J. BACKUS.

RAIL.

APPLICATION FILED MAR. 18, 1910.

983,471.

Patented Feb. 7, 1911.

2 SHEETS—SHEET 1.

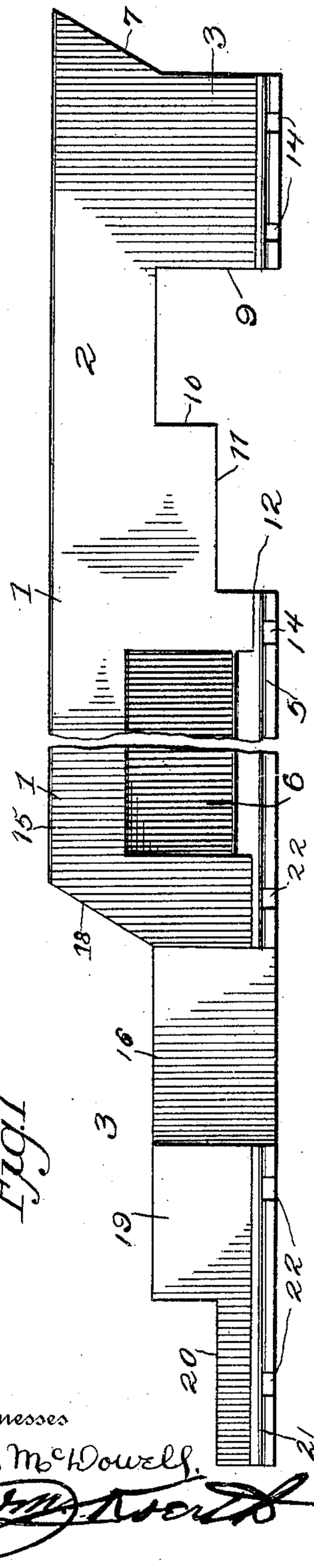

Fig. 1

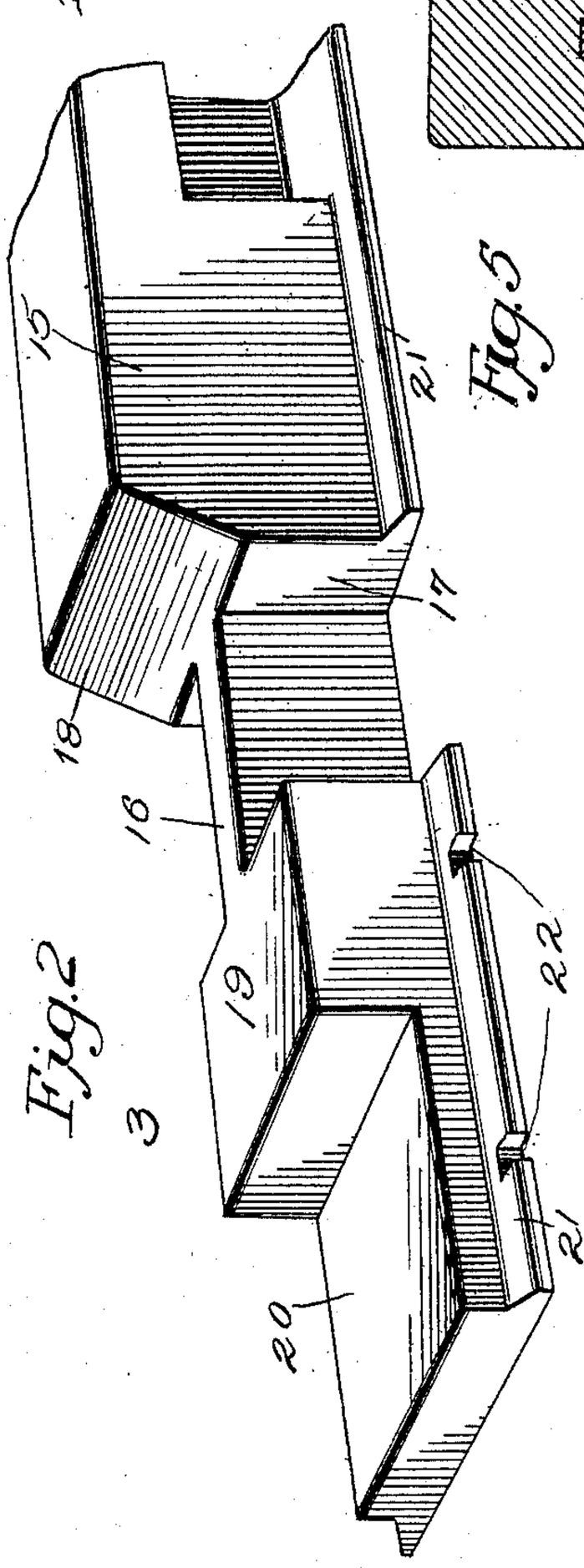

Fig. 2

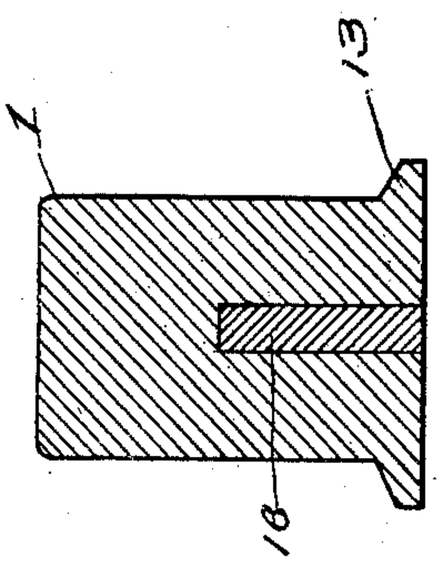

Fig. 3

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3

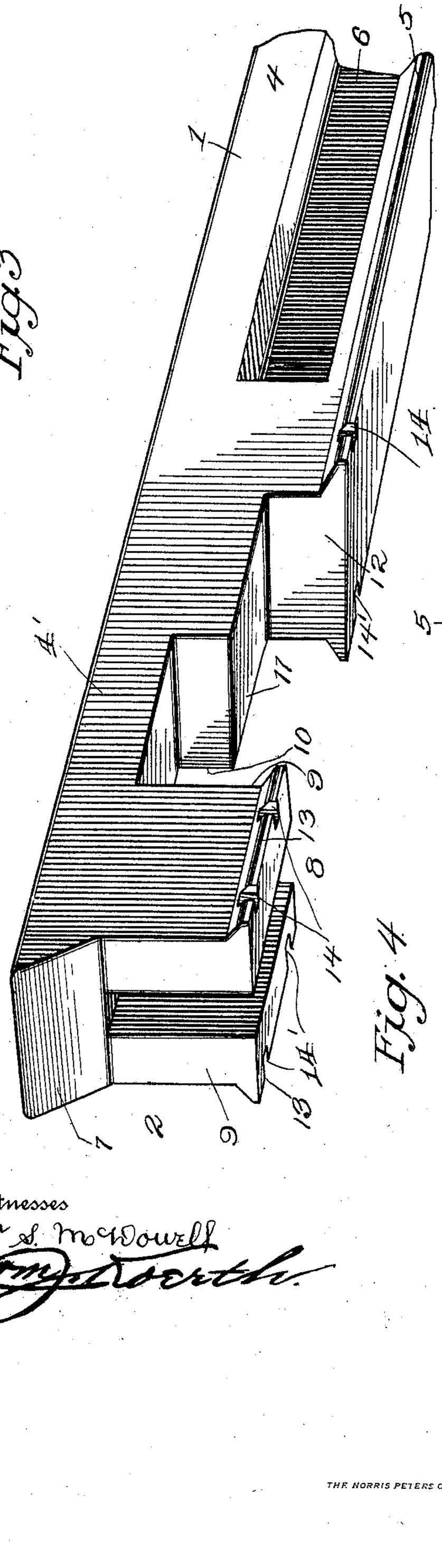
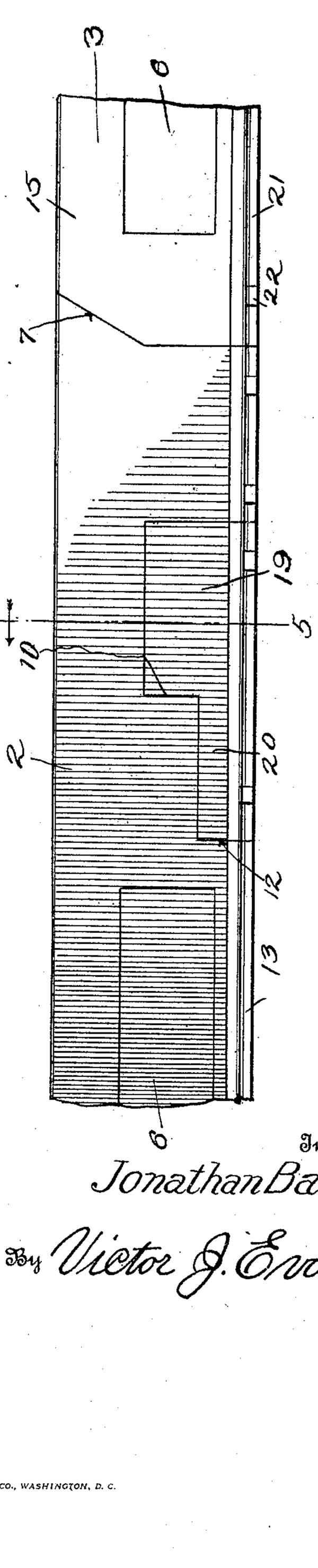


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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RAIL.

983,471. Specification of Letters Patent. **Patented Feb. 7, 1911.**

Application filed March 18, 1910. Serial No. 550,101.

To all whom it may concern:

Be it known that I, JONATHAN BACKUS, a citizen of the United States, residing at Vaughan, in the county of Nicholas and State of West Virginia, have invented new and useful Improvements in Rails, of which the following is a specification.

This invention relates to improvements in railway rails, the object of the invention being to provide effective couplings whereby the contiguous ends of the rails may be quickly and effectively secured together without the aid of bolts, fish plates or analogous devices.

Another object of the invention is to provide the meeting ends of a contiguous pair of rails of a peculiar and novel formation, whereby the said rails can be not only effectively connected together without the use of fish plates or the like but which further provides means whereby the sinking of the rails at their points of juncture is effectively obviated due to the rolling stock passing thereover, thus providing a substantially continuous rail, the structure not only prolonging the life of the rails, but materially adding to the comfort of the traveling public.

In the accompanying drawings, Figure 1 is a view of a complete rail constructed in accordance with the present invention. Fig. 2 is a perspective view of one end of the rail. Fig. 3 is a similar view of the opposite end of the rail. Fig. 4 is a side elevation illustrating the rails connected. Fig. 5 is a sectional view taken upon the line 5—5 of Fig. 4.

In the accompanying drawings the numeral 1 designates the body of the rail and the numerals 2 and 3 the ends of the rails. The body of the rail 1 is constructed in the ordinary manner comprising the usual head 4, base flange 5 and connecting web 6. The rail end 2 is of a thickness corresponding to the width of the head 1 and comprises a head extension 4′. The outer face of this extension is beveled as indicated by the numeral 7. Between the head extension proper and its beveled face, the end 2 is centrally and longitudinally cut away as at 8 to provide a pair of side members or faces 9. The end 2, a suitable distance from the inner ends of the sides or faces 9 is provided with what may be termed a step 11, the same comprising a transverse wall 10 communicating with the under face of the head extension 4′ and a flattened horizontal wall terminating in a vertical wall 12 which extends from the base portion of the said rail end 2. The sides or faces 9 have their lower outer faces provided with longitudinally extending flanges 13, the same being provided with a plurality of notches 14 which are adapted for the reception of securing spikes. The extension of the flanges 5 upon the opposite sides of the end 2 adjacent its vertical wall 12 is also provided with similar notches 14′. The opposite end of the rail is of a thickness corresponding to the width of the head as indicated by the numeral 15. The end of the head is beveled as at 18, the same being arranged at a directly opposite angle to the head portion 7 upon the opposite end of the rail. Centrally projecting from the enlargement 15 is a web member 16. This web member 16 is of a thickness corresponding to the web 6 and of a width corresponding to the distance between the base flange 5 and the under face of the head 4. This web 16 is extended a suitable distance and is integrally formed with a substantially rectangular member 19, the upper wall or face of which being in a straight horizontal plane corresponding with the upper face of the web 16. This member 19 is of a thickness agreeing with the thickness of the enlargement 15 and the said member is integrally formed with an extension 20. The extension 20 is arranged at a right angle to the head 19 and is of a height agreeing with that of the wall 12 of the end 2. The extension 20 as well as the head 19 have their lower edges provided with flanges 21, and the said flanges have suitable spike openings 22.

In connecting the co-acting ends of rails constructed in accordance with my invention, it is merely necessary to position the sides 9 upon either side of the web 16, when its end walls will co-act with the end walls 17 of the end member 3 and its beveled head 7 will co-act with the beveled portion 18 of the end 3. It will be further understood that the head 19 as well as the extension 20 will be snugly engaged by the stepped portion provided by the end 2, and when the parts are thus assembled it will be noted that lateral or longitudinal movements of the ends of the rails will be successfully obviated.

Having thus fully described the invention, what I claim as new is:—

A railway rail having one of its ends of a thickness corresponding to the width of the head and providing a head extension, the transverse face of the head extension being beveled inwardly, the said end being provided with oppositely arranged depending sides provided with notched flanges, the end being further provided a suitable distance away from the sides and toward the body of the rail with a right angularly arranged step, the opposite end of the rail being of a thickness corresponding to the width of the head of the rail, the end of the head being beveled at an opposite angle to that of the head upon the first-mentioned end of the rail, the extension being provided with a centrally arranged longitudinally extending web portion and being further provided with a rectangular portion which is provided with a reduced extension, the lower side edges of the extension and the rectangular portion being provided with longitudinally extending slotted flanges, all substantially as and for the purpose set forth.

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

JONATHAN BACKUS.

Witnesses:
J. H. ABURN,
ELLEN ABURN.