

No. 889,510.

PATENTED JUNE 2, 1908.

S. A. CRONE.
RAILWAY CAR BRAKE SHOE.
APPLICATION FILED MAR. 17, 1908.

FIG. 3.

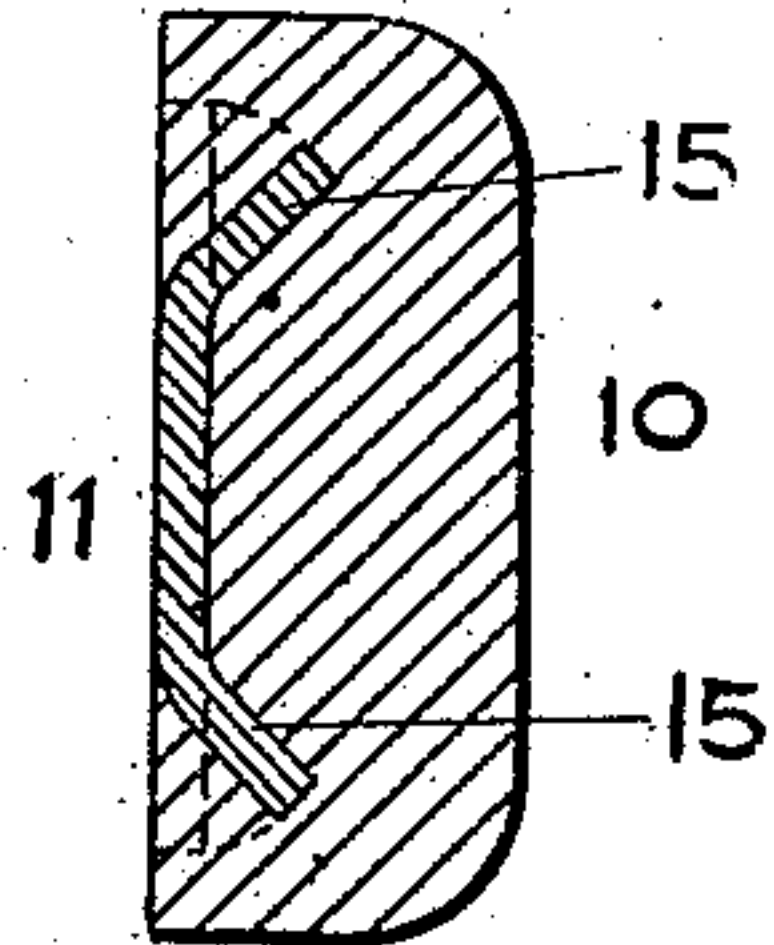


FIG. 4.

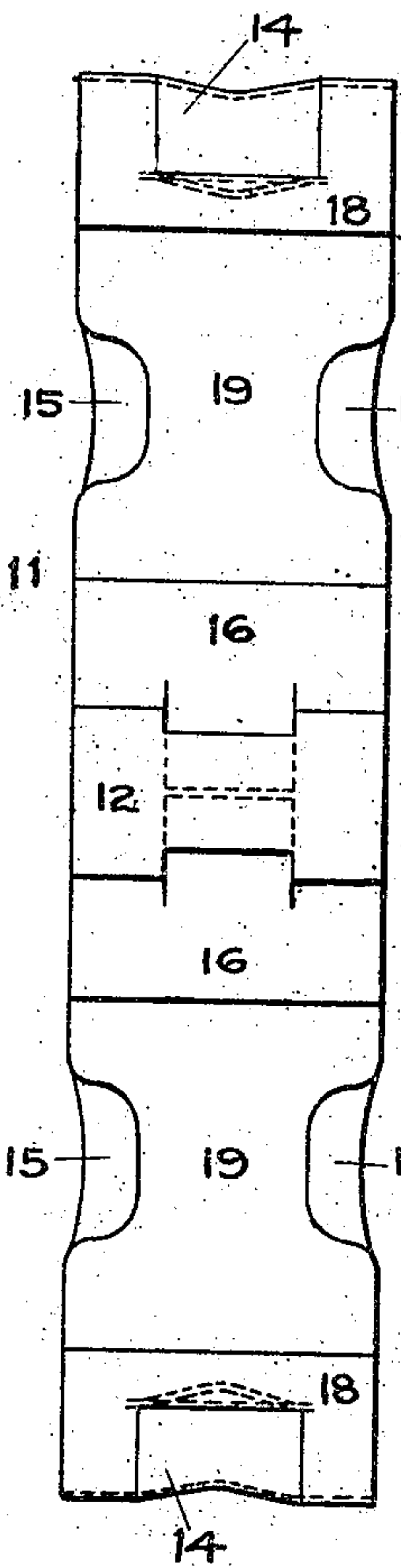


FIG. 1.

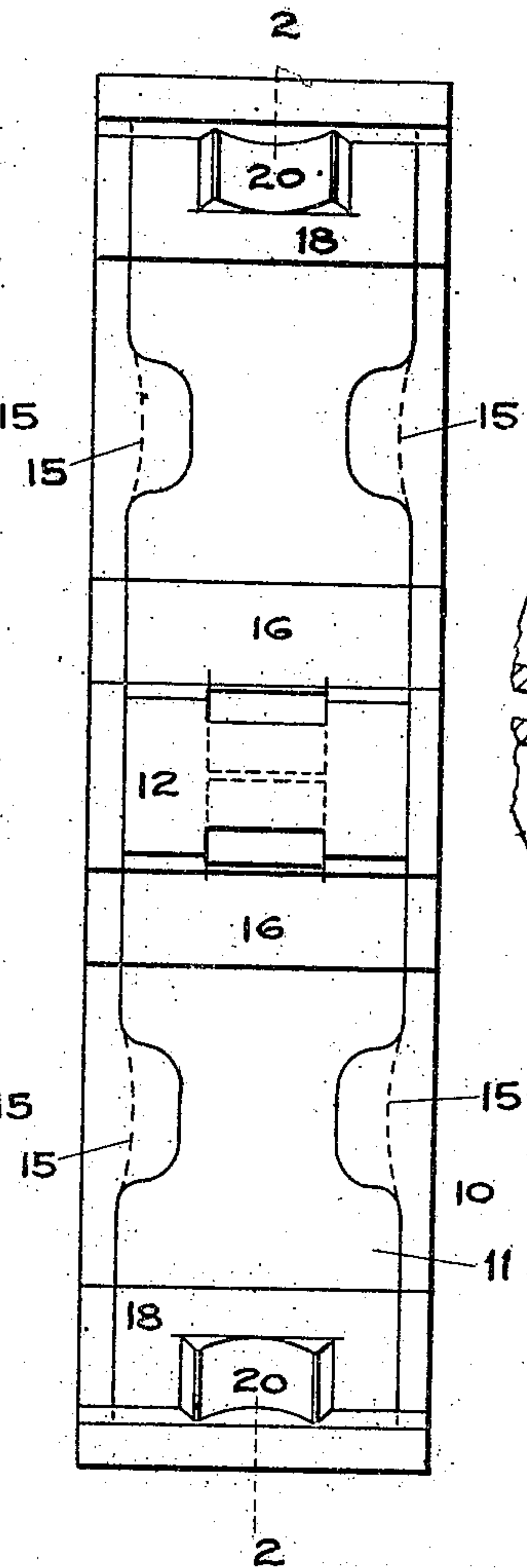
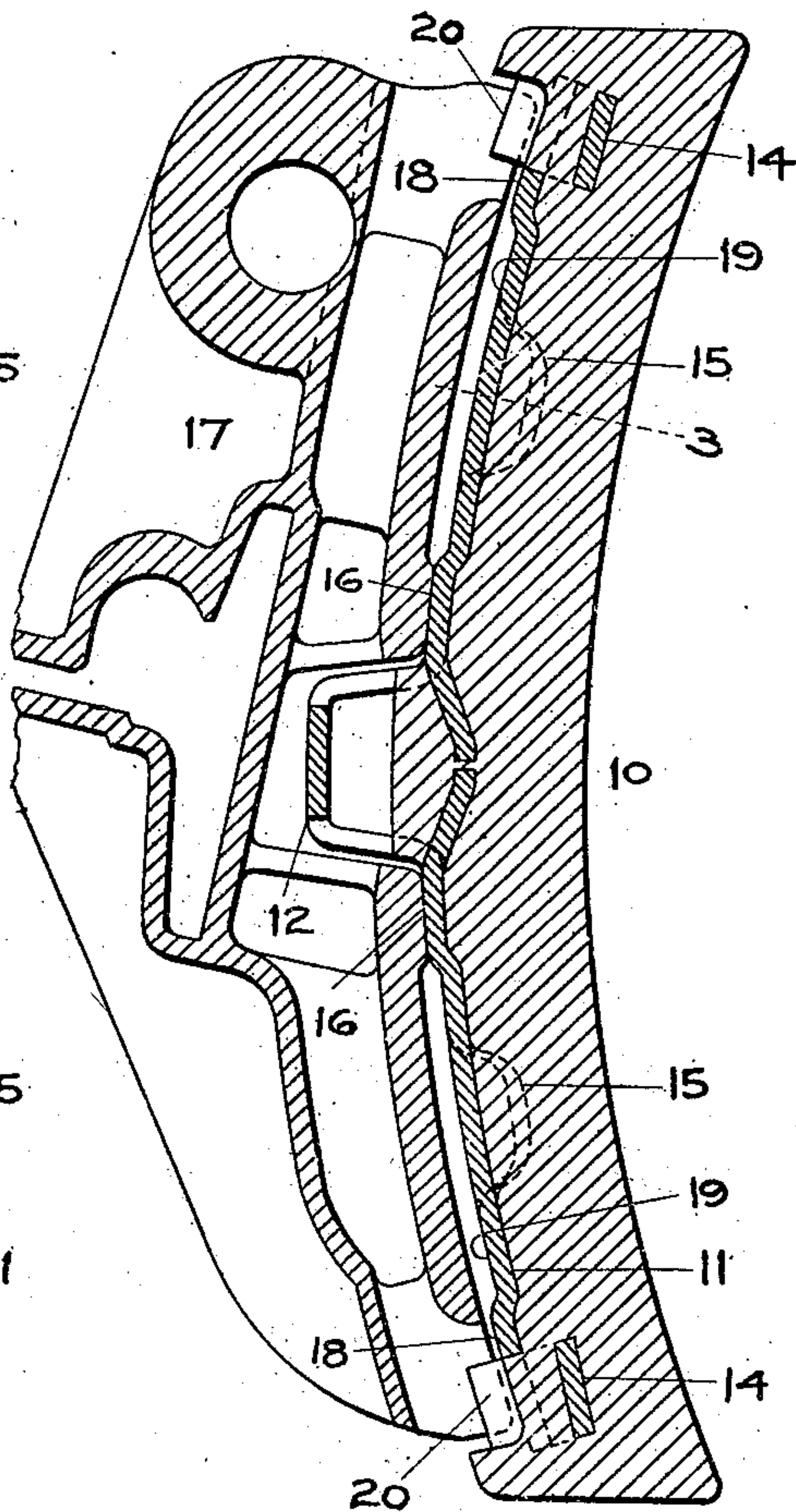


FIG. 2.



WITNESSES:

Wm. H. Goussier.
Arthur Marion.

INVENTOR

Seth A. Crone,

BY

Chas. C. Gill

ATTORNEY

UNITED STATES PATENT OFFICE.

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

RAILWAY-CAR BRAKE-SHOE.

No. 889,510.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed March 17, 1908. Serial No. 421,594.

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 city, in the county of New York and State of New York, have invented certain new and useful Improvements in Railway-Car Brake-Shoes, of which the following is a specification.

The invention relates to improvements in brake-shoes; and it consists in the novel features hereinafter described, and particularly pointed out in the claims.

The brake-shoe of my invention comprises a cast metal body and a steel or forged metal back-plate, the two parts being permanently connected together by the casting of the metal of the body upon portions of the metal of the back.

Brake-shoes consisting of a cast metal body and a steel or forged metal back are well known, and my invention pertains more particularly to a novel construction of the back-plate and a novel union of the cast metal body thereto, whereby a durable, safe and efficient structure is produced.

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 outer or back elevation of a brake-shoe constructed in accordance with and embodying the invention; Fig. 2 is a central vertical section of the same on the dotted line 2—2 of Fig. 1, the shoe being shown as applied to a brake-head, which is also shown in vertical section; Fig. 3 is a transverse section of the shoe on the dotted line "3" of Fig. 2; and Fig. 4 is a detached elevation of the back-plate.

In the drawings, 10 designates the body-portion of the shoe and 11 the back-plate, said body being, as usual, of cast metal and the back-plate 11 of steel or forged metal and the two parts being rigidly united by the casting of the cast-metal upon portions of the forged-metal back.

The back 11 is in one integral plate extending nearly the entire length of the body 10 and preferably being less in width than said body. The back 11 is formed at its transverse central portion with a box-loop 12 and at its end portions with inwardly extending transverse loops 14, while intermediate the box-loop 12 and the loops 14 the plate 11 is formed at convenient points along its opposite side edges with inwardly depressed por-

tions 15 forming recesses into which the cast metal extends.

The novel features of my invention pertain more particularly to the constructions above and below the box-loop or key-lug 12, the latter and the transverse end loops 14 being known features in this art.

The back-plate 11 above and below the box-loop 12 affords seats 16 for the brake-shoe head 17 and at its ends affords seats 18 for said head, while between said seats 16, 18 said plate is depressed inwardly, as at 19, thereby creating a back which is recessed between its middle and end head-seats, as shown in Fig. 2. The depressed portions 19 of the back-plate are of importance in that they set inwardly clear of the head 18 and enable the head to properly seat against the shoe notwithstanding any possible irregularities or roughnesses that the inner face of the head may possess. The plate 11 is less in width than the cast body 10, as represented in Fig. 1, and the surfaces of said body along the side edges of said back conform to the outer surfaces of the latter at the seats 16, 18 and depressed portions 19, whereby the middle and end seats for the head and the depressions between said seats to clear the head extend transversely entirely across the shoe. At the ends of the back 11 the cast metal extends over the transverse loops 14, as at 20, and forms concave guides for the usual securing key and guides for the ends of the brake-head.

The plate 11 is securely anchored at its middle and end portions in the cast body 10, and at those portions between its middle and ends the plate is efficiently secured to the cast body by the inwardly depressed portions 15 and the cast metal which extends over them. The inwardly depressed portions 15 are at the opposite side edges of the plate and integral at their edges therewith, said portions at their outer or surrounding edges not being severed from the plate and the latter being in consequence uncut and of maximum strength. The cast metal fills the recesses formed by the inwardly depressed portions 15 and the outer surface of such metal is on the same plane with the outer face of the back-plate, as indicated in Fig. 3. I regard the means provided for securing the back at points between its middle and ends as of considerable importance in that thereby the back-plate need not be cut in producing such means and becomes very

efficiently anchored at its opposite side edges to the cast body.

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

5 1. A brake-shoe having a cast-metal body and plate back, said back having, between its center and ends, inwardly depressed edge portions over which the cast-metal extends and the outer edges of which portions are in-
10 tegral with the plate; substantially as set forth.

2. A brake-shoe having a cast-metal body and plate back, said back having at its oppo-
15 site edges, between its center and ends, inwardly depressed portions over which the cast metal extends and the outer edges of which portions are integral with the plate substantially as set forth.

3. A brake-shoe having a cast-metal body
20 and a plate back united thereto, said back having head-seats at each side of its center and at its ends and said back between said middle and end seats being depressed to clear the brake-shoe head; substantially as
25 set forth.

4. A brake-shoe having a cast-metal body

and a plate back united thereto and being less in width than said body, said back having head-seats at each side of its center and at its ends and said back and the edge por- 30
tions of said body between said middle and end seats being correspondingly depressed to clear the brake-shoe head; substantially as set forth.

5. A brake-shoe having a cast-metal body 35
and a plate back united thereto, said back having at opposite edges, between its center and ends, inwardly depressed uncut portions forming recesses into which the cast-metal extends; substantially as set forth. 40

6. A brake-shoe having a cast-metal body
and a plate back united thereto, said back having inwardly depressed uncut edge por-
tions forming recesses into which the cast-
45 metal extends; substantially as set forth.

Signed at New York city, in the county of New York, and State of New York, this 16th day of March A. D. 1908.

SETH A. CRONE

Witnesses:

ARTHUR MARION,
CHAS. C. GILL.