

H. I. Beach,

Rail Joint.

No. 86,897.

Patented Feb. 16, 1869.

Fig. 1.

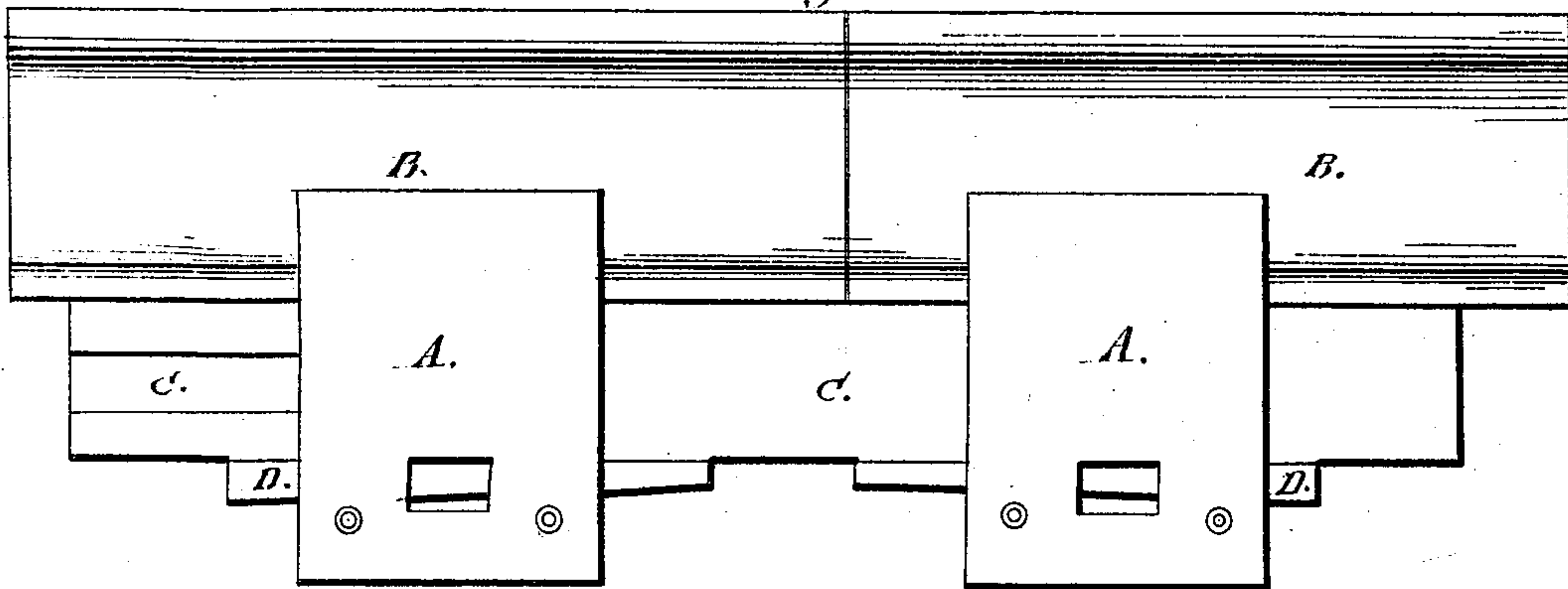


Fig. 2.

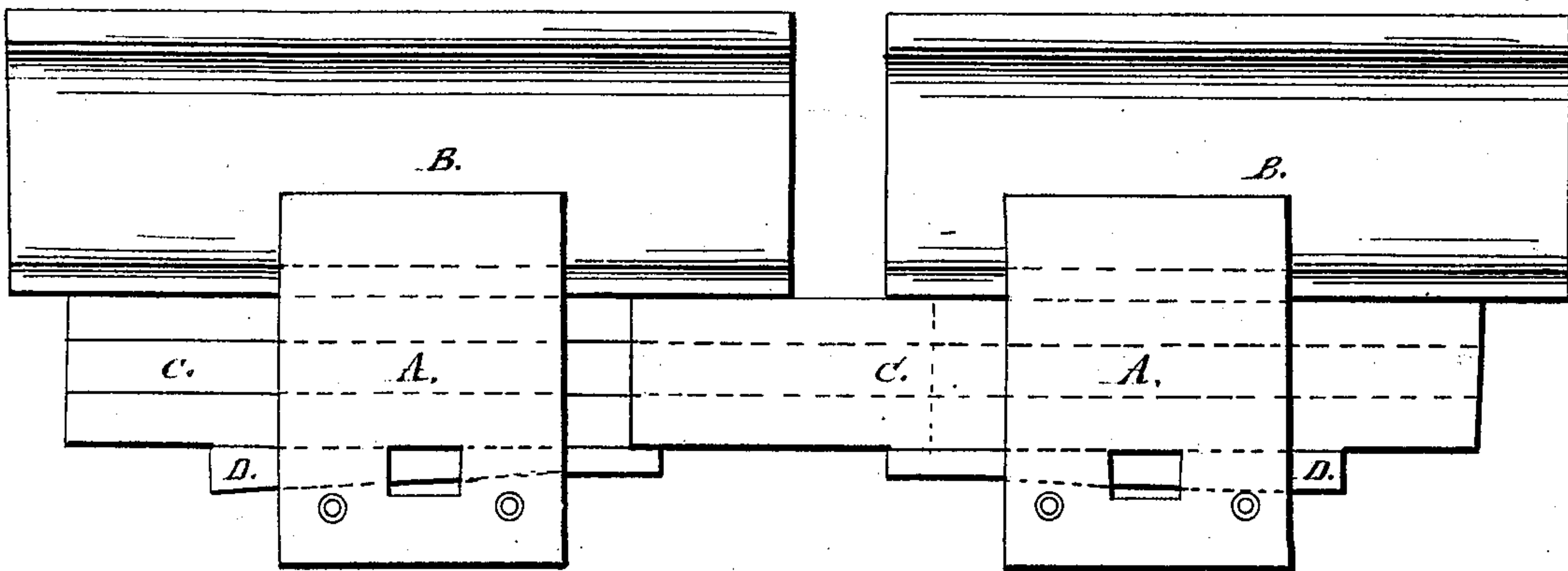
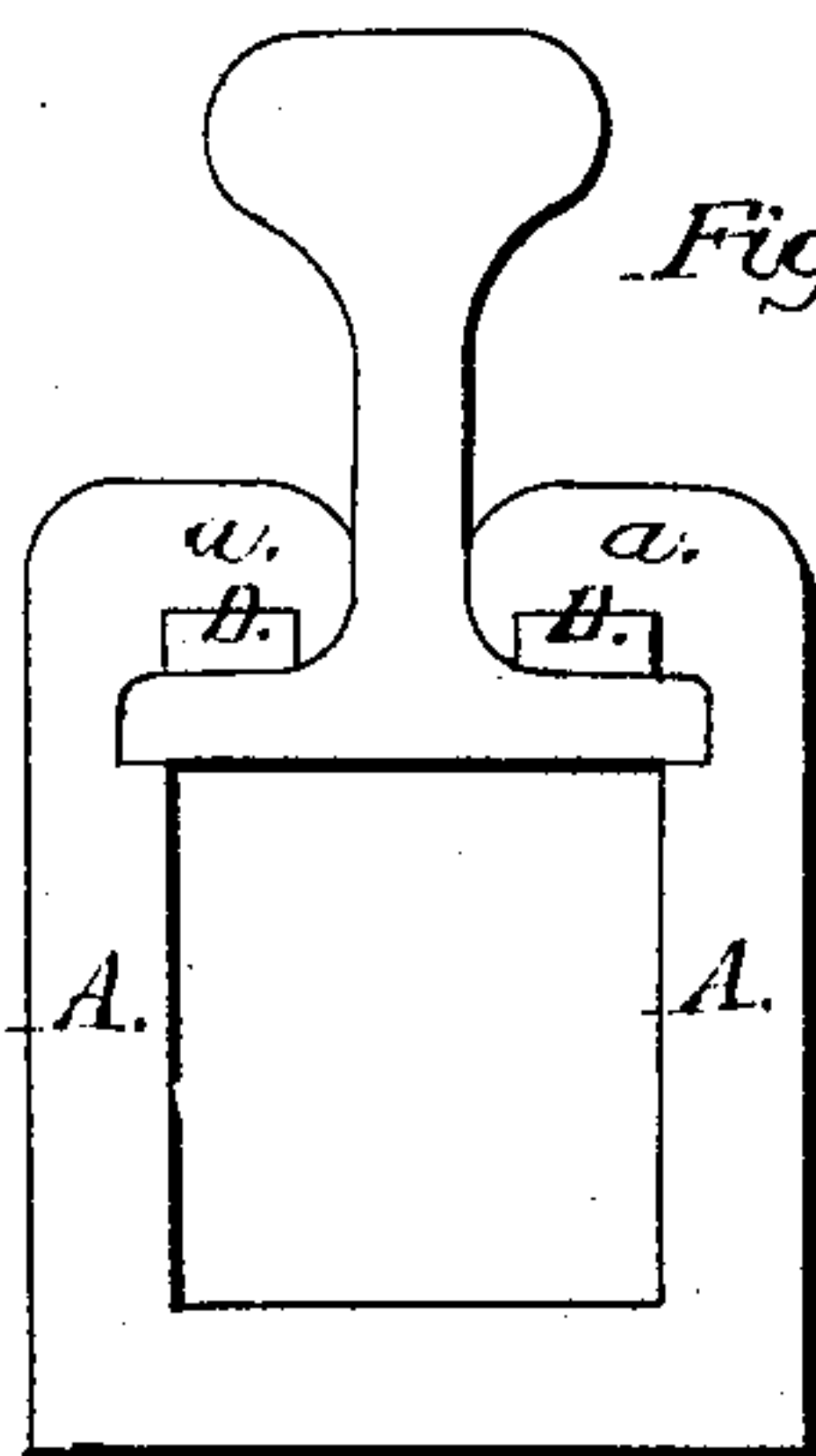


Fig. 3.



WITNESSES:

Geo. J. Gordon
J. W. Hunter

INVENTOR:

H. I. Beach
per Attorney
attorney.

United States Patent Office.

H. L. BEACH, OF MONTROSE, PENNSYLVANIA.

Letters Patent No. 86,897, dated February 16, 1869.

CHAIR FOR COUPLING RAILWAY-RAILS.

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, H. L. BEACH, of Montrose, in the county of Susquehanna, Pennsylvania, have invented, made, and applied to use new and useful Means for Coupling Railroad-Rails; and I do declare that the following is a full, clear, and correct description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation of my improved method of coupling rails.

Figure 2 is a sectional view of the same, the sections of rails to be coupled being shown separated from each other.

Figure 3 is a modification of the present invention.

In the drawings, like parts of the invention are designated by the same letters of reference.

The nature of the present invention consists in a new and improved mode of holding rigidly, or nearly so, the two ends of adjoining railroad-rails, with their top or upper surfaces parallel with each other, so that the end of one rail cannot be depressed (as the train passes over it) below its neighbor or adjoining rail, thus lessening the tractive force required for propelling cars, and preventing the constant hammering and battering of the ends of railroad-rails by the wheels of railroad-trains, when passing over them, provision being made, at the same time, for the necessary expansion and contraction of the rails, caused by heat and cold.

To enable those skilled in the arts to make and use my invention, I will describe the construction and operation of the same.

A shows two chairs or clamps, which are generally made of one piece of metal, which chairs receive the sections of rail to be coupled.

These chairs are provided with the projecting cheeks *a*, beneath which the sections of rail are passed, so that the cheeks *a* have a bearing upon the lower portion of the sections of rail.

Directly beneath the sections B of rail, when placed within the chairs or clamps A, I place a secondary or auxiliary rail, C, which, in the present instance, is made up of two sections, one of which is grooved longitudinally upon its side, while the other section is provided with a tongue fitting snugly into the groove upon the other section.

These sections, constituting the secondary or auxiliary rail, are held in position, within the chairs or clamps A, by means of wedges D, or by any mechanical equivalent.

The sections C are tongued and grooved, that the sections of rail B, supported and coupled by the means just described, may be free to expand and contract, as the changes of the temperature may demand.

Such being the construction, the operation is as follows:

The sections of rail B having been secured within the chairs or clamps, as shown, and the sections of the auxiliary or secondary rail having been also secured within these chairs or clamps A, the sections of rail may be brought into contact with each other, the projecting end of one section of the auxiliary or secondary rail entering within the chair in which the opposite section is secured, and *vice versa*, the chairs or clamps occupying a position between the railroad-ties, which serves to steady and hold the same in place.

It will be seen that when thus coupled, it will be rendered almost impossible for the end of any one rail to be depressed below the end of the adjoining rail, and that the depression caused by the passage of a train of cars over the rails thus coupled, must affect both rails equally, or cause both to be depressed alike.

The saving alone, in the wear or tear of railroad-rails, by the use of my mode of coupling, will be found very great, while the power to propel heavy trains will be diminished, and the jarring motion and accidents, now of frequent occurrence, from battered rails, will be avoided.

Various modifications of my invention may be enumerated. In fig. 3, the wedges D are driven directly between the cheeks of the chair or clamp and the rail. The sections of the auxiliary rail may be extensions of the chairs or clamps; or, instead of being made in sections, this rail may be of one entire piece, in which case a broad key may be driven between the rail and the point of junction of the rails; or a plate may be placed between the rail and the sections of rail to be coupled, and a key or keys may be driven between the rail and the rails, or the secondary rail, or sections of the same, may be made wedge-shaped and self-tightening.

Having thus described my invention,

What is claimed as new, is—

The combination, with the rails B, of the chairs or clamps A, and auxiliary or secondary rail C, when the same shall be constructed and combined substantially as and for the purposes fully explained.

H. L. BEACH.

Witnesses:

A. SIDNEY DOANE,
H. W. HENLEY.