

No. 698,788.

Patented Apr. 29, 1902.

A. B. BELLOWS.

BRAKE BEAM.

(Application filed Sept. 27, 1901.)

(No Model.)

Fig. 1.

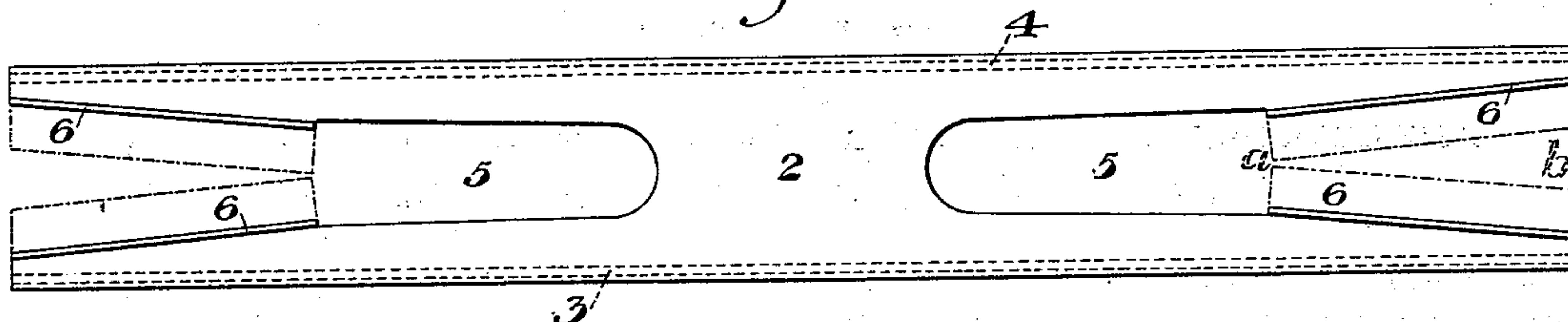


Fig. 2.

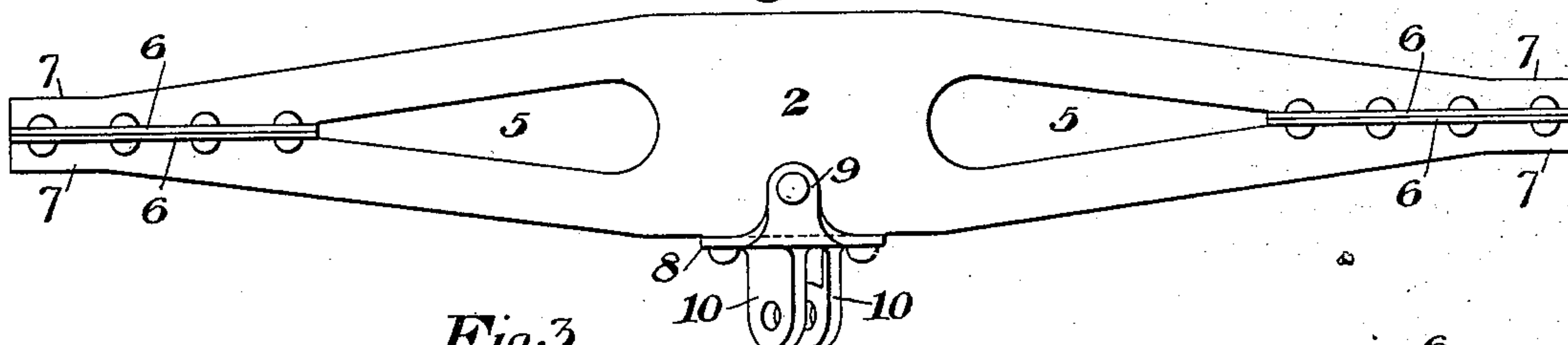


Fig. 3.

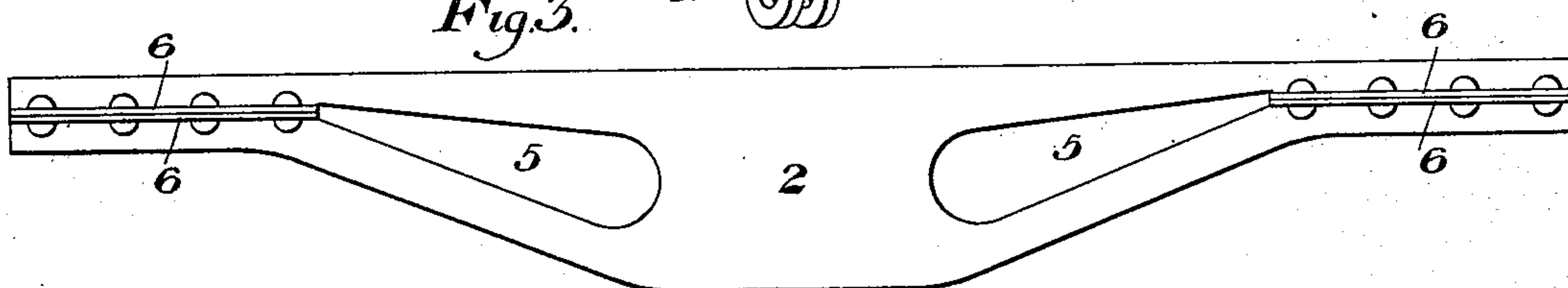


Fig. 4.

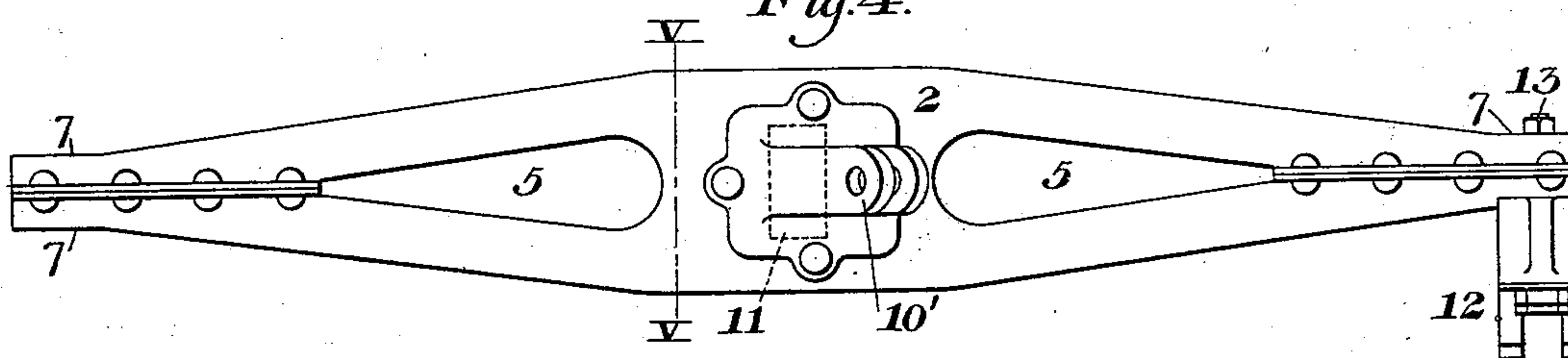


Fig. 5.

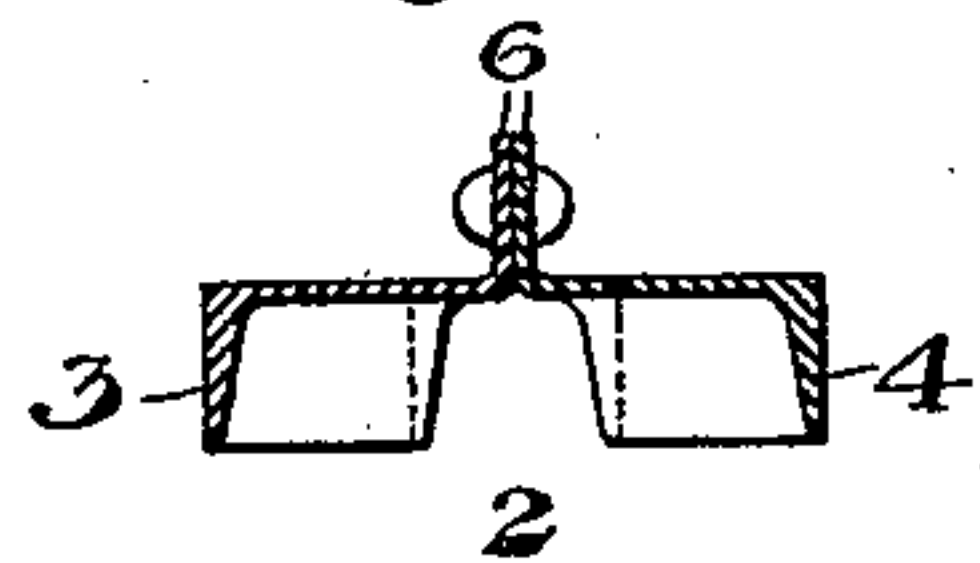
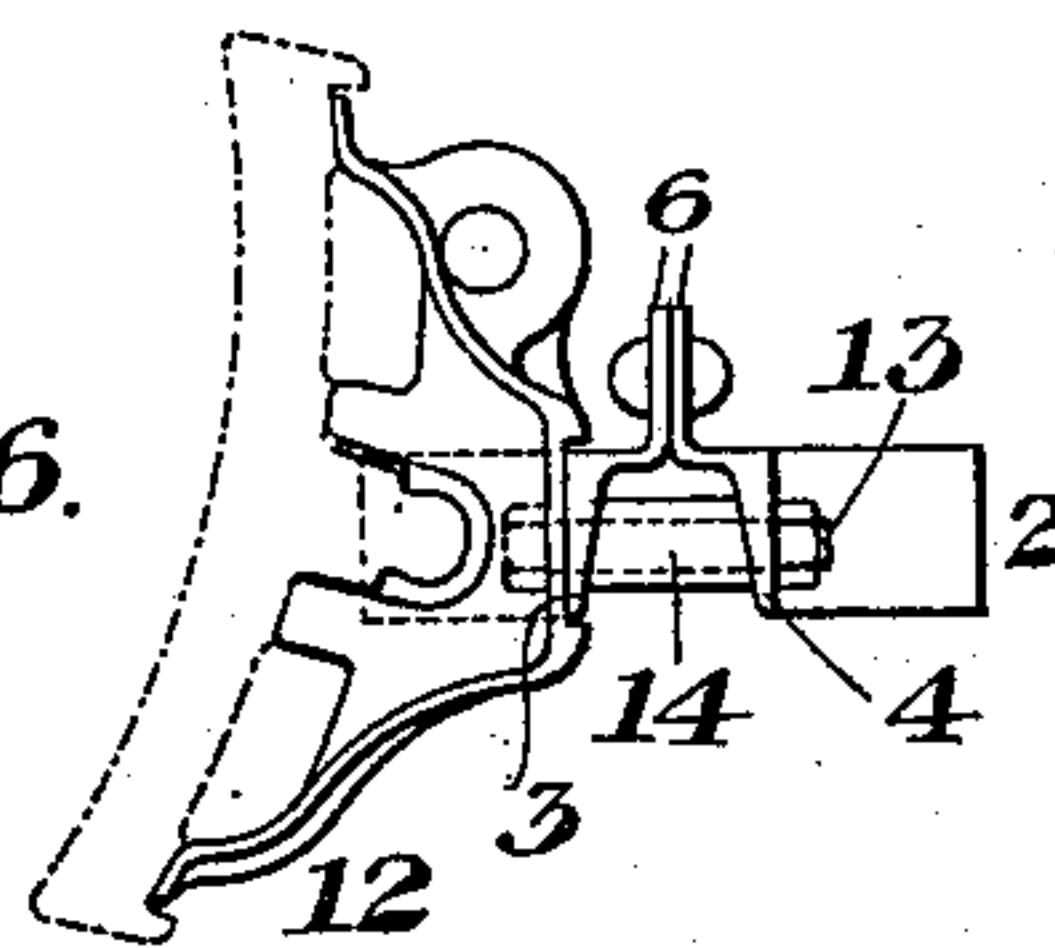


Fig. 6.



WITNESSES

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ARTHUR B. BELLOWS, OF PITTSBURG, PENNSYLVANIA.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 698,788, dated April 29, 1902.

Application filed September 27, 1901. Serial No. 76,762. (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 Brake-
5 Beam, 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 side elevation showing the
10 method of forming my improved brake-beam. Fig. 2 is a top plan view of the finished brake-beam. Fig. 3 is a similar view showing a modified form. Fig. 4 shows my preferred mode of attaching the brake-rod fulcrum. Fig.
15 5 is a cross-sectional view on the line V V of Fig. 4. Fig. 6 is a cross-section of the end elevation of the brake-beam, showing the attaching of the brake-shoe.

My invention relates to the class of brake-
20 beams, and is designed to provide a simple and strong construction therefor which can be easily made from commercial shapes and which shall be strong and efficient and also adapted to the limited space arranged to re-
25 ceive it.

In the drawings, referring to Fig. 1, 2 represents a section of a rolled channel having inner and outer flanges 3 and 4. In forming my improved brake-beam the web of the chan-
30 nel is cut away on each side of the center in U-shaped form, as shown at 5 5, and from the ends of the section the web is cut away in triangular form, as indicated by the lines *a b*. The parts of the web extending parallel with
35 the lines *a b* are bent at right angles to the plane of the web and opposite to the flanges 3 and 4, thus forming inner flanges 6 6. The side portions of the section thus formed are then bent toward each other, thus bringing
40 the flanges 6 6 together and closing the outer ends of the U-shaped slots. The ends of the web are preferably pressed to form parallel portions 7 7 at each end of the beam to provide for attachment of the brake-heads, and
45 the flanges 6 6 are secured together by rivets, as shown. The sides of the section may both be bent inwardly, thus bringing the joint between the inner flanges in line with the longitudinal axis of the beam, as shown in Fig.
50 2, or one flange may remain in its original position, the opposite portions being bent

down, as shown in Fig. 3, the flanges 6 then being at one side of the center line.

In attaching the brake-rod fulcrum I may provide a bracket 8, such as shown in Fig. 2, 55 and which is riveted to the lower flange of the channel and is provided with a lip 9, riveted to the web, the ears 10 10 projecting outwardly, as shown; but I prefer to rivet this bracket to the web of the beam, as shown in 60 Fig. 4, and to allow the passage of the brake-rod I provide a central slot or hole 11, which is cut through the central part of the web, the ears 10' extending laterally at an angle from the bracket, as shown. This gives a 65 very simple and neat construction and does not injure the strength of the beam. The brake-shoe 12 is secured to the end of the beam by bolts 13, extending through the flanges 3 and 4 and through a separating- 70 sleeve 14, arranged between them, as shown in Fig. 6.

The advantages of my invention result from the cutting and bending out of the web into flanges, which are secured together, and fur- 75 ther from the cutting of the hole through the center of the beam for the passage of the brake-rod, and also from the compactness, strength, and cheapness of the construction.

Changes may be made in the form of the 80 shape and the slots or cuts, as well as in the bending and the attachment, without departing from my invention.

I claim—

1. A brake-beam consisting of a flanged 85 shape having parts of its web cut and bent outwardly to form flanges; substantially as described.

2. A brake-beam consisting of a rolled chan- 90 nel having openings cut between the center and its ends, and web portions cut and bent outwardly between the openings and the ends, the outwardly-bent portions forming flanges which are riveted together in pairs; substan- 95 tially as described.

3. A channel-section having openings formed at each side of the center and web portions cut and bent in a direction opposite to the channel-flanges, forming flanges which are riveted together; substantially as de- 100 scribed.

4. A brake-beam formed of a rolled section,

the central portion being of the original width of the rolled section and containing a slot or hole, the ends of the beams being made narrower than the original width of the section, 5 and a brake-rod, fulcrum or support arranged to receive a lever-bar extending through said hole; substantially as described.

5. A channel having intermediate parts of its web bent outwardly in a direction opposite to that of the channel-flanges, said bent portions being riveted together; substantially as described. 10

6. A brake-beam consisting of a channel

having openings on opposite sides in its web, and web portions between said openings and 15 its ends which are bent outwardly in a direction opposite to that of the channel-flanges, and brake-shoe carriers secured by bolts extending through the channel-flanges; substantially as described. 20

In testimony whereof I have hereunto set my hand.

ARTHUR B. BELLOWS.

Witnesses:

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