No. 698,451. Patented Apr. 29, 1902.

J. CHALMERS, JR.

DETECTOR BAR CLIP AND STOP.

(Application filed Oct. 10, 1901.)

(No Model.)

Fig. 4.

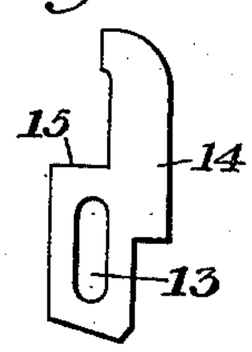


Fig. 1.

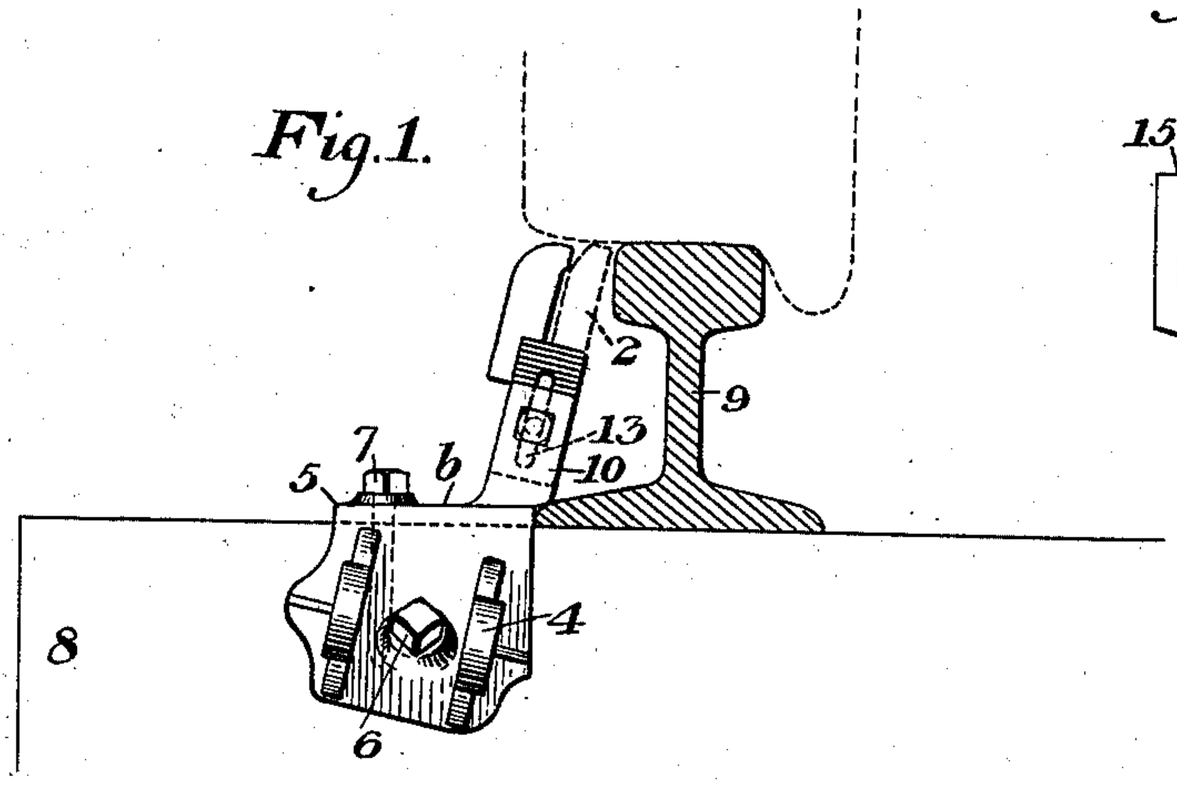


Fig. 2.

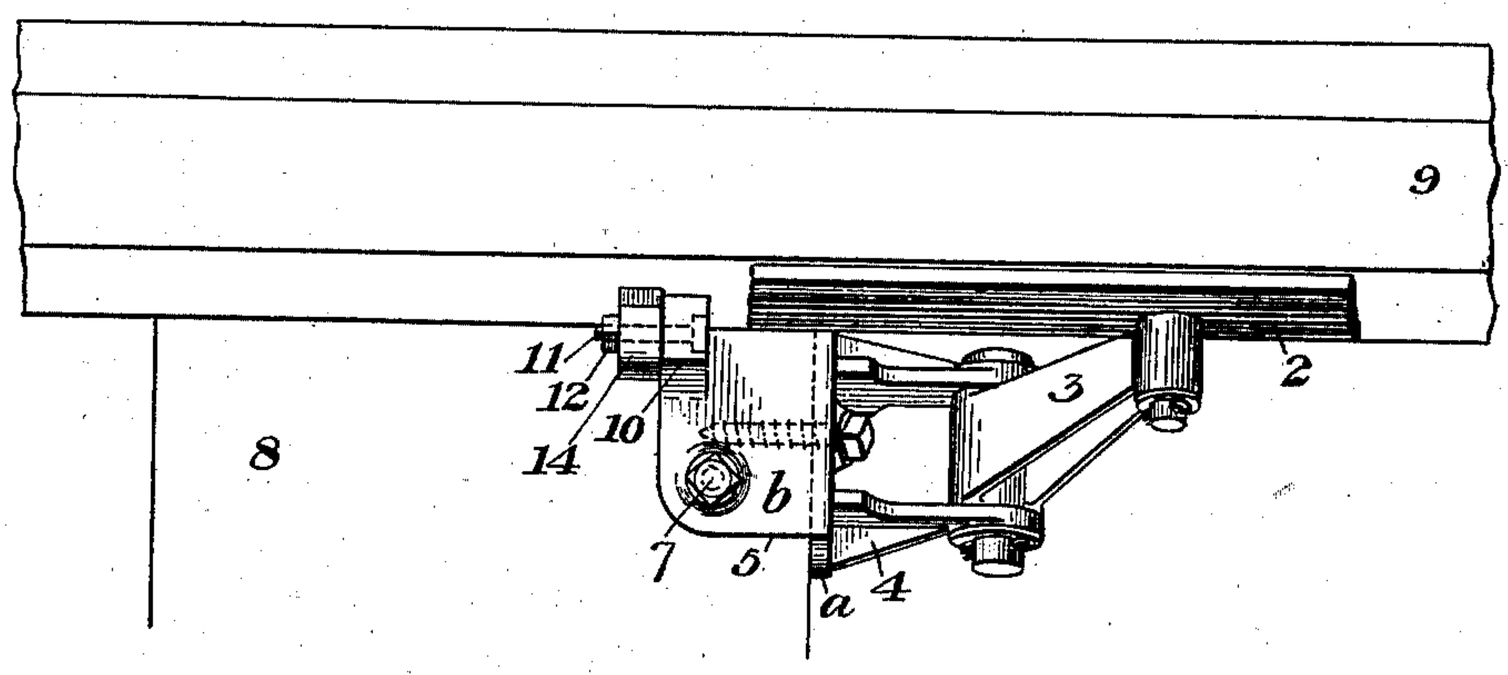
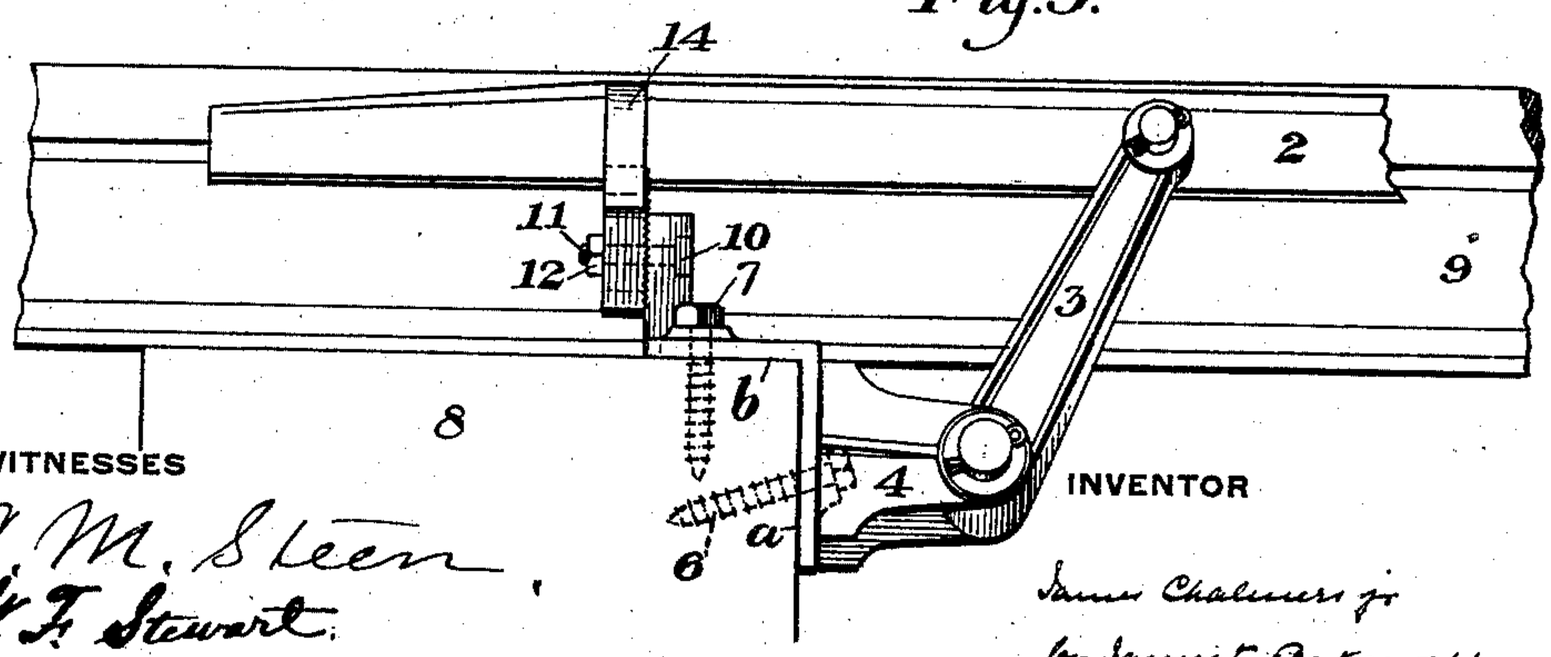


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DETECTOR-BAR CLIP AND STOP.

SPECIFICATION forming part of Letters Patent No. 698,451, dated April 29, 1902.

Application filed October 10, 1901. Serial No. 78,174. (No model.)

To all whom it may concern:

Be it known that I, JAMES CHALMERS, Jr., of Swissvale, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Detector-Bar Clips and Stops, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end view of the clip, showing the railroad-rail in cross-section and a car-wheel by dotted lines. Fig. 2 is a plan view of the railroad-rail, the clip, and a portion of the detector-bar. Fig. 3 is a side elevation of the same, showing the detector-bar stop; and Fig. 4 is a detached view of the adjustable stop.

Like symbols of reference indicate like parts wherever they occur.

The object of my invention is to provide simple and efficient means for securing the detector-bar in position alongside of the rail and to provide an adjustable and rigid stop whereby the movement of the detector-bar may be varied.

I will now describe my invention so that others skilled in the art may manufacture and use the same.

In the drawings, 2 represents the usual detector-bar, which may be used for any of the ordinary purposes, such as locking switch mechanism when a car or train of cars passes over the same. This detector-bar is pivoted to a pivotal link or radial arm 3 in the usual manner, and this arm is in turn pivoted to a bracket 4, extending from the body of the clip 5. The body of this clip 5 is formed of two plates or leaves *a* and *b* at an angle to each other and provided with screw or bolt holes, by means of which screws or bolts 6 and 7 are employed to secure the clip to the side and top of the railroad-tie 8 alongside of the railroad-rail 9. Extending vertically from the horizontal leaf *b* of the clip 5 is a post 10, through which extends a bolt 11, provided with a nut 12. This bolt passes through a slot 13 in the movable or adjustable detector-bar rest 14, which, owing to the slot, may be adjusted vertically by loosening and tightening the nut 12. This rest 14 is provided with a ledge or shelf 15, which is parallel with the top of the post 10 and serves as a rest for the bottom edge of the detector-bar 2. By adjusting the stop 14 up or down the height of the rest may be varied. The inner face of the stop 14, where it comes in contact with the post 10, and the outer face of the post are serrated or provided with teeth, so that when the stop is moved to a certain position and the nut is tightened on the bolt the teeth will prevent the stop from slipping.

The advantages of my improved clip are that it provides a simple method of fastening the detector-bar alongside of the rail, only two lag-screws being required, one being placed through the top leaf of the clip and extending down into the top of the railroad-tie and the other through the side leaf of the clip and extending into the side of the tie, thus dispensing with hook, bolts, nuts, and nut-locks and avoiding the danger of the fastenings becoming loose and shifting out of place. It also enables the use of a long link or radial arm for supporting the detector-bar, owing to the lowered position of the clip-bracket, which results in ease of operation and gives a proper rise to the detector-bar. It also enables either an adjustable stop to be employed by moving and securing in an elevated position the stop 14 or the use of a solid stop by lowering the stop 14 below the level of the post 10, in which case the top of the post acts as a fixed stop for the detector-bar. These and other advantages of my invention will be apparent to those skilled in the art.

Although I have described and shown a certain number of securing-screws, I do not desire to limit myself to the same, nor do I desire to limit myself to the exact shape and configuration of the parts as shown in the drawings.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A clip for supporting detector-bars, having a body formed of two leaves at an angle to each other, having a supporting-bracket extending from the lower leaf, to which bracket the supporting-arm of the detector-bar is to be pivoted, and having apertures or recesses for bolts or screws by which the clip is to be secured to the railroad-tie.

2. A clip for supporting detector-bars, consisting of leaves formed at an angle to each other for attachment to the tie, and having a bracket for the radial supporting-arm, extending from one leaf, and a detector-bar stop extending from the other leaf.

3. A clip for supporting detector-bars, consisting of leaves formed at an angle to each other for attachment to the tie, a bracket extending from one leaf, a fixed detector-bar stop extending from the other leaf, and a second stop adjustably secured to the fixed stop.

4. A clip for supporting detector-bars, consisting of two leaves formed at an angle to each other for attachment to the tie, a bracket extending from one leaf and a fixed stop from the other, and a second stop adjustably secured to the fixed stop, and serrations or teeth formed on the meeting faces of the fixed and adjustable stops.

In testimony whereof I have hereunto set my hand.

JAMES CHALMERS, JR.

Witnesses:

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