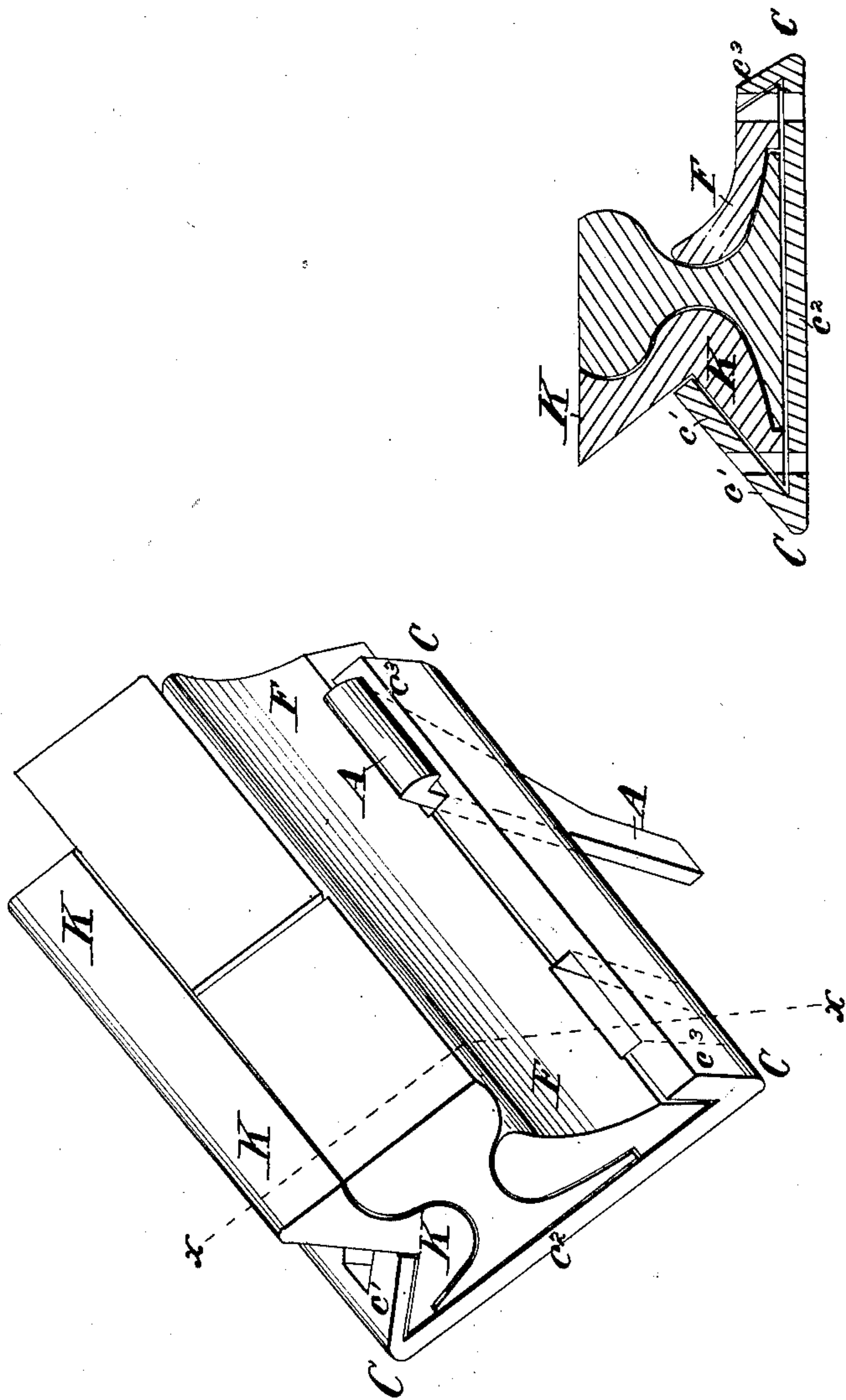


J. E. WATKINS.
RAILROAD RAIL CLAMP OR CHAIR.

No. 73,679.

Patented Jan. 21, 1868.



Witnesses:
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JOHN E. WATKINS, OF SMITHFIELD, KENTUCKY.

Letters Patent No. 78,679, dated January 21, 1868.

IMPROVED RAILROAD-RAIL CLAMP OR CHAIR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN E. WATKINS, of Smithfield, in the county of Henry, and State of Kentucky, have invented a new and useful Improvement in Railroad-Clamp; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved clamp attached to the ends of two rails.

Figure 2 is a vertical cross-section of the same taken through the line *z z*, fig. 1.

Similar letters of reference indicate corresponding parts

My invention has for its object to furnish an improved clamp for railroad-rails, by means of which the end of the rails may be kept in line, both vertically and horizontally, with each other, and which shall hold the ends of the rails firmly and securely at the same time that it does not interfere with their contraction and expansion; and it consists in the inclined flange upon the outer edge of the upper side of the base-plate to support and brace the brace-key; in the inclined flange upon the inner edge of the upper side of the base-plate to support and brace the key and spikes; in the wedge-shaped keys for tightening the rails in the clamp; and in the wedge-shaped spikes for holding and wedging the key; the whole being constructed and arranged as hereinafter more fully described.

C is the clamp, which is made of wrought iron, and which may be made of any desired length. C¹ is a flange formed upon or attached to the outer edge of the upper side of the bed-plate C², and which inclines upward and inward, as shown in fig. 2. C³ is a flange formed upon or attached to the inner edge of the upper side of the bed-plate C², and which inclines upward and inward in the same manner as the flange C¹, but does not rise as high as said flange C¹. The outer side of the clamp C is secured to the ties by ordinary spikes passing down through holes in the flange C¹ and bed-plate C², and its inner side by peculiarly-shaped spikes A, hereinafter more fully described. K is the brace-key, which is made of wrought iron, and the inner side of which fits accurately upon the outer side of the rails, and it extends upward, so that its top or upper edge may be flush with the top of the rails, so as to overlap the ends of the adjacent rails, thus forming a continuous bearing for the car-wheels, and preventing the ends of said rails from being injured by the said wheels. The dove-tailed seat for the rails, formed by the flanges C¹ and C³, is made wider than the base of the rails, and the lower part of the brace-key K passes down at the side of the base of the said rails, rests upon the bed-plate C², and has notches formed in its outer edge, which fit upon the spikes and prevent the said brace-key from being moved longitudinally. F is the clamping-key, which is made of wrought iron, and is so formed as to fit between the inner sides of the rails and the inner flange C³, so as to wedge or clamp all the parts closely together. The key F is made a little wedge-shaped, so that, should the parts wear loose, they may be again tightened by driving in the key F, or by drawing it in by the wedge-shaped spikes A. The spikes A pass down through notches in the inner edge of the flange C³, through holes or slots in the outer edge of the key F, and through holes or slots in the bed-plate C². The lower part of the spikes A, that are driven into the ties, are made in the form of ordinary spikes, but their upper part is made broad, and one edge is made inclined or wedge-shaped, as shown in fig. 1, so as to draw the key F farther into the clamp, and tighten the parts should they wear loose. The upper parts of the spikes A project upward above the clamp, are at such a distance from the rails that the flanges of the car-wheels will pass between them and the rails, and are supported or braced by the upper edge of the flange C³, so as to strengthen and hold them in position.

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

1. The combination of the flanged clamp C, brace-key K, and tightening-key F, when secured in position upon the rails by means of the spikes passing through the flange C¹, the key K and the base-plate C² upon the outside of the rail, and by the wedge-shaped spikes A, passing through the flange C³, key F, and base-plate C² upon the inside of the rail, as herein shown and described for the purpose specified.

2. The combination of the flanged or dove-tailed clamp C, brace-key K, tightening-key F, and wedge-shaped spikes A, with each other, substantially as herein shown and described and for the purpose set forth.

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Witnesses:

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