

(No Model.)

2 Sheets—Sheet 1.

H. H. C. SINTZENICH.

RAILWAY RAIL CHAIR.

No. 348,699.

Patented Sept. 7, 1886.

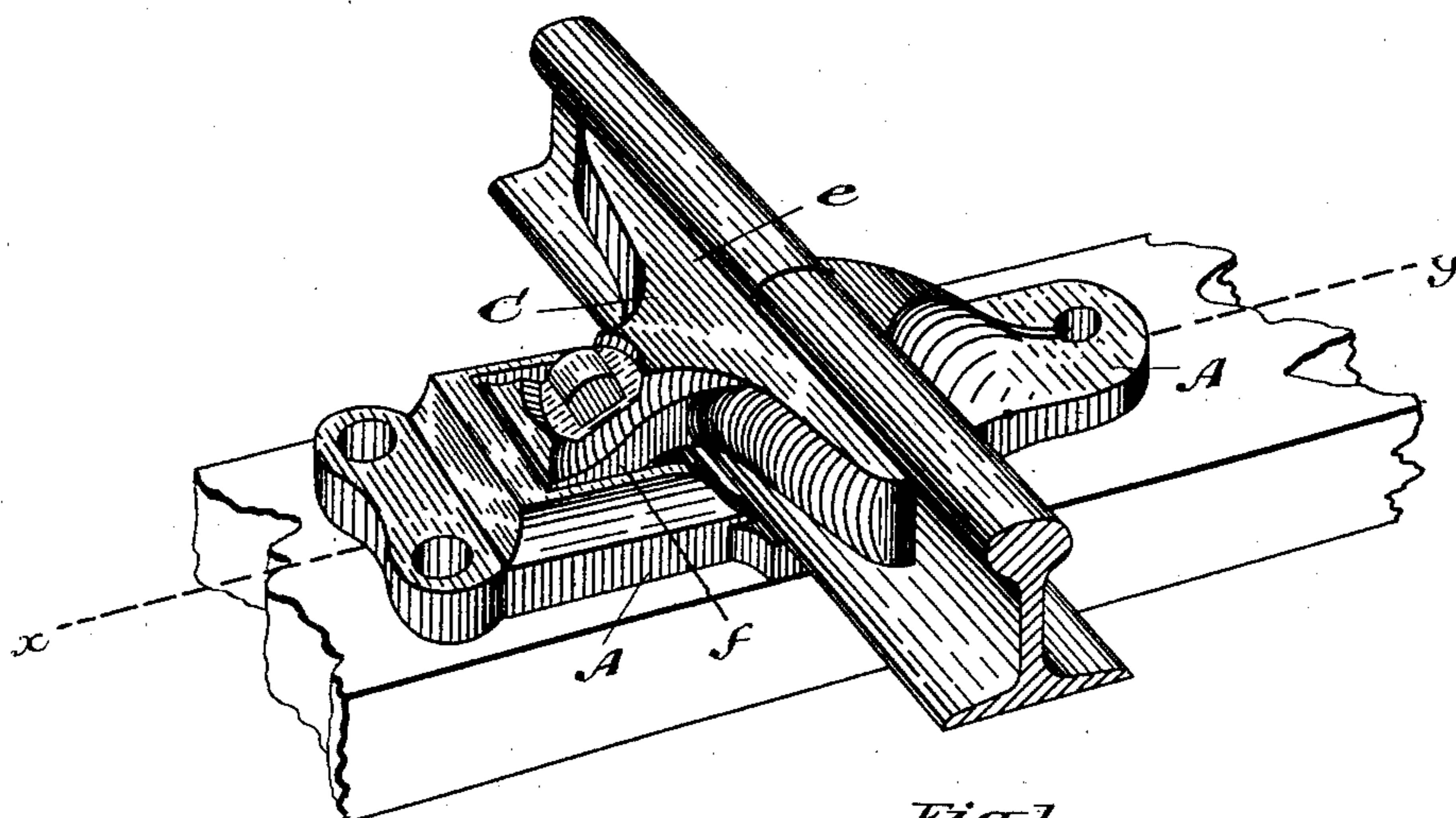


Fig. 1.

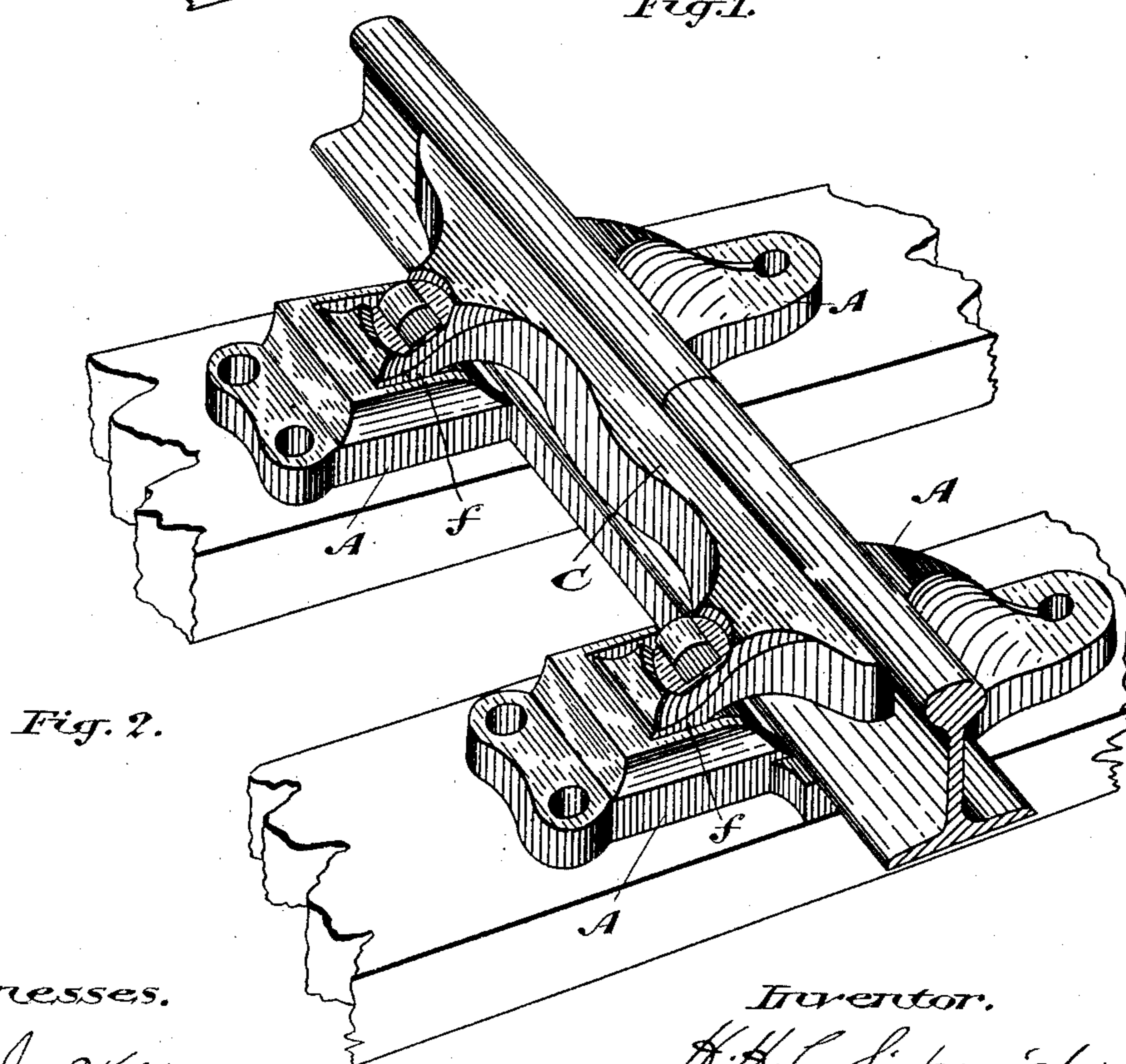


Fig. 2.

Witnesses.

J. M. Jackson
Chas. Riches

Inventor.

H. H. C. Sintzenich
By Donald C. Ridgely & Co
Attys

(No Model.)

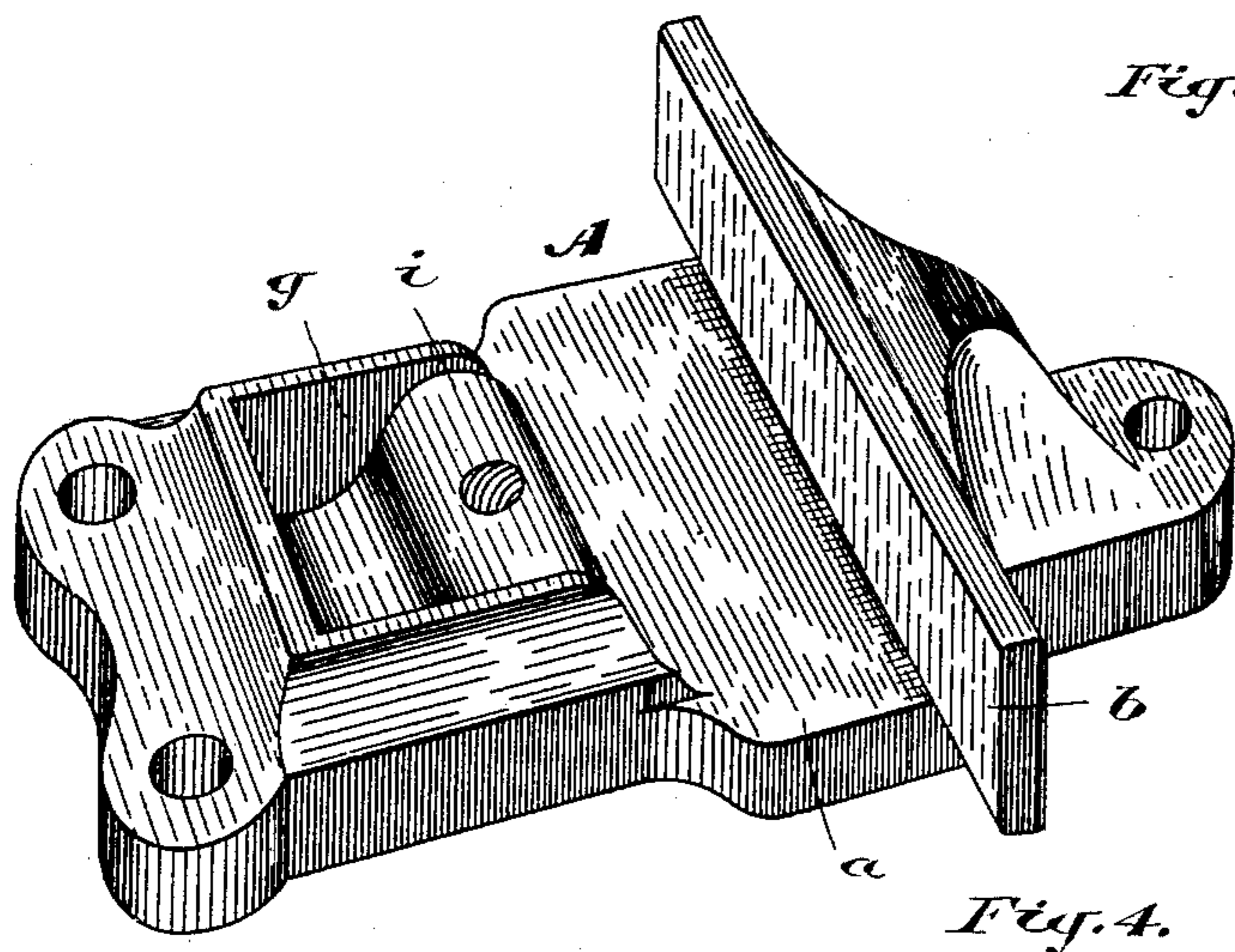
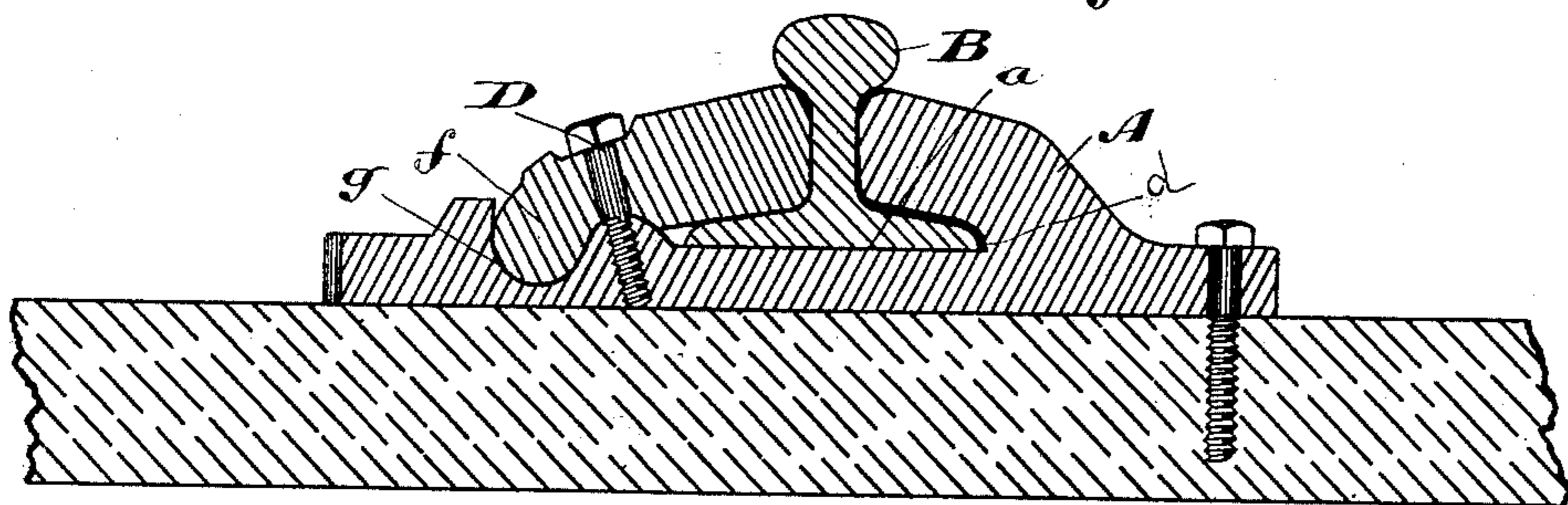
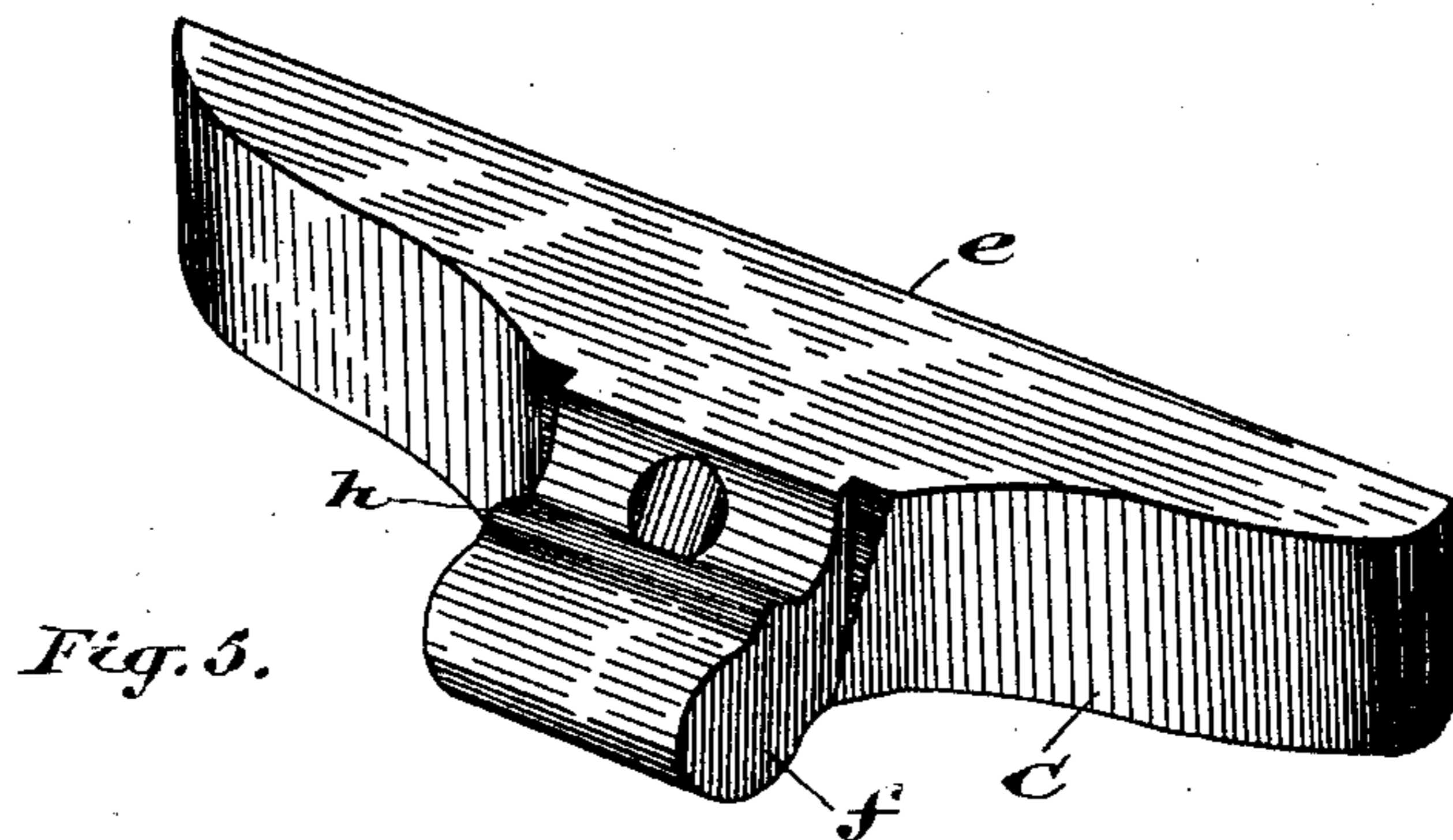
2 Sheets—Sheet 2.

H. H. C. SINTZENICH.

RAILWAY RAIL CHAIR.

No. 348,699.

Patented Sept. 7, 1886.



Witnesses.

J. M. Jackson
Chas. Riches.

Inventor.

H. H. C. Sintzenich
By Donald C. Ridout & Co
Attys

UNITED STATES PATENT OFFICE.

HORACE H. C. SINTZENICH, OF TORONTO, ONTARIO, CANADA, ASSIGNOR
TO JOHN LAMB, OF SAME PLACE.

RAILWAY-RAIL CHAIR.

SPECIFICATION forming part of Letters Patent No. 348,699, dated September 7, 1886.

Application filed January 13, 1886. Serial No. 188,449. (No model.)

To all whom it may concern:

Be it known that I, HORACE HENRY CHARLES SINTZENICH, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, civil engineer, have invented an Improved Railway-Rail Chair, of which the following is a specification.

The object of the invention is to design a chair for rail-joints which shall possess the necessary rigidity to insure a continuous rail, which practically will never get loose, and in which no bolt-holes are made in the rail; and it consists, essentially, of a chair, formed in the manner hereinafter described, to receive the rail, which chair is secured to the tie preferably by three bolts, and is shaped to substantially fit one side of the rail, forming a solid clutch on that side, the other side of the rail being braced by a movable clutch secured by a single screw-bolt, and so fitting the chair that the lateral thrust caused by the pounding of the wheel-flange against the inside of the rail-head will be received by the solid chair, and will not cause any strain on the bolt employed in holding the movable clutch in position.

Figure 1 is a perspective view of a single chair designed in accordance with my invention. Fig. 2 is a perspective view of a double chair designed in accordance with my invention. Fig. 3 is a section through *xy* in Fig. 1. Fig. 4 is an enlarged detail of the chair. Fig. 5 is a detail of the movable clutch.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the chair, made substantially in the form shown in the drawings of cast-iron, steel, or other suitable material, the dimensions of the chair, as well as of the other parts connected therewith, being altered to suit the particular rail for which it is intended, or to suit the judgment of the engineer adopting it. The bottom of the rail B rests upon the flat bed *a* made in the chair substantially the width of the bottom of the rail.

b is a flat side piece, solid with and forming part of the chair A. This side piece is designed to fit against the body of the rail B, a recess, *d*, being left between the bed *a* and side piece, *b*, for the reception of the flange of

the rail B. It is not intended that the top side of the flange of the rail B shall be in actual contact with the chair A, the only part of the rail A in actual contact with the said chair being the bottom of the rail and the side of its body, which fits against the side piece, *b*, of the said chair A.

C is what I term a "movable" clutch. This clutch, when made as shown in Fig. 1, consists of a side piece, *c*, corresponding with the side piece, *b*, and designed to clutch the side of the body of the rail B immediately opposite to that side against which the side piece, *b*, abuts. A downwardly-projecting tail piece, *f*, formed on the clutch C is shaped substantially in the form shown, and fits into a correspondingly-shaped recess, *g*, formed in the main body of the chair A, as indicated.

In placing the clutch C in position the tail-piece *f* is first placed into the recess *g*, and the clutch is then rolled down into position, where it is held by the bolt D, which is screwed into the base of the chair A, as shown. This bolt D should be screwed into position on a line substantially at right angles to the line of thrust caused by the pounding of the wheel-flange against the inside of the rail-head. The end of the tail-piece *f* fits snugly within the recess *g*, and the shoulder *h*, formed on the clutch C, abuts against the rounded shoulder *i*, formed on the base of the chair A. The strain of the said lateral thrust has no ill effect upon the bolt D. In fact, in practice it will be found that the clutch C and the rail which it holds will remain in position without the bolt. This quality will be found of value when trackmen are changing rails on a track in use, for if caught by a train when the bolts D were removed, the rail would still remain in position notwithstanding the said removal.

What I claim as my invention is—

1. The rail-chair A, formed, substantially as described, to receive the rail B in combination with the movable clutch C, designed to abut against the body of the rail B, and provided with a tail, *f*, to fit into the recess *g*, substantially as and for the purpose specified.

2. A rail-chair, A, formed, substantially as described, to receive the rail B, and having a recess, *g*, and a rounded shoulder, *i*, formed in

its base, in combination with a movable clutch, C, provided with a tail, *f*, to fit into the recess *g*, and a shoulder, *h*, to abut against the shoulder *i*, substantially as and for the purpose specified.

5 3. A rail-chair, A, formed, substantially as described, to receive the rail B, and having a recess, *g*, and a rounded shoulder, *i*, formed in its base, in combination with the movable
10 clutch C, provided with a tail, *f*, to fit into

the recess *g*, and a shoulder, *h* to abut against the shoulder *i*, the bolt D, inserted through the clutch C and chair A, substantially as and for the purpose specified.

Toronto, December 28, 1885.

HORACE H. C. SINTZENICH.

In presence of—

CHARLES C. BALDWIN,
WM. TURNER.