

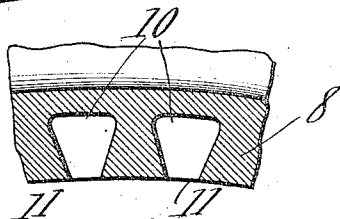
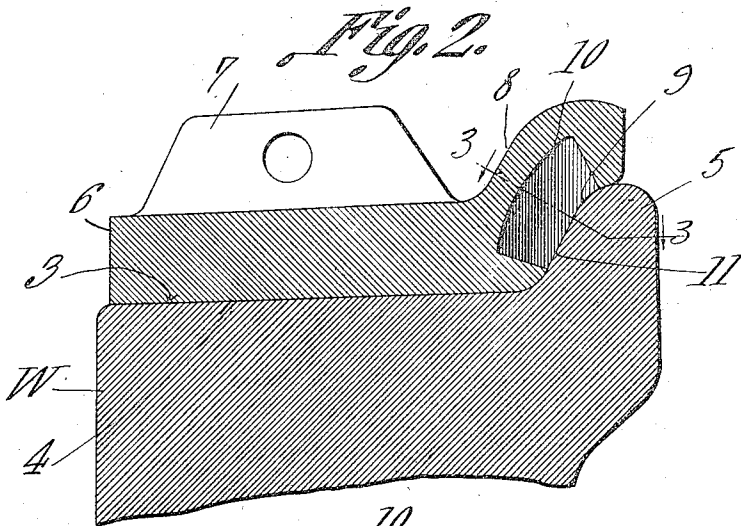
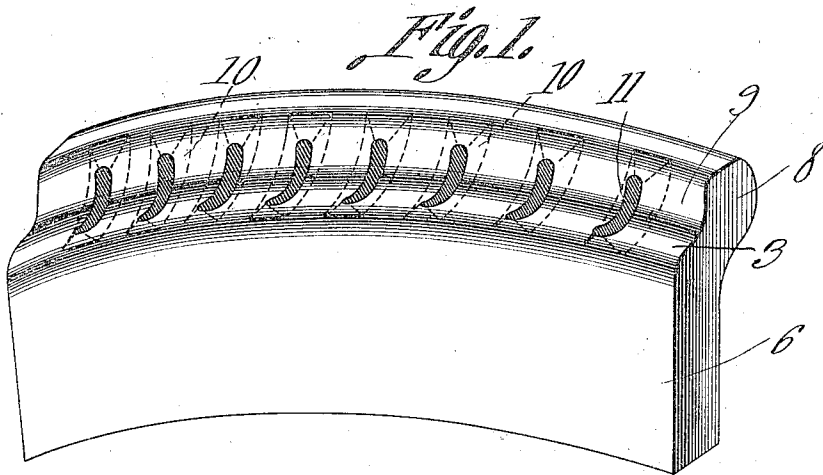
J. T. PERKINS.

BRAKE SHOE.

APPLICATION FILED DEC. 10, 1910.

1,017,015.

Patented Feb. 13, 1912



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES T. PERKINS, OF CEDARTOWN, GEORGIA, ASSIGNOR OF ONE-HALF TO WILLIAM R. GOLSAN, OF CEDARTOWN, GEORGIA.

## BRAKE-SHOE.

1,017,015.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed December 10, 1910. Serial No. 596,689

*To all whom it may concern:*

Be it known that I, JAMES T. PERKINS, a citizen of the United States, residing at Cedartown, in the county of Polk and State of Georgia, have invented a new and useful Brake-Shoe, of which the following is a specification.

It is the object of the present invention to provide an improved brake shoe designed chiefly for use on locomotives, railway coaches, freight cars, street cars, and the like.

One aim of the present invention is to provide a brake shoe having, in its wheel contacting face, pockets to receive and contain a lubricant to be applied to the wheel flange and thereby prevent, to a considerable degree, wear of the flange and rail, when traveling against the rail, and to prevent the flange climbing the rail thereby causing derailment of the car or locomotive. In this connection, the invention contemplates forming the brake shoe with pockets having a constricted mouth, the pockets being packed or filled with a normally hard lubricant adapted to spread onto the wheel flange through contact of the shoe with the wheel as the metal of shoe wears away.

In the accompanying drawing Figure 1 is a perspective view of a brake shoe constructed in accordance with the present invention. Fig. 2 is a transverse sectional view through the shoe and a portion of the wheel with which it coöperates. Fig. 3 is a longitudinal sectional view through a portion of the shoe, on the line 3—3 of Fig. 2 looking in the direction indicated by the arrow.

In the drawings and particularly in Fig. 2 thereof there is shown a portion of a wheel indicated by the reference character W. The wheel tread is shown at 4 and the flange of the wheel is indicated by the reference numeral 5. The brake shoe is illustrated as comprising a body 6 formed with the usual lug 7 to which is attached the brake beam for operating the brake shoe. The body 6 of the brake shoe has the usual working face 3 and is formed at one side edge with a flange 8 having a face 9 which is of ogee form and is designed to bear against the

face of the flange 5 of the wheel. This flange 8 of the brake shoe is formed in its face which contacts with the flange of the wheel, with pockets 10 which are enlarged inwardly or in other words have constricted mouths 11. The mouth 11 of each pocket extends transversely across the said contacting face of the flange 8 and these pockets are arranged one above the other throughout the height of the shoe as illustrated in Fig. 1 of the drawing. It will be observed that the pockets are of greater length at their bottom than at their constricted mouths and that also they are of greater width at their bottoms than at their mouths.

In using the brake shoe embodying the present invention and above specifically described, a normally hard lubricant is packed into the pockets until they are filled. The shoe is then mounted in the usual manner and its face 3 contacts with the tread 4 or peripheral surface of the wheel while the inclined face 9 of the flange 8 contacts with the inner face of the flange 5 of the wheel. However, it will be noted that the contact of the main part of the brake shoe with the tread of the wheel is direct, whereas when the shoe is moved in a direction to bring about this positive or direct contact, the flange 8 moves in a direction which is oblique to the contact between its surface 9 and the inner edge of the flange 5 of the wheel. This will result in the application of pressure to the tread of the wheel but only the production of a contact between the flanges of the brake shoe and the wheel. It will be obvious that if the line of contact between the two flanges included those points where friction occurs during braking action, the material of the brake shoe between the mouths 11 would be rapidly worn away. The contact of the wheel flange with the flange of the brake shoe will serve to lubricate the wheel flange as the metal of the shoe wears away, the lubricant coming in contact with the wheel flange only as this is done.

What is claimed is:

A brake shoe having a smooth imperforate working face and a flange along one side of the shoe, said flange having a curved working face adapted to contact with the flange

of a wheel and having a plurality of non-communicating lubricant holding pockets extending inwardly from said curved face and adapted to be closed by the wheel flange,  
5 all of the walls of each pocket converging inwardly along straight lines from the curved open end of the pocket.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES T. PERKINS.

Witnesses:

W. A. CALHOUN,  
J. E. DEMPSEY.