(No Model.)

F. L. SHEPPARD.

BRAKE SHOE.

No. 385,966 Patented July 10, 1888.

Fig. 1.

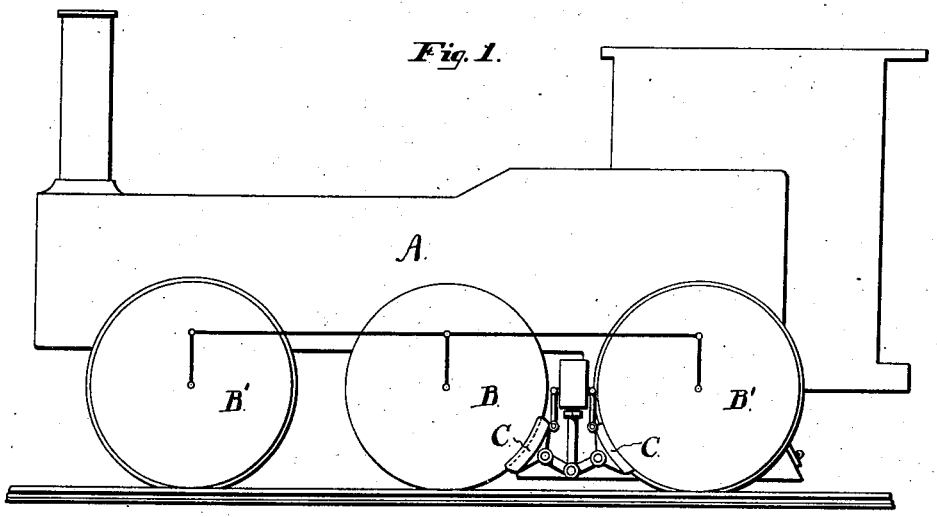


Fig. 2.

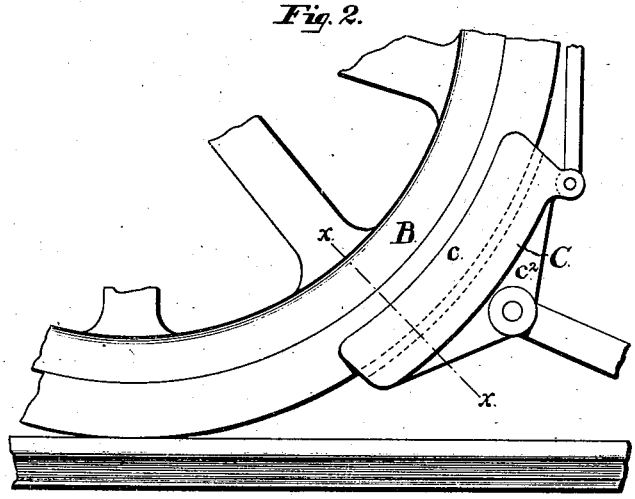
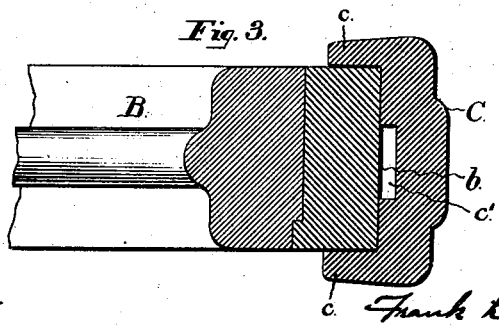


Fig. 3.



WITNESSES:

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FRANK L. SHEPPARD, OF ALTOONA, PENNSYLVANIA.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 385,966, dated July 10, 1888.

Application filed August 24, 1887. Serial No. 247,725. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. SHEPPARD, of Altoona, county of Blair, State of Pennsylvania, and a citizen of the United States, have invented a new and useful Improvement in Brake-Shoes, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates particularly to the construction of brake-shoes for use upon locomotive and car wheels, and has for its object to improve the efficiency and cheapen the cost of such brake-shoe.

Heretofore brake-shoes have been constructed in various shapes and made either of wrought-iron or cast-iron. Among the shoes which I believe to be most useful in practice are those which are hollowed out so as to clear the portions of the wheel which come in contact with the rail, such shoes having the friction-faces on each side of this portion of the tread so that the action of the brakes will tend to wear the outer portions of the wheel-face to the same level as its center. I have also found that the device of providing the brake-shoe with flanges which project inward along the edge of the wheel-face and serve to keep the shoe in a definite position is extremely useful. The only defects which these shoes have is due to the character of the metal of which they are made, the wrought-iron being costly and difficult to make in correct form, while the cast-iron, which has been generally used, is neither strong nor durable enough. I have discovered that shoes of the kind indicated can be formed of cast-steel of the character technically known as "mild steel," and that such brake-shoes are cheap, strong, and more uniformly efficient and durable than any that have been heretofore tried.

The accompanying drawings will serve to illustrate my invention, in said drawings Figure 1 being a side elevation of a locomotive having brake-shoes applied to its drivers of the kind to which my invention relates. Fig. 2 is an enlarged side elevation of the rim of one of the drivers with brake-shoe in place, and Fig. 3 is a section through the rim and shoe on the line *x x* of Fig. 2.

A is a locomotive; B, a plain-faced driving-wheel; B′ B′, ordinary flanged driving-wheels; C, a brake-shoe having flanges *c c* extending inward along the edges of the driver and having its central face, *c′*, cut away, so as not to come in contact with the portion *b* of the tire which ordinarily rests upon the track.

The brake-shoe shown in the drawings is not in itself new, having been patented to me on January 4, 1887, by Letters Patent No. 355,477, and my invention would also apply to shoes used with flanged wheels—such, for instance, as are shown in the Ross patent, No. 292,861, of February 5, 1884; but my present invention rests on my discovery of the peculiar fitness of mild cast-steel as a material to be employed for the manufacture of such brake-shoes.

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

As a new article of manufacture, a brake-shoe for use with locomotive and car wheels, having a surface corresponding in outline with the face of the wheel, the center of said surface being recessed or cut away, and having a flange or flanges projecting inward along the edge of the wheel, the said shoe being formed of a single casting of mild steel, all substantially as and for the purpose specified.

FRANK L. SHEPPARD.

Witnesses:
W. D. COUCH,
W. E. BLANCHARD.