(No Model.)

G. R. CAMPBELL.

GUARD RAIL.

No. 437,975. Patented Oct. 7, 1890.

Fig. 1

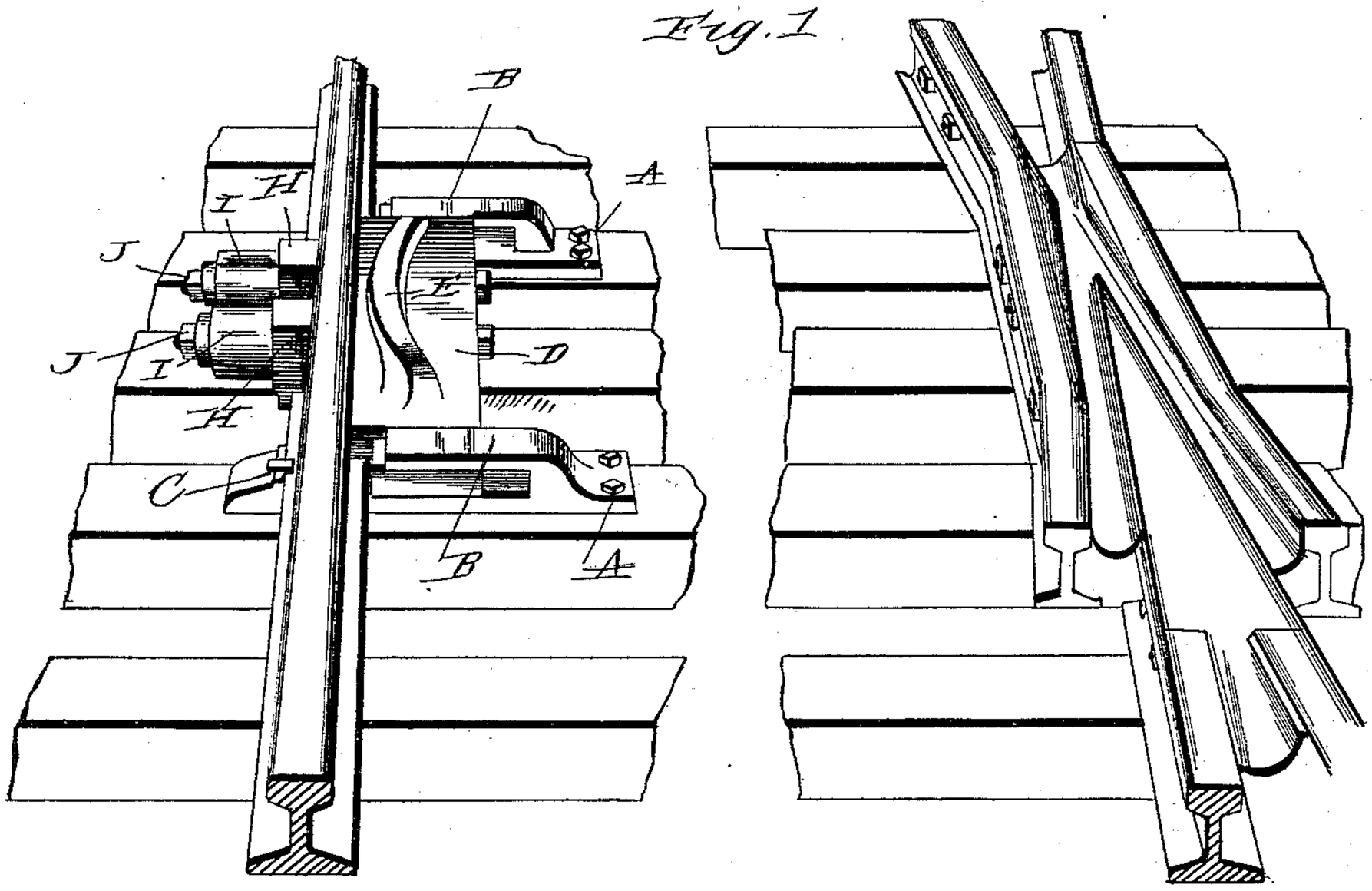
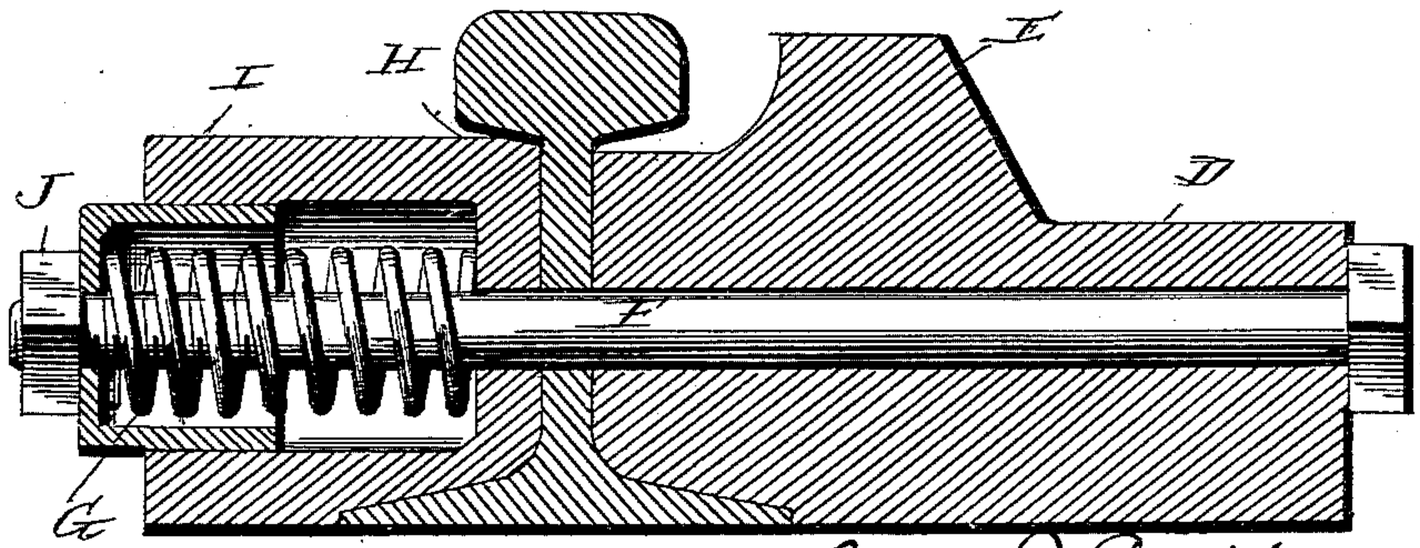


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE R. CAMPBELL, OF BUCYRUS, OHIO.

GUARD-RAIL.

SPECIFICATION forming part of Letters Patent No. 437,975, dated October 7, 1890.

Application filed December 28, 1889. Serial No. 335,202. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. CAMPBELL, a citizen of the United States, residing at Bucyrus, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Guard-Rails; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in guard-rails for railroad-tracks; and it consists in certain novel features hereinafter described and claimed.

The object of my invention is to provide a guard-rail which will automatically adjust itself to the width of the flanges of the car-wheels, and which will be so constructed as to positively guide the wheels along the track and to prevent the foot of a person crossing the track being caught between the rail and the guard.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a railroad-track with my improved guard-rail applied thereto. Fig. 2 is a transverse section of the improved device.

In putting my invention into practice I secure to the ties opposite the frog or switch the chairs A A, which are provided on their upper sides with the horizontal lips or guides B, and the said lips or guides extend outward from the inner ends of the chairs toward the track-rail.

On the outer ends of the chairs I form the shoulders C, which bear against the edge of the rail-flange, and thereby insure the chairs and the rails being secured at the proper point.

The guard D has its ends resting on the chairs below the lips or guides B, and is provided on its upper side with a longitudinally-curved rib or flange E, as clearly shown. The body of the guard extends under the rail, and it is held to the rail by the bolts F, passing through the guard and the rail, and the springs G, which are coiled around the bolts and bear against the vertical blocks or stops H, arranged adjacent to the track-rail. The springs are inclosed by the casings I, and their tension is regulated by nuts J, mounted on the threaded ends of the bolts F and adapted to be turned up against the springs.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that I have provided a very simple guard-rail, and the operation and advantages of the same will, it is thought, be readily understood. When a car approaches a crossing, the flange of the car-wheel will enter the space between the curved rib of the flange on the guard and the track-rail and will pass through the said space, being thereby prevented from moving from the track, as will be readily understood. In the normal position of the parts the springs draw the guard up close against the track-rail, so that there will be no open space in which the foot of a person crossing the track can be caught. The springs readily yield, furthermore, to allow the guard to accommodate itself to the thickness of the wheel-flange, and after the car has passed at once automatically return the guard to its normal position. The curved formation of the rib or flange on the guard enables it to be positively engaged by the flange of the car-wheel, notwithstanding the fact that the said flange may be a slight distance from the track-rail. The chairs furnish a firm and steady support for the track-rail and the guard and prevent the guard moving in a vertical plane so as to become inoperative. The springs, it will be noticed, are entirely inclosed, so that they will be protected from dust and be prevented from being broken by sharp blows, and the entire device is compactly arranged, and is strong and durable.

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

1. A guard-rail consisting of a sliding guard arranged adjacent to the track-rail and having a longitudinal rib on its upper side, the ends of said rib being curved away from the track-rail, as set forth.

2. The combination of the chairs having the horizental lips or guides, the guard having its ends resting on the chairs below said lips or guides, and the springs acting on the guard, as set forth.

3. The combination of the chairs arranged transversely to the track-rail, the guard having its ends resting on said chairs, and the springs acting on the guard to hold it normally against the track-rail, as set forth.

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

GEORGE R. CAMPBELL.

Witnesses:

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