

J. M. CHRISTOPHER.  
Brake-Shoe.

No. 214,623.

Patented April 22, 1879.

FIG. I.

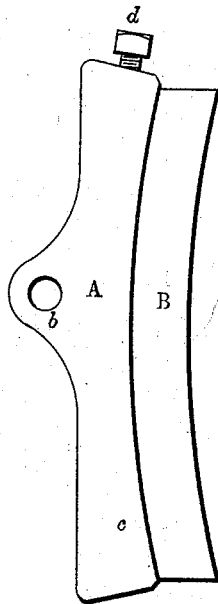


FIG. II.

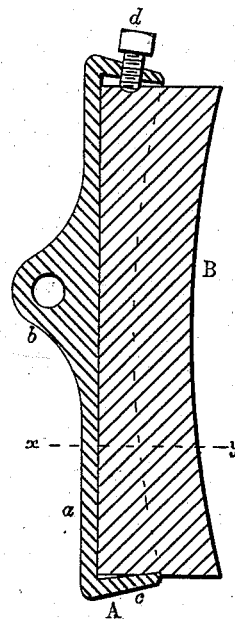
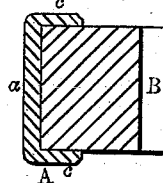


FIG. III.



—WITNESSES—

*D. S. Wolcott*  
*George S. Parker*

—INVENTOR—

*John M. Christopher*  
*by G. H. W. J. Howard*  
*Attorneys*

# UNITED STATES PATENT OFFICE.

JOHN M. CHRISTOPHER, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN W. HODDINOTT, OF SAME PLACE.

## IMPROVEMENT IN BRAKE-SHOES.

Specification forming part of Letters Patent No. **214,623**, dated April 22, 1879; application filed November 26, 1878.

*To all whom it may concern:*

Be it known that I, JOHN M. CHRISTOPHER, of the city of Baltimore and State of Maryland, have invented certain Improvements in Brake-Shoes for Carriages, Wagons, &c., of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to certain improvements in the brake-shoe proper, or that part of the device which is pivoted to the brake-crank, and to which the wooden block adapted to be brought into contact with the tire of the wheel in the braking operation is secured, and to the manner of applying the said wooden block to the shoe, whereby it may be held therein firmly, as hereinafter specified.

In the description of the invention which follows, reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is an exterior view of the improved brake-shoe; Fig. 2, a longitudinal section of the invention, and Fig. 3 a transverse section of the same on the dotted line *x y*.

Similar letters of reference indicate similar parts of the invention in all the views.

A is the block-holder, consisting of a plate, *a*, having a projection, *b*, on the back thereof, through which the pin of the brake-crank is inserted, and a flange, *c*, which, in connection with the said plate, forms a box. The

end flanges of the holder approach somewhat to radial lines, or converge slightly toward the center of the wheel, for the purpose of holding firmly in place the wooden block B, which is forced against one of the said ends by means of a screw, *d*. The ends of the block are cut at right angles with the back of the brake-shoe, and when the pressure of the screw *d* is applied the lower end of the block is forced upon the front edge of the lower flange, *c*, which slightly penetrates the wood and holds it in place. This result is not as effectively accomplished where the flange and the end of the block have the same angle. The wooden block B is cut or prepared in such a manner as to bring the end grain of the wood against the tire of the wheel, which has the effect of increasing the friction while it lessens the wear of the block.

I do not claim a brake-shoe in which the respective ends of the block-holder and block are formed of the same angle or of the same shape; but,

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

The brake-shoe A, having the flange *c* placed at an acute angle to the back of the shoe, combined with the rectangularly-ended block B and screw *d*, as specified.

JOHN M. CHRISTOPHER.

Witnesses:

WM. T. HOWARD,  
THOS. MURDOCH.