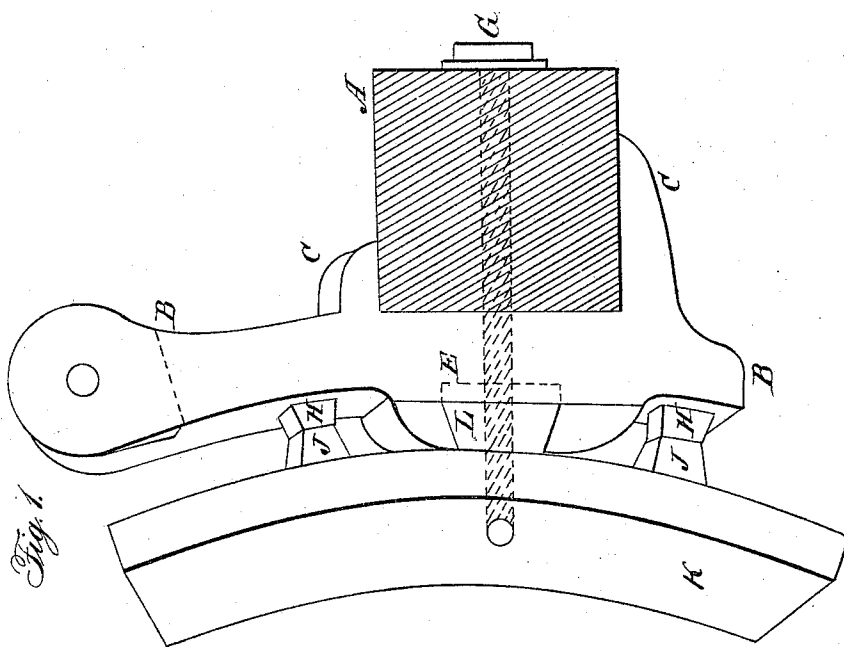
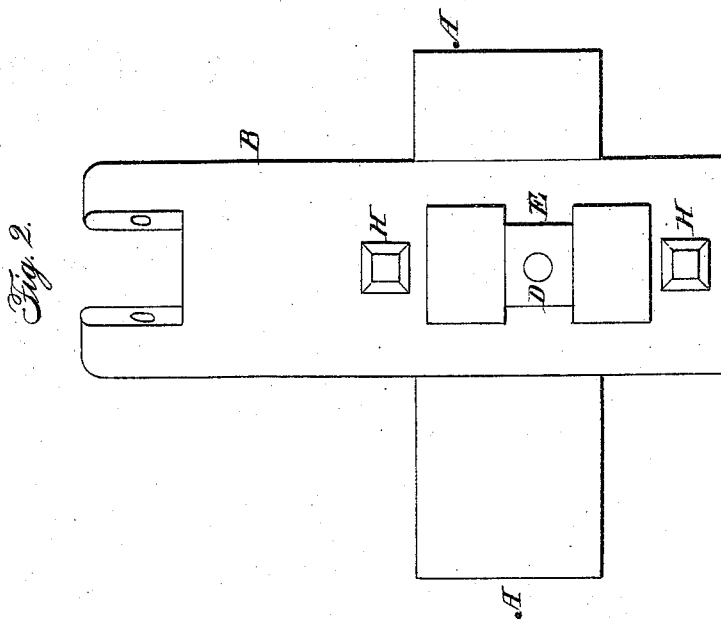


J. P. LEVAN.
Car-Brake Shoe.

No. 42,493.

Patented Apr. 26, 1864.



Witnesses:

L. Luchs
C. A. Bagart

Inventor:

J. P. Levan
By his Atty
J. Franklin Bagart

UNITED STATES PATENT OFFICE.

JOHN P. LEVAN, OF ALTOONA, PENNSYLVANIA.

IMPROVEMENT IN BRAKE-BLOCKS FOR CAR-BRAKES.

Specification forming part of Letters Patent No. 42,493, dated April 26, 1864.

To all whom it may concern:

Be it known that I, JOHN P. LEVAN, of Altoona, Blair county, and State of Pennsylvania, have invented new and useful Improvements in Brake-Blocks and Brake-Shoes for Railroad-Cars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction, arrangement, and combination of a brake-block and brake-shoe, fastened by means of a dovetail secured by a single bolt, extending through the bar, block, and shoe, so that the shoe is firmly fastened to the block and bar, and the shoe can most easily be replaced when worn, without requiring a new block and a new bolt, as is the case with other modes of fastening the shoe and block to the bar.

Figure 1 represents a view of the brake-bar, block, and shoe, as arranged and combined. Fig. 2 represents a sectional view of the brake-block with the mortise of the dovetail.

A represents the square bar to which the cast-iron block B is attached. The extended ends C of the block B fit over the top and bottom of the bar, to hold the block firmly to the bar. The block B has an aperture, D, and

dovetail mortise E, in which a nut, E, is recessed, and through which the screw-bolt G passes.

H are two projections and bearings, against which corresponding projections, J, on the shoe K press so as to preserve the perpendicular position of the shoe K. The dovetail L, located near the center of the shoe K, fits square in the recess or mortise E of the block B, and is to prevent any movement of the shoe from a perpendicular line, and holds the shoe K firmly to the block B, while the bolt G, passing through the center of the bar A, the center of the block B, and the center of the dovetail L of the shoe, fastens and binds the whole firmly and prevents any lateral motion. The shoe K is made of cast-iron and concave, so as to fit the periphery of a car-wheel and brake it securely.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction, arrangement, and combination of the block and shoe with their devices G, E, J, H, and L, as constructed, arranged, and combined for fastening more securely the brake-shoe to the brake block and more easily replacing a worn-out shoe, as herein described.

JOHN P. LEVAN.

Witnesses:

JESSE SMITH,
CYRUS CORT.