

J. B. SIMPSON.
BRAKE BEAM AND FULCRUM THEREFOR.
APPLICATION FILED JUNE 7, 1911.

1,010,967.

Patented Dec. 5, 1911.

2 SHEETS-SHEET 1.

Fig. 1.

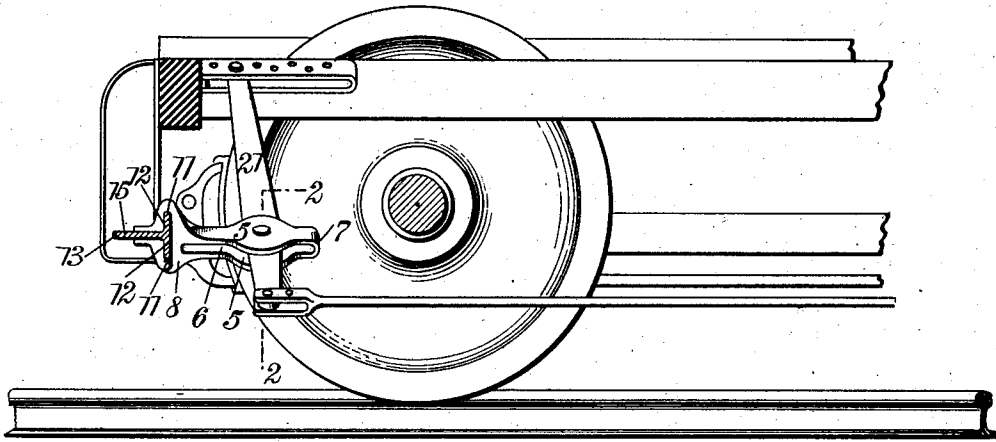
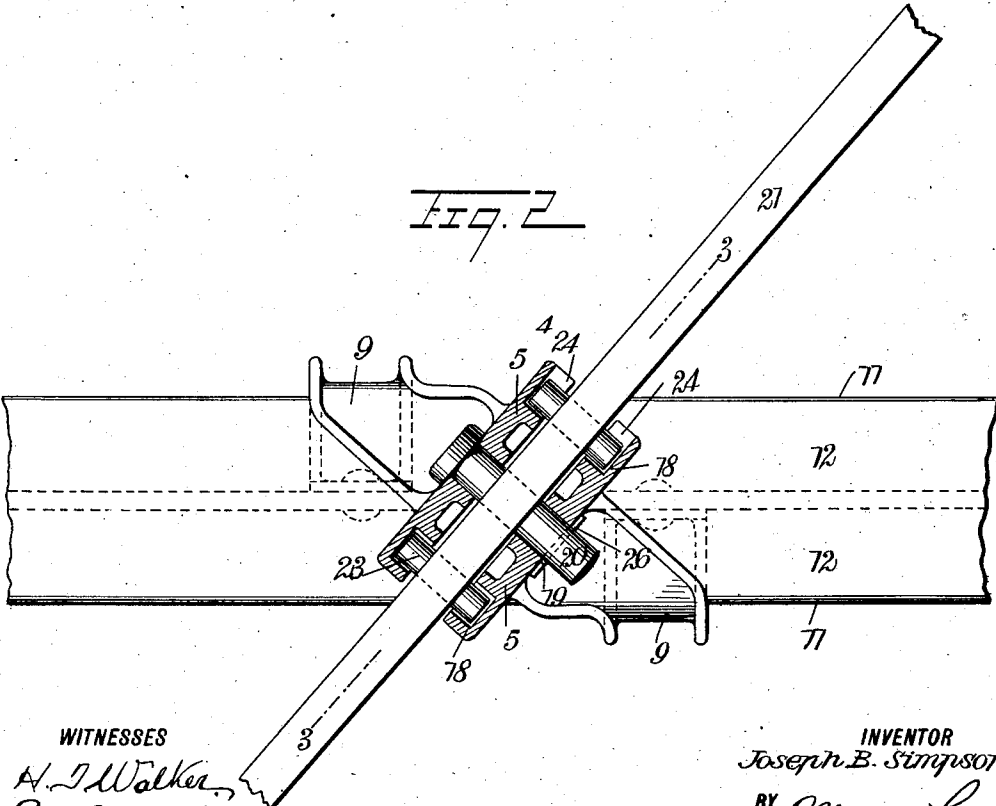


Fig. 2.



WITNESSES

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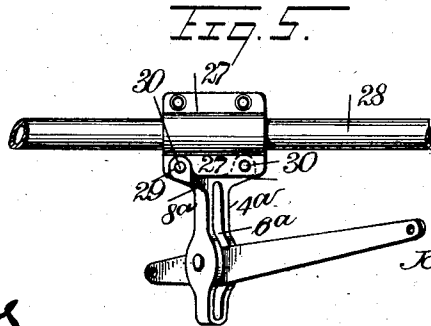
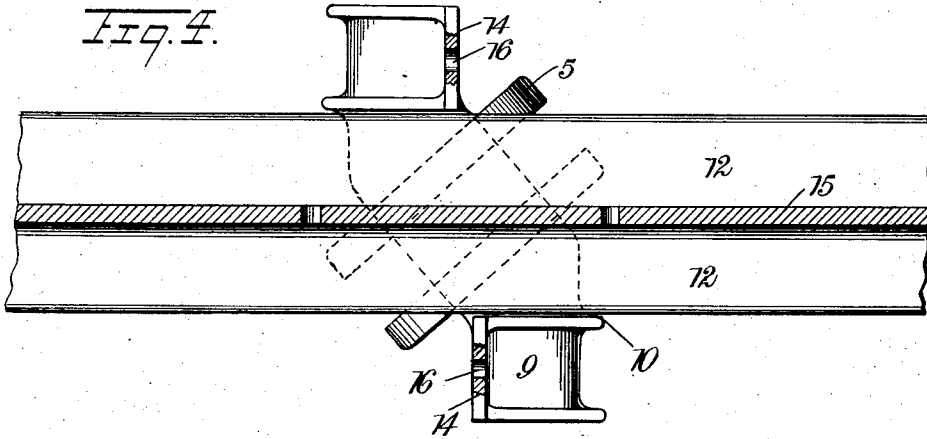
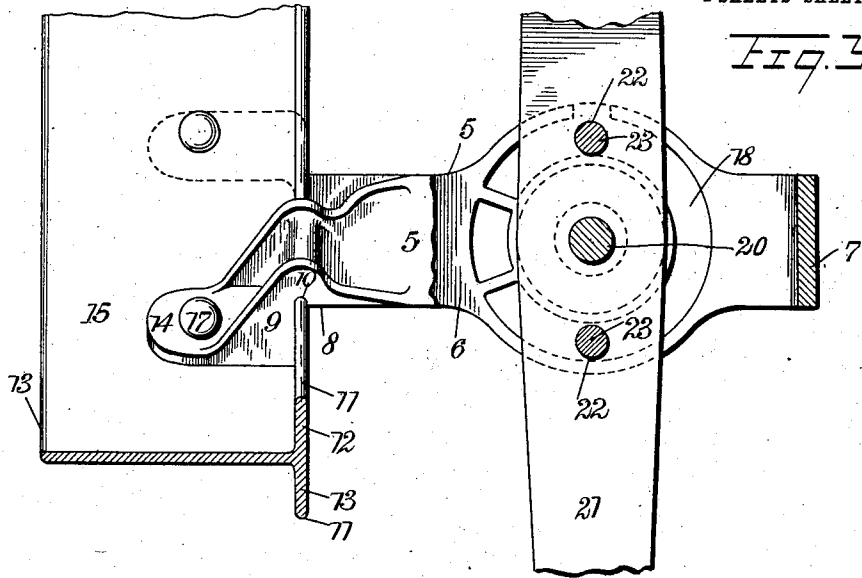
ATTORNEYS

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UNITED STATES PATENT OFFICE.

JOSEPH B. SIMPSON, OF EASTON, PENNSYLVANIA.

BRAKE-BEAM AND FULCRUM THEREFOR.

1,010,967.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed June 7, 1911. Serial No. 631,706.

To all whom it may concern:

Be it known that I, JOSEPH B. SIMPSON, a citizen of the United States, and a resident of Easton, in the county of Northampton and State of Pennsylvania, have invented a new and Improved Brake-Beam and Fulcrum Therefor, of which the following is a full, clear, and exact description.

My invention relates to brake beams and fulcrums therefor, and it has for its object to provide a fulcrum member having means by which it may be conveniently secured to a T-shaped or other beam, without slipping the fulcrum over the end of the beam, and without splitting the fulcrum member.

Another object of the invention is to construct the fulcrum with annular guideways, in which may travel pins mounted on the lever, these pins helping to take up the wear and tear on the fulcrum member, and also serving to hold the lever in operative position, should the fulcrum pin become displaced.

Still other objects of the invention will appear in the following complete specification, in which the preferred form of the invention is disclosed.

In the drawings similar characters of reference indicate corresponding parts in all the views, in which—

Figure 1 is a side elevation of a portion of a car truck provided with my device; Fig. 2 is a sectional view on the line 2—2 of Fig. 1; Fig. 3 is a sectional view on the line 3—3 of Fig. 1; Fig. 4 is a sectional view taken through the central member of a T-shaped beam, showing the fulcrum member adapted to be rotated so that the flanges of the T-shaped beam will be disposed in the slots in the fulcrum member; and Fig. 5 is a modified form of the invention.

By referring to the drawings it will be seen that a fulcrum member 4 is provided, having sides 5, one at each side of the slot 6. The sides 5 are connected at one end by an end member 7, and at the other end by a head member 8. Mounted on the said head member 8 there are two brackets 9, which extend in opposite directions, there being a slot 10 in each of these brackets 9, the said slots 10 being disposed substantially in the same plane, and the neighboring sides of the bracket being spaced apart at a distance greater than the distance between the edges 11 of the flanges 12 of the T-shaped brake beam 13, so that the fulcrum member 4 may

be disposed with the neighboring sides of the brackets 9 disposed at the sides of the edges 11 of the flanges 12, and in such a position that when the fulcrum member 4 is rotated relatively to the brake beam the flanges 12 of the said brake beam will be disposed in the said slots 10 of the brackets 9 on the fulcrum member 4. Each of the brackets 9 has a flange 14, these flanges 14 being adapted to engage the central member 15 of the brake beam member 13, one at each side. There are orifices 16 in the flanges 14, which are adapted to register with orifices in the central member 15 of the brake beam 13, so that the bolts 17 may be disposed through the orifices to firmly secure the flanges 14 of the central member 15 of the brake beam 13. It will be seen that in this manner the fulcrum member 4 may be firmly secured to the brake beam frame member 13, without it being necessary either to split the fulcrum member, or to slide the fulcrum member over the end of the brake beam 13.

In the inner sides of the side members 5 of the fulcrum member 4, there are annular guideways 18, which are concentric with the bearings 19, in which the fulcrum pin 20 is disposed. Projecting through the slot 6 of the fulcrum member 4, there is a lever 21, through an opening in which the fulcrum pin 20 is disposed. This lever 21 also has openings 22 therethrough, in which are disposed guide pins 23, the guide pins extending into the annular guideways 18. At one side of the fulcrum member 4 the annular guideways 18 are extended through the side of the fulcrum member at 24. The pins 23 may be readily removed from the lever 21 when the lever is removed from the fulcrum member 4. To adjust the lever 21 in the fulcrum member one of the pins 23 is disposed in one of the openings 22 and the said pin 23 is introduced through the openings 24 to the guideway 18; the lever with the said pin 23 is then positioned so that the said pin 23 will be caused to travel in the guideway, and the lever 21 may be positioned to permit of the introduction of the second pin 23 through the openings 24, which lead to the annular guideways 18, the said second pin 23 having been previously inserted in the other orifice 22 in the lever 21. When the second pin 23 is disposed in the guideway, the lever 21 is moved to bring its opening in registry with the bearings 19,

to permit of the introduction of the fulcrum pin 20, this fulcrum pin 20 being held in position by a cotter pin 26.

It will be understood that the guide pins 23 which are disposed in the annular guideways 18, will relieve the fulcrum pin 20 of considerable strain, and that the said guide pins 23 will permit the lever 21 to perform its function, should the said fulcrum pin 20 become displaced.

In the modified form of the invention shown in Fig. 5 of the drawings, flange plates 27 are secured to a round brake beam 28, a fulcrum member 4^a being provided with a head 8^a, which is disposed across the plane of the slot 6^a, flanges 29 being secured to the head 8^a, the neighboring sides of these flanges 29 being spaced apart, so that they will engage opposite sides of the plates 27 at points removed from each other, the said flanges 29 being secured to the plates 27 by the bolts 30. In other respects the construction shown in Fig. 5 of the drawings corresponds with the construction shown in the other figures.

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

1. In a brake beam and fulcrum therefor, a fulcrum member having a slot, a bearing extending to the slot, and an annular guideway extending to the slot, a lever in the slot fulcrumed in the bearing, and a guide on the lever for traveling in the annular guideway.

2. In a brake beam and fulcrum therefor a fulcrum member having a slot, bearings extending to the slot, and an annular guideway concentric with the bearings and extending to the slot, the annular guideway being continued laterally through the outer surface of the fulcrum member at one place,

a lever journaled in the bearings, and guides projecting from the lever, for traveling in the guideway.

3. In a brake beam and fulcrum therefor, a T-member, a fulcrum member having a slot, bearings extending to the slot, and an annular guideway concentric with the bearings and extending to the slot, the annular guideway being continued laterally through the outer surface of the fulcrum member at one place, a lever journaled in the bearings, guides projecting from the lever for traveling in the guideways, two oppositely disposed slotted brackets mounted on the fulcrum member and spaced at a distance from each other greater than the distance between the edges of the opposite flanges of the T-member to permit of the fulcrum member being disposed against the flanges so that the fulcrum member may be rotated, and the flanges may be disposed in the slots.

4. In a brake beam and fulcrum therefor, a brake beam, a fulcrum member having a slot with a head member disposed across the plane of the slot, flanges on the head member spaced from each other and disposed with one set of faces substantially in alignment for engaging the brake beam, there being bearings in the fulcrum member, and an annular guideway concentric with the bearings, and extending to the slot, a lever in the slot fulcrumed in the bearings, and a guide on the lever for traveling in the annular guideway.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH B. SIMPSON.

Witnesses:

HOWARD B. THOMAS,
FRANK W. SIMPSON.