

P. T. HANDIGES.
BRAKE HEAD.
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906,708.

Patented Dec. 15, 1908.

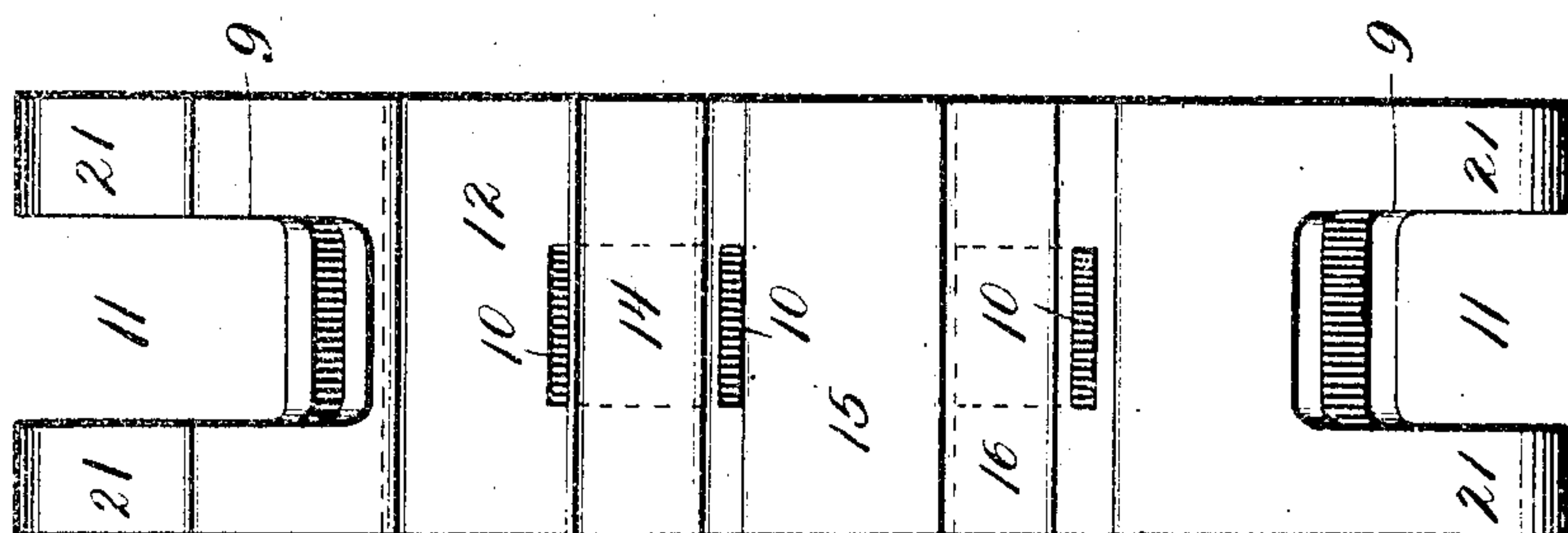


Fig. 2.

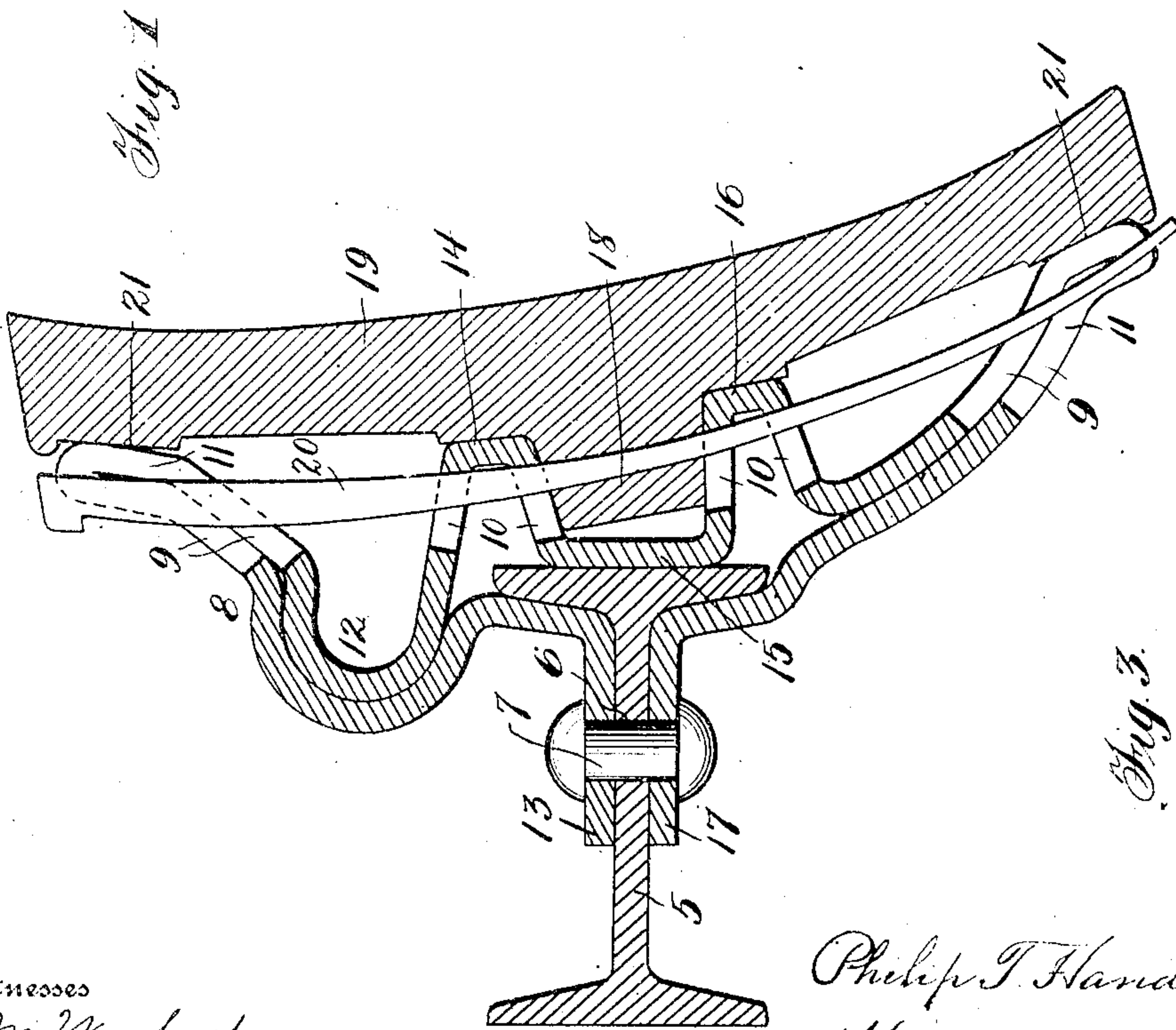
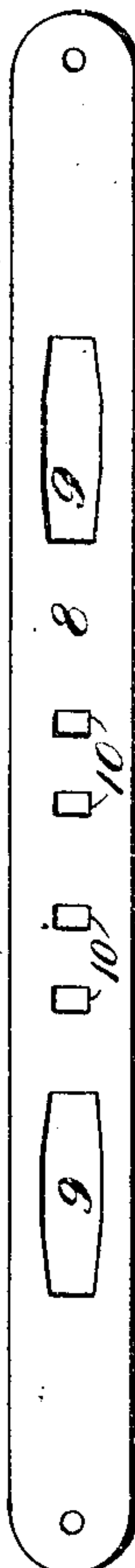


Fig. 3.



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PHILIP T. HANDIGES, OF CLEVELAND, OHIO, ASSIGNOR TO THE DAMASCUS BRAKE BEAM CO., OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

BRAKE-HEAD.

No. 908,703.

Specification of Letters Patent.

Patented Dec. 15, 1908.

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To all whom it may concern:

Be it known that I, PHILIP T. HANDIGES, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Brake-Heads, of which the following is a specification.

This invention relates to brake heads and has for its object the provision of a forged brake head constructed in such manner that it may be very easily and cheaply made, and when in use, will effectually maintain the brake shoe in its proper position.

A further object of the invention is to so construct the brake head that it may be secured directly to the brake beam without the use of castings of any nature whatsoever, the entire brake head proper being a forged one.

Further objects and advantages of the invention will be set forth in the detailed description which now follows:—

In the accompanying drawing, Figure 1, is a vertical section of a forged brake head constructed in accordance with the invention, and illustrating the method of securing the brake shoe thereto. Fig. 2 is a front elevation of the brake head with the brake shoe removed, and Fig. 3 is a view upon a smaller scale of the blank from which the brake head is formed.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, the numeral 5 designates a brake beam which is preferably in the form of an I bar. This beam has an opening 6 formed therethrough for the reception of a rivet or bolt 7, said rivet serving to bind the brake head to the brake beam. The brake head consists of an integral plate 8, see Fig. 3. This plate has elongated openings 9 formed in the opposite ends thereof, and a plurality of smaller openings 10, formed in the center thereof. By means of the proper dies, the plate illustrated in Fig. 3 is bent into the form illustrated in Fig. 1.

By referring to Fig. 1, it will be seen that the plate is bent upon itself about at the center of the openings 9. This results in the formation of a bifurcated portion 11 at each end of the brake head. Both thicknesses of the metal at the upper portion of the brake head are bent rearwardly to form a bow 12, the rear thickness of the metal being con-

tinued downwardly from said bow, then rearwardly in a horizontal plane to form a securing flange 13. The front thickness of the metal is continued outwardly from the bow 12, then downwardly and then rearwardly to form a retaining lug 14. The front thickness of the metal is then continued downwardly from the retaining lug 14 to form a vertical wall 15, the inner face of which is adapted to lie against the face of one of the flanges of the I beam. From this wall, the front thickness of the metal is continued outwardly, then downwardly, and then inwardly to form a second retaining lug 16.

The rearmost thickness of the metal is continued from the bifurcated lower end 11 of the brake head and is bent inwardly in substantially a horizontal plane to form a retaining flange 17. The rivet or bolt 7 not only passes through the brake beam 5 but through the retaining flanges 13 and 17, said rivet serving to firmly bind the brake head to the brake beam as will be readily understood. The retaining lugs 14 and 16 receive between them the rearwardly projecting perforated ear 18 of the brake shoe 19 which is of the usual and well known construction. A pin or key 20 passes through the openings 10 of the lugs 14 and 16 and through the perforated ear 20, and serves to bind the brake shoe to the brake head. The upper and lower ends of the key 20 now lie within the bifurcated portions 11 of the upper and lower ends of the brake head and the walls 21 of the brake head lie against the rear faces of the brake shoe, adjacent its ends.

The curvature of the face of the brake shoe must be concentric with the tread of the wheel, if the brake shoe is to fit snugly against said wheel. It is therefore desirable that the brake head be capable of a slight yielding and for this purpose the bowed portion 12 of the brake head is provided. If by reason of sagging of the brake beam below its normal position, the brake shoe assumes a position in which its face is no longer concentric with the tread of the wheel and the brake beam and brake shoe are forced toward the wheel, the upper portion of the brake shoe will contact with the tread of the wheel first. Continued movement of the brake beam toward the wheel will bring the remainder of the brake shoe against the wheel, the bowed portion 12 of

the brake head permitting a slight rearward movement of the upper portion of the brake shoe to render such action possible.

From the foregoing description it will be seen that the brake head herein shown and described may be very cheaply made and since the metal of which it is composed is primarily in the form of a flat plate, or bar, the dies required to punch the blank illustrated in Fig. 3, may be very cheaply made.

While the elements shown and described are well adapted to serve the purpose for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claims.

Having described my invention, what I claim is:—

1. A forged brake head formed of an integral plate of metal, said plate being bent upon itself to form brake shoe engaging ends, and the ends of said plate being bent to form retaining flanges, both of the thicknesses of said plate being concentrically bowed to form a resilient member.

2. A forged brake head formed from a flat integral plate which is slotted and bent upon itself to form bifurcated brake shoe engaging ends, the ends of said plate terminating in rearwardly extending retaining

flanges, the front thickness of said brake head being bent across its entire width to form forwardly projecting retaining lugs, said lugs having key receiving openings formed therein, and a vertically extending wall connecting said lugs, said wall being adapted to bear against the face of the brake beam to which the brake head is secured.

3. A forged brake head formed from a flat integral plate which is slotted and bent upon itself to form bifurcated brake shoe engaging ends, the ends of said plate terminating in rearwardly extending retaining flanges, the front thickness of said brake head being bent across its entire width to form forwardly projecting retaining lugs, said lugs having key receiving openings formed therein, a vertically extending wall connecting said lugs, said wall being adapted to bear against the face of the brake beam to which the brake head is secured, and both thicknesses of the metal of the brake head being bent concentrically to form a bowed portion as and for the purpose set forth.

The foregoing specification signed at Cleveland Ohio this 13th day of June, 1908.

PHILIP T. HANDIGES.

In presence of—

H. H. HENRY.

ESSIE I. WEISS.