot, thus throwing the tongue across the path of the rear wheel, but by my invention this objection is overcome.

While I have shown the pin as an integral part of the tongue, it may be an independent
60 piece, as shown in Fig. 5, and its head may be slightly below the face of the tongue without departing from my invention.

I claim as my invention—

1. The combination of a movable switch-tongue having a downwardly-projecting pivot-pin set back of its root end, a switch structure having an opening adapted to receive the pivot-pin, said opening forming
65 both a vertical bearing and a step-bearing for the pivot-pin of the tongue, substantially as described.

2. The combination of a switch-tongue having a pivot-pin set back of the root end thereof, said pin extending to the face of the switch-tongue, with a switch structure having an opening for the reception of the pivot-pin and cut away to receive the tongue, the parts being
70 so arranged that the tongue cannot be shifted by a wheel coming onto the tongue from the rear until it passes the pivot-pin, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of
75 two subscribing witnesses.

VICTOR ANGERER.

Witnesses:

C. W. CROASDILL,
LOUIS KOPPENHOEFER.