

(No Model.)

A. BRAKE.
BRAKE SHOE.

No. 573,429.

Patented Dec. 15, 1896.

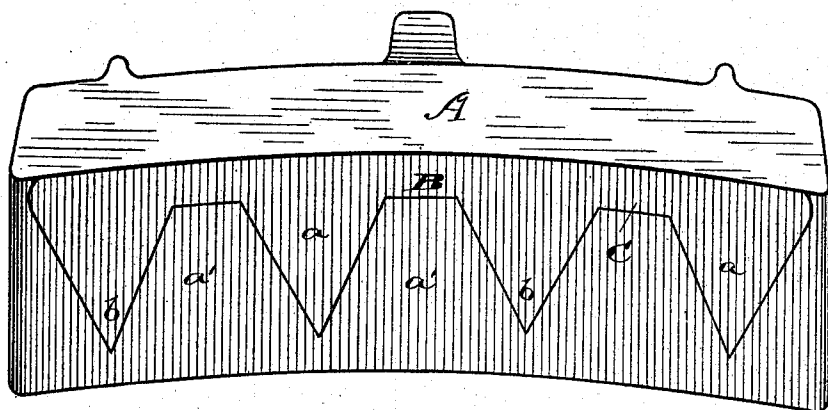


Fig. 1

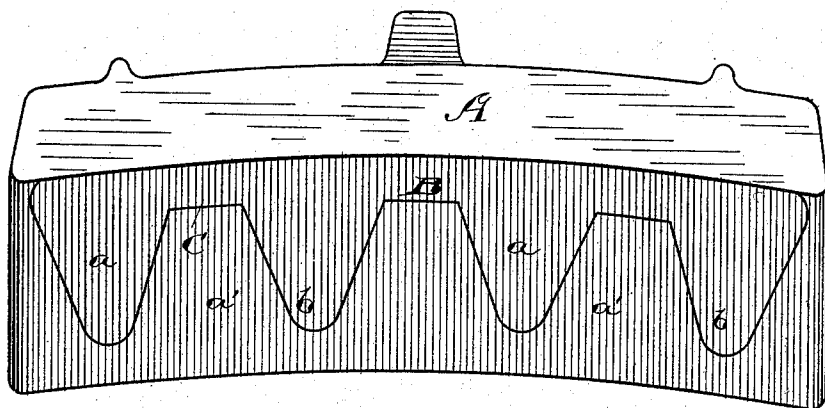


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

ARCHIBALD BRAKE, OF TORONTO, CANADA.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 573,429, dated December 15, 1896.

Application filed December 21, 1894. Renewed February 24, 1896. Serial No. 580,537. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD BRAKE, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Brake-Shoes; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to certain new and useful improvements in brake-shoes; and the object of the invention is to provide a brake-shoe with sufficient soft metal to properly grip the running-face of the wheel when the brakes are applied, and also to provide a brake-shoe with sufficient chilled metal to prevent the rapid cutting away or wearing of the shoe by the running-face of the wheel, and to so arrange the shoe that it will true up the running-face of the wheel, and that that portion of the shoe near the flange of the wheel will be entirely soft metal in order that the shoe will not wear the tread or running-surface of the wheel and will not cut into the flange; and the invention consists of arranging in the shoe a series of chills of a substantially triangular form, the bases of which are located along what will normally be the outer edge of the shoe, with the apex of each triangle extending a little beyond the middle of the shoe, leaving a body of soft metal along the inner edge of each shoe, the whole device being constructed as hereinafter more fully set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of one of the brake-shoes, showing the arrangement of the soft-metal parts and the chilled-metal parts. Fig. 2 is a perspective view of a similar shoe, showing a modified shape of the chilled-metal parts.

Like letters of reference refer to like parts throughout the specification and drawings.

The shoe A is of the usual size and shape and consists of a series of chilled parts *a* and soft-metal parts *a'*, respectively, preferably formed integral with each other. Each of the chilled parts *a* is of substantially a triangular shape, with its base B along what will normally be the outer edge of the shoe and its

apex *b* extending slightly across the middle of the shoe. The chilled-metal parts *a* are preferably four in number, arranged equidistant from each other, with their bases B located along the outer edge of the shoe A. Between each of the chilled-metal parts *a* along the outer edge of the shoe is a narrow strip C of chilled metal. Between the chilled-metal parts *a* and the chilled-metal strip C and the opposite or inner edge of the shoe A are the soft-metal parts *a'*.

By constructing the shoe with the chilled-metal parts *a* arranged substantially in a triangular form with soft metal between them the edges of the chills will be at an angle to the rotation of the wheel, offering substantially no cutting-surface to the rim of the wheel. By arranging the shoe in this manner the chilled-metal parts can under no circumstances come in contact with the flange of the wheel, thus avoiding the possibility of the shoe cutting into the flange. Also by arranging the shoe in this manner there will be little or no chilled metal on the tread of the wheel, as the chilled-metal parts come in contact with the outer edge of the rim of the wheel and have a tendency to true up the rim of the wheel between the outer edge and tread. In Fig. 2 I have shown the apex of the triangle to be slightly rounded instead of coming to a sharp point, as shown in Fig. 1. With the exception of the rounding of the apex there is no difference whatever in the construction of the shoes shown in Figs. 1 and 2. A shoe constructed on this principle will give the best results both for wear and for frictional grip on the rim of the wheel.

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

1. An improved brake-shoe having a series of chilled-metal parts of substantially triangular shape, the bases of said chilled parts being located on one edge of the shoe, each of said bases being connected by a strip of chilled metal, thereby forming a core for the shoe, and a continuous mass of soft metal surrounding said chilled parts; substantially as and for the purpose set forth.

2. An improved brake-shoe having a series
of triangular-shaped chilled parts, the bases
of said chilled parts being located along one
edge of said shoe, each of said bases being
5 cast integral with the next adjacent one, the
apex of each chilled part extending beyond
the middle of the shoe, and a continuous mass
of soft metal surrounding the connected

chilled parts; substantially as and for the
purpose set forth.

Toronto, October 9, 1894.

A. BRAKE.

In presence of—

C. H. RICHES,

M. A. WESTWOOD.