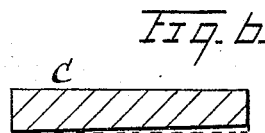
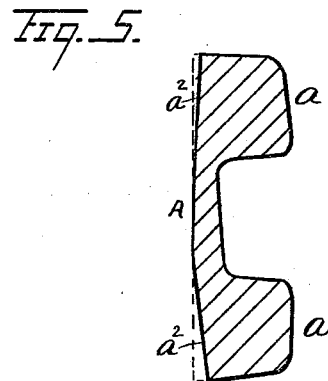
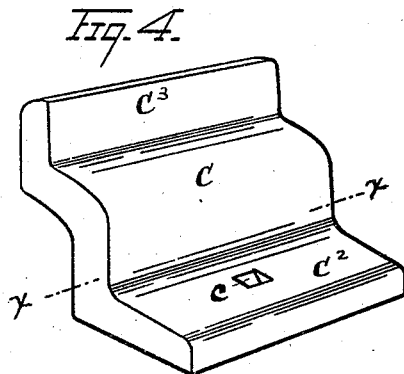
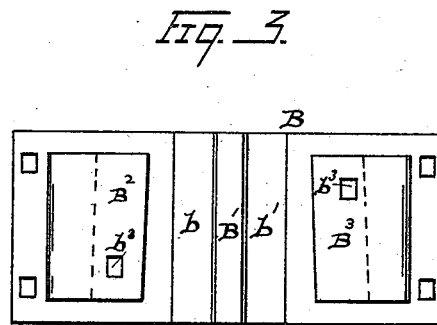
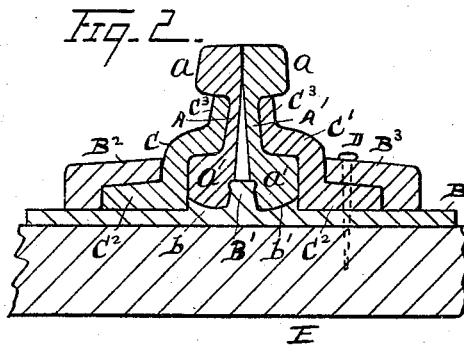
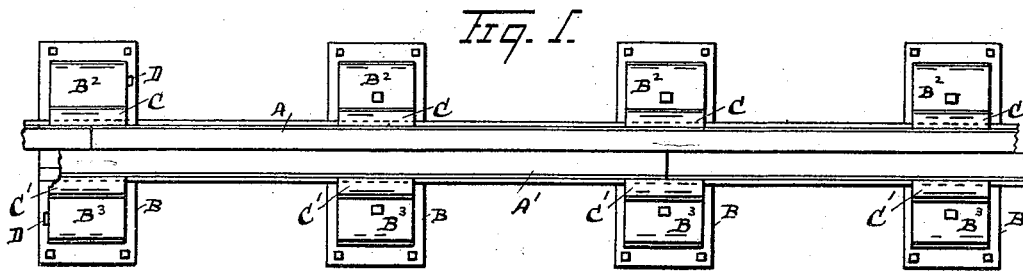


(No Model.)

A. BAGLEY.  
CONTINUOUS RAIL.

No. 493,233.

Patented Mar. 7, 1893.



Witnesses  
John Schuman.  
John F. Miller.

Inventor  
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M. Wells Wright.

# UNITED STATES PATENT OFFICE.

ALLEN BAGLEY, OF YPSILANTI, MICHIGAN.

## CONTINUOUS RAIL.

SPECIFICATION forming part of Letters Patent No. 493,233, dated March 7, 1893.

Application filed April 25, 1892. Serial No. 430,452. (No model.)

*To all whom it may concern:*

Be it known that I, ALLEN BAGLEY, a citizen of the United States, residing at Ypsilanti, county of Washtenaw, State of Michigan, have invented a certain new and useful Improvement in Continuous Rails; and I 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, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in a continuous rail for railways, and consists of the combination of devices, their construction and arrangement, hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view illustrating my invention. Fig. 2 is a vertical cross section through one of the clamping devices. Fig. 3 is a separate plan view of one of the chairs. Fig. 4 is a separate view of one of the clamping wedges. Fig. 5 is a vertical section of one of the rails A A'. Fig. 6 is a section on the line  $x-x$  Fig. 4.

I carry out my invention as follows: In the construction of my improved continuous rail I employ a double rail, constructed of two duplicate rails A and A', lying side by side, and secured firmly in position so that the upper edges of the two rails form a single tread. The two rails A A' are arranged to break joints at their extremities, thereby forming a continuous combined rail. By thus breaking joints and making a continuous rail the double rail, is evidently noiseless. These rails are also each made reversible, so that, should occasion demand, each may be turned upside down. Thus the rails are doubly durable. To these ends each rail is constructed with flanges "a" and "a'" at the upper and lower sides respectively, the flanges projecting outward, the united rails forming a T-shaped tread. At the base said rails are spread apart as shown. This arrangement may be readily effected by slightly beveling the adjacent inner faces of said rails at the top and bottom as shown at "a<sup>2</sup>" for a little distance from the upper and lower sides, an inch or so, for example. Otherwise the inner faces of said rails

are straight. In this form the rails are easily rolled. By slightly beveling the two inner faces, thus, at top and bottom, the divergence of the rails at their base throws their upper edges inward firmly toward each other, so that a wheel traveling thereon crowds the two rails together adjacent to the tread.

B denotes a chair located at proper intervals beneath the rails A A', and which may be made of cast metal. Each of these chairs is constructed with seats "b" "b'" to receive the lower edges of the rails A A', and with an intermediate separating flange B' projecting upward between the lower portions of the rails to hold them spread apart at the base to insure the crowding together of the upper portions of the rails. As an additional aid the upper portion of the flange B' may be constructed with lateral beads entering corresponding grooves in the adjacent rails. I do not, however, limit myself to this provision of the beads and grooves. The outer ends of the chair are constructed with clamping arms B<sup>2</sup> B<sup>3</sup> projected inward toward the rails. Clamping wedges C C' are constructed with a lateral lower flange C<sup>2</sup> and an upwardly projecting flange C<sup>3</sup>. The flange C<sup>2</sup> is driven into place under the corresponding clamping arm of the chair, the upper flange C<sup>3</sup> lying adjacent to the body of the adjacent rail, the upper edge of said flange projected upward underneath and adjacent to the under surface of the corresponding lateral flange forming a portion of the tread of the combined rail. The intermediate portion of the clamping wedge extends over the lower lateral flange of the adjacent rail between it and the inner edge of the clamping arm. The lateral flange C<sup>2</sup> of the clamping wedge is constructed with a wedge shaped outer edge, the adjacent face of the chair being shaped of a corresponding form. The inner edge of each clamping arm is also wedge shaped so that the clamping wedge is wedged against the chair along two points, viz: at the edge of the lateral flange C<sup>2</sup>, and at the inner edge of the adjacent clamping arm. In driving the clamping wedge home, therefore, a very firm and strong engagement is made of the chair, the clamping wedges on both sides, and intermediate rails. The chair with its clamping arms and the wedges driven into proper engagement there-

with, thus afford a strong and firm clamping device, engaging and holding the two rails on each side in a most secure manner. When the clamping wedges are driven home, a spike D is driven through the chair into the underlying tie E preventing the clamping wedge from working loose and holding the rail and chair firmly upon the tie.

I do not limit myself to any specific location of the spikes. The spike holding the clamping wedge in place may be driven into the tie at the end of said wedge, or through the clamping arm. In the latter case the clamping arm is constructed with spike sockets "b<sup>3</sup>" and the edge of the clamping wedge with a corresponding recess "c" registering with the corresponding socket "b<sup>3</sup>" when the wedge is driven home so that a spike may be driven therethrough. In this case the spikes may be driven at an angle into the underlying tie, the angles of the two spikes at opposite ends of the chair being reversed in direction. In two adjacent chairs the clamping wedges may be entered and driven home in opposite directions to more effectually clamp the rail. In this manner the rails may be most securely held in place and all liability of the creeping of the rails effectually prevented. It will be observed that each of the rails A A' is free to expand and contract independently of the other. No fish plates are required. No bolts are employed. There are no nuts to work loose. Consequently the objections common to rails in ordinary use from loss of the nuts, the breakage of bolts, and the disconnection of fish plates are entirely overcome. Such a continuous rail, it is evident, is of great utility on elevated roads owing to its being noiseless. The two halves of the completed rail, thus united, form a firmer support for a train than ordinary rails in use, as the completed rail is somewhat heavier. For this reason the ties may be located farther apart thereby effecting an additional saving aside from dispensing with fish plates, nuts and bolts.

The dotted lines in Fig. 3 show the wedge face of the chair adjacent to the outer edge of the flange C<sup>2</sup> when in place.

What I claim as my invention is—

1. A continuous T-rail formed of two rails located side by side, each constructed with outwardly extended flanges having their faces opposite said flanges located adjacent one to the other at the top and spread at their base, said rails breaking joint and having in combination therewith clamping devices to hold said rails firmly together, substantially as described.

2. A continuous rail formed of two rails located side by side, constructed with laterally extended flanges having their faces opposite

said flanges beveled in opposite directions at the top and bottom from the upper and lower edges of the rail inward toward the middle thereof, and clamping devices to hold said rails firmly together, substantially as described.

3. A continuous rail formed of two like reversible rails located side by side, each constructed with outwardly extended flanges at the top and bottom thereof and breaking joints at their extremities, said rails spread apart at their base and held in close juxtaposition at the top, and clamping devices to firmly engage said rails, substantially as described.

4. A continuous rail having in combination two like rails located side by side and formed with lateral flanges at the top and base thereof, chairs each constructed with clamping arms turned inward toward the rail, and clamping wedges having a wedged engagement with the clamping arms of the chair and with the lower flange and adjacent body of the rail, substantially as described.

5. A continuous rail formed of two like rails located side by side, having in combination therewith supporting chairs each constructed with seats for said rails, with a flange separating the rails at their base, and with clamping arms, and clamping wedges having a wedging engagement with the clamping arms and adjacent portions of the rails, substantially as described.

6. A continuous rail having in combination two like rails located side by side constructed with lateral flanges at top and bottom, chairs supporting said rails each formed with clamping arms, and wedges engaging the clamping arms and rails, each of said wedges constructed with a lateral flange at the base and an upwardly projected flange at the upper side, the lateral flange thereof having a wedging engagement under the adjacent clamping arm, and the upper flange extending along the body of the rail under the upper flange thereof, the intermediate portion of the wedge having a wedging engagement between the lower flange of the adjacent rail and the adjacent edge of the corresponding clamping arm of the chair, substantially as described.

7. A rail A constructed with flanges a a' extending laterally from one side thereof at the top and bottom, the opposite side of said rail beveled from the upper and lower edges of the rail toward the middle thereof, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

ALLEN BAGLEY.

Witnesses:

F. J. GRIFFEN,  
ZINA BUCK.