

S. W. GROAH.

RAILROAD CHAIR.

APPLICATION FILED SEPT. 16, 1910.

Patented Jan. 31, 1911.

2 SHEETS—SHEET 1.

982,949.

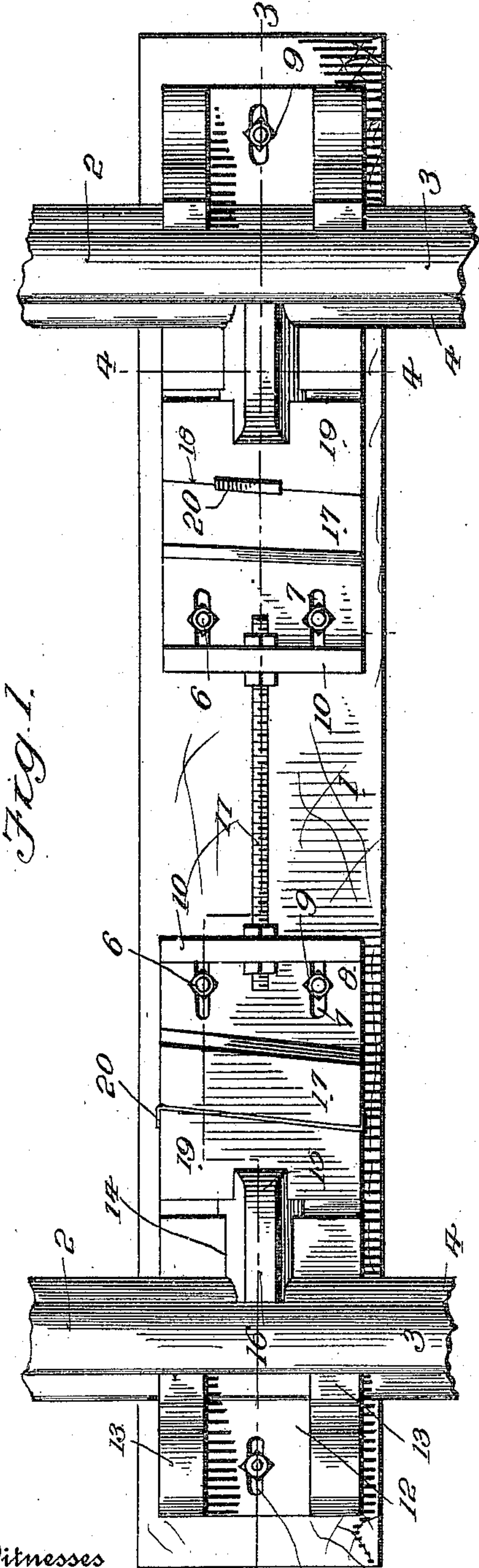


Fig. 1.

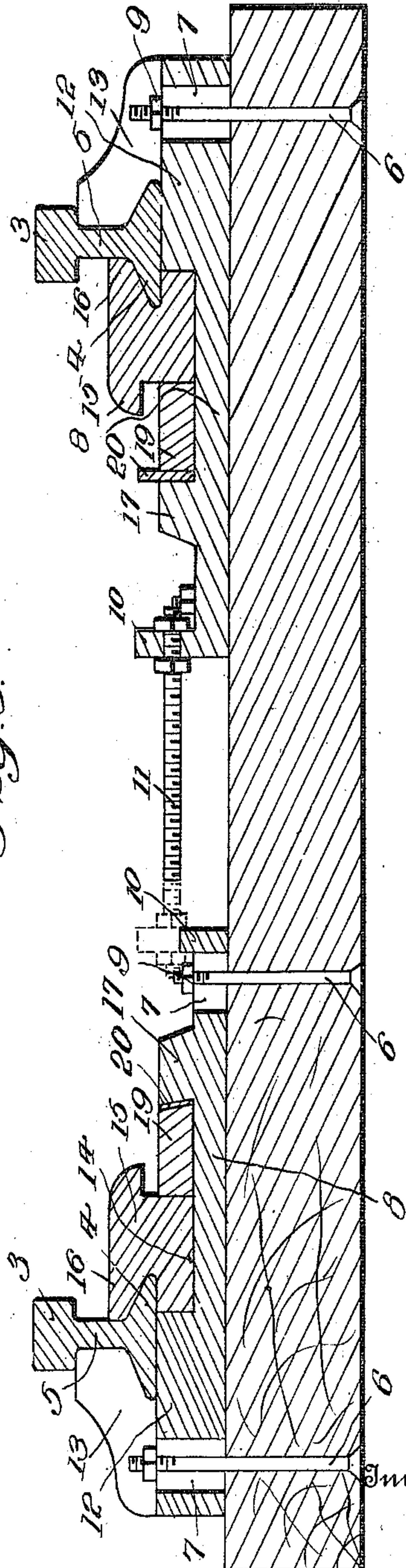


Fig. 3.

Witnesses  
M. C. Mattingly  
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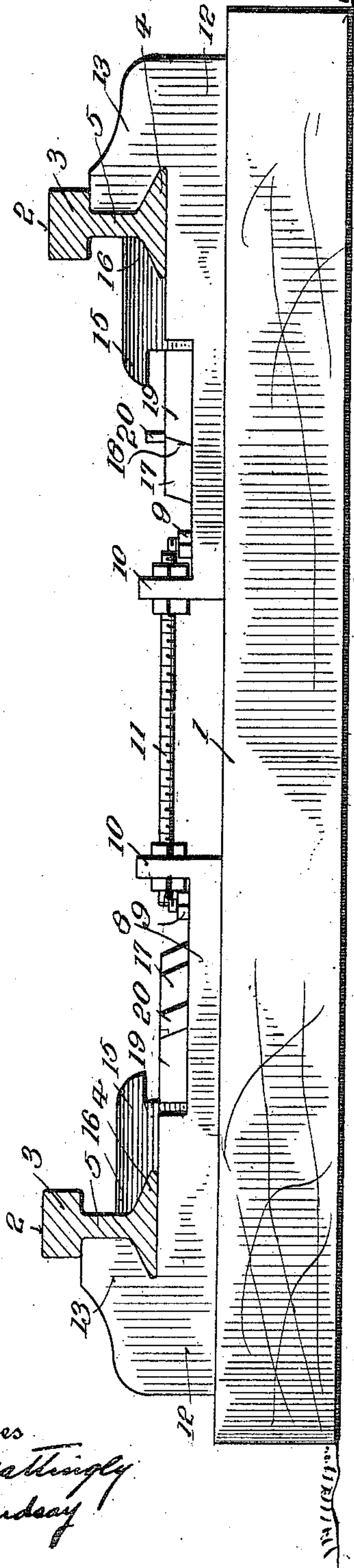
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2 SHEETS—SHEET 2.

Fig. 2.



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Fig. 5.

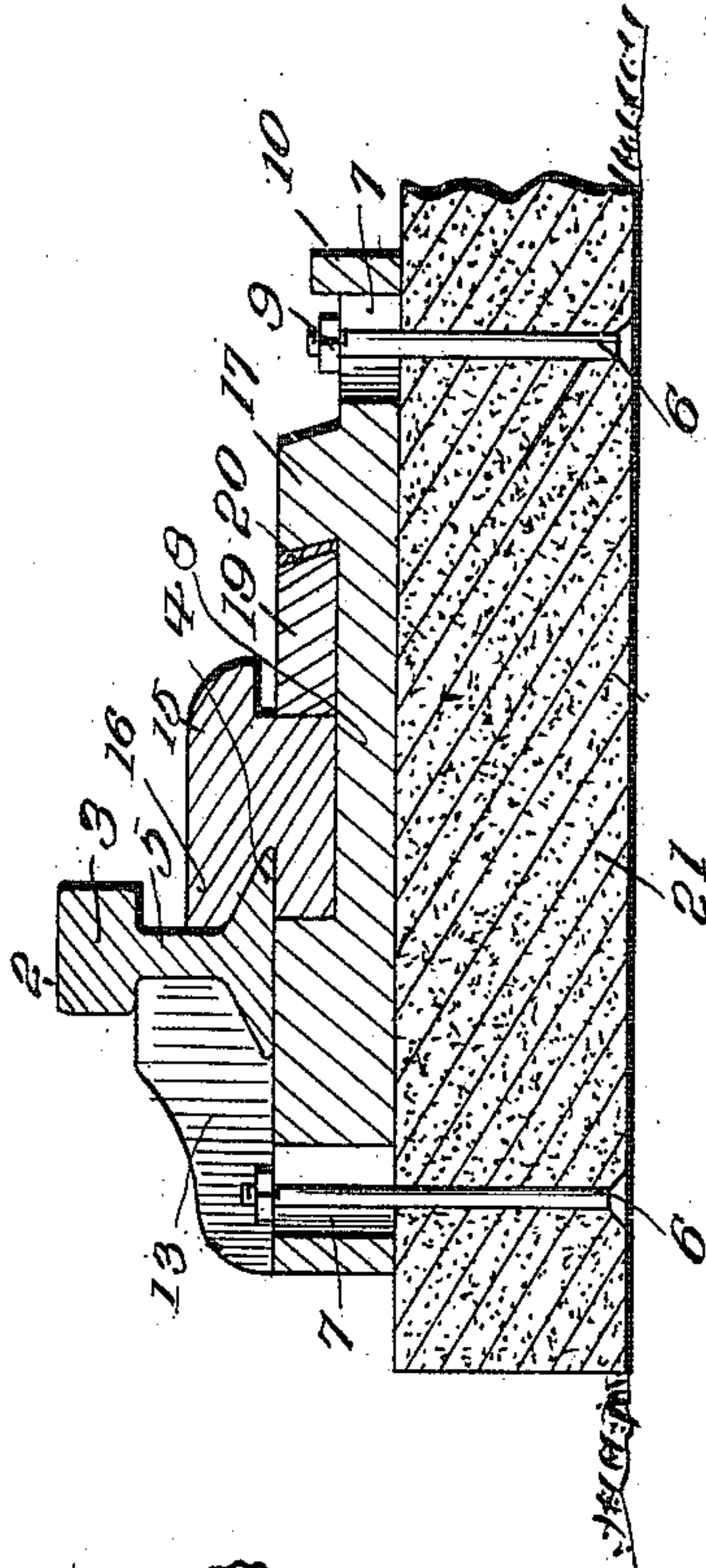
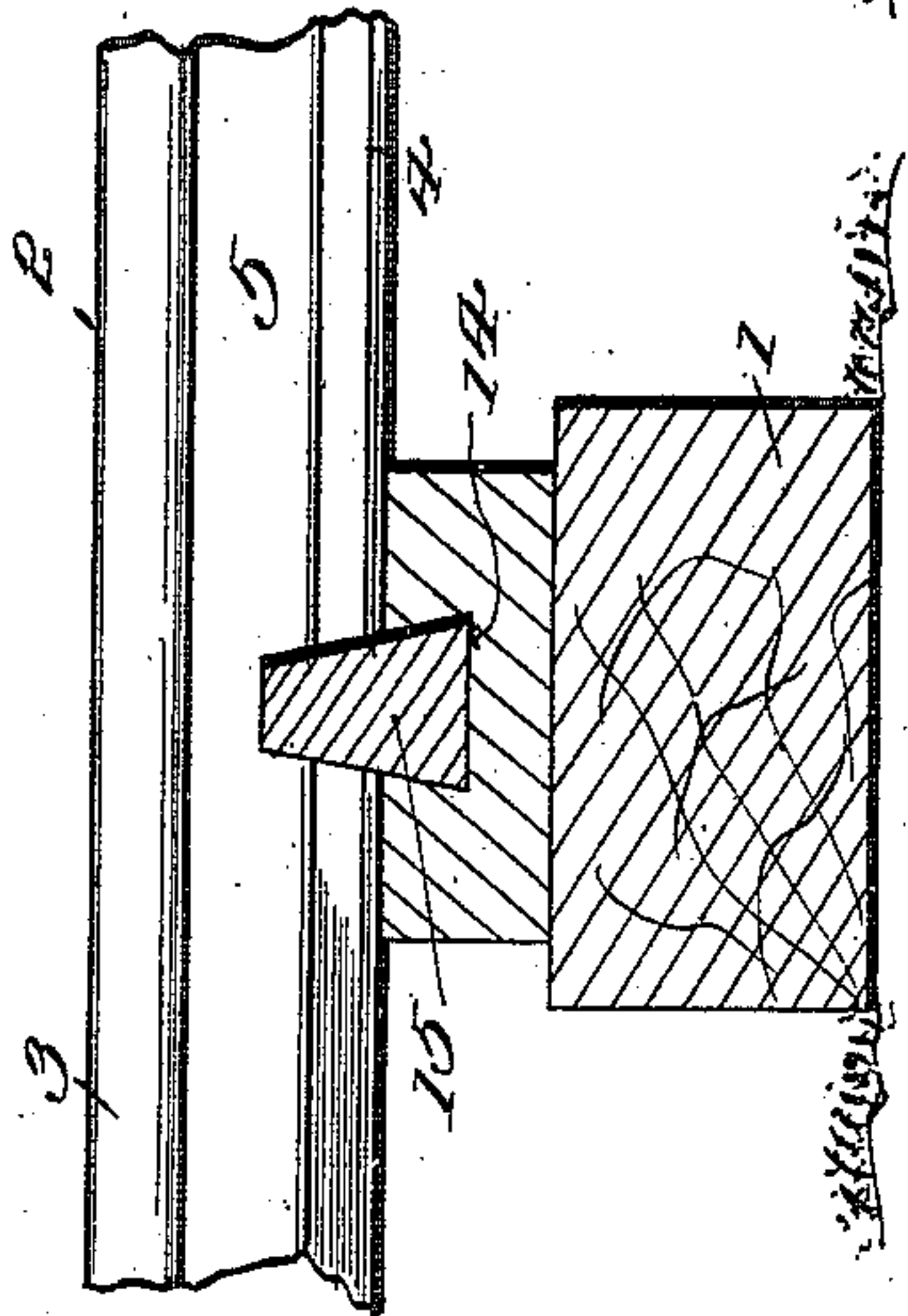


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## RAILROAD-CHAIR.

982,949.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed September 16, 1910. Serial No. 582,377.

*To all whom it may concern:*

Be it known that I, SAMUEL W. GROAH, a citizen of the United States, residing at Wilkie, in the county of Rockbridge and State of Virginia, have invented certain new and useful Improvements in Railroad-Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in railroad chairs, and has for an object to provide a device of this class which will be strong and durable, and which will eliminate the necessity for using the customary spikes in securing the rails to the ties.

Another object of this invention is to provide a railroad chair comprising a pair of rail clamping members adapted to be longitudinally adjustably secured to the upper face of a tie, and provide a means for adjusting the rails composed in the several track sections.

A further object is to provide a device of the character disclosed, which will be simple in construction, comprising but few parts, which can be manufactured at a minimum cost.

With the above and other objects in view, this invention consists in certain novel features of construction, combinations and arrangements of parts to be hereinafter more particularly described, claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved railroad chair; Fig. 2 is a side elevation thereof; Fig. 3 is a section taken on the line 3—3 of Fig. 1; Fig. 4 is a section taken on the line 4—4 of Fig. 1; Fig. 5 is a longitudinal sectional view taken through a modification of my invention.

Referring to the drawing by characters of reference, the numeral 1 designates a railroad tie, upon which are seated a pair of rails 2 comprising the customary heads 3, base flanges 4 and connecting ribs 5. Bolts 6 pass upward from the tie 1 through elongated openings 7 formed in a pair of longitudinally adjustable chair plates 8, and are retained by nuts 9, which are threaded onto the said bolts. The inner ends of the chair-

plates 8 are provided with transversely extending upstanding apertured ears 10 connected by a suitable adjusting bolt 11, whereby the said plates can be moved longitudinally of the tie in opposite directions. The outer ends of the chair plates 8 are reinforced as at 12, and provided with locking arms 13, which overlie and engage the base flanges 4 of the rails 2. These reinforced ends 12 of the chair-plates are channeled, as at 14, to receive dove-tailed clamping members 15, provided with extensions 16, which overlie and engage the inner sides of the said base flanges 4.

Spaced a distance substantially intermediate the inner ends of the reinforcements 12 and ears 10 of the chair plates 8 are obliquely extending transverse ribs 17, provided with beveled shoulders 18, between which and the inner ends of the clamping members 15 are interposed wedge shaped blocks 19. Suitable keys 20 engage the wedge blocks 19 and ribs 17, and prevent any undesired displacement of the former.

Fig. 5 of the drawings illustrates a modification of my invention, in which the ties 1 are dispensed with and the bolts 6 embedded in a suitable cement base 21.

In assembling this device the chair-plates 8 are placed upon the cement base 21, with the bolts 6 passing through the elongated openings 7 and the retaining nuts placed upon the said bolts. The rails are next placed upon the chair-plates with the locking arms 13 overlying the base flanges 3 of the rails. The clamping members 15 are then slipped through the channels 14 into engagement with the opposite sides of the base flanges, and the wedges forced between the inner ends of the said rail clamping members and the oblique ribs 17. The keys 20, being illustrated in the accompanying drawings on one side of the rail chair as a plug adapted to engage recesses formed in the contacting faces of the rib 17 and wedge 19 and at the opposite side, a plate being in the form of a strip of metal adapted to interpose between the said rib 17 and wedge 19, and having its opposite ends at right angles thereto against one end of the rib 17 and wedge 19 respectively, for the purpose of preventing displacement of the said wedge, but it should be understood that any keys may be employed, will operatively

engage the wedges and ribs, and lock each of the several parts in their normal position.

When it is desired to increase or diminish the distance between the rails of the track sections, all that is necessary is to turn the adjusting bolt 11 until the proper distance is assumed.

From the foregoing it is manifest that a railroad chair is provided for which will answer all of the necessary requirements of such a device.

Having thus fully described this invention, what is claimed as new is:

The combination of a pair of adjustable chair plates, rail-engaging locking arms formed upon the plates, rail clamping mem-

bers movable toward the locking arms in channels formed in the chair plates, oblique ribs formed upon the chair plates, wedges interposed between the clamping members and the ribs, and adapted to force the clamping members toward the locking arms, and keys operatively engaging the wedges and the ribs, for the purpose of retaining the parts in their normal position.

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

SAMUEL W. GROAH.

Witnesses:

H. H. BELL,

W. P. FITZGERALD.