G. A. BOWMAN & C. L. HARMEYER.

BRAKE HEAD.

APPLICATION FILED MAY 21, 1908.

901,872. Patented Oct. 20, 1908.

Fig. 1.

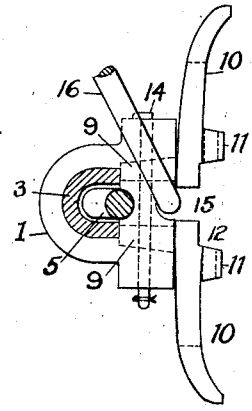
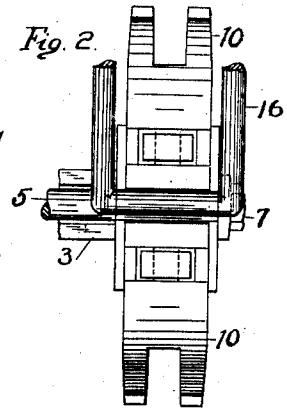


Fig. 2.



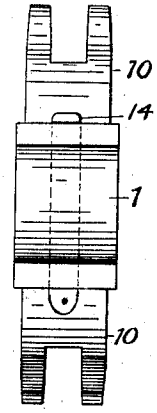


Fig. 3.

Fig. 4.

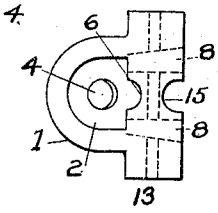


Fig. 5.

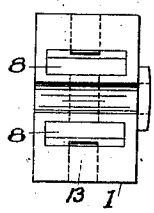


Fig. 6.

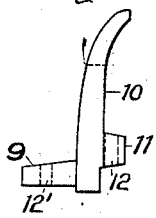


Fig. 7.

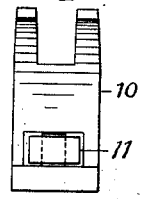


Fig. 8.

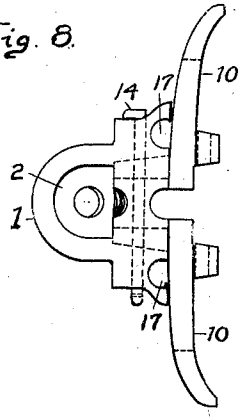
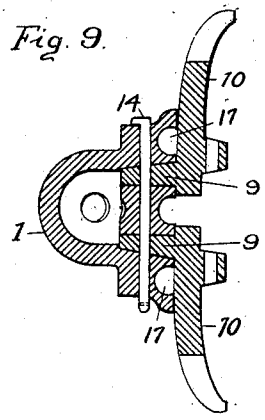


Fig. 9.



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UNITED STATES PATENT OFFICE.

GEORGE A. BOWMAN AND CYRUS L. HARMEYER, OF FORT WAYNE, INDIANA, ASSIGNORS OF ONE-THIRD TO FRANKLIN B. LADD, OF FORT WAYNE, INDIANA.

BRAKE-HEAD.

No. 901,872. Specification of Letters Patent. Patented Oct. 20, 1908.

Application filed May 21, 1908. Serial No. 434,098.

To all whom it may concern:

Be it known that we, GEORGE A. BOWMAN and CYRUS L. HARMEYER, citizens of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented a certain new and useful Improvement in Brake-Heads, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is an end elevational view of our improved brake head; Fig. 2, a front elevational view; Fig. 3, a rear elevational view; Fig. 4, an end elevational view of the thrust block; Fig. 5, a front elevational view of the thrust block; Figs. 6 and 7, side and front elevational views respectively of one member of the brake head; Fig. 8, a side elevational view of a modified form and Fig. 9, a sectional view of Fig. 8.

Our invention relates to a new and useful improvement in brake heads, the object being to enable them to be readily and quickly removed for repairs without unhanging the brake beam or disturbing its tension members. It has been found in practice that the upper portion, or half, of the brake head is the part which usually receives the most wear after the brake-shoe has broken down, and as a consequence this portion of the brake head is the part that first requires repairs, and one of the objects of our invention is to provide a head which shall be divisible within itself so that when one portion of the head has broken down that portion can be easily and quickly removed for repairs, or a new part substituted therefor without the necessity of disturbing the entire brake head.

With these objects in view our invention consists in the novel construction, arrangement and combination of parts all as hereinafter more fully described and set forth in the claims.

Referring to the drawings 1 indicates the thrust block provided with a suitable recess 2 in one side which is adapted to seat one end of a brake beam 3. An opening 4 on the opposite side of the block is adapted to retain the projecting end of the truss or tension member 5, the forward portion of the head having a recess 6 adjacent to said recess 2 to permit of the usual angularity of the truss with respect to the beam. A nut 7 on the end of this truss serves to tighten the same in the thrust block. In the front face of the thrust block we provide two or more recesses or sockets 8 adapted to receive the tenons 9 of the brake head 10.

The brake head consists of two similar portions 10, each of which is provided on its rear face with a tenon or projection 9 and on its outer face with a lug 11. As before stated tenons 9 are adapted to be seated in recesses 8. Lugs 11 are provided with suitable openings 12 for engaging the usual key which retains the usual brake shoe on the head, the key and shoe not being shown, as they form no part of our invention.

In the forward portion of the thrust block 1 is formed a vertically disposed opening or keyway indicated by figure 13 in Figs. 4 and 5, through which passes a key 14, the key also passing through alining openings 12′ in the tenons 9 on the brake heads 10. An opening in the lower end of key 14 is adapted to receive a cotter pin or ring for retaining the key within the block when the device is in use. Key 14 thus holds the brake head members tight on the thrust block at all times. A recess 15 in the forward face of thrust block 1 is adapted to receive brake hanger 16 by which the beam and brake are supported from the bolster or other part of the car.

In the modified form shown in Figs. 8 and 9 we provide a recess 17 in an enlargement on the upper and lower portions of the forward portion of thrust block 1, which recess is adapted to receive hanger 16, as it is oftentimes advantageous to hang the brake and beam from the upper portion of the thrust block.

We provide recess 17 in the lower portion of the thrust block as well as in the upper portion so that the thrust block may be used on either end of the brake beam by mere inversion of the same. It is also apparent that the enlargements on the thrust block provide additional brace or support for the brake head members.

To remove either portion of the brake head it is only necessary to remove the cotter pin or ring, drive out key 14 and remove both portions, or either one, of the brake head. A train need be detained but a very short time to make the repair, and to facilitate the repair the train crew could carry with it the necessary parts and make the repairs at any place on the road.

It will be seen that no amount of injury to

the brake head can bend or break key 14 so that the latter cannot be removed at all times from the thrust block. The advantages of that condition will be at once apparent. It is further apparent that while the drawings illustrate a beam of U-shape any other form of beam may be used equally well. All that it is necessary to do to adapt the thrust block to seat any particular form of beam is to provide the recess 2 in the side of the thrust block with a suitable form to receive the beam.

Since the removable members of the head are similar in construction those parts are interchangeable at all times and if one part is injured a new member may be substituted for it or the remaining member may be taken out, substituted for the injured member and a new part substituted for the interchanged member. It is thus seen that great economy in the construction and use of the head is achieved.

What we claim is—

1. A brake head comprising a thrust block provided with a key way or opening therethrough, a divisible and removable head provided with openings which register with said key way or opening and a key passing through said key way and registering openings whereby the divisible head is secured to the thrust block.

2. A brake head comprising a thrust block provided with a key way or opening therethrough and with two recesses or sockets intersecting said key way, a divisible and removable head provided with openings which register with said key way within said recesses or sockets, and a key passing through said registering openings and key way whereby the head is secured to the thrust block.

3. A brake head comprising a thrust block provided with a key way or opening therethrough and with two recesses or sockets intersecting said key way or opening, a divisible and removable head provided with rearwardly extending tenons or projections having openings therein which register within said thrust block with said key way or opening and a key passing through said key way and openings whereby the head is secured to the thrust block.

4. In a brake head the combination of a thrust block provided with a key way or opening, a plurality of recesses or sockets intersecting said key way or opening, a removable head comprising two independent portions each having an opening which registers with said key way or opening and a key passing through said key way and registering openings whereby the several parts of the head are secured to the thrust block.

5. In a brake head the combination with a thrust block provided with a key way or opening and with recesses or sockets intersecting said key way or opening, of a divisible and removable head comprising two independent portions each provided with a rearwardly extending tenon or projection which is adapted to be supported in one of said recesses or sockets, which tenon or projection is provided with an opening in alinement with said key way and a key passing through said key way and alining openings whereby the several parts are secured to the thrust block.

6. In a brake head the combination with a thrust block provided with openings in the upper and lower portions thereof which are adapted to receive the brake hanger, said block having also a key way or opening therethrough and recesses or sockets intersecting said key way or opening, of a removable head having two independent and interchangeable portions which are each provided with an opening which is in alinement within the thrust block with said key way or opening, and a key passing through said key way or opening and said alining openings whereby the head is secured to the thrust block.

7. In a brake head the combination with a thrust block provided with hanger openings in the upper and lower portions thereof, and having a key way or opening through said block and recesses or sockets intersecting said key way or opening, of a removable head consisting of two interchangeable members having openings therein which are in alinement with said key way or opening and a key passing through said key way and said alining openings whereby the removable head is secured to the thrust block.

8. A brake head comprising a thrust block having sockets or recesses in the forward portion thereof, a key way or opening therethrough and an opening for the brake hanger, a removable head comprising two interchangeable members each provided with a rearwardly extending tenon or projection provided with an opening therethrough, and a key, the parts being so arranged and proportioned that one member of said head may be removed from the thrust block without disturbing the relation of the remaining parts one to the others.

In witness whereof we hereunto subscribe our names this 18th day of May, 1908.

GEO. A. BOWMAN.
CYRUS L. HARMEYER

Witnesses:
ELWIN M. HULSE,
HELEN F. GLENN.