

(No Model.)

A. A. STROM.
TIE BAR CLIP FOR SPLIT SWITCHES.

No. 406,008.

Patented June 25, 1889.

Fig. 1.

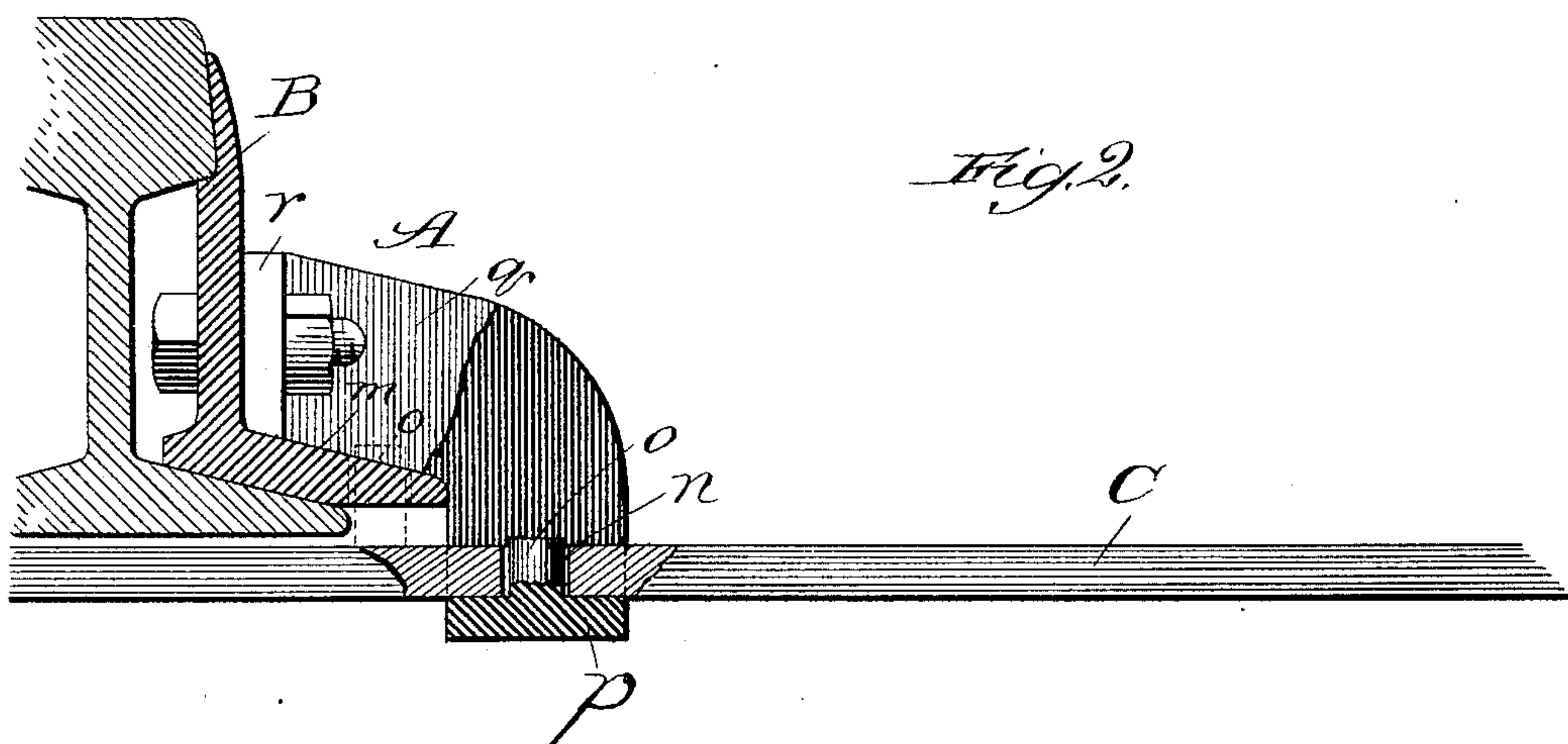
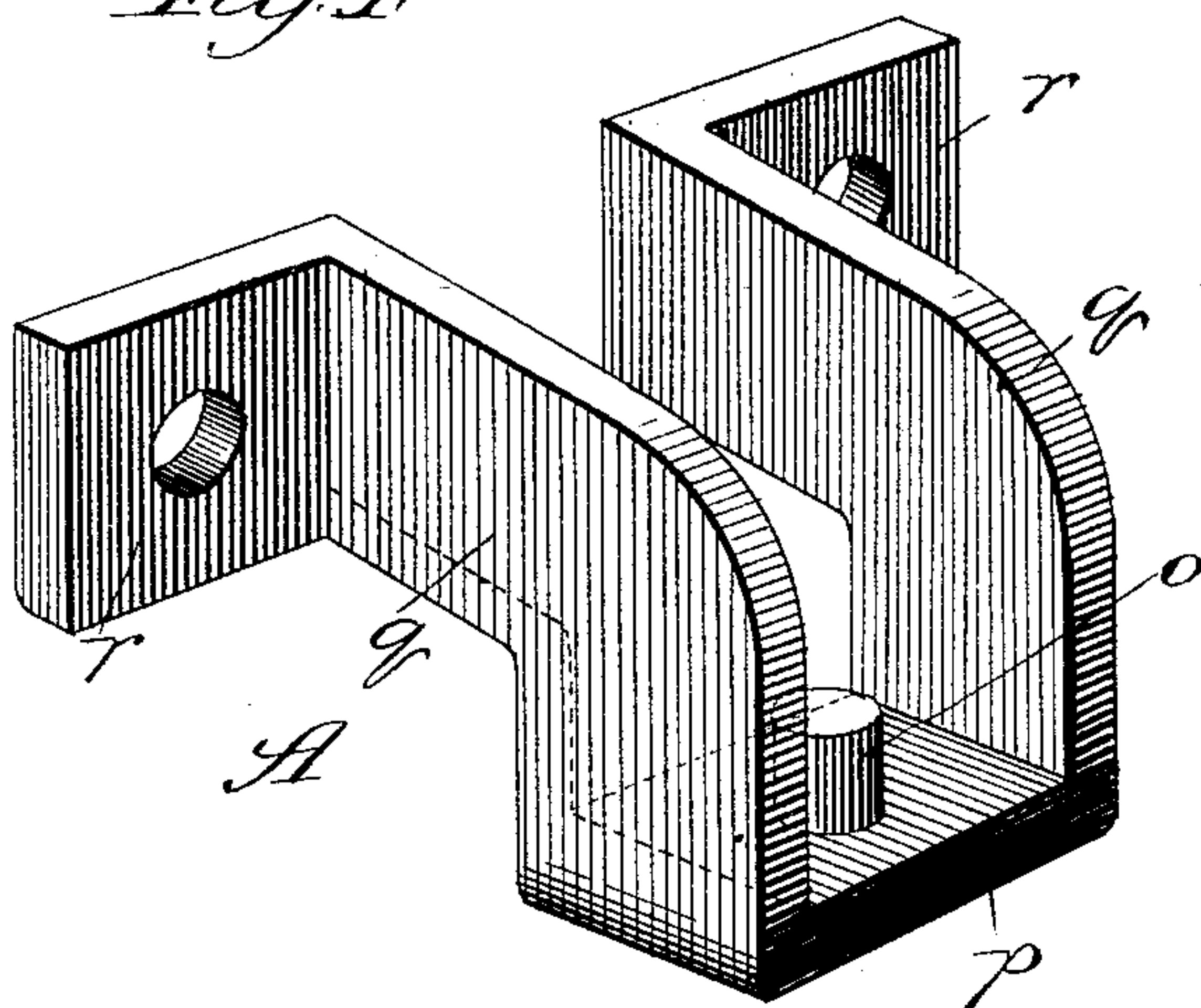


Fig. 2.

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UNITED STATES PATENT OFFICE.

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TIE-BAR CLIP FOR SPLIT SWITCHES.

SPECIFICATION forming part of Letters Patent No. 406,008, dated June 25, 1889.

Application filed February 19, 1889. Serial No. 300,397. (No model.)

To all whom it may concern:

Be it known that I, AXEL A. STROM, a citizen of the United States, residing at Austin, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Tie-Bar Clips for Split Switches, of which the following is a specification.

My invention relates to an improvement in the device technically known as a "clip," being a form of hanger secured to the movable rails of a railroad-switch and affording means for pivotally supporting the bars which connect the rails together, and which are known as the "tie-bars."

The object of my invention is to provide a generally improved construction of the clip, which shall serve to confine a tie-bar between itself and the base of the switch-rail to which it is fastened, and thereby tend to prevent removal of the bar without disconnecting the clip from the rail.

To this end my invention consists in the general construction of my improved clip, and it further consists in details of construction and combinations of parts.

In the accompanying drawings, Figure 1 shows in a perspective view the preferred construction of my improved clip, and Fig. 2 shows a sectional view of the same applied to a split-switch rail and with the tie-bar in position, together with a modified construction indicated by dotted lines.

A is the clip, which I prefer to form as it is shown in Fig. 1—namely, of a continuous length of metal having the perforated ears *r*, through which to secure it to the web of a split-switch rail B, arms *q* extending part way of their length obliquely (at least on their lower edges) from the ears to conform to the slant of the flanges *m* of the rail, and thence downward (with relation to the device in operative position) at the parts which project beyond the edge of the rail-flange, and the outer extremities of the arms *q* are connected by a base *p*, carrying near its center a fixed stud or pivot *o*.

To adjust the bar C into its operative position, it is first inserted at each end into one of the clips A and slipped at the openings *n* over the studs *o*, each opening *n* being some

distance from the end of the bar, which is sufficiently long to cause the end portions beyond the openings to extend underneath the bases of the switch-rails when the clips are subsequently placed in position, which may be done by bolting them through their perforated ears *r* to the opposing sides of the webs of the two split-switch rails B.

When adjusted as described, it will readily be seen that the bar C, which may thus have the desired pivotal motion in the throwing of the switch, cannot be removed without disconnecting the clips from their respective rails, thereby to afford to it security against displacement, whether accidental or intentional.

Though preferred, it is not absolutely necessary that the stud *o* shall be on the base *p*, inasmuch as it may instead be provided on the bar itself to pass through a hole in the base *p*; or it may be in the position shown by the dotted lines indicating it in Fig. 2, when it would with the tie-bar and clip adjusted into operative position, extend into an opening provided to receive it in the flange *m* of the switch-rail. The stud or pivot should, however, whatever its position, be fixed, in the sense that it cannot readily be removed, and thereby permit the tie-bar to be withdrawn from the clip. All such modifications are intended to be included as being within the spirit of my invention; also, the form of the clip illustrated is intended to be general and to be limited only so far as the essential features of arms, as the arms *q*, connected by a base *p*, and provided with or affording any suitable means for securing them to any desired part of a split switch-rail.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a tie-bar C, a clip A, having arms *q*, to be secured at one end of the device to a switch-rail and extend, when so secured, beyond and below the flange of the rail, a base *p*, connecting the arms, and a fixed stud *o*, for pivotally securing the tie-bar C in the clip against removal therefrom when the clip is fastened to and the tie-bar extends underneath the rail, substantially as described.
2. In combination with a tie-bar C, a clip

A, having arms *q*, to be secured at one end of the device to a switch-rail and extend, when so secured, beyond and below the flange of the rail, a base *p*, connecting the arms, and a stud *o*, fixed in the clip, and upon which to pivot the tie-bar, whereby, when the tie-bar is adjusted in the clip fastened to a switch-rail and extends underneath the said rail, it is confined against removal by the stud and between the clip and switch-rail, substantially as described.

3. In a clip A, the combination of arms *q*, to be secured at one end of the device to a switch-rail and extend, when so secured, beyond and below the flange of the rail, a base *p*, connecting the arms, and a stud *o*, extending into the clip from and fixed upon the base, substantially as and for the purpose set forth.

4. In combination with a tie-bar C, a clip A, comprising arms *q*, having perforated ears *r*, at which to secure the clip to the web of a switch-rail, and extending from the ears obliquely to conform to the flange of the rail and beyond the latter downward with reference to the rail-flange and below the latter, a base *p*, connecting the arms, and a stud *o*, extending from and fixed upon the base, whereby, when the tie-bar is adjusted in the clip fastened to a switch-rail and extends underneath the said rail, it is confined against removal by the stud and between the clip and switch-rail, substantially as described.

AXEL A. STROM.

In presence of—

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