No. 788,556. PATENTED MAY 2, 1905.

E. POSSON.

BRAKE BEAM.

APPLICATION FILED JAN. 7, 1905.

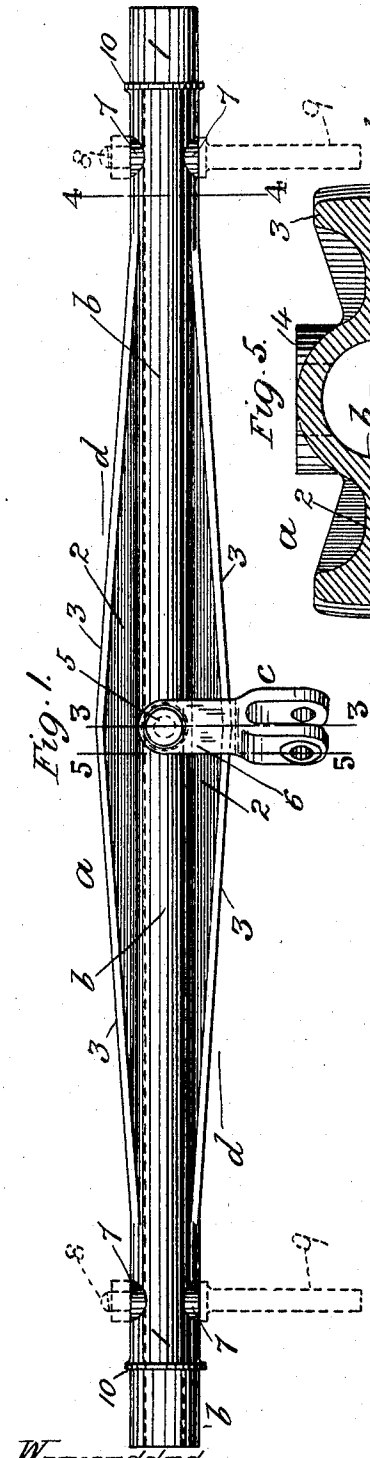

Fig. 1.

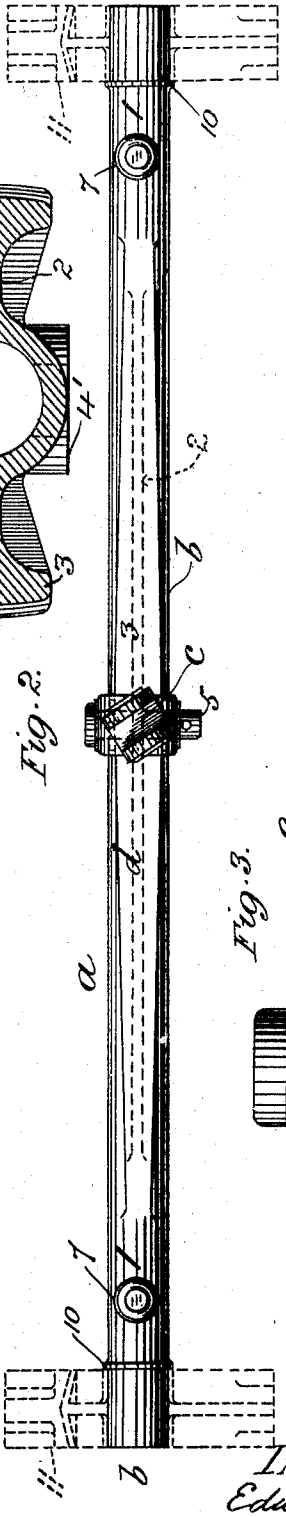

Fig. 2.

Fig. 5.

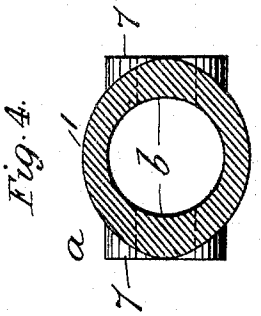

Fig. 4.

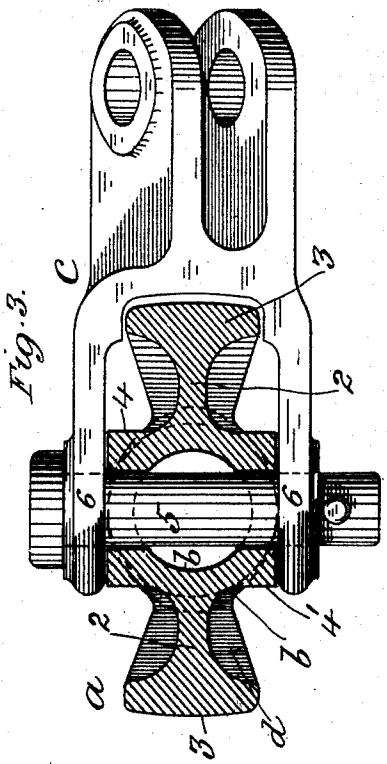

Fig. 3.

WITNESSES

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No. 788,556. Patented May 2, 1905.

UNITED STATES PATENT OFFICE.

EDWARD POSSON, OF AUSTIN, ILLINOIS.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 788,556, dated May 2, 1905.

Application filed January 7, 1905. Serial No. 240,054.

To all whom it may concern:

Be it known that I, EDWARD POSSON, a citizen of the United States, residing at Austin, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Brake-Beams for Railroad-Cars, of which the following is a specification.

My invention relates to that part of the air-brake gear of a railroad-car known as the "brake beam or bar" in connection with the brake-lever and to which the brake blocks and shoes are attached, and has for its object to provide a rigid and durable brake-beam of simple construction and compact form.

The invention consists in features of novelty, as hereinafter described and claimed, reference being had to the accompanying drawings, forming part of this specification, whereon—

Figure 1 is a top plan of my improved brake-beam; Fig. 2, a front edge view thereof, showing the combined brake-blocks in broken lines; and Figs. 3, 4, and 5 horizontal cross-sections, to enlarged scale, through the beam on lines 3 3, 4 4, and 5 5, respectively, in Fig. 1, looking from the left.

Like letters and numerals of reference denote like parts in all the figures.

a represents my improved brake-beam, which is composed, preferably, of cast-steel integral throughout and consists of a central longitudinal tubular portion *b*, which extends the entire length of the beam *a*. The peripheral contour of the tubular portion *b* for a suitable distance from each end of the beam *a* is preferably elliptical, (but may be circular,) having its major axis horizontal or alined to the draft or pull of the link *c*, which is coupled at one end to the beam *a* (as hereinafter more particularly referred to) and at its other end to the ordinary brake-lever, (not shown,) while the periphery of the tubular portion *b* lying between its elliptical end portions 1 is preferably circular, as shown, but may be elliptical, square, or otherwise shaped, if desired, and forms the middle longitudinal part of the intersecting web 2 of an I-shaped portion *d*, the web 2 being arranged horizontally on opposite sides of and in central alinement transversely with the tubular portion *b* and in the line of draft or pull of the link *c*. The opposite flanges 3 of the I-shaped portion *d* are at their maximum distance apart in the middle of the beam *a* and thence inclined toward each other to their junction with the peripheral surfaces, respectively, of the elliptical (or circular) end portions 1, preferably at the inner end of the latter or junction with the circular part of the tubular portion *b*.

On opposite parts of the tubular portion *b*, at the middle of the beam *a*, are formed the bosses 4, which, with the tubular portion *b* thereat, are perforated vertically for the pin 5, by which the link *c* is coupled to the beam *a*, the pin 5 passing through the jaws 6 of the link *c* and through the tubular portion *b* of the beam *a*, as clearly shown in Fig. 3.

On opposite parts of the periphery of the elliptical or circular end portions 1 at a suitable distance from each end of the beam *a* are formed bosses 7, which, with the tubular portion *b* thereat, are perforated horizontally for the screw-threaded shanks 8 of the wheel-guards 9, (indicated by broken lines in Fig. 1,) and around each elliptical or circular end portion 1 is formed a collar 10, between which and the corresponding end of the beam *a* the brake block or head 11 is attached to the beam *a* in the usual manner.

By this construction of a central longitudinal tubular portion *b*, combined with an I-shaped portion *d*, intersecting the tubular portion *b*, a strong, rigid, compact, and durable brake-beam is insured, in which the metal is concentrated and distributed to the best advantage, and any abnormal torsional or jarring strain thereon from a direction divergent to the normal pull of the brake-lever is taken up by the tubular portion *b* and transmitted thereby to the body of the beam *a*.

I do not limit myself to the particular configuration of the end portions 1 of the beam *a* nor to the particular extent and inclination above described of the flanges 3 of the I-shaped portion *d*, as these details may be varied without affecting the essential features of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A brake-beam for railroad-cars, consist-

ing of an I-shaped portion having its web intersected longitudinally by a central tubular portion integral therewith and extending the entire length of the said beam, substantially as described.

2. A brake-beam for railroad-cars, consisting of an I-shaped portion having its web intersected longitudinally by a central tubular portion integral therewith and extending the entire length of the said beam, the opposite flanges of the I-shaped portion being inclined toward each other from the middle of the beam to their junction with the end portions respectively of the said tubular portion, substantially as described.

3. A brake-beam for railroad-cars, consisting of an I-shaped portion having its web intersected longitudinally by a central tubular portion integral therewith and extending the entire length of the said beam, the end portions of the said tubular portion being peripherally elliptical, substantially as described.

4. A brake-beam for railroad-cars, consisting of an I-shaped portion having its web intersected longitudinally by a central tubular portion extending the entire length of the said beam, the said tubular portion having opposite peripheral bosses and perforated therethrough, all the said parts being integral throughout, substantially as shown and for the purpose set forth.

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

EDWARD POSSON.

Witnesses:
HOWARD W. ADAMS,
R. HOWARD DODSON.