

(No Model.)

2 Sheets—Sheet 1.

N. M. MARKS.

COMBINED RAILWAY RAIL CHAIR AND TIE.

No. 376,250.

Patented Jan. 10, 1888.

Fig. 1

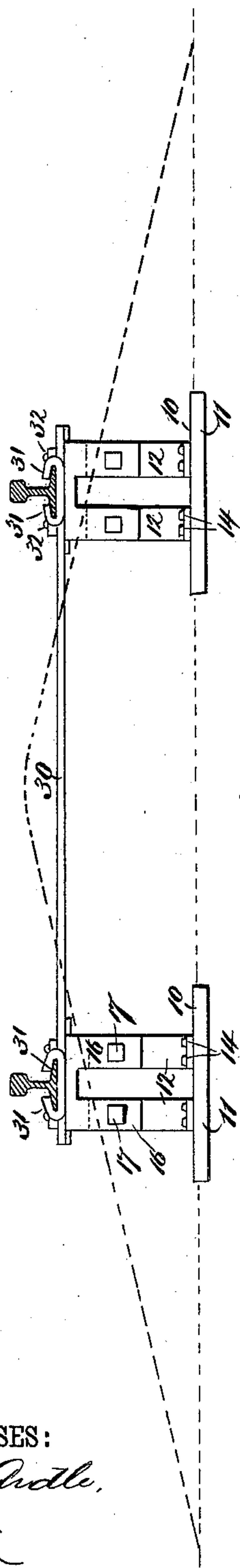


Fig. 2

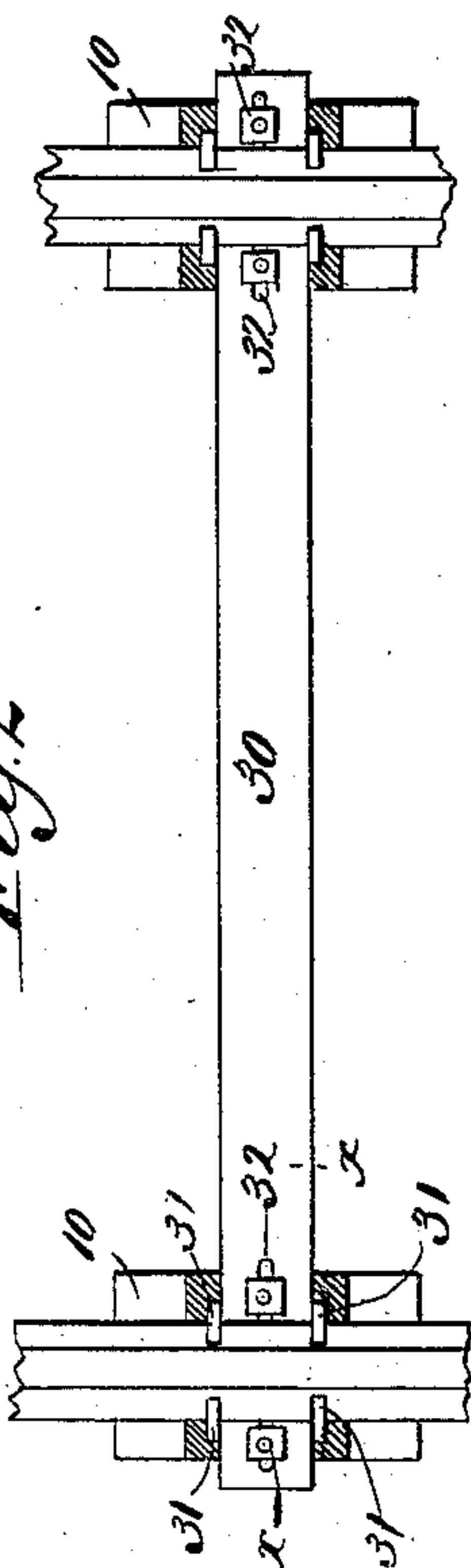


Fig. 3

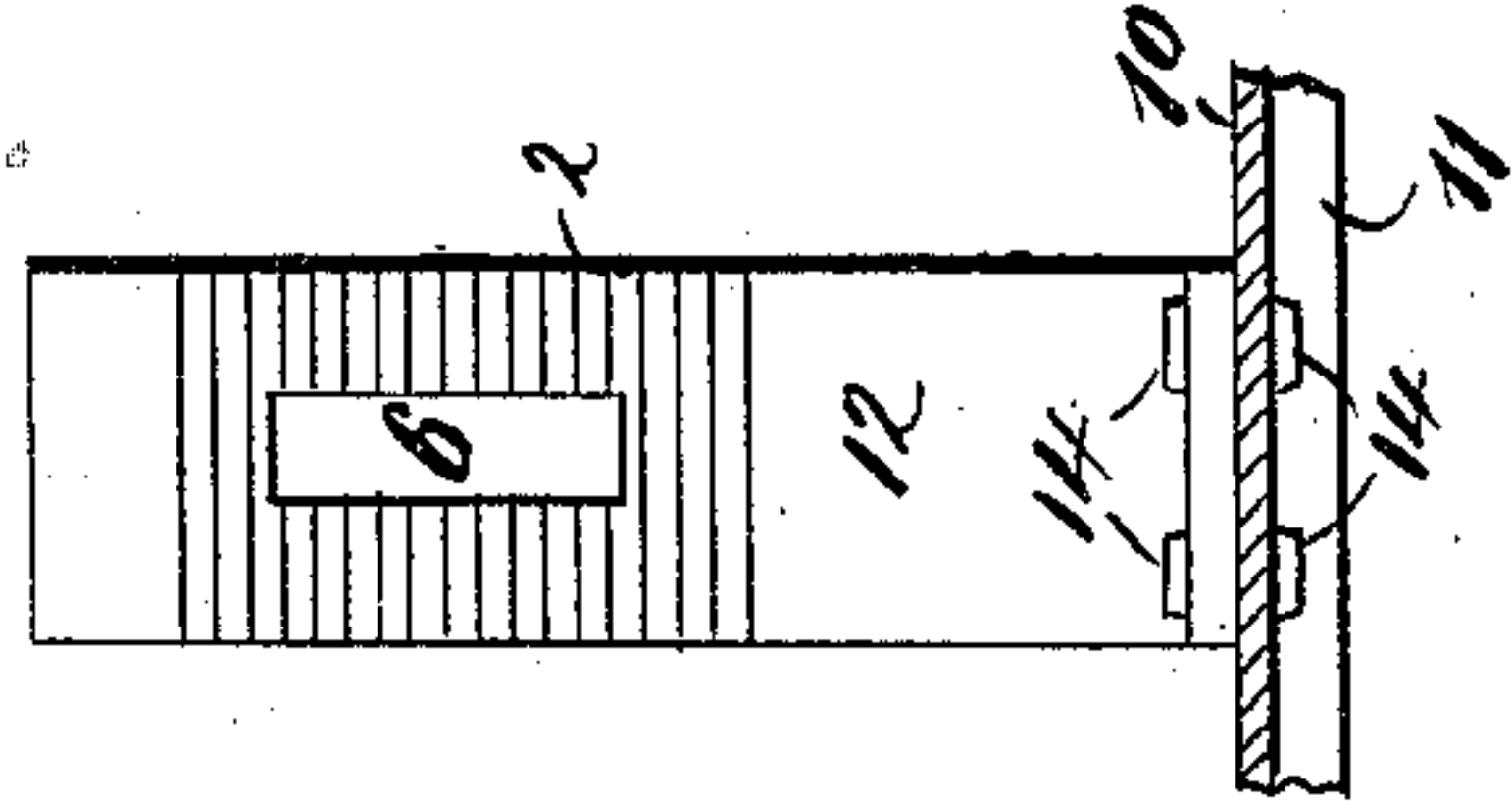


Fig. 4

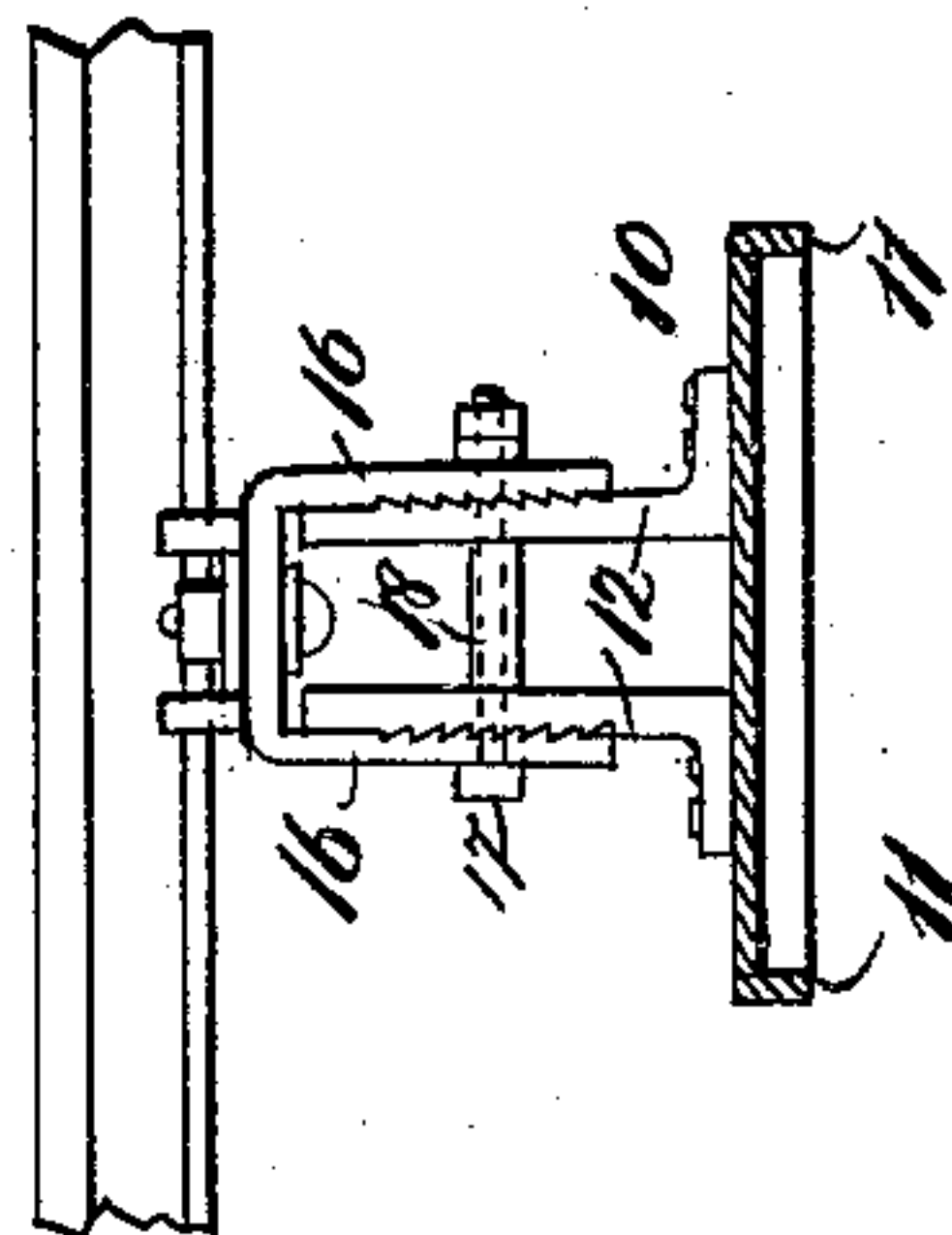
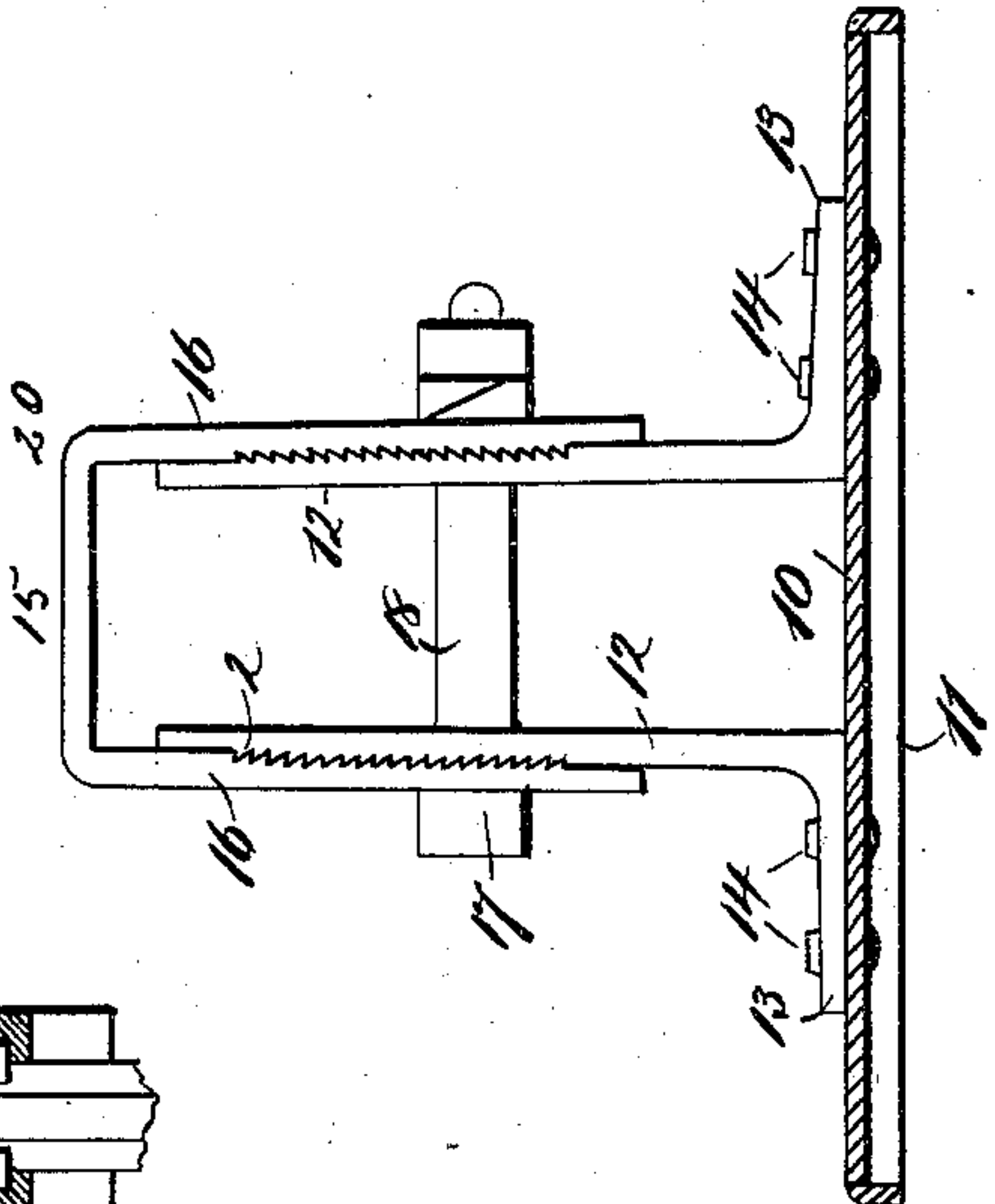


Fig. 5



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Fig. 10

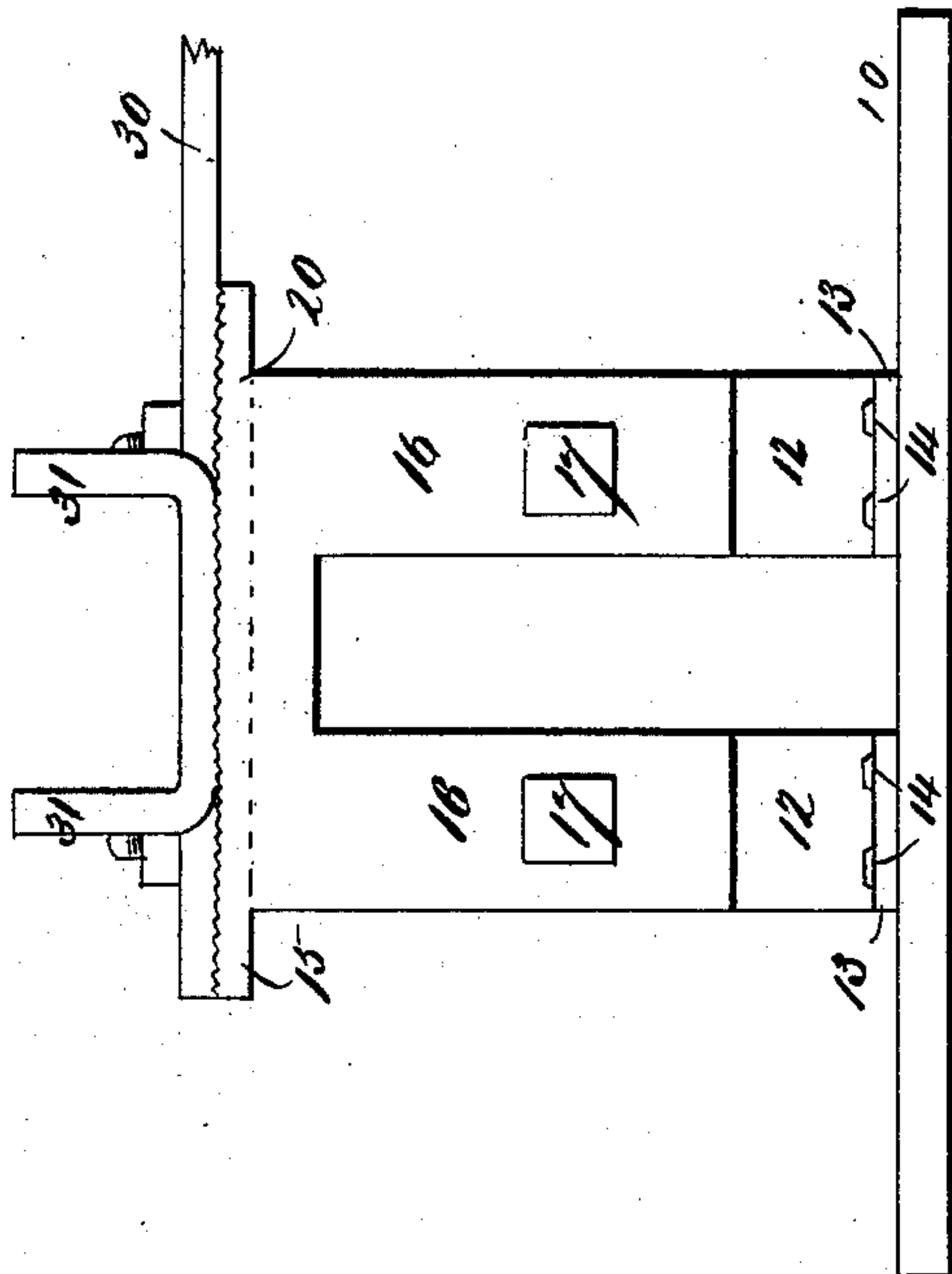


Fig. 11

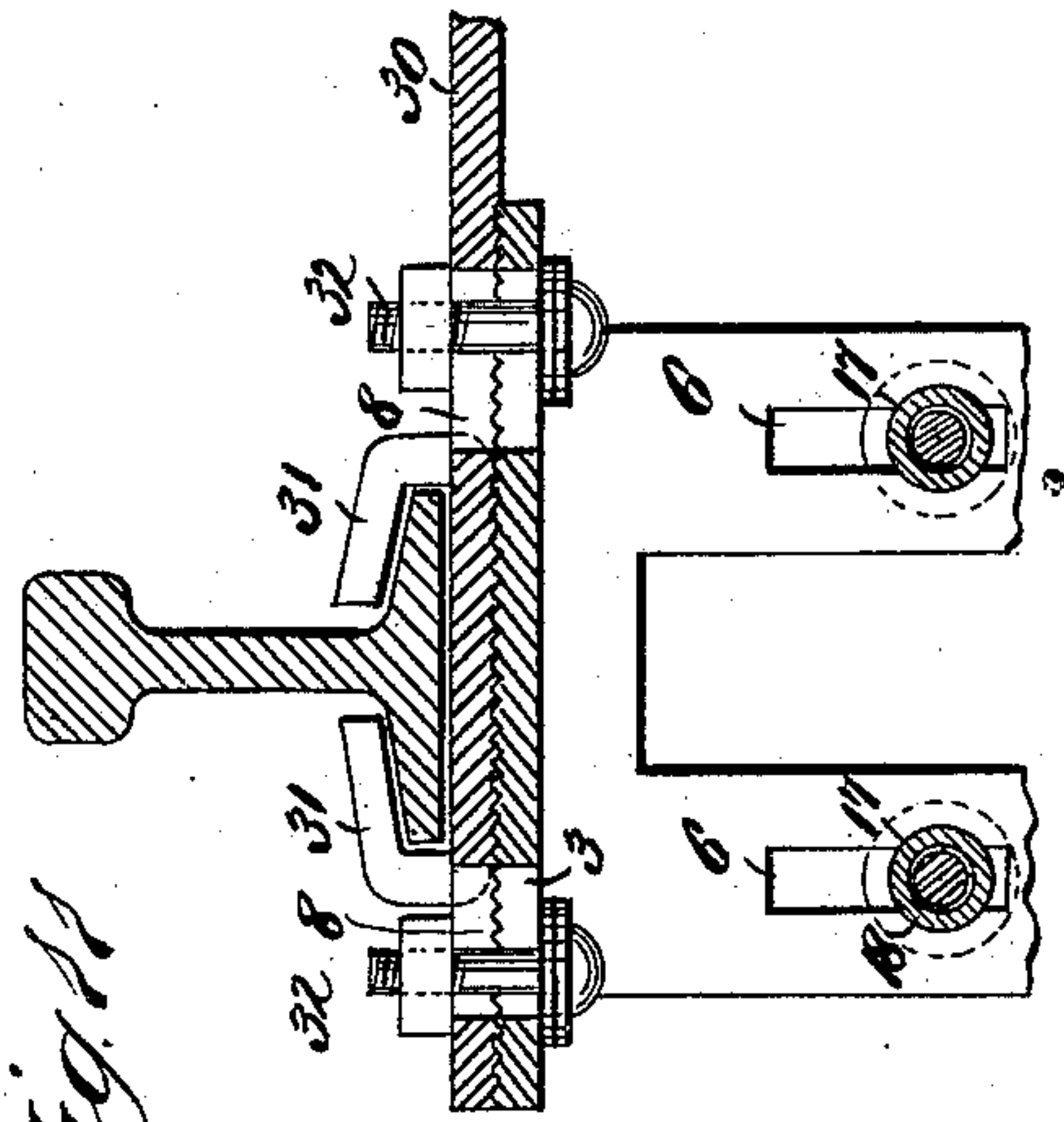


Fig. 6

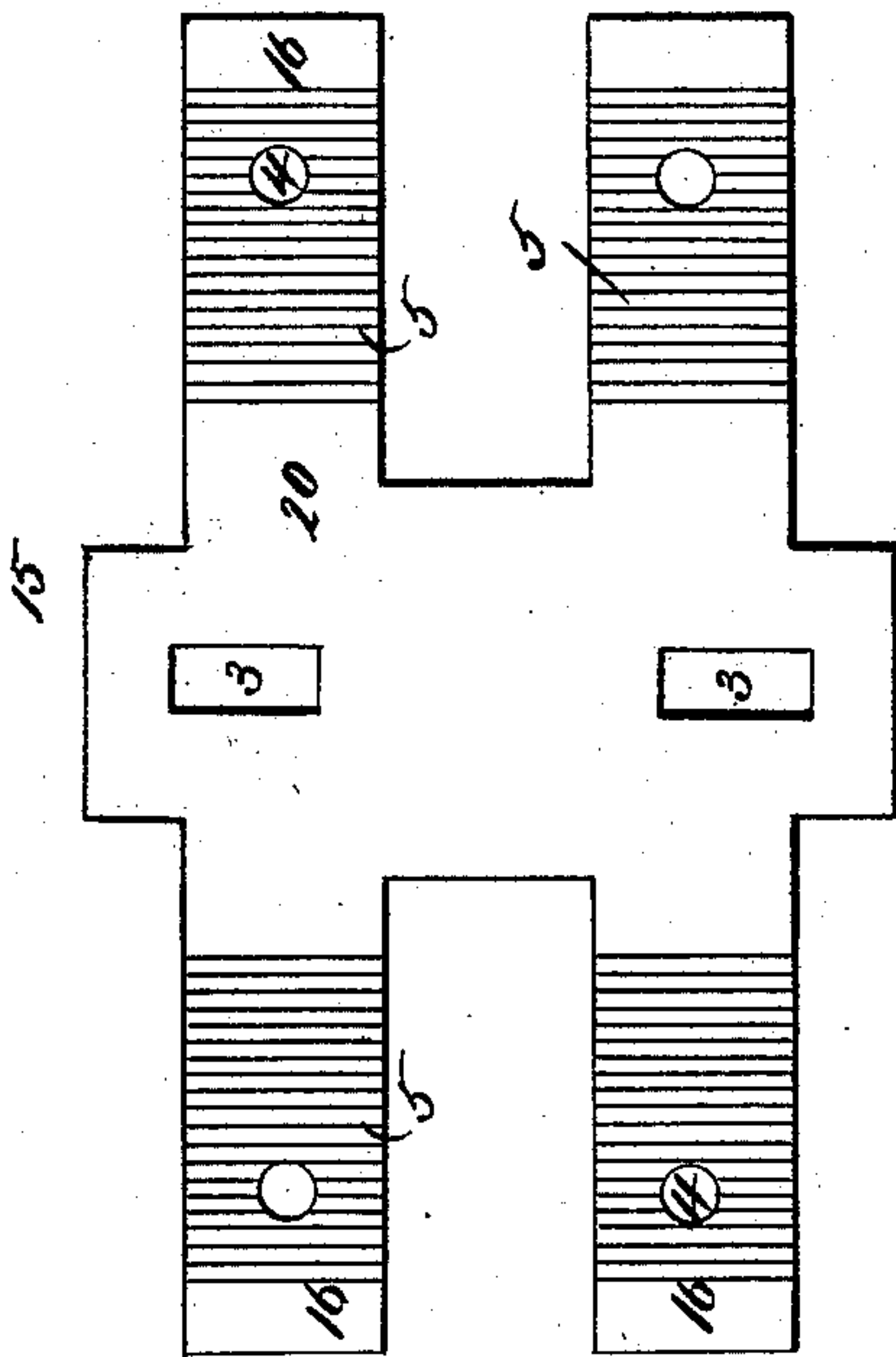


Fig. 7

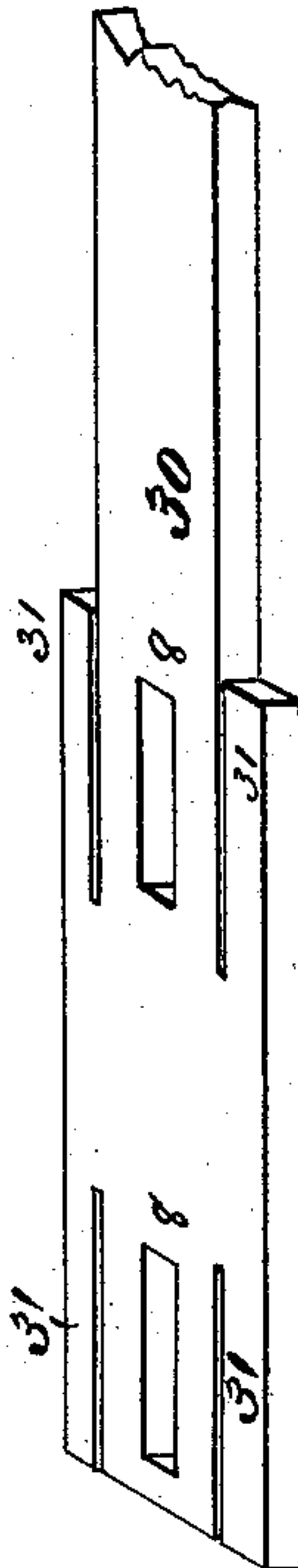
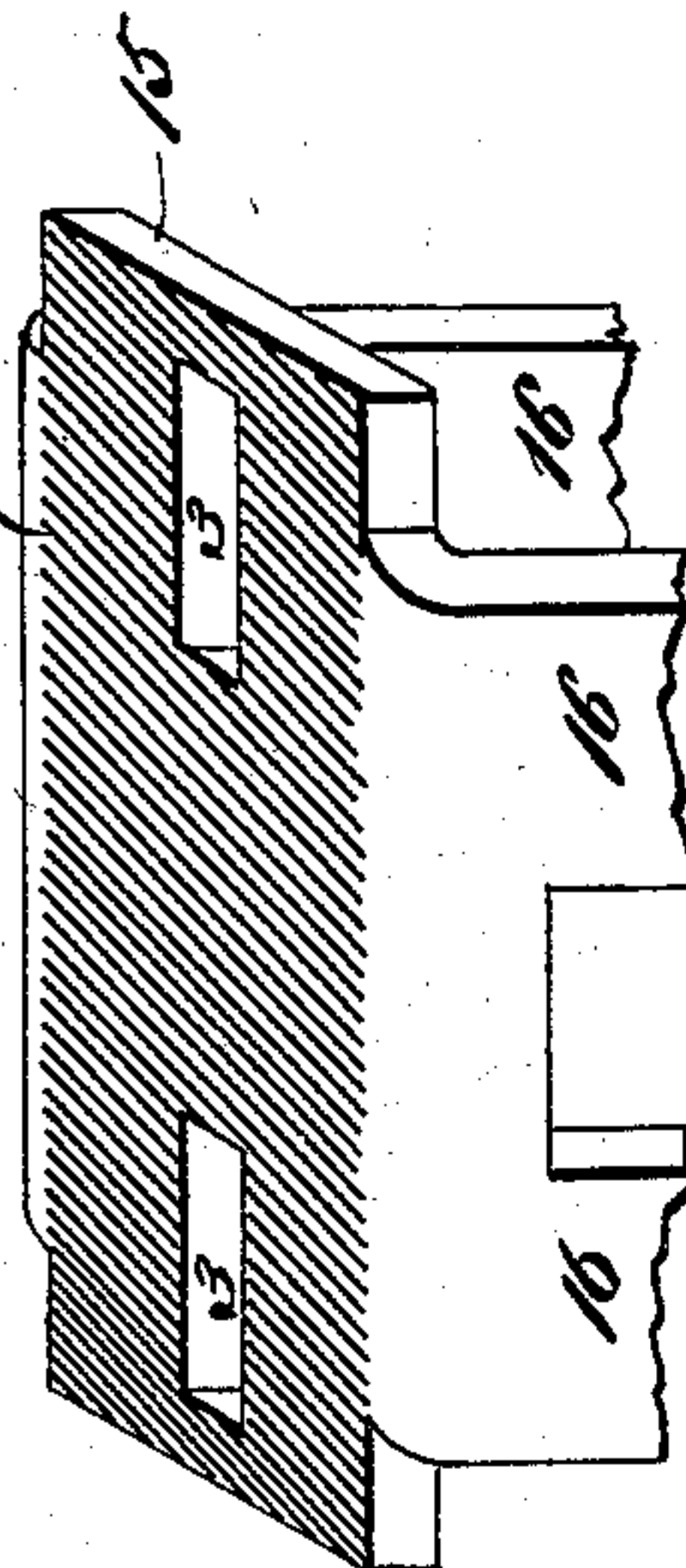


Fig. 8

Fig. 9



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UNITED STATES PATENT OFFICE.

NICHOLAS M. MARKS, OF GAINESVILLE, TEXAS.

COMBINED RAILWAY-RAIL CHAIR AND TIE.

SPECIFICATION forming part of Letters Patent No. 376,250, dated January 10, 1888.

Application filed August 18, 1887. Serial No. 247,371. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS MARIE MARKS, of Gainesville, in the county of Cooke and State of Texas, have invented a new and Improved Combined Railway-Rail Chair and Tie, of which the following is a full, clear, and exact description.

This invention relates to a combined railway-rail chair and tie, the object of the invention being to provide a rail-support that shall be durable, stable, adjustable, elastic, and economical.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a cross-sectional view of two rails, representing the same as they appear when arranged in connection with my improved combined chair and tie. Fig. 2 is a plan view of the construction illustrated in Fig. 1. Fig. 3 is an enlarged side view of one of the rail-supporting standards, the foundation seat or base in connection with which the standard is arranged being shown in section, and a portion only of such base being represented in the figure. Fig. 4 is an end view of my improved chair and seat, the foundation-seat or base-plate being shown in section. Fig. 5 is an enlarged view similar to that given in Fig. 4, the rail and the cross bar or tie proper being removed. Fig. 6 is an inverted plan view of the blank from which the rail-support is formed. Fig. 7 is an edge view of said blank. Fig. 8 is a perspective view of one end of the cross bar or tie proper. Fig. 9 is a perspective view of the upper portion of the rail-support. Fig. 10 is a side view of one of the chairs and its connections, representing the parts as they appear prior to the laying of the rail; and Fig. 11 is a sectional view taken on a line corresponding with that of the line *xx* of Fig. 2.

In the drawings, 10 represents a base-plate, the edges of which are turned down to form flanges 11. To the upper face of this foundation-seat or base-plate I secure four upwardly-extending standards, 12, said standards being in the form of angle-irons, of which the shorter flanges, 13, rest upon the upper face of the plate 10, rivets 14 being employed to connect the parts. The outer faces of these standards 12

are ribbed, as shown at 2, the upper faces of said ribs extending outward from the standards at about right angles to the general length of said standards. To these standards I connect a rail-support, 20, which is formed from a blank such as that illustrated in Fig. 6, said blank having a central section, 15, that is formed with apertures 3, while from either side of this central section there extend arms 16, that are formed with apertures 4, the under faces of these arms being formed with ribs 5, of which the outer faces—that is, the faces toward the ends of the arms—extend at right angles to the general length of the arms. The upper face of the central section, 15, is slightly serrated, said serrations extending in diagonal lines across the face of the plate.

The arms of the blank above described are bent down, so as to extend downward at right angles from the central section, 15, the space between said arms being such as to freely admit the standards 12, to which standards the arms are bolted by means of bolts 17, which pass through the apertures 4 of the arms 16 and through elongated slots 6, that are formed in the standards 12, sleeves 18 being placed between the standards and about the bolts, the arrangement being such that the rail-support 20 may be adjusted toward or from the base to such position as may be required to bring the rail to a proper level.

Two such supports as the one above described are connected by a cross-bar, 30, the ends of said bar being wider than the main portion thereof, and these ends are cut down in a direction parallel with the length of the bar to form fingers 31, while the under face of each end is diagonally serrated to correspond with the serrations of the section 15 of the rail-support 20, upon which section the ends of the cross-bar rest, the cross-bar being held to the rail-support by bolts 32, which pass upward through the slots 3 and through slots 8, that are formed in the cross-bar. By forming serrations in the upper face of the support 20 and the under faces of the ends of the cross-bar, I provide an exceedingly firm connection between the parts, the serrations interlocking and preventing any accidental slipping of the cross-bar upon the supports. A proper adjustment of the supports 20 and the parts by

which they are carried may be obtained, owing to the formation of the slots 3 and 8.

In using the combined chair and tie above described, the plate 14 is embedded in the ground, as represented in Fig. 1, and the fingers 31 are moved to the position in which they are shown in Fig. 10. While in this position the base of the rail is placed between the fingers, which fingers, after the rail is in position, are bent down, so as to fit closely against the upper faces of the said rail-base, thus acting to clamp the rail to place.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a base-plate, of a rail-support adjustably connected to the base-plate, said base-plate and rail-support having engagement with each other and clamped together, substantially as set forth.

2. The combination, with a base-plate provided with four upwardly-extending standards, the outer faces of which are ribbed, of a rail-support provided with four downwardly-extending arms, the inner faces of which are ribbed, and bolts by which the arms are clamped to the standards, substantially as described.

3. The combination, with two vertically-adjustable rail-supports, of a cross-bar provided with rail-clamping fingers, and a means for

connecting the cross-bar to the rail-support, substantially as described.

4. The combination, with two base-plates provided with upwardly-extending standards, of rail-supports adjustably connected to said standards, a cross-tie having rail-clamping fingers, and a means, substantially as described, for connecting the cross-bar to the rail-supports, as and for the purpose stated.

5. The combination, with a base-plate, 10, of standards 12, secured thereto and formed with ribs 2, a rail-support having four downwardly-extending arms that are formed with ribs 5, the upper section of said support being serrated, bolts 17, which pass through the standards and the arms, sleeves arranged between the standards and about the bolts, a cross-bar, 30, the under face of the ends of which are serrated, and bolts 32, by which the cross-bar is connected to the rail-supports, substantially as described.

6. The combination, with vertically-adjustable rail-supports, of a cross-bar that is adjustably connected to said supports, which rail-supports have engagement with and are clamped to base-plates, substantially as described.

NICHOLAS M. MARKS.

Witnesses:

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J. R. CLEMMONS.