

No. 780,040.

PATENTED JAN. 17, 1905.

H. JONES.
BRAKE SHOE.

APPLICATION FILED DEC. 16, 1903.

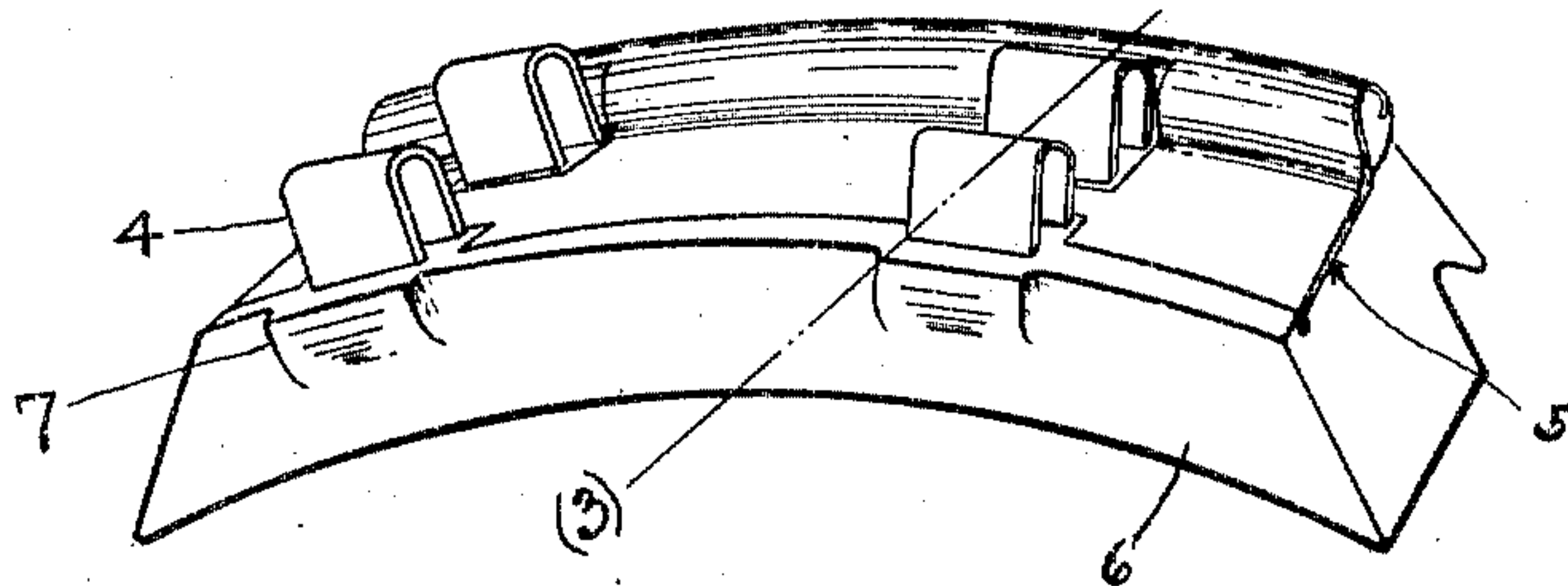


Fig. 1

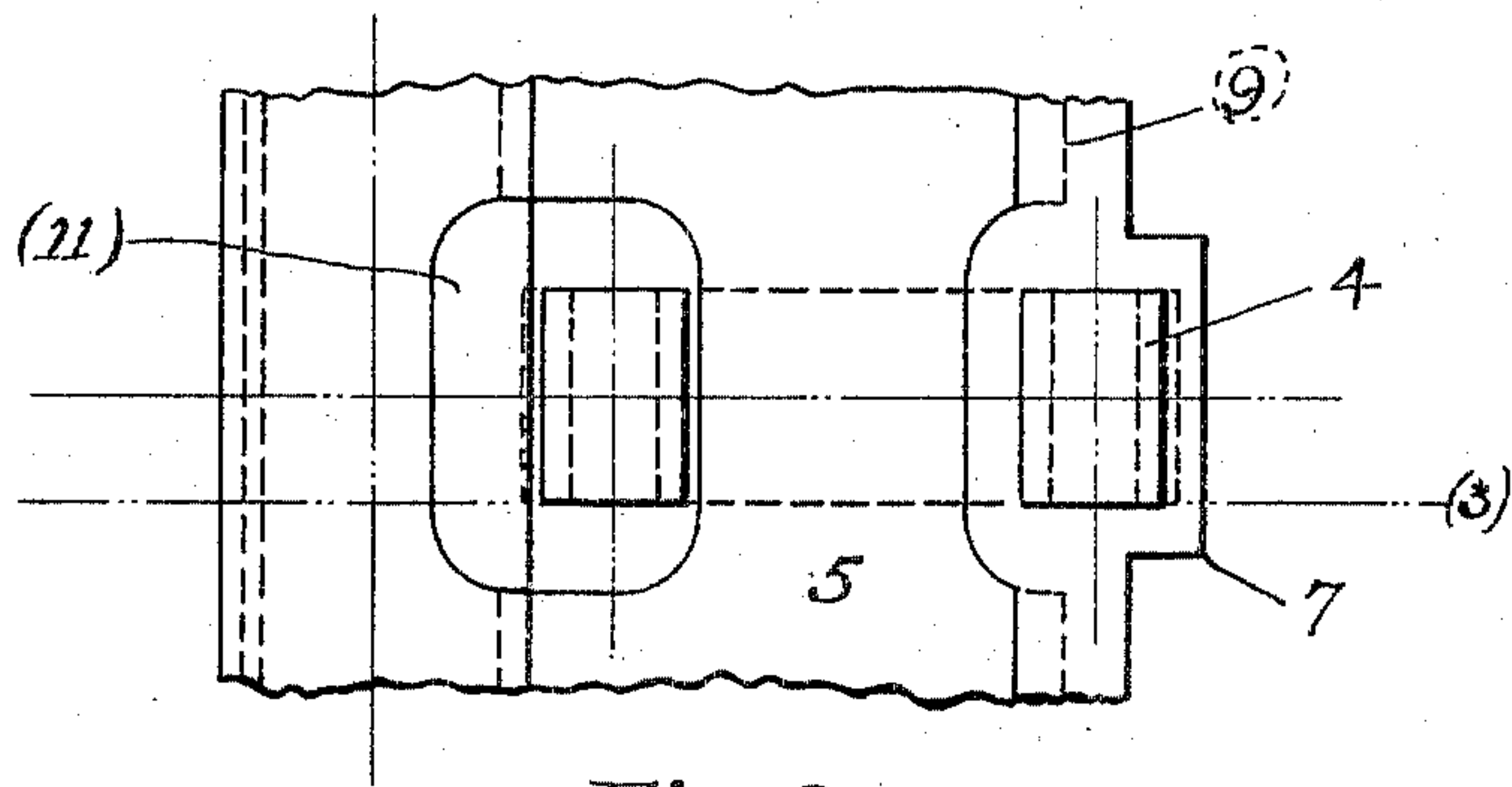


Fig. 2

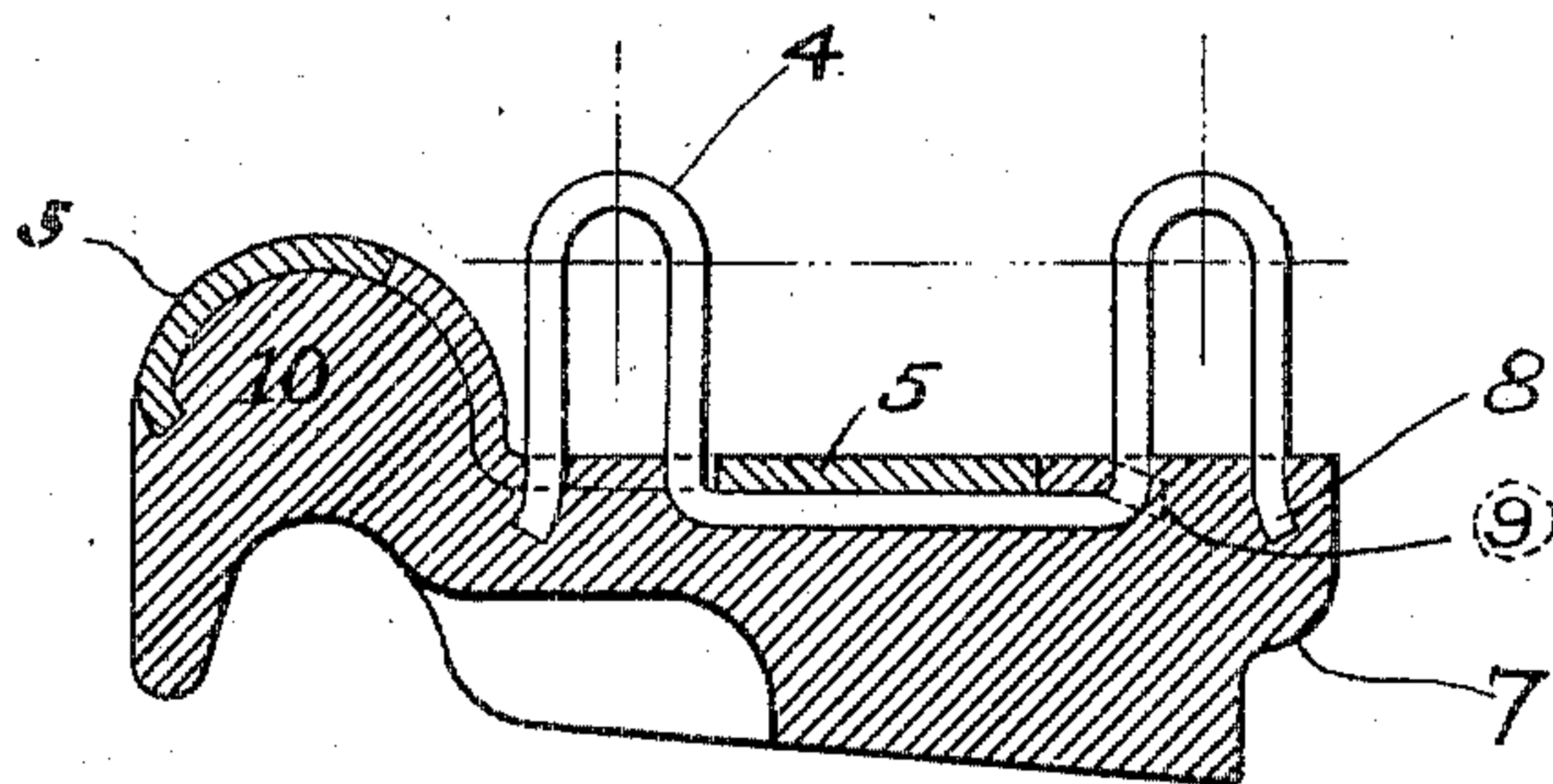


Fig. 3

Witnesses;

F. W. H. Clay
Chas. H. Eberh

Inventor,

Harry Jones
By *Paul Symmestredt*
Attorney.

UNITED STATES PATENT OFFICE.

HARRY JONES, OF BLOOMFIELD, NEW JERSEY, ASSIGNOR TO AMERICAN BRAKE SHOE & FOUNDRY COMPANY, OF MAHWAH, NEW JERSEY, A CORPORATION OF NEW JERSEY.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 780,040, dated January 17, 1905.

Application filed December 16, 1903. Serial No. 185,402.

To all whom it may concern:

Be it known that I, HARRY JONES, a citizen of the United States, residing at Bloomfield, county of Essex, in the State of New Jersey, have invented certain new and useful Improvements in Brake-Shoes, of which the following is a specification.

My invention relates to the wearing blocks used on railway brakes and the like, and particularly to improved means for strengthening the back and forming the attaching lugs for cast brake shoes.

The objects of the invention are to provide a superior malleable strengthening back for a cast shoe and to provide an improved malleable lug for attaching the shoe to the brake head; to provide an improved means for binding together the attaching lugs and steel back and to anchor both in the body of the shoe, and to generally improve the structure and to increase the safety of brake shoes. These objects, together with other advantages which will hereinafter appear, are attained by means of the construction illustrated in preferred form in the accompanying drawing, wherein—

Figure 1 is a perspective view of a brake shoe embodying my improvements;

Figure 2 is a fragmentary top plan view of the shoe of Figure 1, showing the cut out places in the malleable metal backing, and

Figure 3 is a central cross section through the brake shoe taken on line (3) in the other two figures.

In the preferred form of brake shoes as used particularly for engine driving wheels, in which there is a recess on the wearing face of the shoe in order to allow for wearing the shoe only on that part of the wheel which does not wear upon the rail, it is found to be very difficult to make cast shoes of sufficient strength to stand the wear, and trouble is frequently had in the use of cast shoes with cast lugs thereon, the same sometimes breaking in the tumbler or cleaning device which cleans the castings, and sometimes in actual use. In order to strengthen the brake shoe and allow it to wear thinner and at the same time to provide an attaching lug which is perfectly

safe and takes up less room in the brake head, I provide the shoe 6 with a steel back 5 which preferably lies upon the surface over the whole back, including the flat portion of the shoe and also the rounded flange portion 10, and the edges 9 of the steel back are preferably turned down and embedded in the cast metal of the shoe in order to secure a firm anchorage therein. The backing is provided with openings 11 through which project attaching lugs 4, which in this case are preferably made double as shown in Figure 1. The strap 4 for the attaching lugs passes under the central portion of the steel back 5, as shown in Figure 3, and then takes an upward loop on each side thereof and is embedded in the metal under the edges of the cast body and may have slightly hooked ends 8 in order to secure a firm anchorage. The outside ends of the lug strap may be embedded directly in the shoe or when preferred, in slightly protruding anchorage lugs 7 formed on the body in order to get closer to the other edge of the shoe.

By means of the central loop the straps 4 run under and are anchored beneath the center of the steel back of the shoe, the attachment of said lugs not depending upon the anchorage on the ends. The backing 5 being anchored at both of its edges has a strong hold upon the cast body of the shoe and all the parts are bound very compactly together forming a safe brake shoe, while the wearing sole may be worn down very much thinner than in the case of a cast shoe which has cast lugs. Other advantages of the device will readily occur to those familiar with its use.

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 cast brake shoe having a malleable backing extending over the entire surface thereof and firmly anchored in the body of the shoe, and a double attaching lug secured to the said backing and to the cast body.

2. A cast brake shoe having a malleable backing firmly anchored in the body of the

shoe, and a double attaching lug secured to the said backing and to the cast body.

3. A cast metal brake shoe having a steel back and an attaching lug comprising a strap
5 running entirely beneath a portion of the steel back and exposed on the two sides thereof.

4. A brake shoe comprising a cast body portion, a malleable metal backing partially embedded in the cast body, and a pair of attaching lugs composed of a malleable strap,
10 part of which lies beneath the metal backing, substantially described.

5. A brake shoe comprising a cast body portion and a pair of attaching lugs composed
15 of a malleable strap.

6. A brake shoe comprising a cast body, a steel backing anchored thereto, a pair of lugs composed of a strap the central portion of which extends beneath the central portion of the backing, and the ends whereof are 20 hooked and embedded in the cast metal of the body of the shoe, substantially as described.

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

HARRY JONES.

Witnesses:

CHARLES B. McPHILLIPS,
JESSE ROE.