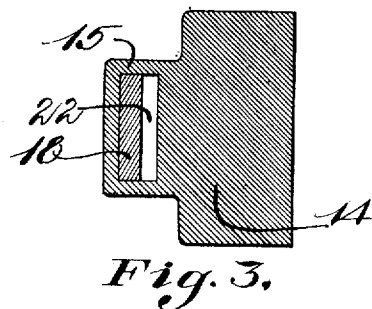
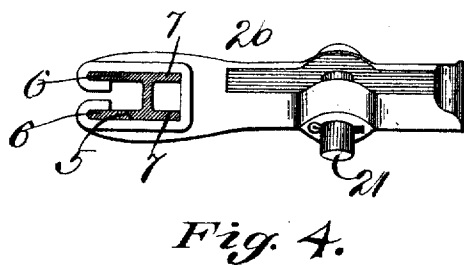
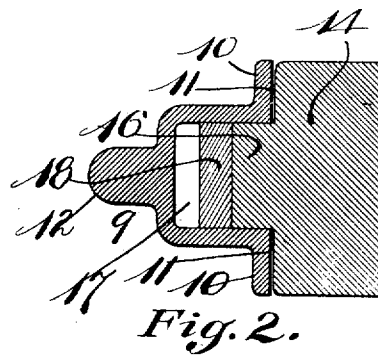
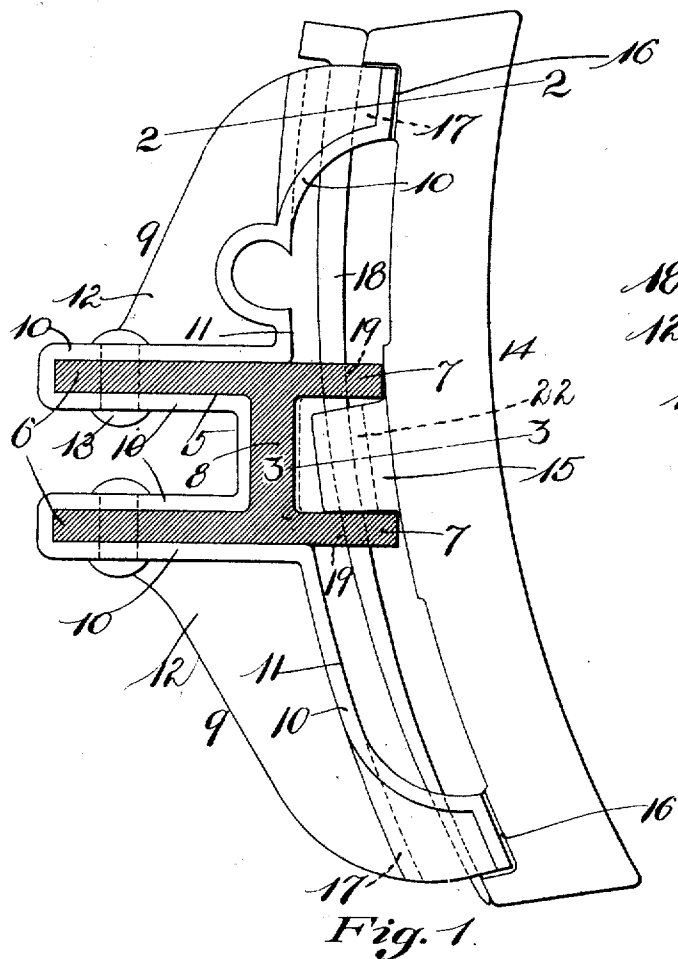


No. 829,221.

PATENTED AUG. 21, 1906.

A. H. MARDEN.
RAILWAY BRAKE.
APPLICATION FILED JAN. 19, 1906.



Witnesses:
Percy F. Wolfe
Ernest A. Telfer.

By his attorney,

Inventor:
Aldis H. Marden.
Charles S. Gooding.

UNITED STATES PATENT OFFICE.

ALDIS H. MARDEN, OF WATERTOWN, MASSACHUSETTS.

RAILWAY-BRAKE.

No. 829,221.

Specification of Letters Patent.

Patented Aug. 21, 1906.

Application filed January 19, 1906. Serial No. 296,765.

To all whom it may concern:

Be it known that I, ALDIS H. MARDEN, a citizen of the United States, residing at Watertown, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Railway-Braques, of which the following is a specification.

This invention relates to improvements in railway car-brakes, the object of the invention being to provide a strong, durable, simple, and efficient car-brake in which the brake-shoes can be readily attached to or detached from the brake-heads and brake-beam.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a side elevation of my improved railway-brake, the brake-beam being illustrated in section. Fig. 2 is a section taken on line 2 2, Fig. 1. Fig. 3 is a section taken on line 3 3, Fig. 1. Fig. 4 is a side elevation of the lever-fulcrum, showing the same attached to the brake-beam with the brake-beam in section.

In the drawings, 5 is the brake-beam, the same being similar to an I-beam structural shape with the exception that the flanges 6 6 are longer than the flanges 7 7 upon the opposite side of the web 8 therefrom.

9 is the brake-head, which is provided with flanges or ribs 10 10, extending around the inner face 11 thereof and projecting into the space between the flanges 6 6, said rib 10 also extending along the upper and lower faces of the brake-beam 5. The brake-head 9 is rendered strong and durable by webs 12, said head being fastened to the flanges 6 by means of rivets 13.

14 is the brake-shoe, which is provided with a lug 15, said lug projecting into the space between the flanges 7 7 of the brake-beam 5. The upper and lower ends of the brake-shoe 14 are reduced in thickness at 16 to form ears, and these ears 16 project into slots 17, provided in each of the opposite ends of the brake-head 9 and extending inwardly from the inner face of said brake-head. A key 18 projects through the slots 17 and also through holes 19 in the flanges 7 and through the hole 22 in the lug 15.

It will be understood that the brake-shoe 14, head 9, and key 18 are duplicated at opposite ends, respectively, of the brake-beam 5, to which they are attached. It will be

seen that the formation of the brake-beam 5 with the elongated flanges 6 6 gives great strength to the brake-beam to resist any strain that may come upon it when setting the brake, and also the manner of attaching the brake-shoe 14 to said brake-beam forms a very strong and efficient means for the purpose for which it is designed and also a convenient means for attaching said brake-shoe or detaching the same from the brake-beam when combined with the key 18, which attaches said brake-shoe to the brake-beam by passing through the holes 19 in the flanges 7 of said brake-beam. Any lateral twist or side pressure is taken by the ears 16, which project into the slots 17 in the opposite ends of the brake-head.

A lever-fulcrum 20 is rigidly fastened to the brake-beam 5, said lever-fulcrum being provided with a slot located at an angle to the brake-beam for the purpose of receiving the brake-lever, said brake-lever being pivoted to the lever-fulcrum by a pin 21 in the usual manner and said lever-fulcrum being fastened to the brake-beam midway between the two brake-heads in the usual manner.

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

1. A railway car-brake, comprising in its construction, an I brake-beam, a brake-head fast to said I-beam, a brake-shoe having a lug thereon projecting between two flanges on said I-beam, and a key, extending longitudinally of said shoe through said lug and flanges, whereby said shoe is attached to said I-beam.

2. A railway car-brake, comprising in its construction, an I brake-beam, a brake-head fast to said I-beam, a brake-shoe having a lug thereon projecting between two flanges on said I-beam, and a key extending longitudinally of said shoe through said lug and flanges, and through slots provided in the opposite ends, respectively, of said head.

3. A railway car-brake, comprising in its construction, an I brake-beam, a brake-head fast to said I-beam, and provided in the opposite ends thereof with slots extending longitudinally of its inner face, a brake-shoe having a lug thereon projecting between two flanges on said I-beam, said shoe projecting at its opposite ends into said slots, and a key extending longitudinally of said shoe through said lug and flanges, and through said slots, whereby said shoe is attached to said I-beam.

4. A railway car-brake, comprising in its construction, an I brake-beam, a brake-head fast to said I-beam and constructed to project between the two outer flanges of said
5 beam, said brake-head provided in the opposite ends thereof, with slots extending longitudinally of its inner face, a brake-shoe having a lug thereon projecting between the two inner flanges on said I-beam, said shoe projecting at its opposite ends into said slots,
10 and a key extending longitudinally of said

shoe, through said lug and flanges, and through said slots, whereby said shoe is attached to said I-beam.

In testimony whereof I have hereunto set
my hand in presence of two subscribing witnesses. 15

ALDIS H. MARDEN.

Witnesses:

CHARLES S. GOODING,
ANNIE J. DAILEY.