No. 772,998. PATENTED OCT. 25, 1904.

H. BLANCHARD.

RAILWAY SWITCH.

APPLICATION FILED JULY 29, 1904.

NO MODEL.

Fig. 1.

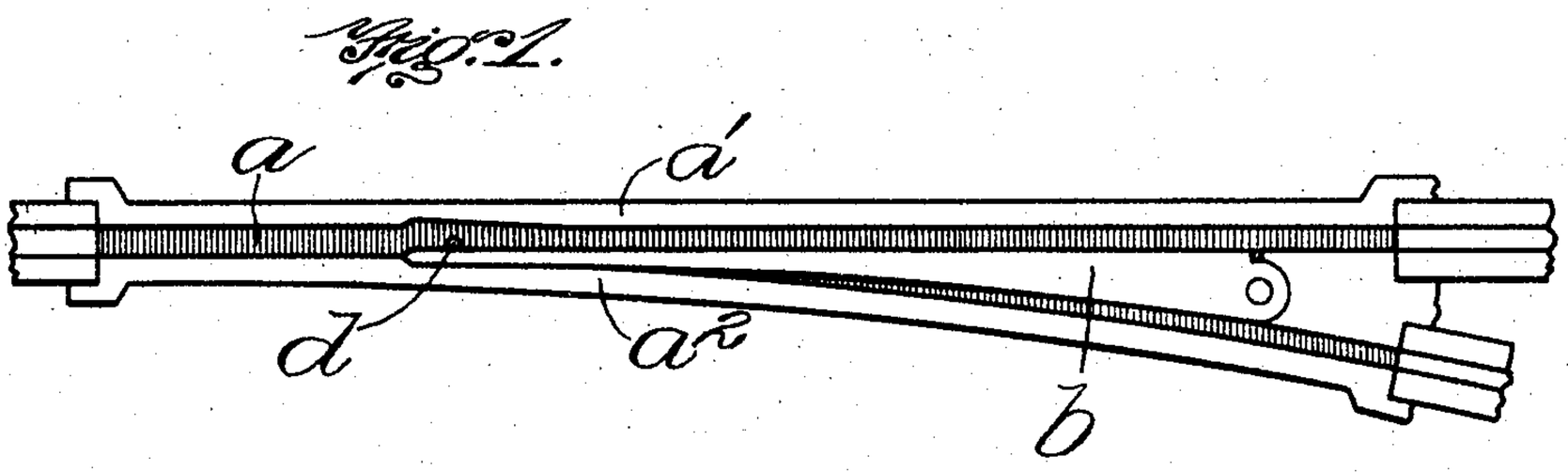


Fig. 2.

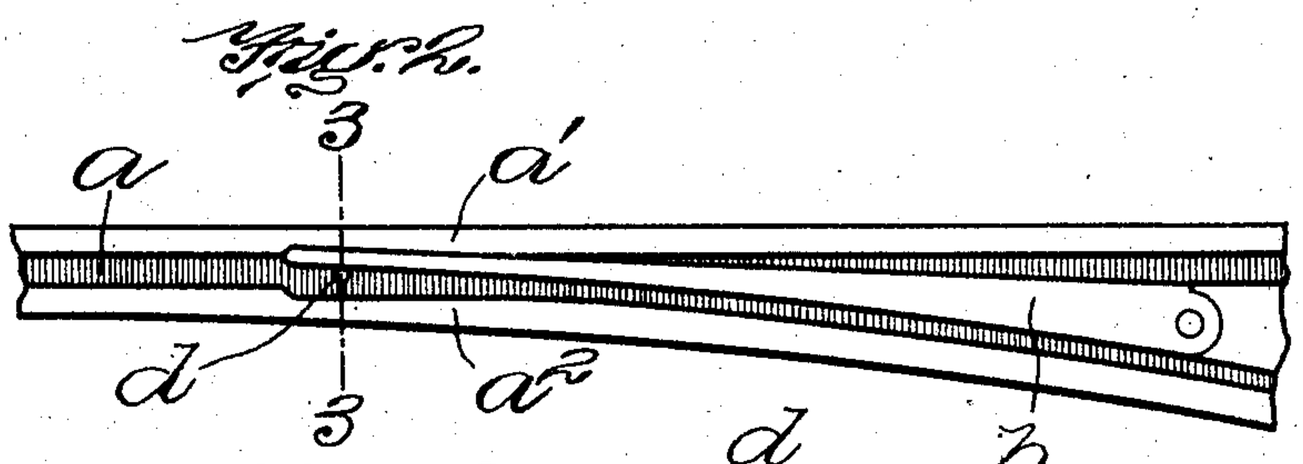


Fig. 3.

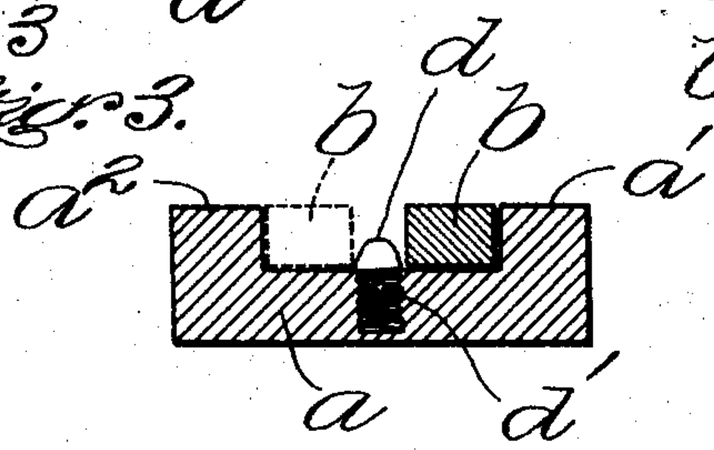


Fig. 4.

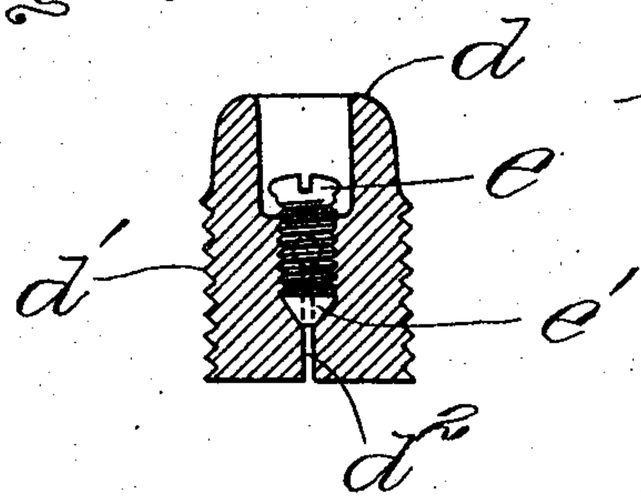
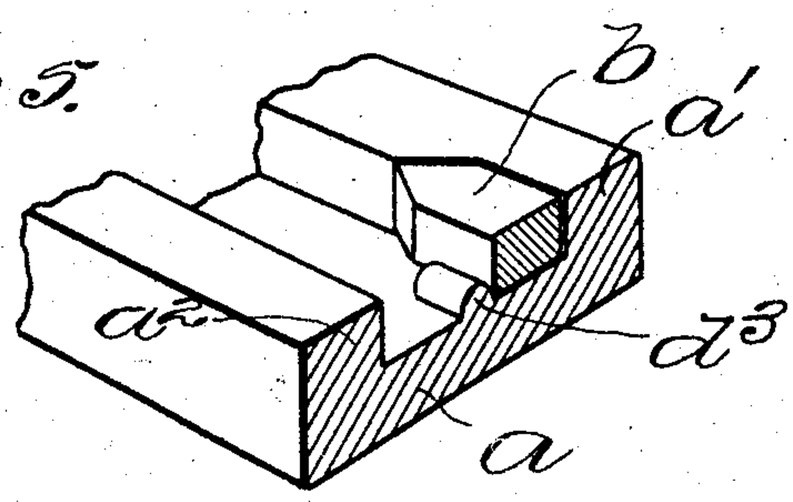


Fig. 5.



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No. 772,998. Patented October 25, 1904.

UNITED STATES PATENT OFFICE.

HORACE BLANCHARD, OF BOSTON, MASSACHUSETTS.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 772,998, dated October 25, 1904.

Application filed July 29, 1904. Serial No. 218,593. (No model.)

To all whom it may concern:

Be it known that I, HORACE BLANCHARD, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification.

This invention relates to street-railway switches of the ordinary type, including a bed-plate having a rail-tread portion forming a part of the main line and a diverging rail-tread portion forming a part of the branch, a switch tongue or point being pivoted to the bed-plate and adapted to coöperate with either of the rail-tread portions, thus making the main line continuous or connecting it with a branch.

In Letters Patent of the United States No. 719,557, dated February 3, 1903, I have shown means for preventing accidental movement of the switch-point from either position to which it may be adjusted, so that there will be no possibility of accident caused by loose movement of the switch-point, said means comprising two upwardly-projecting detents on the bed, each of which is adapted to engage a recess in the under side of the switch-point, one detent holding the switch-point when the main line is continuous and the other when the branch is connected with the main line.

The present invention has for its object to enable the switch-point to be locked in either of the said positions by a single detent and without the employment of a recess in the switch-point.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figures 1 and 2 represent top plan views of a street-railway switch embodying my invention. Fig. 3 represents a section on line 3 3 of Fig. 2. Fig. 4 represents an enlarged sectional view of the preferred construction of the detent. Fig. 5 represents a perspective sectional view showing a modification.

In the drawings, *a* represents the usual plate which forms a part of a street-railway track at a branch or siding, said plate having the usual rail-tread portions adapted to constitute parts of the main-track rail and parts of a branch or siding.

b represents the usual switch tongue or point, which is pivoted at *c* to the plate *a* and is adapted to occupy either of two positions, in one of which it makes the main-track rail continuous, as shown by Fig. 1, while in the other it connects the main-track rail with the branch rail, as shown by Fig. 2. The bed-plate has the usual raised portions a' a^2, which serve as stops to limit the movements of the switch-point.

In carrying out my invention I provide the bed-plate with an upwardly-projecting detent *d*, located at that portion of the bed-plate over which the outer end portion of the switch-point moves. The detent is located midway between the stops a' a^2 and is formed to engage either edge of the switch-point, as shown in Figs. 1 and 2, the arrangement being such that when the switch-point is in one of its operative positions one of its edges engages the detent and when the switch-point is in its other operative position its opposite edge engages the other detent.

The detent is preferably a convex boss formed on the outer end of a screw-threaded shank d', adapted to be screwed into a threaded socket formed for its reception in the bed-plate *a*. I prefer to give the sides of the detent *d* an inclination or curvature, so that the switch-point can be moved readily across the detent without undue resistance, the height of the detent being such that the outer end of the switch-point can rise and slide across it without objectionable upward displacement of the switch-point.

By employing a single detent adapted to engage either edge of the switch-point I avoid the weakening of the switch-point caused by the formation of a recess therein, as heretofore, and reduce to the minimum the weakening of the bed-plate by making but one detent-receiving socket therein instead of two.

The detent shown in Figs. 3 and 4 has a slot d^2 formed in its shank, said slot making the shank expansible. A screw *e*, engaged

with a threaded socket within the shank, has a tapering end e', which bears on tapering faces at opposite sides of the slot d^2. When the screw e is turned downwardly, it expands the shank d' and locks it firmly to the bed-plate.

In Fig. 5 I show a detent d^3, formed as a rib, which is integral with the bed-plate a.

The described means for expanding the shank of the detent enables the detent to be vertically adjusted to compensate for wear. When the top of the detent has been worn down by the contact of the switch-point with it, the screw e may be loosened to permit the contraction of the shank, after which the detent may be rotated in the direction required to raise it, the detent being then again locked in the position to which it has been adjusted.

I claim—

A street-railway switch comprising a pivoted switch tongue or point, and a bed-plate to which said point is pivoted, said bed having stops for limiting the swinging movement of the switch-point, and an upwardly-projecting detent located between said stops and adapted to engage one edge of the switch-point when the main line is continuous, and the opposite edge when the branch is connected with the main line.

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

HORACE BLANCHARD.

Witnesses:
C. F. BROWN,
E. BATCHELDER.