(No Model.)

J. PLAYER.

BRAKE SHOE.

No. 446,570. Patented Feb. 17, 1891.

Fig. 1.

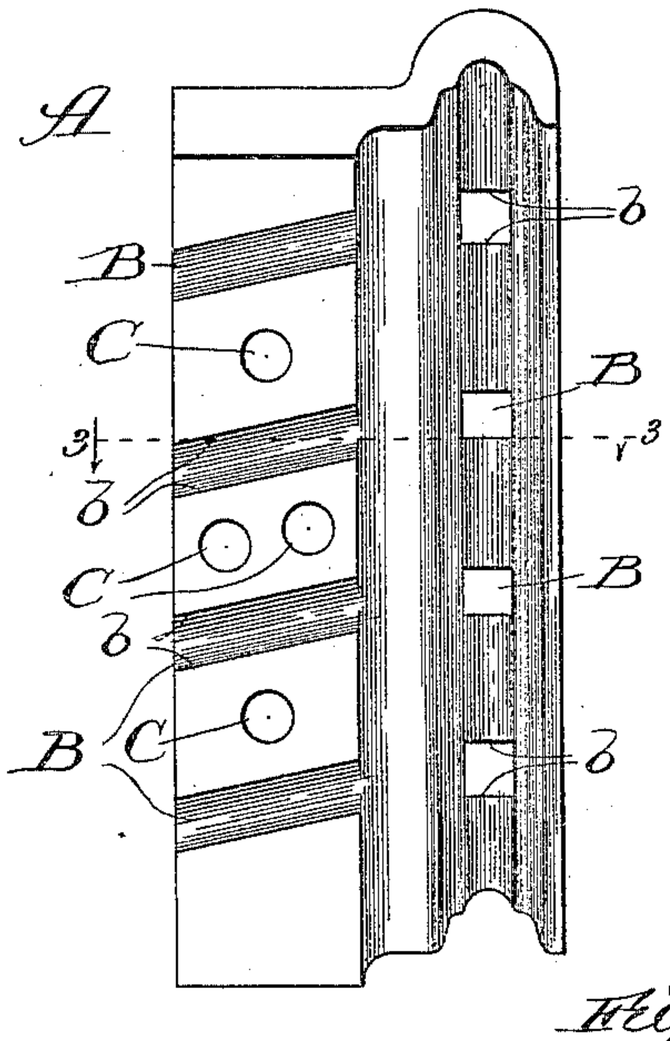


Fig. 2.

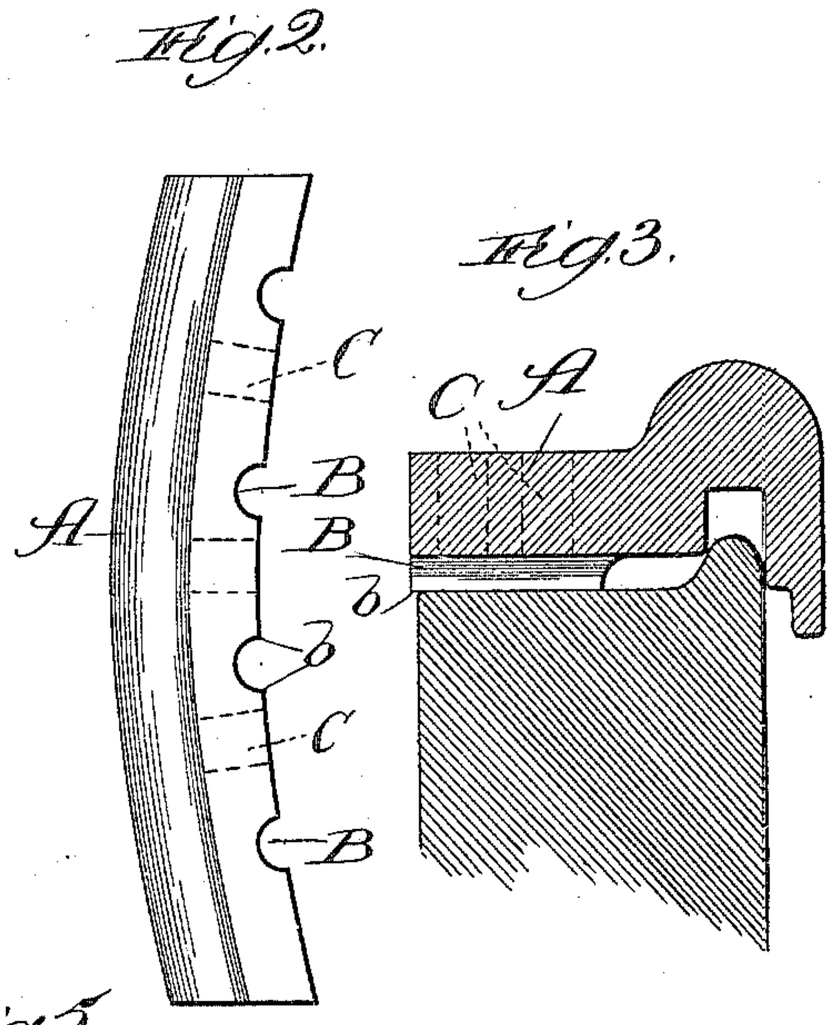


Fig. 3.

Fig. 5.

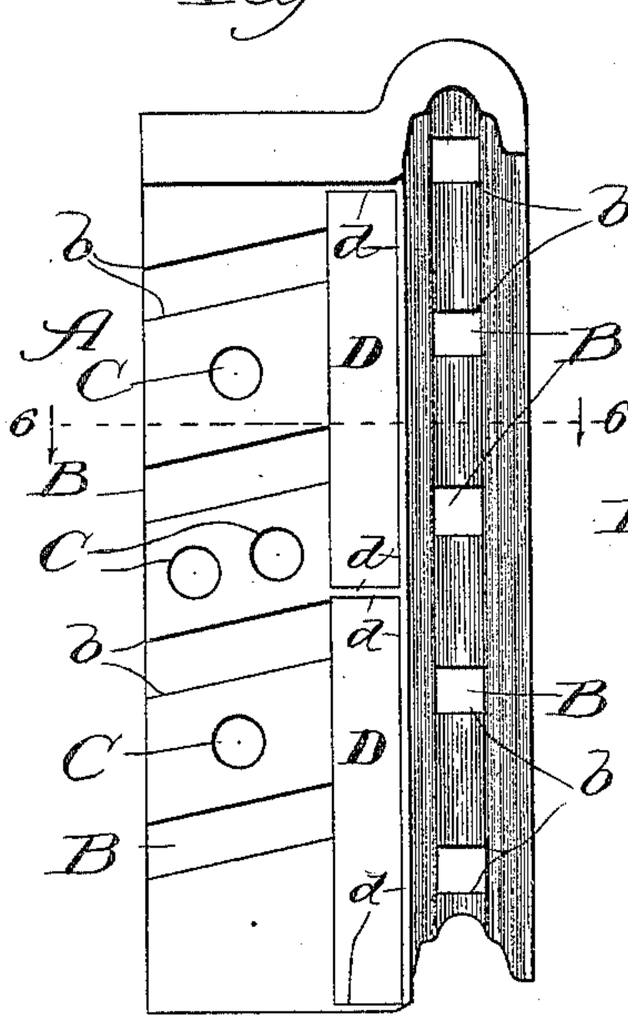


Fig. 4.

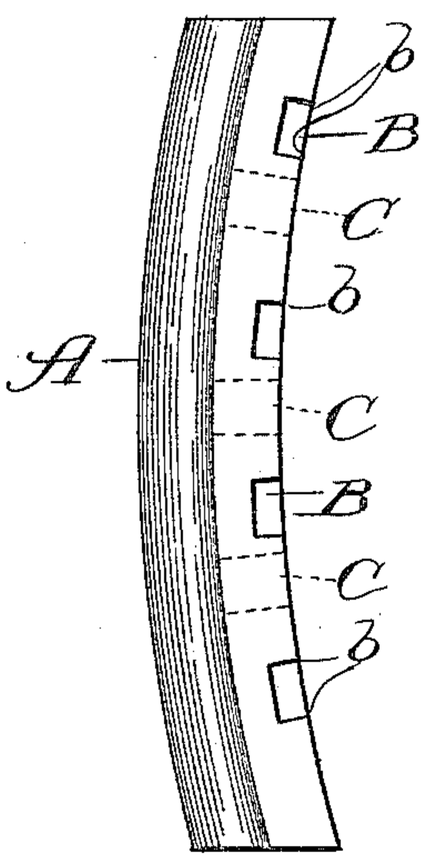
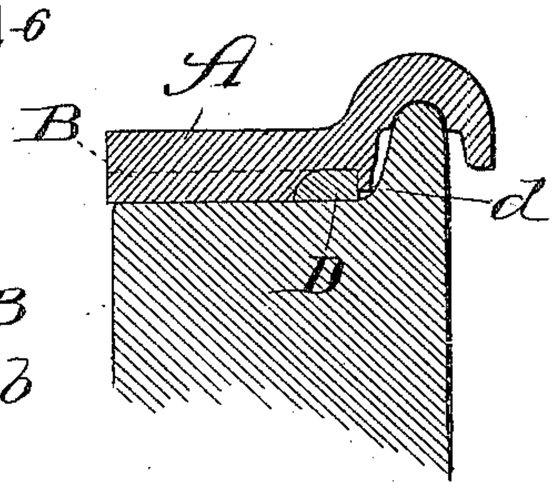


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN PLAYER, OF TOPEKA, KANSAS.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 446,570, dated February 17, 1891.

Application filed September 29, 1890. Serial No. 366,517. (No model.)

To all whom it may concern:

Be it known that I, JOHN PLAYER, a citizen of the United States, residing at Topeka, Shawnee county, Kansas, have invented a new and useful Improvement in Brake-Shoes, of which the following is a specification.

As is well known, the wheels of railway-cars, &c., wear unevenly in use, grooves or depressions being formed in that part of the tread which comes in contact with the track.

My object is to provide a shoe that shall compensate for such unequal wear, the shoe being so formed as to contact only with such parts of the wheel as are not worn in rolling, and is provided with chilled cutting-edges in those portions of the shoe intended to wear upon or contact with the wheel; and my invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a shoe made in accordance with my invention; Fig. 2, a side elevation thereof; Fig. 3, a cross-section of a wheel-tire and a shoe applied thereto; Fig. 4, a side elevation of a modified form of shoe; Fig. 5, a perspective view of another modification; and Fig. 6, a cross-section taken in line 6 6 of Fig. 6, looking in the direction of the arrows.

The shoe A is made of cast-iron, preferably in the form shown in Figs. 1, 2, and 3, being so shaped as to contact with the outer edge of the flange and that part of the tread not in contact with the track. Those portions of the surface of the shoe that are in contact with the wheel are chilled and are provided with grooves or depressions B, by means of which chilled cutting-edges *b b* are formed, which will wear or cut down those portions of the wheel not worn in use by the track, thereby maintaining the even surface of the wheel and doing away with the necessity of removing the wheels to dress them from time to time. The grooves may be rounded, as shown in the first three figures, or square, as shown in Fig. 5, or of any other shape that will afford the cutting-edges. In the drawings I have shown four grooves running diagonally across that part of the shoe that bears upon the tread of the wheel and the same number in that part of which bears upon the flange; but any number may be used that is desirable or may be found necessary or advisable, and they may run straight across the shoe, if preferred. The grooves in that part of the shoe that bear upon the flange may, if desired, be omitted. In addition to these grooves I prefer to provide holes C, which extend part way or entirely through the shoe, as desired. These holes afford additional cutting-edges to assist the edges *b*. If desired, these holes may be filled with wood or other suitable material to increase the friction, leaving the cutting to be done by the edges *b* alone, or the grooves may be filled with wood and the holes left open to do the cutting.

The shoe shown in Figs. 5 and 6 is provided with blocks D D, of wood or similar material, serving to increase the friction and acting as a spacer and to prevent the shoe from cutting too deeply into the wheel. The shoe in this case is made with ribs or webs *d*, forming pockets to receive and hold the blocks D. These webs extend but about half as far toward the surface of the wheel as do the cutting portions, so that they are never in contact with the tread of the wheel and do not cut or wear it, nor do they bear against the flange, being separated from it, as shown.

Inasmuch as the side of the flange next the rail is sufficiently worn by contact therewith any additional wearing is unnecessary, and my shoe accordingly contacts only with the outer edge of the flange and does not extend down in contact with the side thereof next the rail, the shoe exerting no wearing influence upon the side of the flange, but acting only to cut down the diameter thereof to preserve the proportions of the wheel.

By the use of this shoe those portions of the tread or tread and flange not worn in use will be cut away, and the even surface of the wheel maintained.

The form, size, number, and relative location of the grooves and holes may be varied at will, as above indicated, so long as the gist of my invention is preserved, such gist consisting in constructing a brake-shoe with chilled cutting-edges to wear or cut the surface of the wheel.

I claim—

1. A brake-shoe A, the face whereof is so

formed as to contact only with the outer edge of the flange and that part of the tread not in contact with the track, such face being chilled throughout its entire surface and having grooves B, forming cutting-edges *b*, adapted to act upon the wheel and maintain its even surface, substantially as described.

2. A brake-shoe A, having a chilled face contacting with such parts of the wheel as are not worn in use, and having grooves B and holes C in such face forming cutting-edges to act upon the surface of the wheel and compensate for the unequal wearing thereof, substantially as described.

3. A brake-shoe provided with chilled cutting-edges *b*, adapted to act upon the parts of the wheel not worn in use, webs *d*, and blocks D D, acting to increase the friction and prevent too great wearing of the wheel, substantially as described.

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