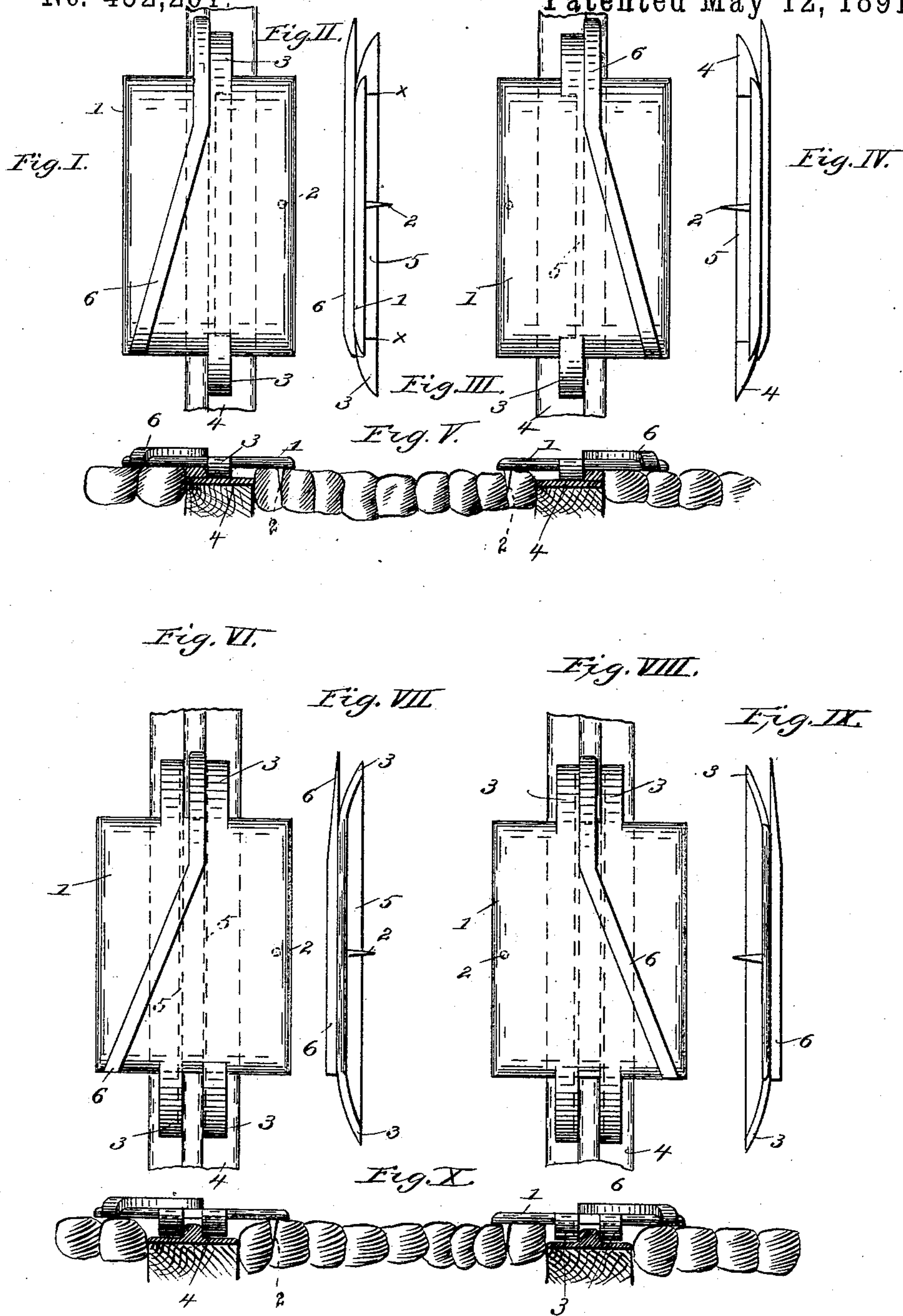


(No Model.)

W. O. COOKE.
PORTABLE RAILWAY SWITCH.

No. 452,261.

Patented May 12, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM O. COOKE, OF CHICAGO, ILLINOIS.

PORTABLE RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 452,261, dated May 12, 1891.

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To all whom it may concern:

Be it known that I, WILLIAM O. COOKE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Portable Railway-Switches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to railway-switches in general, but more particularly to a device for replacing derailed cars on street railways or lines where the paving or street surface is on a level with the summit of the rail on both sides, and also for derailing cars on such lines when it is desired to drag a car from one track onto another or for getting around an obstruction; and the invention consists in certain features of novelty hereinafter described, and particularly pointed out in the claims.

Referring now to the drawings, Figure I is a plan view of my device, showing it applied to a side-bearing street-car rail. Fig. II is a side elevation of the device. Fig. III is a plan view of the device on the opposite rail, and Fig. IV is a side elevation thereof. Fig. V is a section of the street-paving and both rails of the track, showing both devices or switches in end elevation. Fig. VI is a plan view of a modified form adapted for application to a T-rail, and Fig. VII is a side elevation of the same. Figs. VIII and IX are respectively a plan view of the switch on the other rail, showing it applied thereto, and a side elevation, the rail being omitted; and Fig. X is a view similar to Fig. V, showing the modified form.

Like signs of reference indicate like parts throughout the several views.

1 is a flat bridge-plate having its sides beveled or rounded and preferably being perfectly flat on its under side, whereby it will rest firmly on the paving or street surface on both sides of the track-rail. The under side of this plate near one edge, preferably the inner edge, is provided with a spike or lug 2, which, when the device is put in position on the rail, will enter the street surface or embed itself between the paving-stones, so as to prevent longitudinal sliding

of the device when the wheel of the car strikes it. At each end of the bridge-plate is formed an inclined shoe or extension 3, whose lower surface is adapted to rest firmly upon the flange or foot 4 of the rail, so as to support the plate against bending under the pressure of the wheel and at the same time assist the flange of the wheel in mounting the bridge or descending therefrom, as the case may be, and to prevent transverse movement of the replacer or switch. Inasmuch as the bridge-plate 1 is unusually light, it is desirable to prolong the extensions 3 throughout the full extent of the bridge on its inner side, so as to support the latter under the pressure of the wheels and avoid the possibility of bending. For this purpose, however, it is not necessary to have the piece under the bridge as stout as the shoes or extensions 3; but, on the contrary, I prefer, for the sake of lightness and cheapness, to reduce this piece from the points x , Fig. II, so as to form a narrow cleat or rib 5, as shown in dotted lines in Fig. III, which rests throughout its whole extent on the foot-flange of the rail and supports the bridge and at the same time serves to avoid transverse movement. Formed on the top of the bridge-plate is the guide-flange 6, which at one end is beveled and projects beyond one of the shoes 3 and rests on the head of the rail. The flange 6 at this end runs for a portion of its length parallel with the track-rails and then diverges outward from the track in the usual manner for guiding the wheel into place. The replacer on the opposite rail is identical with the one just described, but of course the parts are reversed, so as to bring the shoes 3 and the spike 2 on the inside of the rail and the flange 6, diverging from the outside of the rail.

It is very evident that this device may also be used on grooved or locomotive street-car rails, as the shoes 3 and rib 5 in that case would fit in the groove of the rail and prevent transverse thrust in both directions, and it may also be used in the ordinary T-rail or center-bearing rail; but for T-rails or center-bearing rails I prefer to employ the form of device shown at Figs. VI to X, inclusive. In this latter form there are two of the shoes or inclined extensions 3 at each end of the bridge-plate 1, arranged one on either side of the

rail and resting upon the flange or foot thereof, and there are two of the ribs or cleats 5, one on either side of the rail, for preventing transverse movement in both directions and strengthening the bridge; also, in this instance I prefer, for the sake of cheapness and lightness, to form these ribs 5 very narrow or thin in comparison with the shoes 3, and to further lighten and cheapen the device I prefer to form the shoes 3 hollow under one side, thus leaving a thin rib or cleat 5 extending from the points of the shoes throughout the length of the replacer.

Although I have shown the ribs 5 extending the full length of the bridge-plate, yet it is quite obvious that it would not be deviating from the spirit of my invention to employ such ribs of less extent; but I prefer to use a continuous rib, because should one end of the replacer rise when the wheel strikes the other the device would not be so likely to settle into its proper place again with a short rib as it would with a full continuous one.

As before stated, the device may be employed for derailing cars when such becomes necessary, as is often the case when it is desired to get around some obstruction or onto the other track. When used for this purpose, it is placed on the track in such a position that the wheel will strike the straight end of the flange 6 first.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

35 1. The combination of the bridge-plate having a guide-flange adapted to rest on the track-rail and paving, a spike on the under side of said plate for preventing longitudinal move-

ment thereof, and the inclined shoes 3, adapted to rest on the foot-flange of the rail, substantially as set forth. 40

2. The combination of the flat bridge-plate adapted to rest on the track and the paving and having the guide-flange, a spike on the under side of said plate for preventing longitudinal movement thereof, the inclined shoes 3, projecting from the ends of said plate, and the rib 5 on the underside of said plate, adapted to rest against the rail, substantially as set forth. 45 50

3. The combination of the bridge-plate having the guide-flange adapted to rest on the track-rail, a spike on the under side of said plate for preventing longitudinal movement thereof, and the inclined shoes 3 3 on both sides of one end of the guide-flange, adapted to rest on the foot-flange of the rail, substantially as set forth. 55

4. The combination of the bridge-plate adapted to rest on the track and paving and having a guide-flange provided with an inclined end projecting beyond the plate and adapted to rest on the track, a spike on the under side of the plate for engaging with the paving, the inclined shoes 3 3, adapted to rest upon the foot-flange of the rail on both sides of the rail-head, said shoes being hollow underneath, and the ribs 5, extending from the points of said shoes throughout the length of the bridge-plate, substantially as and for the purposes set forth. 60 65 70

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