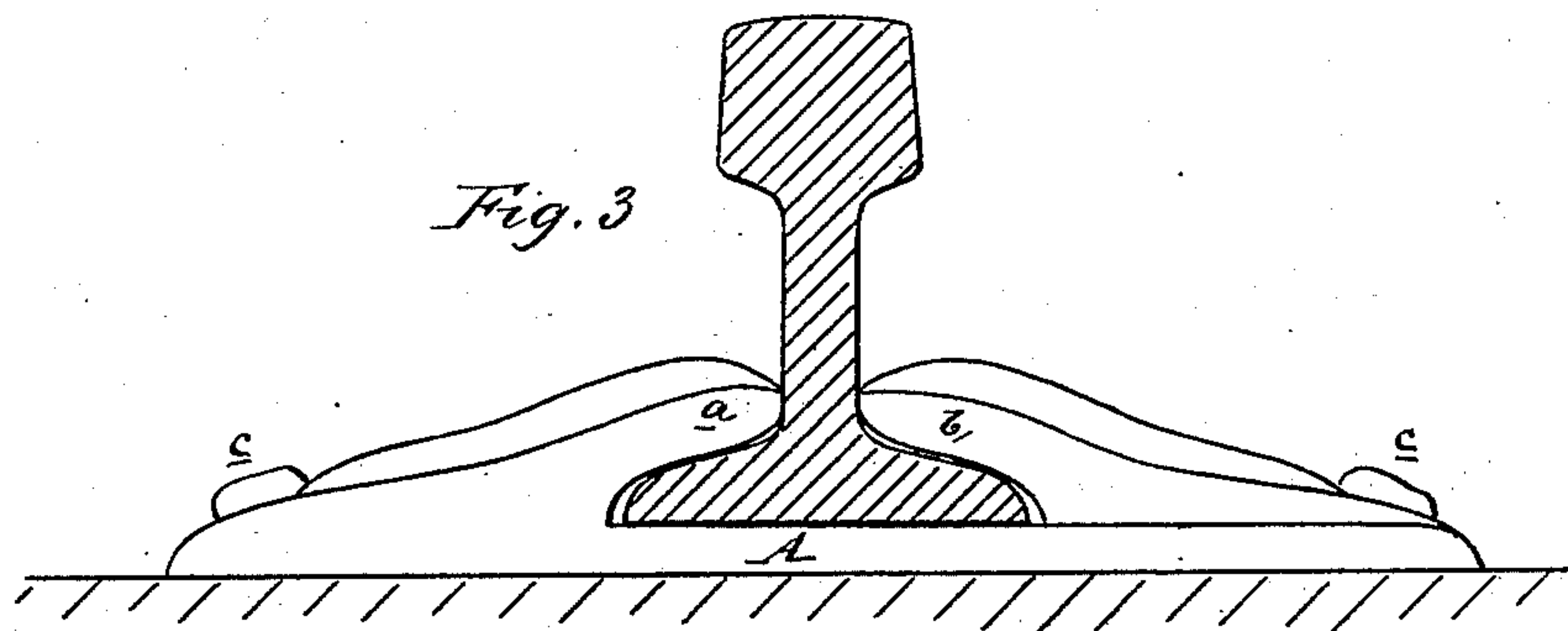
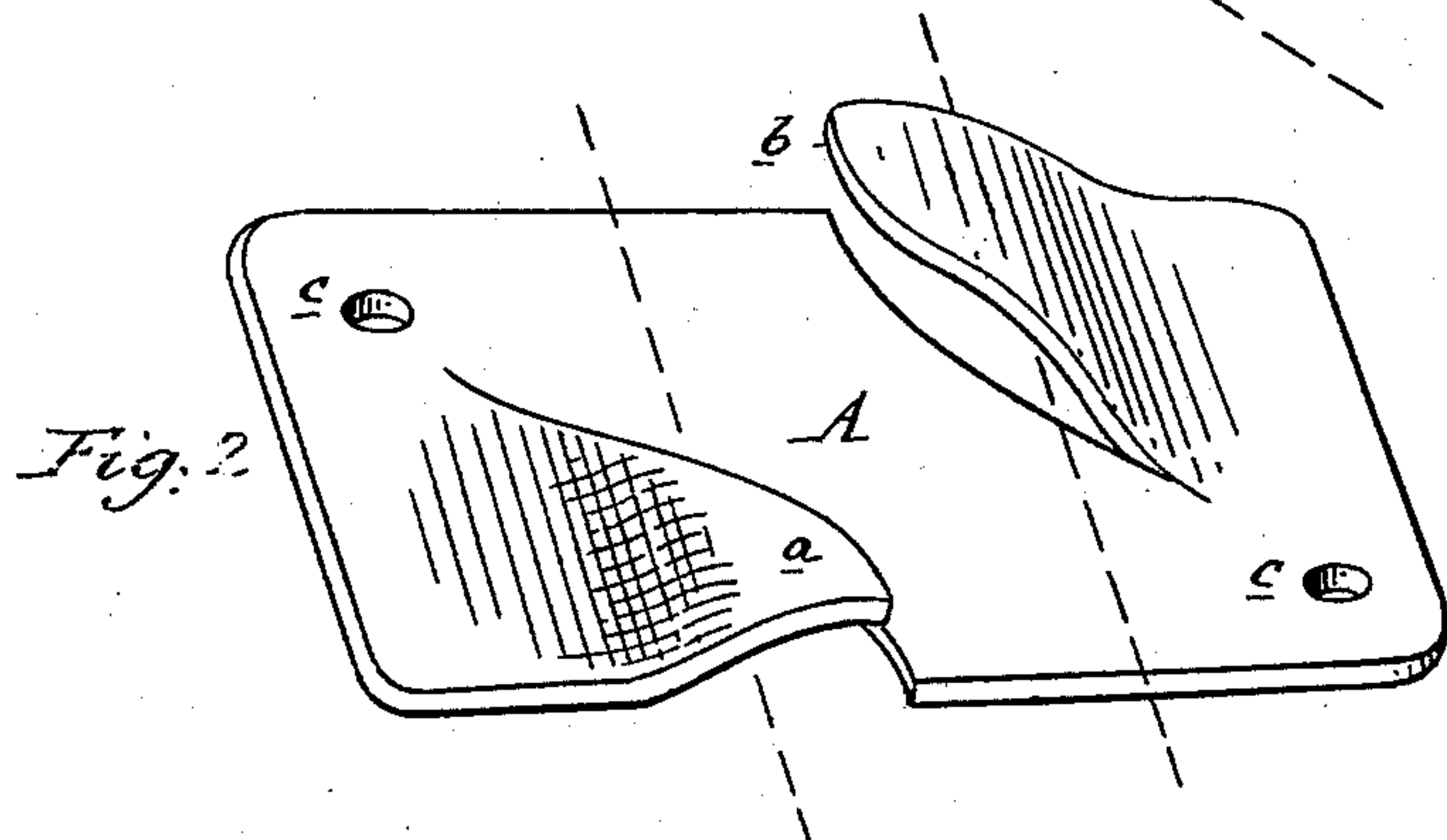
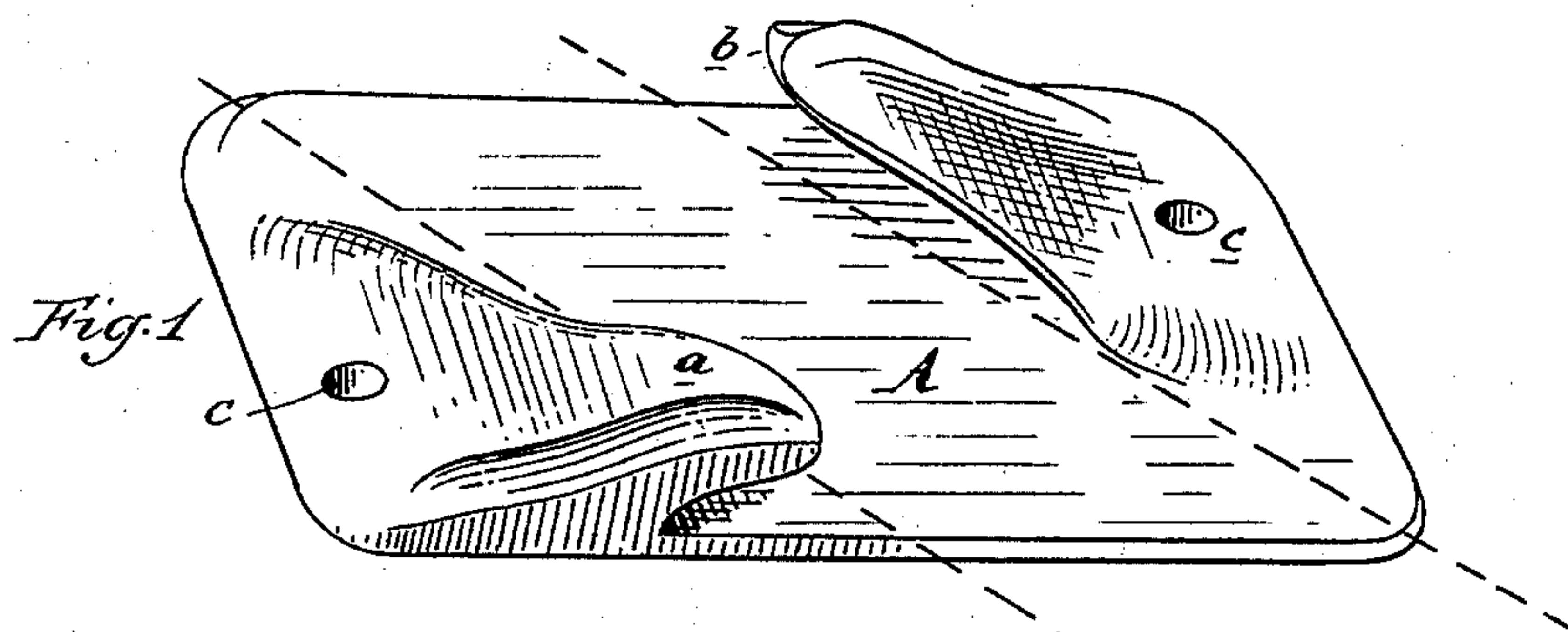


(No Model.)

C. E. MARK.
RAILWAY CHAIR.

No. 285,142.

Patented Sept. 18, 1883.



Attest:

A. Barthel
J. J. Sprague

Inventor:

Charlie Edgar Mark
by his Atty Thos. J. Sprague

UNITED STATES PATENT OFFICE.

CHARLIE EDGAR MARK, OF FLINT, MICHIGAN.

RAILWAY-CHAIR.

SPECIFICATION forming part of Letters Patent No. 285,142, dated September 18, 1883.

Application filed March 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLIE E. MARK, of Flint, in the county of Genesee and State of Michigan, have invented new and useful Improvements in Railway-Chairs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to improvements in chairs of that class which are inserted between the bottom of railway-rails and the ties upon which they rest, for the purpose of securing rails in place.

The invention consists in the peculiar construction of the chair, as more fully hereinafter described.

Figure 1 is a perspective view of my improved chair. Fig. 2 is a modification of the same. Fig. 3 shows a section of rail and tie and method of securing the chair.

In the accompanying drawings, which form a part of this specification, A represents a plate or base of the chair. Upon opposite sides and diagonal with relation to each other are two lips, *a b*, which may be either forged onto the plate or cut out and struck up, as shown in Fig. 2. This plate is also provided with holes *c*, through which the necessary screws or spikes pass to secure it to the tie.

In practice the distance between the two lips will be sufficient to allow it to be engaged with the foot of the rail from the bottom by being turned diagonally to the length of the rail, as shown in Fig. 1, when turning the chair at right angles to the length of the rail brings one portion of the foot into engagement with the lips *a* and the other side of the foot into engagement with the lip *b*. When in this position, the chair is bolted to the tie.

It will be observed that the edges of the lips *a b* are curved, by which means the same chair may be applied to rails having webs of different thicknesses, leaving a comparatively broad surface to bear against the web of the rail, owing to the curved shape, whereas if the lips are square on the edges they must be made to exactly fit the rail, or otherwise only a corner of the lip will bear against it. By this construction a cheap and perfect chair is made, easily and readily engaged or detached from the rail, and which will hold the latter rigidly

in place so long as the chair is kept in engagement.

I am aware of English Patents Nos. 4,747 of 1878, 2,724 of 1856, and 44 of 1853, and make no claim to the construction shown therein.

I am also aware that chairs for railway-rails have been formed of wrought metal with struck-up lips; but in all such constructions, as far as I am aware, the lips have been struck up from the sides of the chairs, with their edges parallel with the edges of the chair, thus rendering it necessary to raise the end of the rail to slip the chair in place. I also deem it important that each lip have a curved side for the purpose above set forth, and that when the chair is cut out of and struck up from wrought metal the cut which forms the lip shall extend from opposite edges of the blank inward to a point beyond the center and incline toward the ends, as this construction gives a wider bearing to the flange of the rail, and at the same time materially strengthens the lip. I also deem it important that the lips be struck up at diagonally-opposite corners of the chair, for by this construction the chair can be engaged at any point between the two ends of the rail, thus allowing a chair to be replaced without disturbing the rail.

What I claim as my invention is—

1. A chair for railway-rails, provided upon its opposite corners with lips diagonal to each other, having curved bearing-edges, and adapted to slip on the foot of the rail when in a diagonal position thereto, and to bear against the web of the rail when turned at a substantially right angle to it, substantially as and for the purposes set forth.

2. The railway-chair herein described, made of wrought metal, and having inclined curved cuts made from the side edges inwardly in opposite directions to a point beyond the center to form extended lips *a b*, each having a curved bearing-edge, the space between the cuts being sufficient to admit the insertion of the base of the rail, and the lips being arranged to embrace the rail above the base when the said chair is turned in one direction, as set forth.

CHARLIE EDGAR MARK.

Witnesses:

H. S. SPRAGUE,
E. SCULLY.