

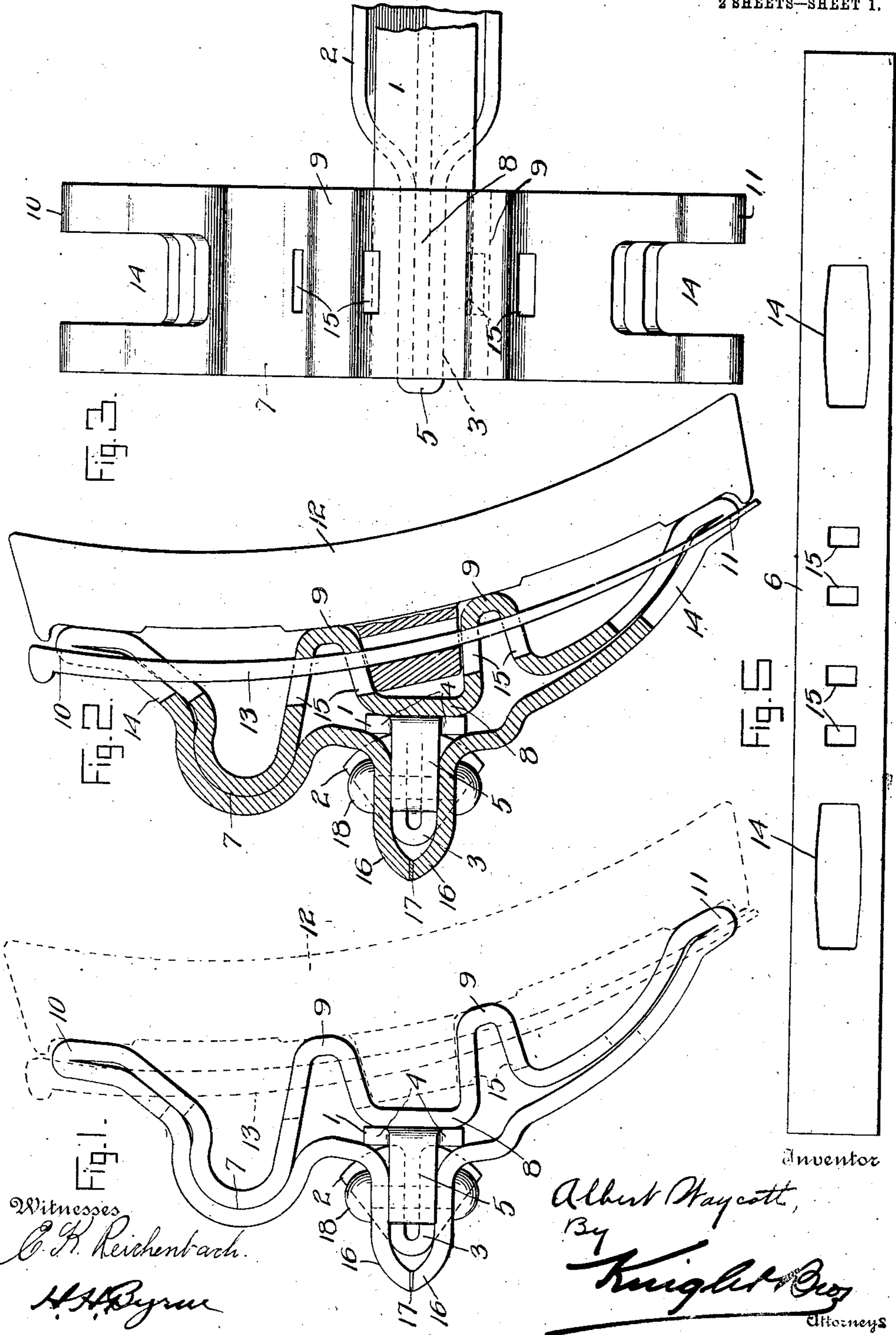
A. WAYCOTT.
BRAKE HEAD.

APPLICATION FILED JUNE 16, 1909.

944,526.

Patented Dec. 28, 1909.

2 SHEETS—SHEET 1.



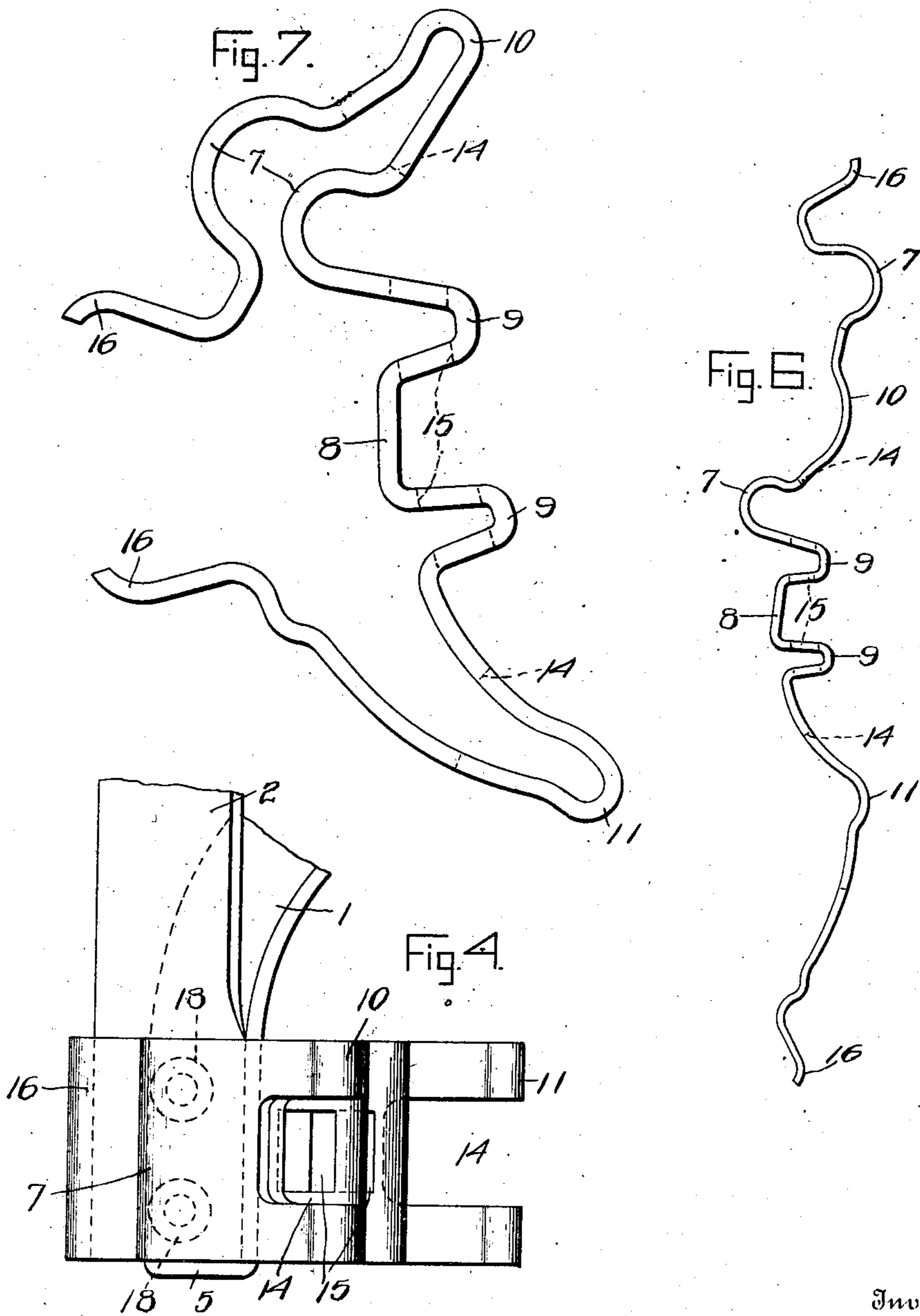
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UNITED STATES PATENT OFFICE.

ALBERT WAYCOTT, OF CLEVELAND, OHIO.

BRAKE-HEAD.

944,526.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed June 16, 1909. Serial No. 502,587.

To all whom it may concern:

Be it known that I, ALBERT WAYCOTT, 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.

The present invention relates to brake heads and has for its object the provision of such a means of the forged type, as distinct from a casting, wherein the same is adapted to be secured to the brake beam in a continuous and united piece surrounding the latter, and wherein the brake head offers a resilient and compensating medium to the brake shoe proper.

The structure of the several parts and their peculiar manner of assembling is such that the brake head may be readily fitted to the brake beam, and when in applied position offers a suitable resistance to excessive wearing by friction which fault constitutes the main disadvantage of the present used brake heads of this general type.

The invention is designed as a further improvement over Patent No. 906,708, granted December 15, 1908, for improvements in brake heads of the kind in question, invented by Philip T. Handiges, and assigned to the Damascus Brake Beam Company, of Cleveland, Ohio.

The further advantages of the invention will be made clear in the course of the following extended description and the points of novelty therein set forth in the claims.

In the accompanying drawings, Figure 1 is a side elevation of the brake head in applied position, Fig. 2 is a vertical section of the same, illustrating the manner of securing the brake shoe thereto, Fig. 3 is a front elevation, Fig. 4 is a top plan view thereof, Fig. 5 illustrates the brake head in blank and punched ready for bending, Fig. 6 illustrates the blank after the first operation for forming the same in the bending dies, and, Fig. 7 illustrates the same after the second operation.

Referring to the drawings in further detail and wherein like numerals of reference indicate corresponding parts in the different views shown, 1 is the tension member of a trussed brake beam, which member

is constructed of T angle-iron, and 2 the compression member, which, for its greater length, is of substantially V shape in cross section but at its point 3 of union or intimate contact with the bar 1 is depressed to a U-section by which it clamps against the web of the T bar 1.

The end of the T-bar is cut away on opposite sides as shown at 4 in Figs. 1 and 2 and the reduced portion 5 thereof is turned at right angles and lies in intimate contact with the end of the web of the T-bar 1, in which position said reduced portion acts as a head or abutment plate for the ends of the U portions 3 of the truss bar 2.

The brake head comprises a blank plate 6 which after having gone through the several necessary operations in the bending dies, wherein it receives successively the shapes indicated by Figs. 6 and 7, and finally the form shown in Figs. 1 and 2. Thus constructed the head is bent upon itself to provide the bow portion 7 which affords a part of the resilient medium thereof, the intermediate portion 8 providing a resilient abutment or front socket wall which lies against the head of the brake beam 1; and to either side thereof and projecting forwardly are the retaining members 9 for the brake shoe. The upper and lower opposed folded portions 10 and 11 respectively lie in intimate contact with the extreme rear face of the brake shoe 12. The means for securing said brake shoe to the brake head comprises the wedge pin or key 13 which passes through the several perforations 14 and 15 provided in the brake head. The brake head thus far described is substantially identical in design and manner of securing the brake shoe thereto with that shown and described in the patent above referred to, and *per se*, does not constitute part of the present invention.

The present invention consists in so constructing such a brake head that it will form a complete socket embracing the end of the brake beam; this being effected by suitably uniting the ends of the blank where they meet, and the advantage of such a construction arising from the firm embrace of the end of the beam by a resilient socket that absorbs vibrations and reduces to a

minimum the wear on the parts and tendency to work loose. The preferred method of realizing this condition is as follows: During the process by which the blank 6 is given its form the opposite ends thereof are bent as at 16 and the edges thereof are beveled so that said ends 16 may be made to abut as shown, and then the edges are welded as at 17. When applying the brake heads to the T beam said heads are forced over the end of the beam, and the rivets 18 are then introduced through perforations formed in the brake head, the web of the member 1 and the U-portions 3 of the compression member 2, said rivets being then upset. This fitting of the brake head is rendered more secure by reason of the curved ends 16 thereof lying in intimate contact with the U-portion 3 of the truss bar which is further effective to the extent that it minimizes the tendency to relative movement between the part 8 and its contacting face of the cross beam 1.

Having thus described my invention, what I claim as new therein and desire to secure by Letters Patent, is:—

1. A forged brake head formed of an integral plate of metal, said plate being bent upon itself to form brake shoe engaging means, and the ends of said plate being united to provide a securing means for said brake head.

2. A forged brake head formed of an integral plate of metal, said plate being bent upon itself to form brake shoe engaging means, and the ends of said plate being welded to provide a securing means for said brake head.

3. A forged brake head formed of an integral plate of metal, said plate being bent upon itself to form brake shoe engaging means, and the ends of said plate being bent and having its edges beveled and welded in a flush joint to provide securing means for said head.

4. The combination with a brake beam having a truss bar, of a forged brake head therefor, said brake head formed of an integral plate of metal bent upon itself to form brake shoe engaging means, the ends of said plate being united and surrounding said beam and constituting a securing means for said head.

5. The combination with a brake beam comprising a bar having an abutment member, and a truss bar abutting against said member; of a forged brake head therefor formed of an integral plate of metal bent upon itself to form brake shoe engaging means, the ends of said plate being welded and overlying the truss bar, and bolts passing through the truss bar, the beam and the brake head.

6. The combination with a brake beam

comprising a T angle bar having an abutment member at its ends, and an angle iron truss bar overlying the web portion of the end of said T angle bar and abutting against the abutment member thereof; of a forged brake head therefor, said brake head formed of an integral plate of metal bent upon itself to form brake shoe engaging means, the ends of said plate being bent and the edges thereof beveled and welded, said end portions adapted to overlie the brake beam, and bolts passing through said end portions and the brake beam.

7. A forged brake head formed of an integral plate of metal bent to provide an intermediate abutting portion, shoe-receiving end portion, and a closed rear socket-portion positioned relatively to the intermediate abutting portion to form therewith a closed socket adapted to surround the end of a brake beam.

8. A forged brake head comprising a plate of metal having its intermediate portion formed into an abutting bearing for the brake beam, extending thence to provide arcuate shoe-receiving ends, bent thence upon itself and extending to the middle and having its ends there united and formed into a rear socket portion positioned relatively to the intermediate portion to form therewith a closed socket adapted to surround the end of the brake beam.

9. In combination with a trussed brake beam having a tension-member of T-section with a forwardly presented bearing face, and a compression member having its end folded upon the web of said T-section tension-member and forming therewith the head-receiving end of the beam; a brake head formed of a plate bent to provide a resilient intermediate portion abutting said forwardly presented bearing face, arcuate shoe-receiving ends, and a closed rear socket portion bearing upon the upper, lower and rear faces of the folded portion of the compression member, and with said intermediate abutting portion forming a socket surrounding the end of the beam formed by said tension and compression members.

10. In combination with a trussed brake beam having a tension-member of T-section with a forwardly presented bearing face, and a compression member having its end folded upon the web of said T-section tension-member and forming therewith the head-receiving end of the beam; a brake head formed of a plate bent to provide a resilient intermediate portion abutting said forwardly presented bearing face, arcuate shoe-receiving ends, and a closed rear socket portion bearing upon the upper, lower and rear faces of the folded portion of the compression member, and with said intermediate abutting portion forming a socket surround-

ing the end of the beam formed by said
tension and compression members, said parts
being assembled by riveting through the
web of the tension member, the folds of the
5 compression member lying thereon and the
walls of the socket bearing on said folds.

The foregoing specification signed at

Cleveland, Ohio, this 11th day of June,
1909.

ALBERT WAYCOTT.

In presence of two witnesses:

P. T. HANDIGES,

G. W. CLEMMONS.