(No Model.)

W. J. MORDEN.

FROG.

No. 285,647. Patented Sept. 25, 1883.

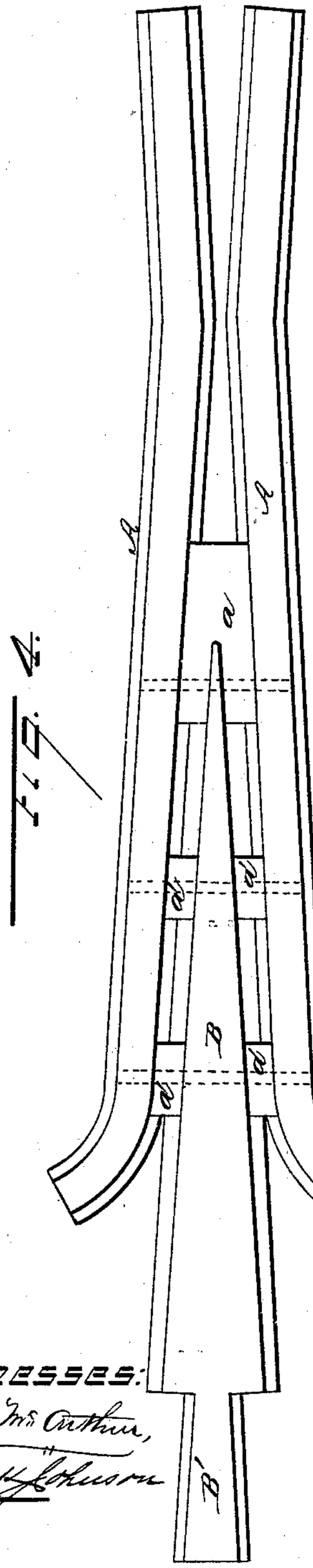

Fig. 4.

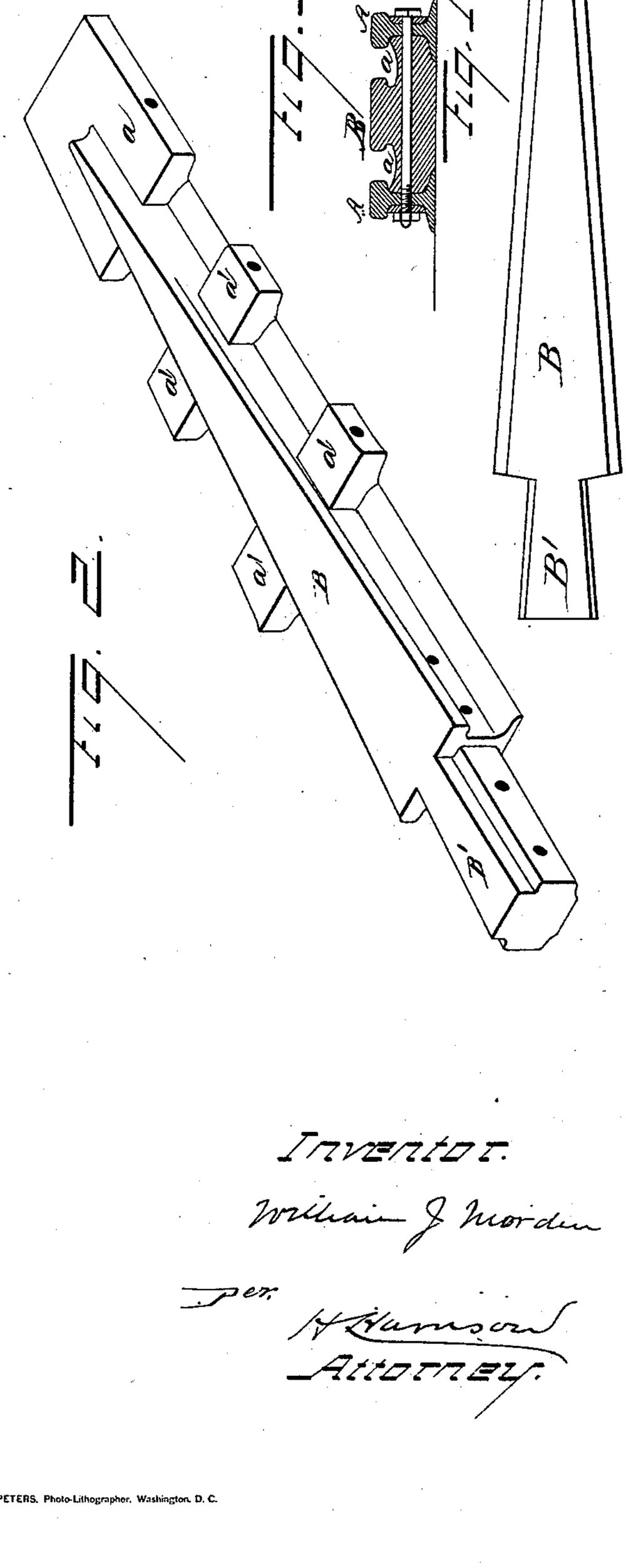

Fig. 2.

Fig. 3.

Fig. 1.

Witnesses:
H. C. McArthur,
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UNITED STATES PATENT OFFICE.

WILLIAM J. MORDEN, OF CHICAGO, ILLINOIS.

FROG.

SPECIFICATION forming part of Letters Patent No. 285,647, dated September 25, 1883.

Application filed April 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. MORDEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Frogs, of which the following is a specification.

This invention has for its object cheapening, strengthening, and simplifying the construction of railway-frog points, and is an improvement on United States Patent No. 267,564, granted to me November 14, 1882, for an improvement in frogs; and to this end it consists in certain peculiarities of construction and arrangement, substantially as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a plan view of my frog-point. Fig. 2 is a perspective view of the point with side projections. Fig. 3 is a cross-section of Fig. 4, taken through *a* B A A. Fig. 4 is a plan view, showing the frog-point attached to the wing-rails.

Similar letters refer to similar parts throughout the several views.

A A represent the outer or wing rails, which are formed and bent in the ordinary manner to the desired angle.

B represents the frog-point, made of any suitable material, but preferably of steel, of any shape and size. This point is formed with a shank, B′, of suitable size and form to admit of easy and firm attachment to the adjacent point or track rails, and the point is also formed at or near its point end with a projection, *a*, adapted or shaped to overlap the foot-flanges of the wing or guard rails and preserve the proper distance between them at all times, as well as to aid them in supporting the point. The point B and its projection *a* are cast or formed in one piece. The projection *a*, being integral with the point B and adapted to overlap the foot-flanges of the wing or guard rails, and having a bearing on said flanges, prevents the sinking of the point into the cross-ties by the pressure of passing trains, and consequent shearing cut of the bolts by thus throwing the weight and strain upon them, but distributes the weight upon a much broader surface, enables the wing or guard rails to aid the point in supporting the strain, and removes from the bolts all but a tensile strain, as will be readily understood.

The wing-rails are secured to the point by through-bolts *b b* and the whole secured to the cross-ties in the usual manner.

It is evident that the point B may be further provided with the side projections, *a′ a′*, as shown in Fig. 2, all cast or formed in one piece.

The point B, with its projection *a*, may be cast, swaged, forged, or formed in any manner found most desirable.

I am aware that a railway-frog has been made consisting of the combination of a wrought-metal center or point with cast-metal feathers or distance-pieces, and I am also aware that it is not new to unite by process of casting wrought-metal wings with a wrought-metal point and cast-metal feathers or distance-ribs, and I do not claim the same; but

What I do claim, and desire to secure by Letters Patent, is—

A solid frog-point, B, provided with a bearing-projection, *a*, adapted to rest on the flanges of the wing-rails, said projection being formed integral with the point and of one homogeneous mass of metal, substantially as shown and described, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. MORDEN.

Witnesses:
J. E. STEVENSON,
FRANK JOHNSON.