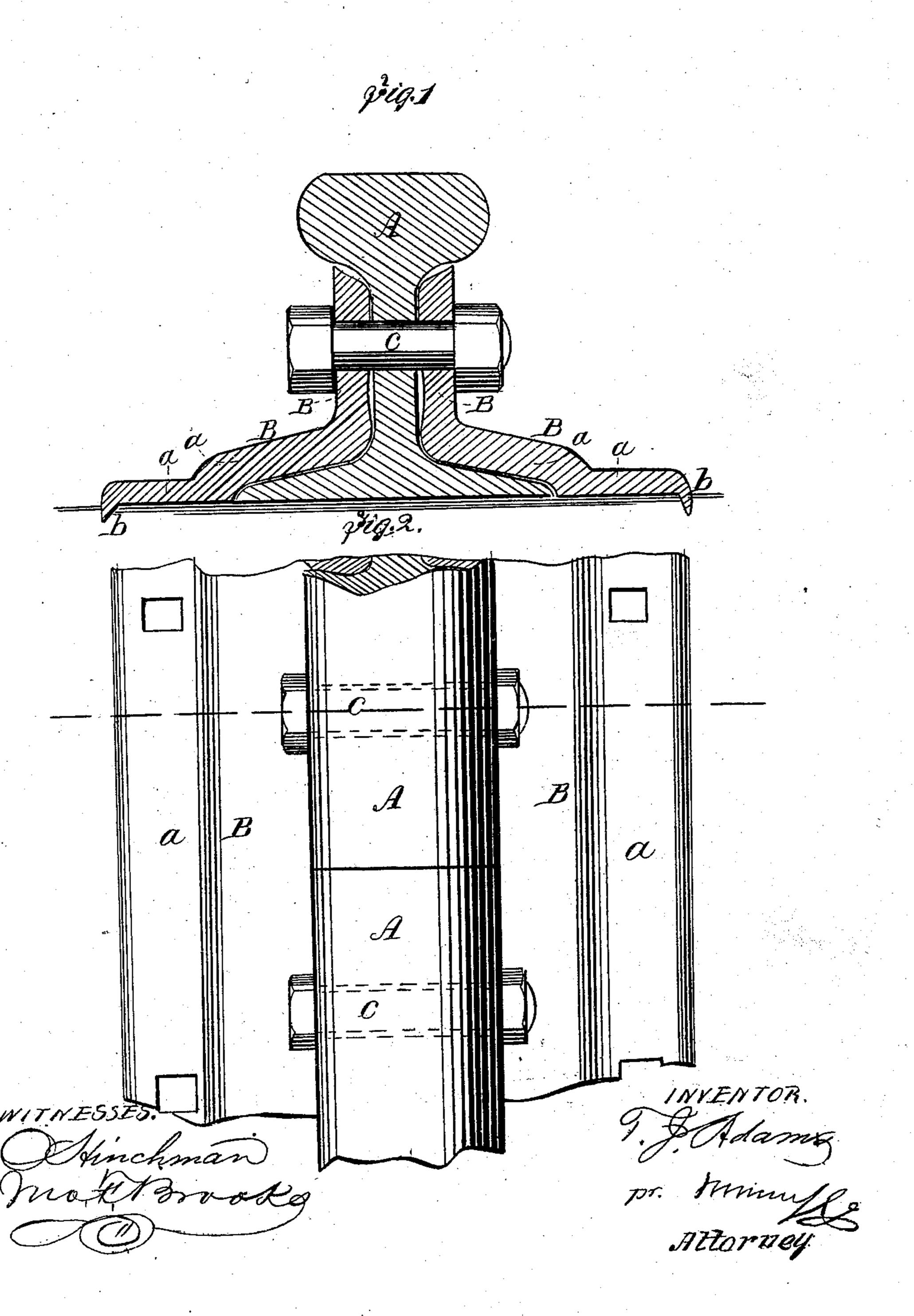
T. J. ADAMS.
RAILWAY RAIL SPLICE AND CHAIR.



## UNITED STATES PATENT OFFICE.

THOMAS J. ADAMS, OF PORTSMOUTH, OHIO.

## IMPROVED RAILWAY-RAIL SPLICE AND CHAIR.

Specification forming part of Letters Patent No. 93,393, dated August 10,1869.

To all whom it may concern:

Be it known that I, Thomas J. Adams, of Portsmouth, in the county of Scioto and State of Ohio, have invented a new and Improved Combination Fish-Bar and Railroad-Chair; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others 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 represents a vertical transverse section of my combined fish-bar and railroad-chair. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new mode of securing the joints of railroad-rails in a strong, durable, and economical manner, and of increasing the bearing-surface or base of the same on the sleeper to any desired extent.

The invention consists in a new combined railroad-chair and fish-joint, which is applied without notching the rail, and which is clutched to the sleeper, so as to prevent lateral displacement.

A A in the drawing are the contiguous, ends of two rails. B B are the two fish-plates, which are formed with outward-projecting flanges a, that lap over the base of the rails, and extend and rest upon the sleeper. Sharpedged downward-projecting ribs b are formed on the lower surfaces of the bases a of the

chair. These ribs or clutches are forced into the sleeper, and prevent lateral displacements of the rail-joint. The plates B are fitted flush against the sides of the rails, and are fastened thereto by means of bolts c c. Spikes are also used to fasten them to the sleeper. The upper edges of the plates B support the heads of the rails.

The strain in this device does not come directly upon the bolts, but is equally divided between the rails, chair, and sleeper. The strain from the bolts being removed, the nuts will not so easily work loose. When the device is bolted to the rails and spiked to the sleeper, it will be almost impossible for it to come loose. It will hardly be more expensive than the ordinary fish-plate without a chair. Each plate, with its base, is rolled in one single piece, and is thereby made strong and reliable.

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

As an improved article of manufacture, the fish-plate B, having the base-plate a and the toe-piece or clutch b, all rolled or made of one piece, as set forth, and to be applied substantially as herein shown and described.

The above specification of my invention signed by me this 11th day of May, 1869.

THOMAS J. ADAMS:

Witnesses:

JOHN BURNELL, JAS. H. LANGE.