No. 731,865. PATENTED JUNE 23, 1903.

S. A. CRONE.

BRAKE BEAM.

APPLICATION FILED APR. 27, 1903.

NO MODEL.

Fig. 1.

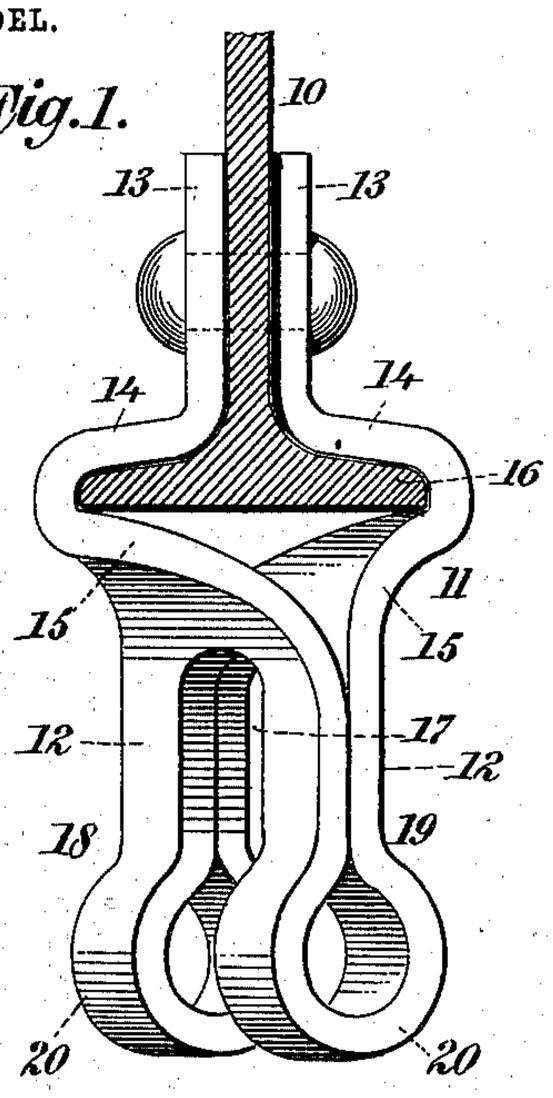

Fig. 3.

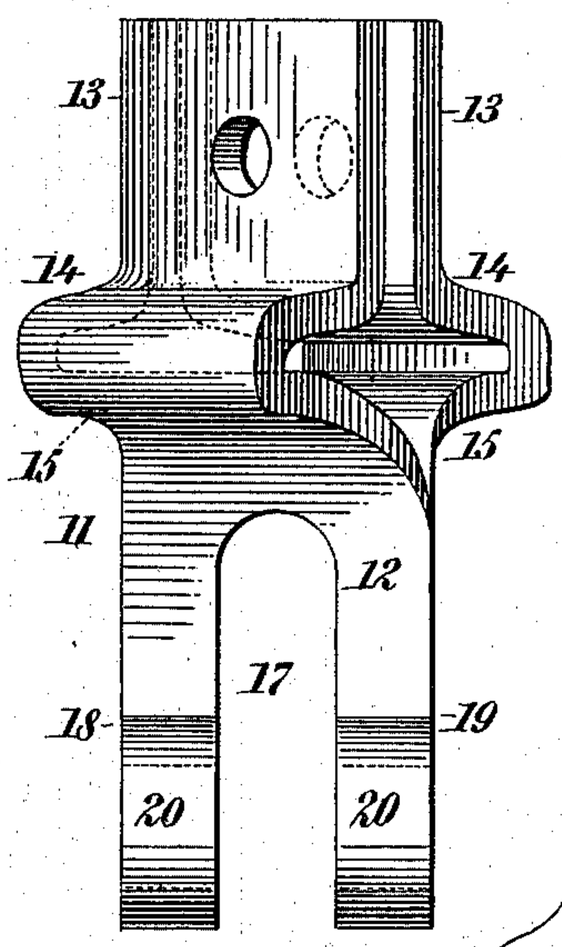

Fig. 5.

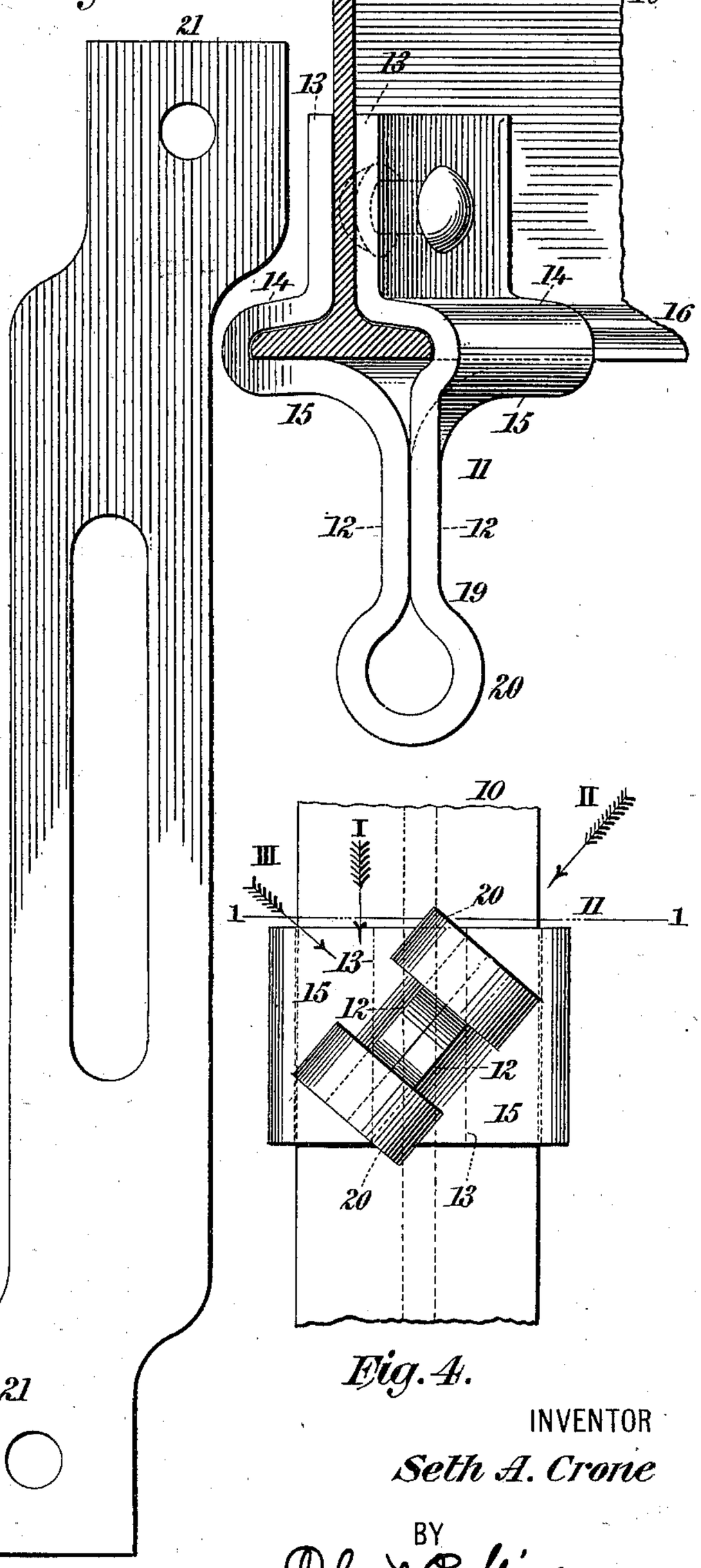

Fig. 2.

Fig. 4.

WITNESSES:

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No. 731,865. Patented June 23, 1903.

UNITED STATES PATENT OFFICE.

SETH A. CRONE, OF NEW YORK, N. Y.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 731,865, dated June 23, 1903.

Application filed April 27, 1903. Serial No. 154,393. (No model.)

To all whom it may concern:

Be it known that I, SETH A. CRONE, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Brake-Beams, of which the following is a specification.

The invention relates to improvements in brake-beams for railway-cars; and it consists in the novel features of construction and combinations of parts hereinafter described, and particularly pointed out in the claims.

Brake-beams of the class to which my invention pertains comprise a rolled body-beam of suitable length, brake-heads of standard construction on the ends thereof, and a fulcrum for the brake-lever; and my invention has for its object to produce a novel fulcrum for use in such beams, said fulcrum being efficient and capable of being firmly and quickly applied to the beam. The fulcrum of my invention is formed from a piece or blank of forged metal bent to the required shape and adapted to be firmly riveted or bolted to the body-beam.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is an edge view, looking in the direction of the arrow I of Fig. 4, of a fulcrum constructed in accordance with and embodying my invention, the fulcrum being shown as secured to a usual body-beam, the latter being in section and partly broken away. Fig. 2 is a perspective view of same, taken in the direction of the arrow II of Fig. 4, the body-beam being in section. Fig. 3 is a detached view of the fulcrum looking in the direction of the arrow III of Fig. 4. Fig. 4 is an outer end view of the fulcrum and beam, the latter being partly broken away; and Fig. 5 is a detached plan view of a blank or piece of forged metal from which the fulcrum is formed.

In the drawings, 10 designates a portion of the usual body-beam, and 11 the novel fulcrum of my invention, which is applied centrally upon one edge of the beam, the latter preferably being of commercial shape.

The fulcrum 11 is formed from a strip or blank of forged metal, (shown in Fig. 5,) which is folded at its center to form the parallel sides 12 12 and at its ends is bent to form the flanges 13 14 15, which engage the sides of the web of the beam 10 and also the opposite sides and outer edges of the flange 16 of said beam 10. The sides 12 12 of the fulcrum are throughout a portion of their length brought into face-to-face contact with each other, as shown, and contain the central longitudinal slot or opening 17, within which the usual brake-lever (not shown) will be mounted. The sides 12 12, containing the slot or opening 17, form two leg members 18 19, which are integral with the fulcrum as a whole and have fashioned at their outer ends the eyes 20 to receive the pin or bolt upon which the brake-lever will be mounted. The provision of the integral eyes 20 and the slot or opening 17 for the brake-lever constitutes the more essential features of the present invention, the remaining features of the construction presented being illustrated in Letters Patent of the United States No. 720,676, granted February 17, 1903, to me, and in the pending application for Letters Patent of the United States, filed March 10, 1903, by me, Serial No. 147,057.

The fulcrum constructed in accordance with the present invention is particularly strong and durable, especially when, as illustrated, the fulcrum is made from an integral piece of forged metal. By providing the slot or opening 17 in the sides 12 of the fulcrum for the reception of the brake-lever I am enabled to mount the pin or bolt for said lever in the eyes 20, which are integral with the fulcrum and afford broad bearing-surfaces for said pin or bolt, these surfaces being materially broader than would be secured if the brake-lever were inserted between the sides 12 and the pin or bolt were inserted through apertures in said sides, as illustrated in my aforesaid patent, No. 720,676.

The blank shown in Fig. 5 has reversely-disposed end portions 21, whereby I am enabled to form the flanges 13, 14, and 15 and cause them to match each other at the opposite sides of the beam 10 without straining or weakening the metal, as more fully explained in my aforesaid application, filed

March 10, 1903. The central portion of the blank shown in Fig. 5 contains an elongated opening, which when the blank is folded to form the fulcrum results in the creation of the slot or opening 17 for the brake-lever, this slot or opening 17 being at right angles to the flat faces of the sides 12 12, which are angularly disposed to the longitudinal line of the beam 10.

It has been described above that for a portion of their length the inner surfaces of the sides 12 12 are in face-to-face contact with each other; but I desire it to be understood that I do not limit the invention to the bringing of the sides 12 12 into direct physical contact with each other, because it is apparent that said sides may be separated within given limits and still form the eyes 20, the latter being sufficiently closed to hold the usual pin upon which the brake-lever is mounted; nor do I limit my invention to the means shown for connnecting the sides 12, having the offset flange portions 15, to the body-beam.

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

1. The forged-metal brake-beam fulcrum comprising the angularly-disposed side members 12 having at their inner ends the flanges 13, 14, 15, and at their outer ends the eyes 20 to receive the pin or bolt for the brake-lever, said side members containing the slot or opening 17 for the reception of said brake-lever; substantially as set forth.

2. The forged-metal brake-beam fulcrum in one integral piece and comprising the angularly-disposed side members 12 having at their inner ends the flanges 13, 14, 15, and at their outer ends the eyes 20 to receive the pin or bolt for the brake-lever, said side members being brought together inward from their outer end so as to form the eyes 20 and containing the opening or slot 17 to receive the brake-lever; substantially as set forth.

3. The forged-metal brake-beam fulcrum comprising the parallel angularly-disposed sides 12, containing the opening or slot 17 for the reception of the brake-lever and having at their outer end the eyes 20 to receive the pin or bolt for said lever; substantially as set forth.

4. The forged-metal brake-beam fulcrum comprising the separated legs 18, 19, adapted to receive between them the brake-lever and having at their outer ends the integral eyes 20 through which the pin or bolt for said brake-lever may be passed; substantially as set forth.

5. A forged-metal brake-beam fulcrum, and means for securing said fulcrum to the beam, said fulcrum having angularly-disposed sides 12 and flanges 15 in one integral piece formed from a blank having reversely-disposed offsets to permit, without material stretch in the metal, the formation of said flanges 15 and the setting of said sides 12 into their angular position; substantially as set forth.

6. A forged-metal brake-beam fulcrum comprising angularly-disposed sides 12 having at their inner ends reverse offsets forming the flanges 15, and means for connecting said sides to the body-beam, said offsets permitting without material stretch in the metal, the formation of said flanges 15 and the setting of said sides 12 into their angular position; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 25th day of April, A. D. 1903.

SETH A. CRONE.

Witnesses:

ARTHUR MARION,

CHAS. C. GILL.