

(No Model.)

C. T. SCHOEN.
COMBINED RAIL BRACE AND TIE PLATE.

No. 509,607.

Patented Nov. 28, 1893.

Fig. 1

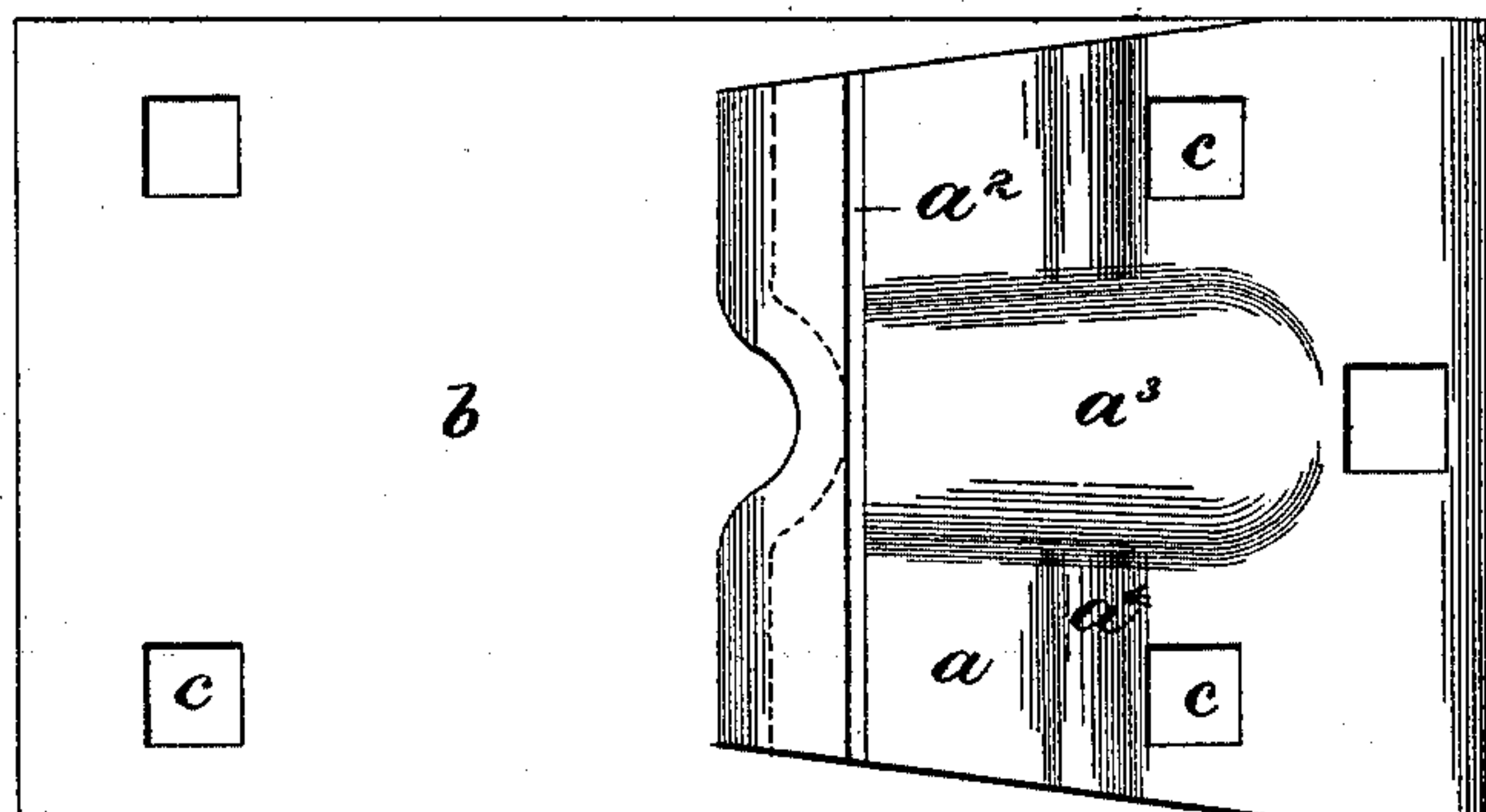


Fig. 2

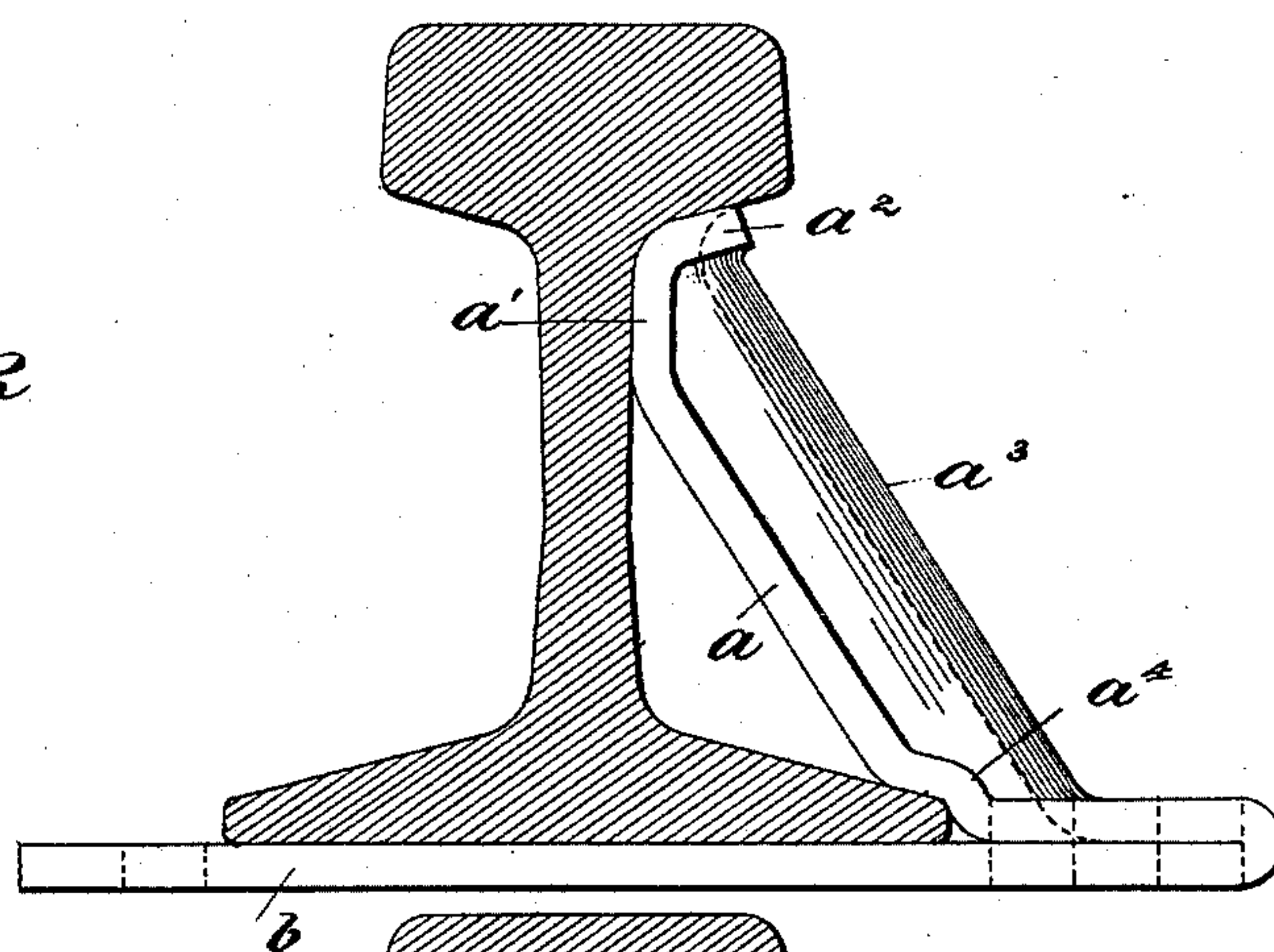


Fig. 3

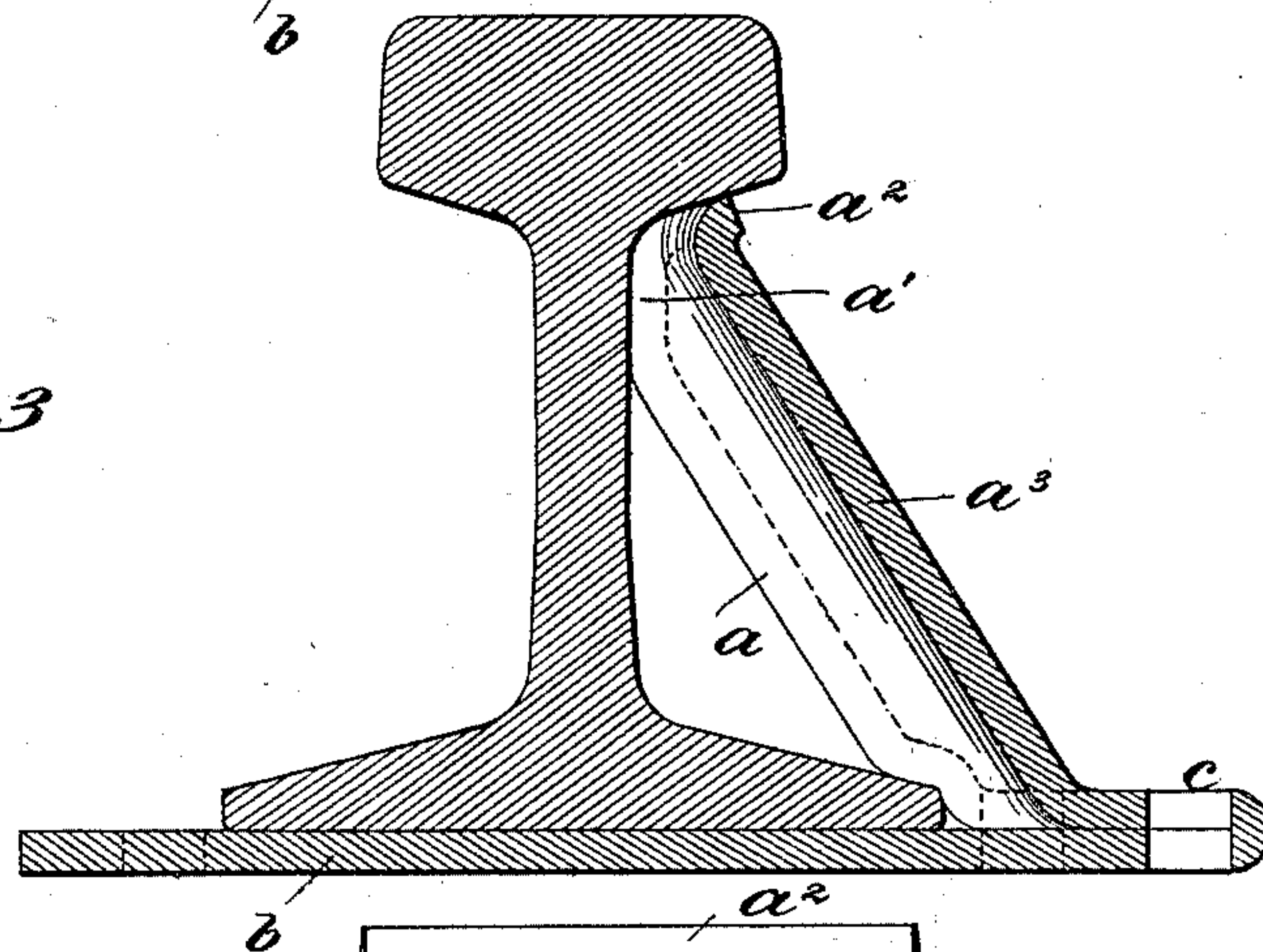
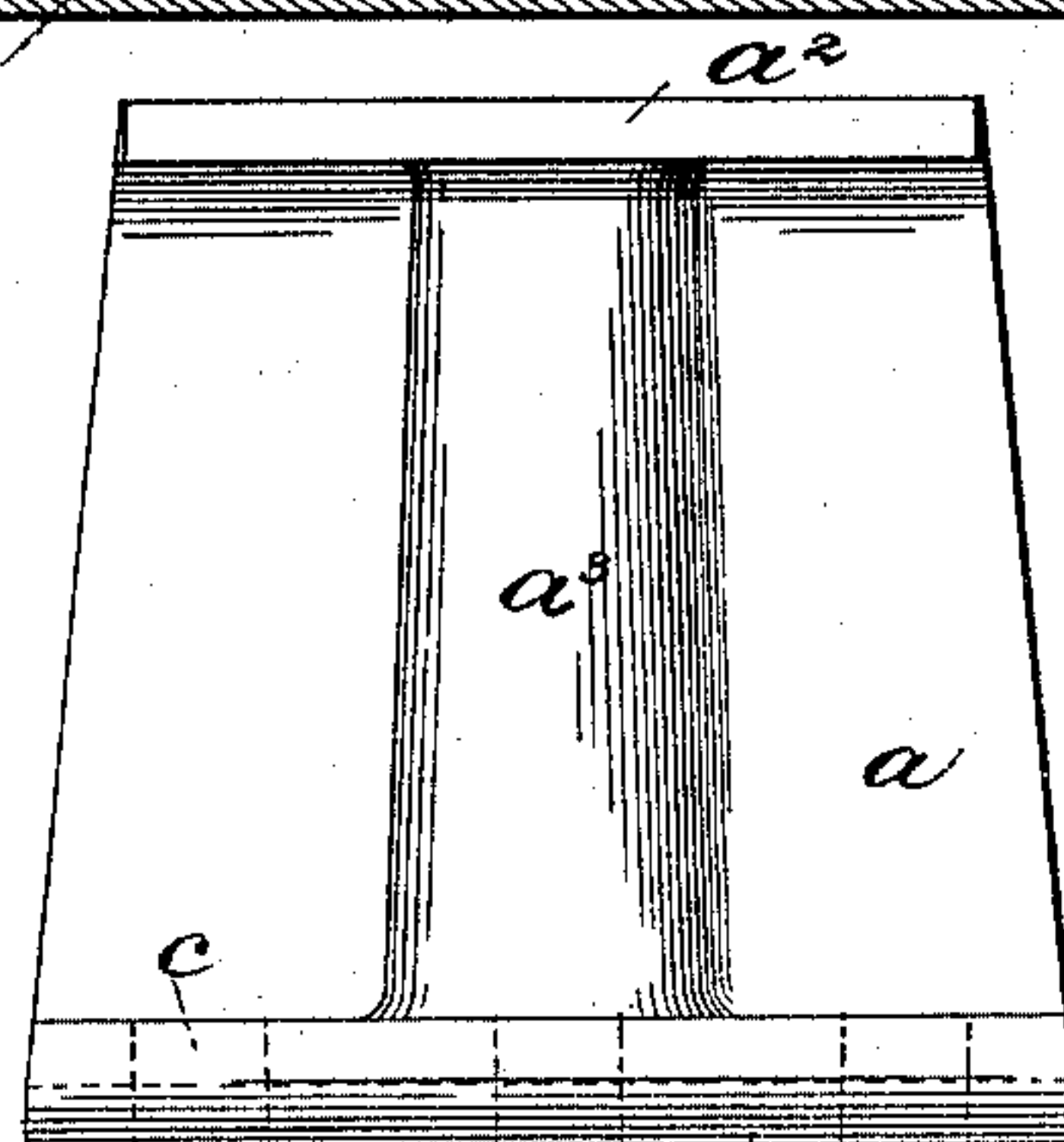


Fig. 4



Witnesses
J. F. Coleman
E. A. Ginnel

Inventor.
Charles T. Schoen
By Wm. H. Ginnel
his atty.

UNITED STATES PATENT OFFICE.

CHARLES T. SCHOEN, OF ALLEGHENY, PENNSYLVANIA.

COMBINED RAIL-BRACE AND TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 509,607, dated November 28, 1893.

Application filed August 7, 1893. Serial No. 482,494. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. SCHOEN, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in a Combined Rail-Brace and Tie-Plate, of which the following is a full, clear, and exact description.

The object of this invention is to provide a combined rail-brace and tie-plate for securing and laterally bracing the rails of railroad tracks.

Prior to my invention, rail-braces and tie-plates have been made integral, as castings, and otherwise, and have been made separate and secured together.

In my invention, I make the rail-brace and the tie-plate in one piece by die-pressing, as I will proceed now more particularly to set forth and finally claim.

In the accompanying drawings illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a plan view. Fig. 2 is a side elevation, showing the invention applied to a rail, which is shown in section. Fig. 3 is a transverse section of the parts shown in Fig. 2; and Fig. 4 is an end elevation of the combined rail-brace and tie-plate, looking from the right-hand side of the sheet.

a is the rail-brace, and b is the tie-plate, which, in accordance with my invention, are made of a single piece. The rail-brace a is bent up from the tie-plate b , and the adjacent portions are parallel, as shown at c , while the brace proper is turned up at a suitable angle and terminates in an abutment a' , which fits against the vertical edge of the web of the rail and is provided with an outwardly-turned abutment a^2 , which fits up underneath the head of the rail. In order to reinforce and strengthen this brace laterally and in the direction of its length, I provide a central rib or projection a^3 , extending from the base c and terminating in the abutment a^2 . Any

number of such projections a^3 may be provided. The tie-plate is provided with holes c for the reception of the spikes for fastening the device in position upon the ties. The foot of the brace is preferably bent up at a^4 , in order to fit over the bottom of the base of the rail.

The conformation of the brace and of the tie-plate will be adapted to the kind of rail for which the article is to be used.

I prefer to construct my combined rail-brace and tie-plate of plate metal, particularly steel plate, and to form the same in dies.

A combined rail-brace and tie-plate constructed in accordance with the foregoing description has many obvious advantages of strength, facility of application and endurance.

What I claim is—

1. A combined rail-brace and tie-plate made of a single piece of wrought metal and having the rail-brace bent up from the tie-plate at an angle, and having an abutment a' to fit the web and another abutment a^2 to fit the under side of the head of the rail, and provided with a longitudinal projection or strengthening rib rising from the tie-plate and terminating in the abutment a^2 , substantially as described.

2. The within described rail-brace and tie-plate, composed of the brace a having the web abutment a' , and the outwardly projecting head abutment a^2 , the longitudinal projection a^3 rising from the tie-plate and continuing throughout the brace and its two abutments, and foot-receiving cavities a^4 , and the tie-plate b , all constructed of a single piece of wrought metal, shaped by die-pressing, substantially as described.

In testimony whereof I have hereunto set my hand this 5th day of August, A. D. 1893.

CHARLES T. SCHOEN.

Witnesses:

J. T. MILNER,
AD. JUDAL.