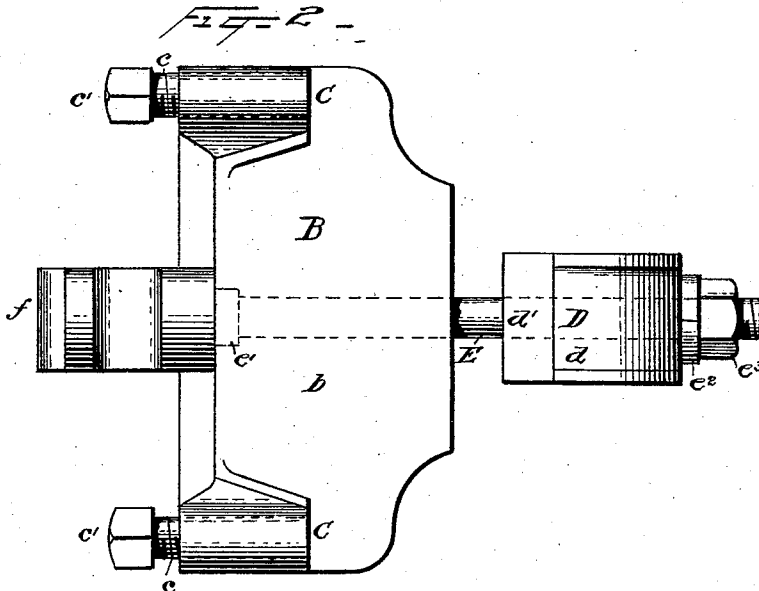
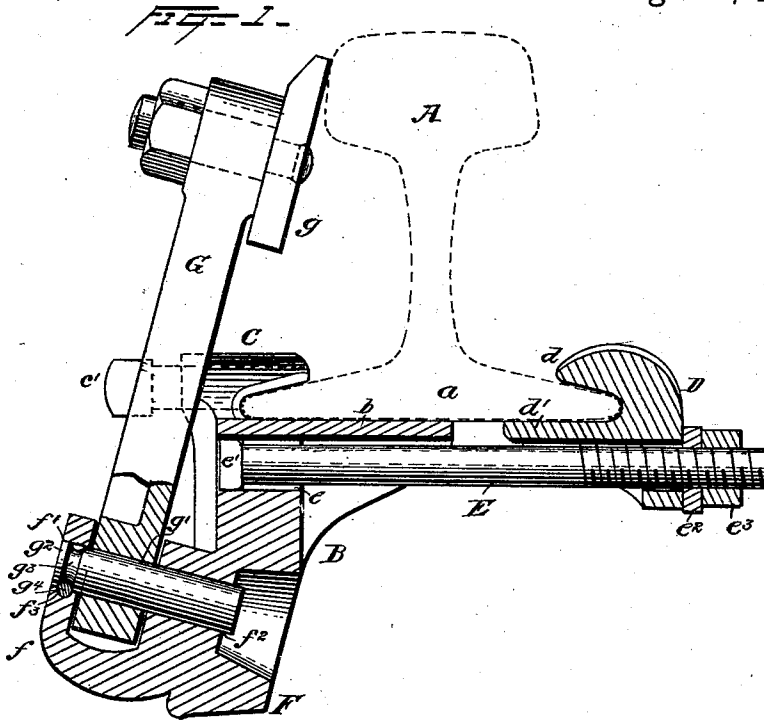


(No Model.)

C. HANSEL.
DETECTOR BAR CLIP.

No. 566,078.

Patented Aug. 18, 1896.



Witnesses
Lewis A. Clark.
John R. Taylor.

Inventor.
Charles Hansel
By his Attorneys
Dyer & Driscoll

UNITED STATES PATENT OFFICE.

CHARLES HANSEL, OF EASTON, PENNSYLVANIA.

DETECTOR-BAR CLIP.

SPECIFICATION forming part of Letters Patent No. 566,078, dated August 18, 1896.

Application filed January 6, 1896. Serial No. 574,421. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HANSEL, a citizen of the United States, residing at Easton, in the county of Northampton, in the State of Pennsylvania, have invented a certain new and useful Improvement in Detector-Bar Clips, of which the following is a specification.

This invention relates to detector-bar clips for railway-tracks.

As is well known in the art of railway-construction, detector-bars are commonly employed in connection with switch-points, their purpose being to guard against the shifting of the switch-point while a train is crossing the switch. These detector-bars commonly consist of long plates placed adjacent to the rails and acted upon by the flanges of the truck-wheels. In adjusting these plates in juxtaposition to the rail it has been found expedient to employ a device which will connect the detector-bar with the rail so as to at all times maintain it in proper relation thereto to be acted upon by the flange of the wheel. To this end clips have been employed having jaws movable relatively to each other and clamped around the bottom web of a rail by means of a bolt and nut. It has been found in practice, however, that these clips, which are placed upon the market as separate articles of manufacture, are not capable of use in connection with all of the various types of railway-rails, and that a clip designed to be used upon rails of certain sizes is liable, when clamped to a smaller rail, to slip. Should this take place, the detector-bar is disarranged and often made inoperative. The present invention is designed to overcome this difficulty by providing a clamping device which will be capable of use upon rails of widely-different types and sizes, and which shall preclude the objectionable slipping above referred to.

In the present construction the objection above referred to is overcome by the use of adjustable jaws; that is to say, jaws which are not only adjustable relatively to each other, but one of which is provided with mechanism which permits of an auxiliary adjustment as well as a positive grip upon the web of the rail. In addition these jaws grip the web of the rail not at one point along each side, but at two points on one side and at one

point on the other side intermediate of said two points.

In the drawings, Figure 1 is a sectional view of my improved detector-bar clip, and Fig. 2 is a top plan view thereof.

Referring to the drawings, in which similar letters of reference denote corresponding parts, A designates a railroad-rail of the usual type, provided with a bottom web *a*. B designates the main body of the clip. This is preferably cast in a single piece. It is provided with a base-plate *b* and jaws C C. As here shown, these jaws consist of lips projecting upwardly and outwardly from the base-plate *b* and at or adjacent to each end thereof. Within each jaw is a screw *c*, operating in a threaded perforation in the jaw, the end of each screw being beveled to conform generally to the contour of the web *a*. The opposite end of each screw is provided with a rectangular head *c'* to facilitate its adjustment. In this way the screws will be automatically prevented from being accidentally loosened under the jarring of the rail. It is to be understood, of course, that said screws may be made with tapering points, in which case they may be adjusted after the clip has been placed in position.

D designates a jaw adapted to coact with that side of the web *a* opposite the side which is engaged by the jaws C. This jaw is also preferably cast in a single piece, and consists of the base *d'* and the jaw proper, *d*.

E designates a bolt passing through a perforation *e* in the main body of the clip and through a sleeve preferably formed integral with the jaw D. This bolt is provided with a head *e'*, so as to preclude its movement entirely through the main body of the clip, and its opposite end is screw-threaded and provided with a spring-washer *e²* and nut *e³*. Said washer and nut, acting against the outside of the jaw D, serve to force the latter toward the main body B of the clip, and therefore toward the jaws C C thereof.

The main body B is provided with a downward extension F, and the extremity of this extension is prolonged and turned upwardly at *f*. This extension is provided with a perforation *f'*, and the portion F is also provided with a perforation *f²* coincident therewith.

G designates the rocking lever, secured at

its upper end by means of a bolt and nut to the detector-bar g . The lower end of this rocking lever is provided with a perforation g' to receive the axle g^2 . The axle g^2 is provided near its outer end with an annular groove or recess g^3 , and the portion f of the extension F is provided with the perforation f^3 , so as to permit the key g^4 to be received therein.

10 In operation the two parts of the clip are placed on opposite sides of the bottom web a of the rail, the auxiliary screw-jaws c having been first properly adjusted. The nut b^2 is then tightened upon the bolt, and by reason
15 of the firm grip made possible by the construction of the jaws above described the clip as a whole is rigidly secured to the rail. This grip, as will be noted, is at two points upon one side of the web a , and the point upon the
20 other side of the web with which engages the jaw D is at a point about midway between the jaws C . This conduces to the security of the fastening. The rocking detector-bar G is then placed within the recess between the
25 extension F and the upturned portion f and the axle g placed through the perforation f^2 in the latter, through the perforation g' in the end of the rocking detector-bar, and through

the perforation f' in the extension f . When the annular recess or groove g^3 coincides with the perforation f^3 in the upward extension f , the key g^4 is passed through said perforation f^3 and into said recess or groove g^3 , thereby securely holding the axle g^2 in position.

I claim—

1. In a detector-bar clip, the combination with a rail, of jaws located on opposite sides thereof and adjustable relatively to each other, and adjustable auxiliary jaws within one or more of the first-named jaws, whose ends contact with said rail, substantially as set forth.

2. In a detector-bar clip, the combination with a rail, of jaws located on opposite sides thereof, a bolt for adjusting said jaws relatively to each other, and adjustable auxiliary jaws within one or more of the first-named jaws, having beveled ends for engaging with the web of the rail, substantially as set forth.

This specification signed and witnessed this 31st day of December, 1895.

CHARLES HANSEL.

Witnesses:

ROBERT H. RUDOLPH,
GEORGE W. GRISER.