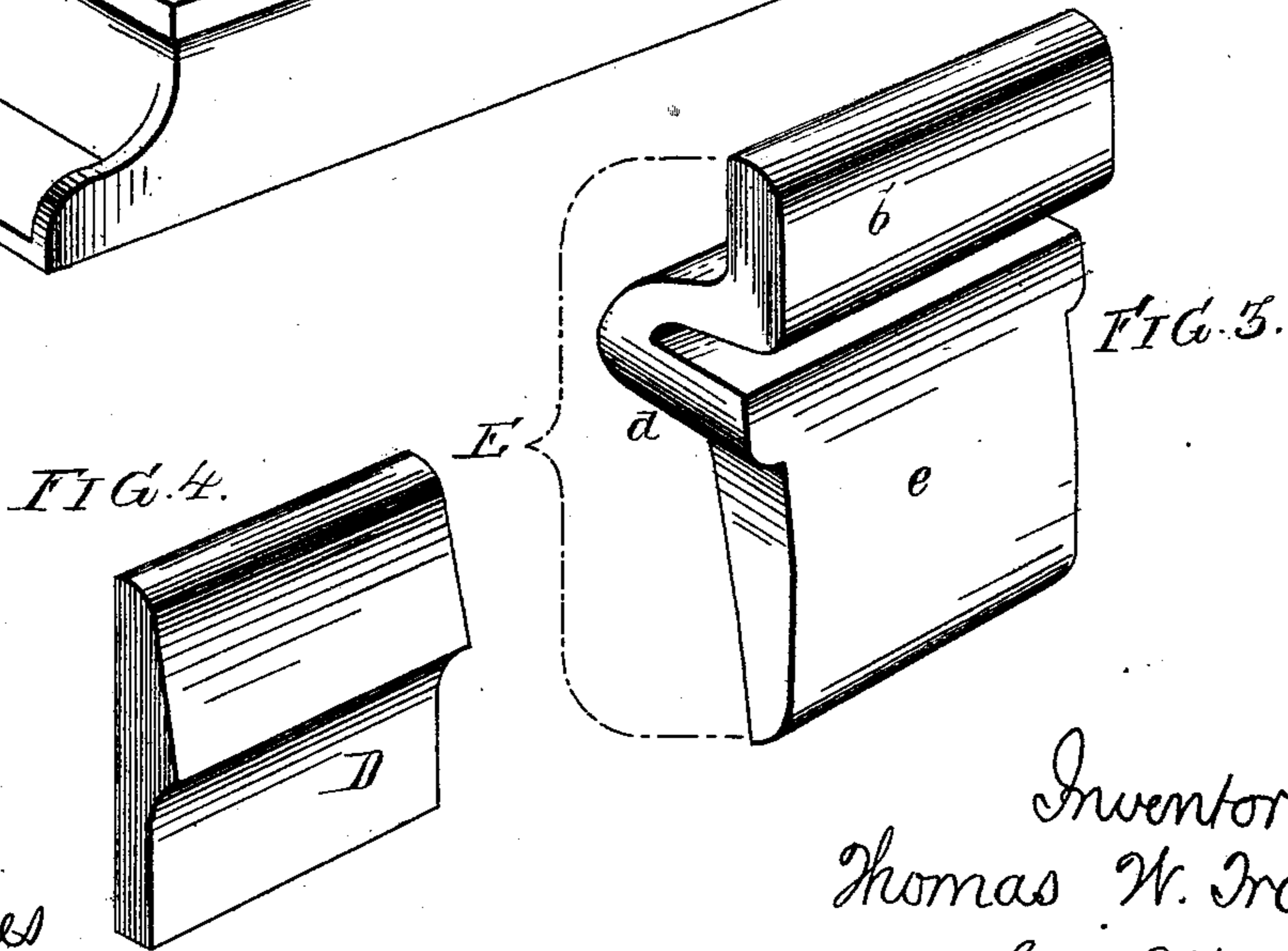
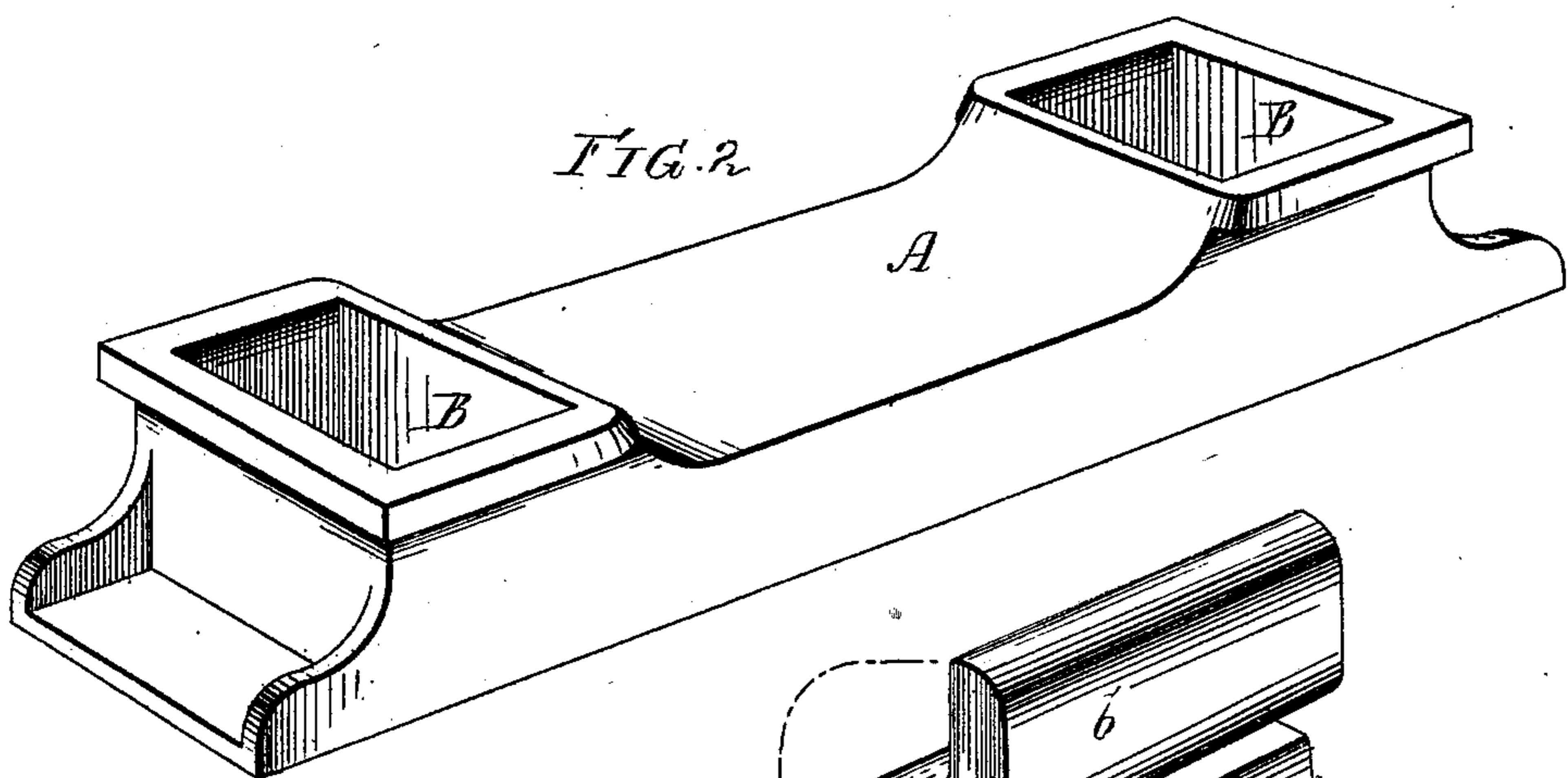
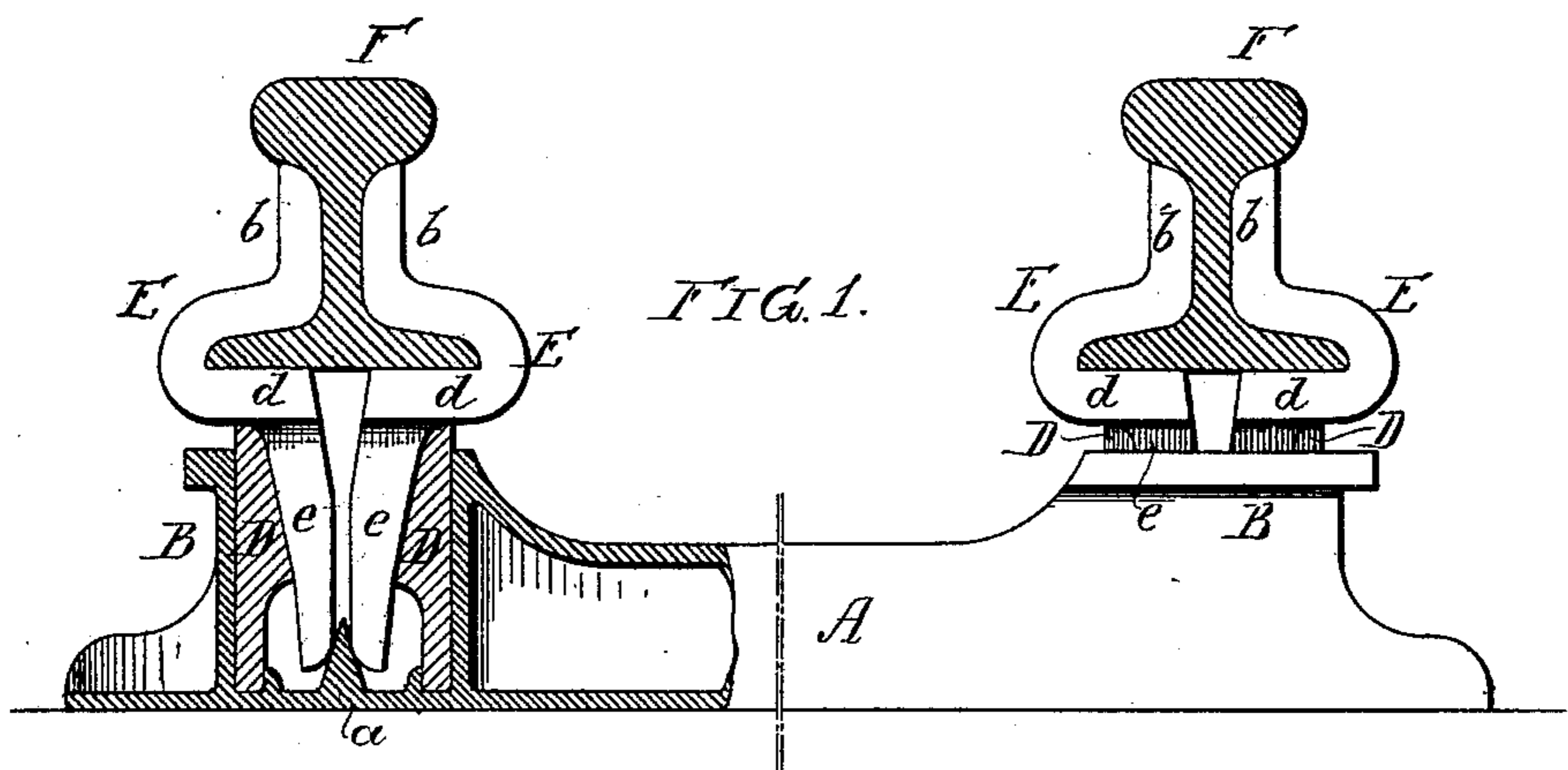


T. W. TRAVIS.
Railway-Track.

No. 206,647.

Patented July 30, 1878.



Witnesses
Harry A. Crawford
Harry Smith

Inventor
Thomas W. Travis
by his Attorneys
Howson & Co.

UNITED STATES PATENT OFFICE.

THOMAS W. TRAVIS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF, JOHN A. POLLOCK, AND JAMES G. CARSON, OF SAME PLACE.

IMPROVEMENT IN RAILWAY-TRACKS.

Specification forming part of Letters Patent No. **206,647**, dated July 30, 1878; application filed July 9, 1878.

To all whom it may concern:

Be it known that I, THOMAS W. TRAVIS, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Cross-Ties and Fastenings for Railroad-Rails, of which the following is a specification:

The object of my invention is to so construct a cross-tie and clamps for supporting the rails of a railroad that said rails will be securely held without the aid of any bolts, nuts, or pins, and in such a manner that any increase in the load upon the rails will proportionately tighten the gripe of the clamps. This object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a transverse vertical section of a railroad-track laid according to my invention; Fig. 2, a perspective view of the cross-tie; and Figs. 3 and 4, perspective views of parts of the fastening.

A is a tubular metallic tie, preferably made of cast-iron, and having near each end a box or receptacle, B, across the bottom of which extends transversely a wedge-shaped block or projection, *a*, the latter being secured to or forming part of the tie.

To sockets in the bottom of each box or receptacle B are adapted the lower ends of wooden or other comparatively elastic blocks D, the upper ends of which project above the top of the tie, and support the clamping-blocks E.

Each of these blocks has an upper portion, *b*, adapted to the flange and web of the rail F, a horizontal portion, *d*, which fits under said flange, and a downward extension, *e*, which projects into the box B of the tie, between the blocks D, and rests at the bottom on one face of the wedge-shaped block or projection *a*, the outer face of each extension *e* bearing upon the inner face of the adjacent block D throughout about one-half of its length.

It will be seen that any downward movement of the rail F will force the lower ends of the extensions *e* of the clamping-blocks E down onto the wedge *a*, thus causing the throwing apart of said lower ends and a consequent movement toward each other of the upper ends *b* of the clamping-blocks.

As the blocks D afford an elastic support

for the blocks E, it follows that the greater the weight upon the rail F the greater will be the compression of said blocks D and the farther the downward movement of the extension *e* of the blocks E, so that the force of the gripe of said blocks E upon the rails will be increased as the weight upon the rails increases. As the blocks D become worn the same result will take place.

The top of the tie A is sunk below the tops of the boxes or receptacles B, so that the tie may be entirely covered with ballast between the rails, and thereby protected from injury by contact with the wheels of a car which has run off the track.

If desired, a pin or spike may be passed through the box or receptacle B and its contents, so as to prevent the vertical removal of the clamping-blocks; but under ordinary circumstances this will be unnecessary.

A prominent feature of my invention is the absence of all the usual bolts, nuts, pins, &c., by which fish-plates or clamping-blocks are usually secured to or caused to bear against the rail, further advantages of my improved fastening being that it requires but few parts; that these parts are simple and inexpensive; and that the laying of track can be effected rapidly and thoroughly.

I claim as my invention—

1. The within-described rail-fastening, consisting of a pair of clamping-blocks adapted to the rail, and having downward extensions for being acted upon by a wedge, as specified.

2. The combination of the tie A, its boxes or receptacles having wedge-shaped projections *a*, the rails F, and clamping-blocks E, adapted to the rails, and having extensions *e* arranged to bear upon the wedge *a*, as set forth.

3. The combination of the tie A and its boxes or receptacles B, the rails F, the clamping-blocks E, having extensions *e*, the wedges *a*, and the elastic blocks D, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS W. TRAVIS.

Witnesses:

HARRY A. CRAWFORD;
HARRY SMITH.

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Wm. A.