

C. F. ARNOULD.
RAILROAD RAIL-JOINT.

No. 177,785.

Patented May 23, 1876.

Fig. 1

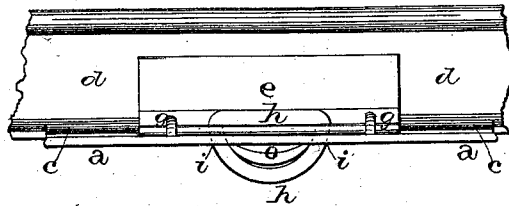
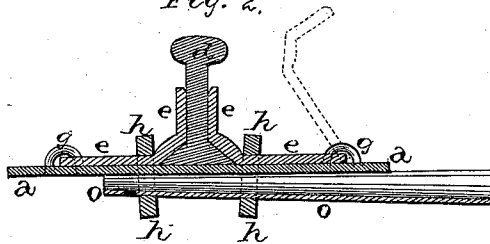


Fig. 2.



WITNESSES:

J. W. Garner,
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INVENTOR=

C. F. Arnould
per
F. A. Lehmann, atty.

UNITED STATES PATENT OFFICE.

CHARLES F. ARNOULD, OF TITUSVILLE, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-RAIL JOINTS.

Specification forming part of Letters Patent No. **177,785**, dated May 23, 1876; application filed April 20, 1876.

To all whom it may concern:

Be it known that I, CHARLES F. ARNOULD, of Titusville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Rail Joints; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in railroad connection-locks for uniting the ends of rails; and it consists in the arrangement and combination of parts which will be more fully described hereinafter, whereby the usual fish-plates, bolts, and the making of holes in the rails are entirely done away with, and at the same time a stronger and a better lock produced.

The accompanying drawings represent my invention.

a represents the bed-plate, which is made long enough to extend from tie to tie, and which has four stays, *c*, formed upon its face, two of which catch against the sides of each rail near its end, and thus prevent any side motion or displacement. Hinged to each edge of the plate *a*, just opposite where the ends of the two rails *d* meet, are the two clamps *e*, so shaped at their inner edges as to catch over the flanges formed on the lower edges of the rail, and against the sides of the rail, and thus hold it firmly and securely in position. By hinging these clamps *e* to the bed-plate by means of the staples *g*, the clamps can never

be displaced or lost, even if left open and out of use, and the whole lock can be put together ready for use in the shop, and sent to the field. Passing through each clamp is a link, *h*, which extends downward through a slot, *i*, in the bed-plate sufficiently far to have a wedge, *o*, driven through it, as shown. The wedge is of a concave semi-cylindrical form, and, passing through both links, it draws both clamps down tightly upon the rails.

It will be readily seen that the usual fish-plates and bolts are done away with, and that no cutting of the edges of the rail or drilling holes through them is necessary. It can be adjusted between ties, and in a moment of time; it saves labor and time in applying them; does not interfere with the expansion of the rails; it holds the ends so firmly that they cannot be bruised by shaking or jarring; besides many other advantages which will readily suggest themselves to those familiar with the usual fastenings.

Having thus described my invention, I claim—

1. The combination of the bed-plate *a*, clamps *e*, and staples *g*, substantially as shown.

2. The combination of the clamps *e*, having the links *h* secured thereto, slot *i*, and wedge *o*, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of April, 1876.

CHARLES F. ARNOULD.

Witnesses:

WM. H. McDONALD,
A. E. LAPP.