No. 693,219. Patented Feb. 11, 1902.

A. B. BELLOWS.

TRUCK FRAME.

(Application filed Nov. 9, 1901.)

(No Model.) 2 Sheets—Sheet 1.

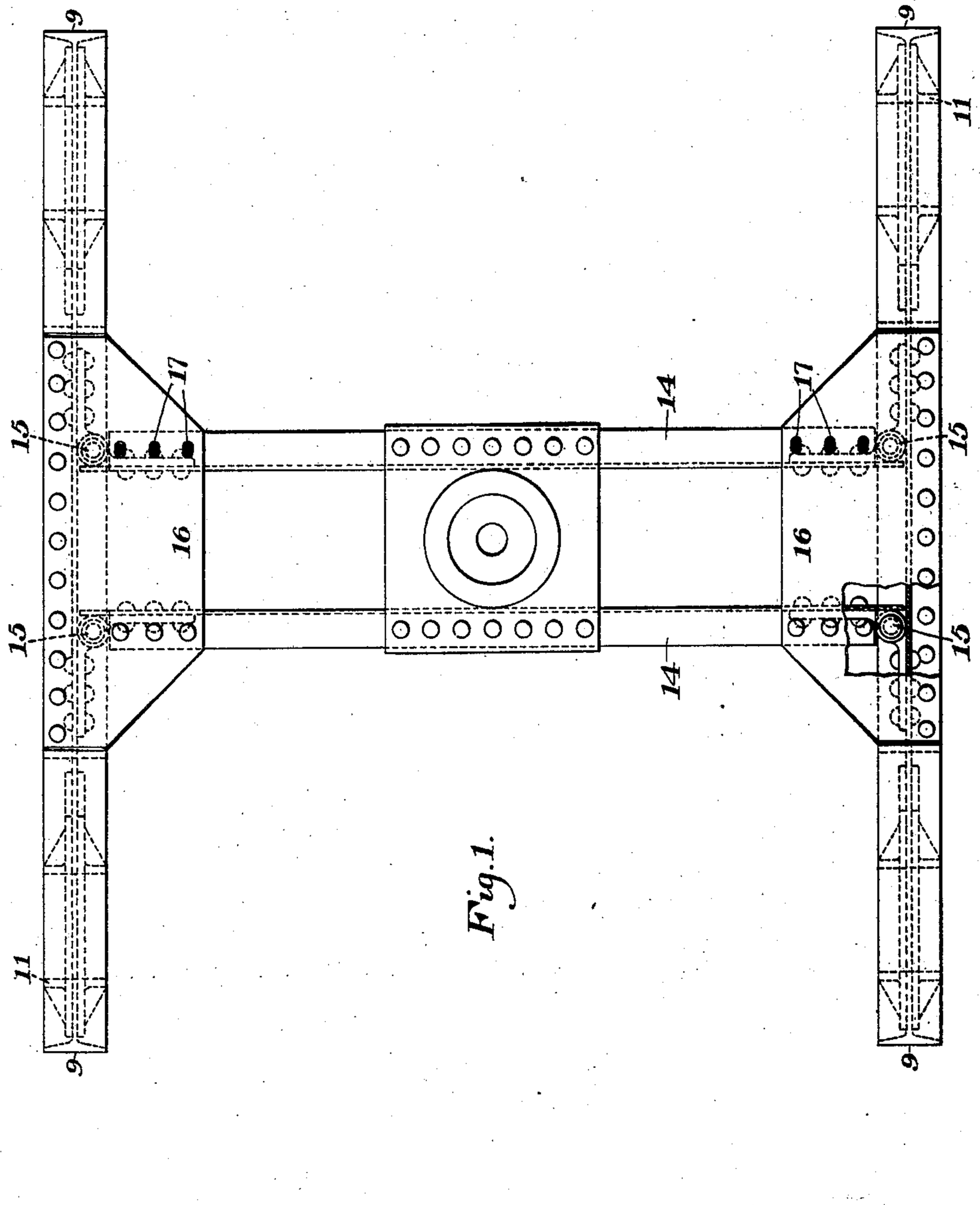

Fig. 1.

WITNESSES

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Fig. 3.

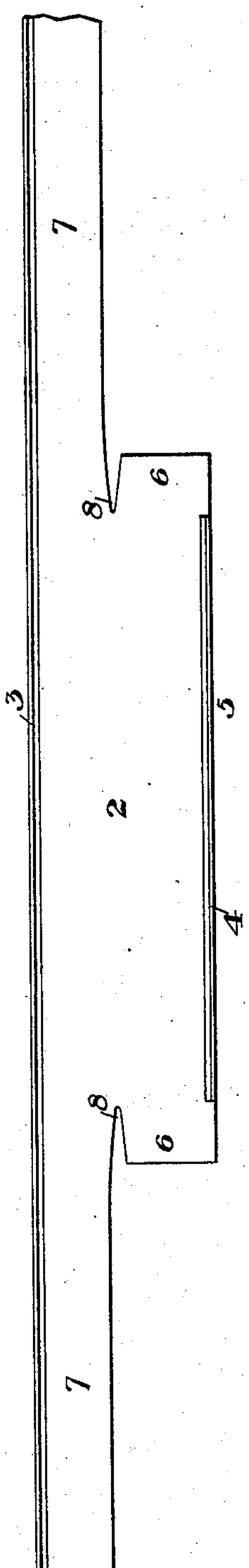
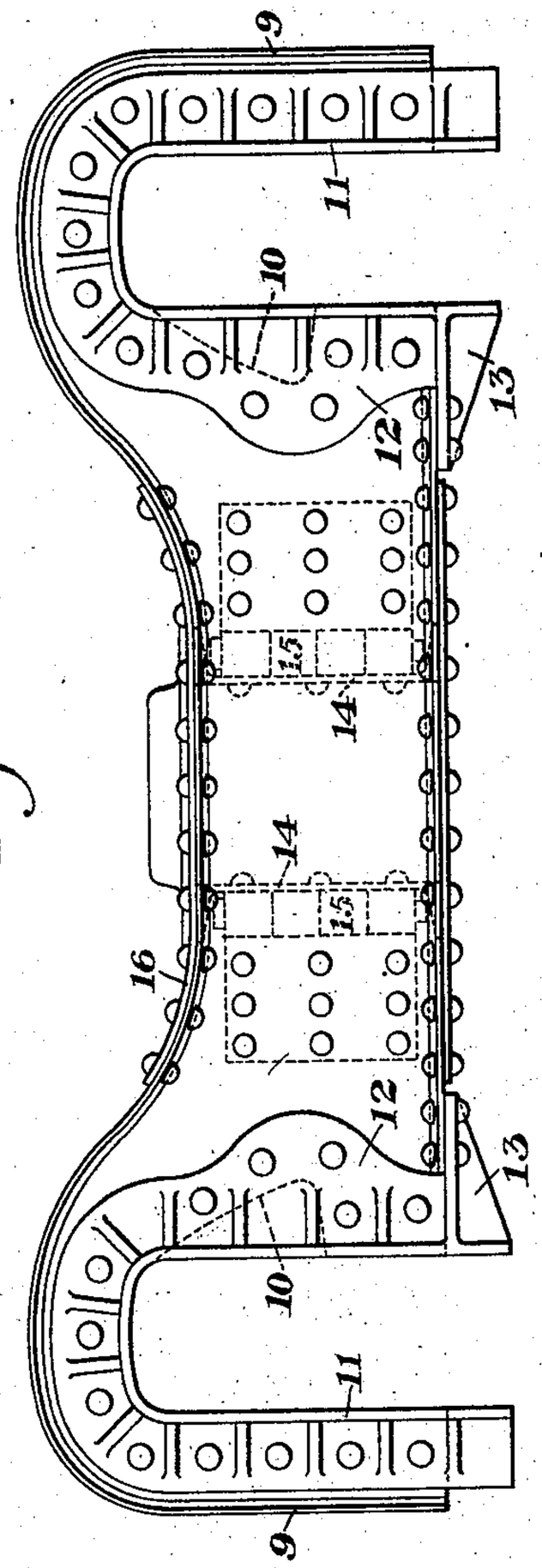


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

ARTHUR B. BELLOWS, OF PITTSBURG, PENNSYLVANIA.

TRUCK-FRAME.

SPECIFICATION forming part of Letters Patent No. 693,219, dated February 11, 1902.

Application filed November 9, 1901. Serial No. 81,669. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. BELLOWS, of Pittsburg, Allegheny county, Pennsylvania, have invented a new and useful Truck-Frame, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view, partly broken away, showing my improved truck-frame. Fig. 2 is a side elevation of the same, and Fig. 3 is a side elevation showing the method of cutting the blank used in forming the side frame.

My invention relates to the class of car-trucks and is designed to cheapen and strengthen their construction and to provide a flexible connection between the transom and the side frames, whereby a slight hinge action is allowed between these parts.

In forming the side frame of my improved truck I cut away the web and lower flanges of a flanged rolled shape into substantially the form shown in Fig. 3, in which 2 represents the web, 3 the upper flange, and 4 the lower flange, of the beam. The upper flanges of this I-beam blank extend the entire length of the blank, while the lower flanges are cut back from the lower part 5 of the web, leaving flat end portions 6 6. The opposite arm portions 7 7 of the web are joined to the lower part 5 with inward jogs or notches 8. The blank thus formed is then heated and bent into the form shown in Fig. 2, the parts 7 7 being curved upwardly and thence down to form the pedestals 9 of the side frame. The notches or recessed portions 8 are drawn apart in this operation, as shown by the dotted lines at 10 in Fig. 2, and the pedestals are finished by means of U-shaped malleable castings 11, which are riveted within the bent pedestal portions of the beam. Bent commercial shapes, such as angles, may be used instead of these castings. The web portions 12 of the inner legs of these castings fit over the web portions 6 and the castings are preferably provided with brackets 13, which project beneath and are riveted to the lower flanges of the beam.

The transom is shown as composed of two channels 14, with outwardly-projecting flanges which are cut away at the ends, such ends being secured to the webs of the side frames by means of hinges 15, the members of which are riveted to the web of the side frames and to the transom member, as shown. The strengthening-plates 16 are riveted to the top flanges of the side frames and bolted to the transom members, respectively, the holes for the transom-bolts being enlarged slightly, as shown at 17, to allow movement of the bolts therein. It will be noted that the ends of the transom members are given a clearance with respect to the side frames, so as to allow the slight hinging movement provided for by the connections and that a part of the transom will contact with the side frame after a slight movement has been given.

The advantages of my invention result from the strength and small number of parts in the side frames, and, further, from the hinge connections between the transom and the side frames, which allow slight movements upon curved parts of the track, and hence remove the tendency to ride the track which is present in all rigid plate end trucks. It also reduces the flange wear of the wheels.

Flexible connections may be used instead of the hinges shown, and the form and arrangement of the parts may be otherwise varied without departing from my invention.

I claim—

1. A truck side frame containing an I-beam forming the central body portion, said I-beam having the lower parts of its end portions cut away and removed, the upper parts and top flanges of said end portions being bent to form pedestal parts; substantially as described.

2. A truck side frame containing an I-beam, the lower parts of whose end portions are cut away and removed, the upper parts and top flanges of the end portions being bent to form U-shaped pedestal parts, and pedestals secured within said parts; substantially as described.

3. A truck having side frames and a connecting-transom, the connections between the transom and the side frames being flexible or

hinged in a vertical direction to allow horizontal movement of the one part relatively to the other; substantially as described.

4. A truck having a transom composed of a plurality of rolled shapes, each having a flexible connection with the side frame; substantially as described.

5. A truck-frame having a transom with hinged connections between them and the side frames, and connecting-plates between the transom and side frames arranged to allow relative movement of these parts; substantially as described.

In testimony whereof I have hereunto set my hand.

ARTHUR B. BELLOWS.

Witnesses:
H. M. CORWIN,
L. A. CONNER, Jr.