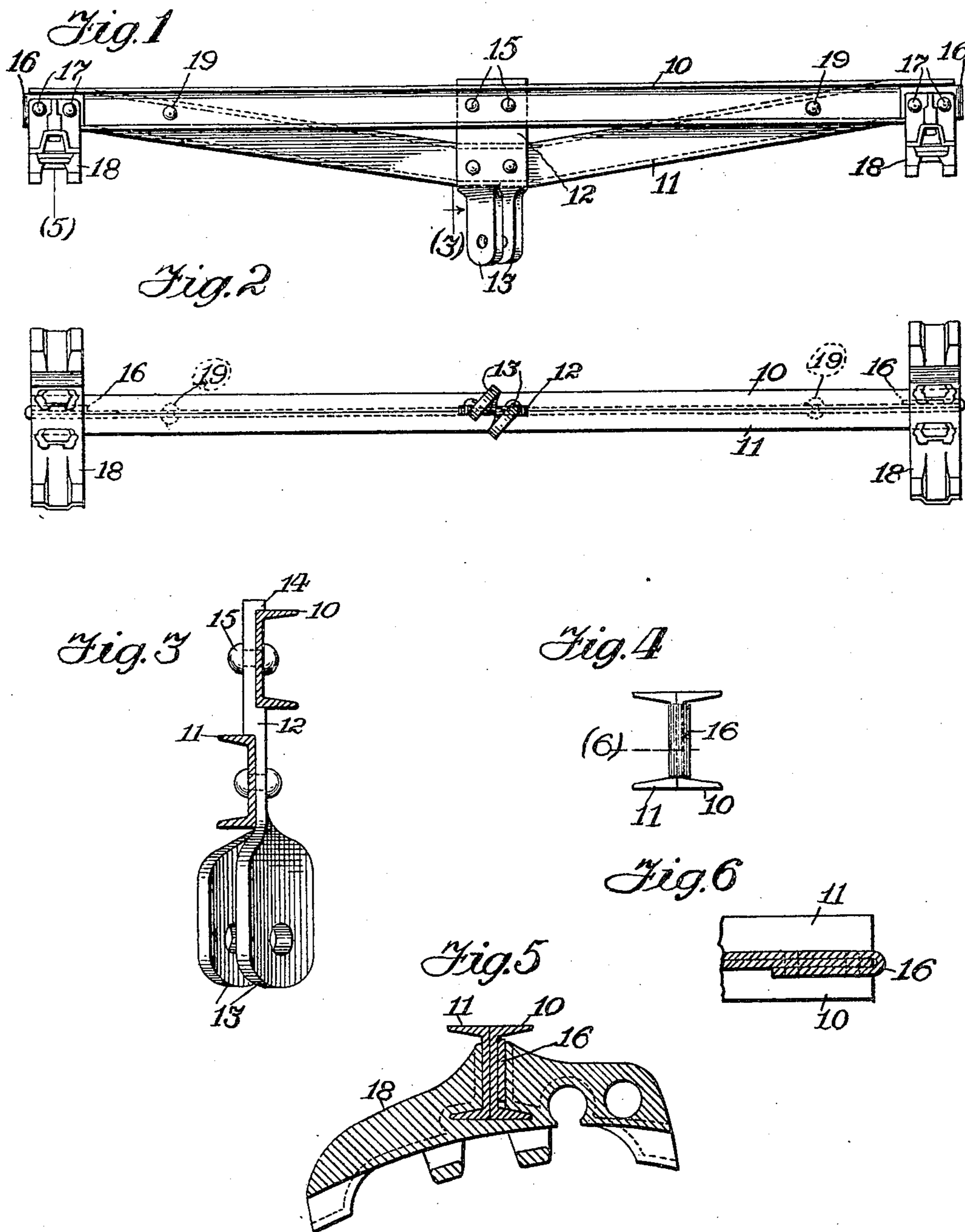


No. 801,203.

PATENTED OCT. 10, 1905.

C. E. BAUER.
BRAKE BEAM.

APPLICATION FILED SEPT. 23, 1903.



Witness:

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UNITED STATES PATENT OFFICE.

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BRAKE-BEAM.

No. 801,203.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed September 23, 1903. Serial No. 174,370.

To all whom it may concern:

Be it known that I, CARL E. BAUER, a citizen of the United States, residing at Hammond, in the county of Lake and the State of Indiana, have invented certain new and useful Improvements in Brake-Beams, of which the following is a specification.

My invention relates to the structure of the beams for carrying and moving the brake blocks against the wheels on railway cars and the like, and particularly to the structure of the metal beams for such purpose made of commercial shapes. The principal objects of the invention are, to provide a truss form of beam made of commercial channel irons in such form so as to provide stiffness both laterally and edgewise, and to provide a convenient means for attaching the ends of the two truss members and for attaching the same to the brake head, and to provide a superior attachment of the fulcrum block for pivoting on the brake lever. I have illustrated a preferred form of the structure in the accompanying drawings, in which—

Figure 1 is a plan view of the complete beam;

Figure 2 is a side elevation, looking upward in Figure 1;

Figure 3 is a cross section of the beam near the fulcrum block taken on the line 3 in Figure 1;

Figure 4 is an end view of the beam with the brake head removed;

Figure 5 is a cross section through the beam and brake head; and

Figure 6 is a partial section taken on line 6 in Figure 4 to show the mode of attaching the webs of the two beams.

In the form of the invention herein shown the thrust member 10 and the tension member 11 of the truss which forms the beam are both made of commercial rolled channel iron, the two parts being put together with the flat sides in contact and having between them at the center a fulcrum block 14 which has a laterally off-set portion 12 between them, so that the two parts of the beam lie essentially in a plane. It is preferably made in one piece of forged metal as shown and it will be understood that the two arms 13 for the pivot pin of the brake lever are turned askew as shown in Figure 2.

At the ends of the beam the web of the member 11 may be prolonged while the flanges are cut off to the length of beam 10. The

web of this member 11 laps over the web of member 10 as most clearly shown in Figure 6, the turned-over portion 16 of the web of beam 11 being secured in place by rivets 17 which also hold the brake head 18 in place when the parts are put together. The two channel irons may further be secured by means of rivets 19 as indicated in Figure 1.

By this structure it will be observed that lateral stiffness is given to the beam without undue increase of weight by means of the projecting flanges of the channel irons, and that the tension member 11 is given a direct seat upon the end of the member 10 and firmly secured in place by means of the bent-over web 16. This structure also makes it convenient to use the fulcrum block 14 lying between the two members of the beam and having a hold upon the rear side of both of them by means of the notches as illustrated in Figure 3. The whole beam can be fitted to the brake head as shown in Figure 5 by cutting a slot in the head, and all the parts are riveted together by a single rivet. The advantages in the compactness and strength of this structure will readily appear to those familiar with the art.

Having thus described my invention and illustrated its use, what I claim as new, and desire to secure by Letters Patent, is the following:

1. A brake beam composed of two channel bars, placed with flat sides together in substantially the same plane.

2. A brake beam composed of two channel bars placed with the flat sides together and the web of one of said bars bent over the end of the other.

3. A brake beam composed of a straight compression member formed of channel iron, a bent member having its web extending beyond the ends of the flanges and embracing the ends of the straight member, substantially as described.

4. A brake beam composed of two channel bars placed with their flat sides together, one of said bars having its central web extending beyond the ends of its flanges and bent over and embracing the ends of the other bar and lying between the flanges of the same on the outside.

5. A brake beam composed of two members lying essentially in the same plane and being provided each with flanges projecting outward laterally from said plane, one of said members

engaging the other by bending around the end of the same.

6. The combination with a single-piece forged fulcrum block having two seating
5 notches in practically the same plane, of a brake beam formed of two flat channel bars spaced apart near the middle and fixed together at the ends, said channel bars being placed back to back with their flanges outward
10 and the web of one of said bars lapping over the end of the other bar between the flanges thereof.

7. The combination with a slotted brake head of a brake beam comprising two flat webs
15 placed together, one of the said webs turned over and embracing the other web and both webs and the turned over portion being seated in the slot of the brake head and riveted thereto, substantially as described.

8. The combination in a brake beam of a
20 straight compression member and a tension member bent in an angle at the middle, the two said members being channel beams placed with their flat sides together, means for attaching the ends thereof, and a fulcrum block lying
25 between said two bars and provided with notches off-set from each other whereby the fulcrum block has a notch resting behind each of said beams and the two beams lie practically in the same plane.

30 In testimony whereof I have hereunder signed my name in the presence of the two subscribed witnesses.

CARL E. BAUER.

Witnesses:

PAUL CARPENTER,
CHAS. H. EBERT.