No. 749,701. PATENTED JAN. 12, 1904.

M. POTTER.

BRAKE BLOCK SHOE.

APPLICATION FILED MAR. 30, 1903.

NO MODEL.

Fig. 4.

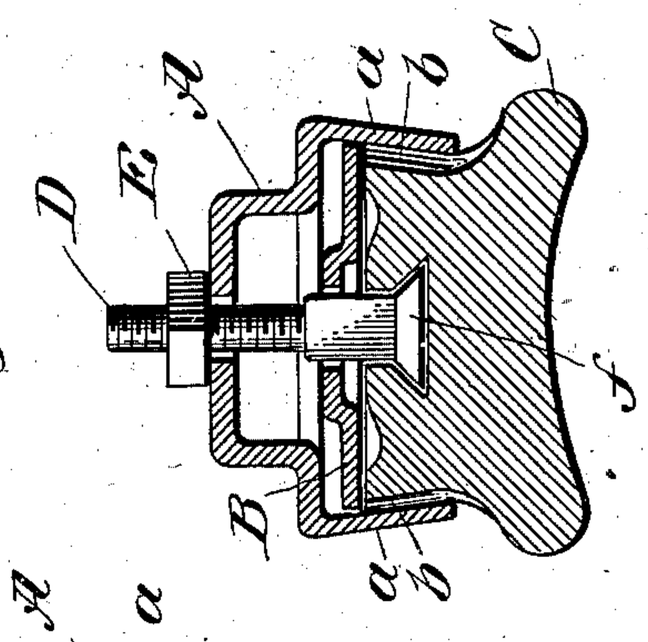


Fig. 3.

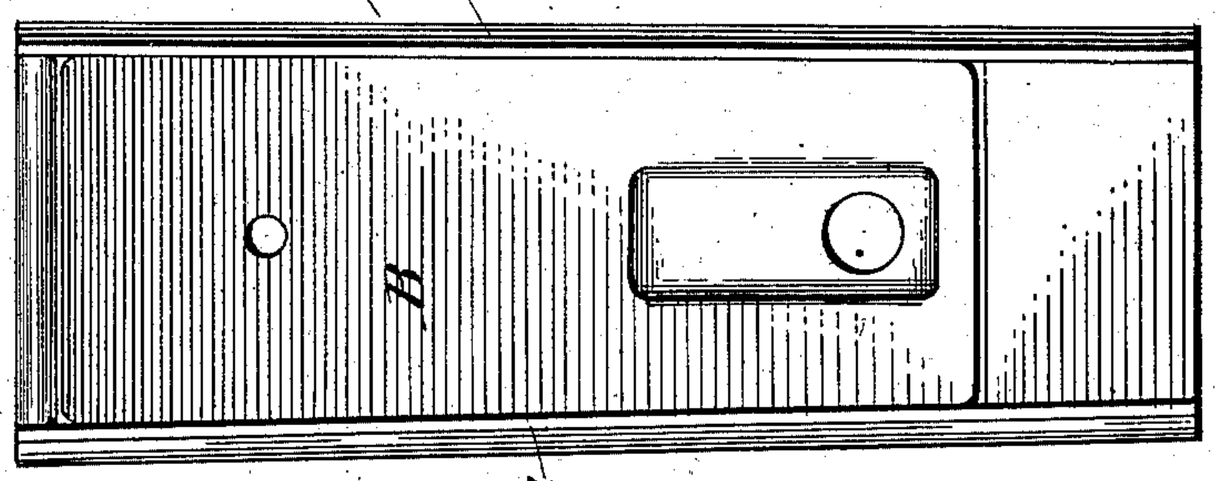


Fig. 2.

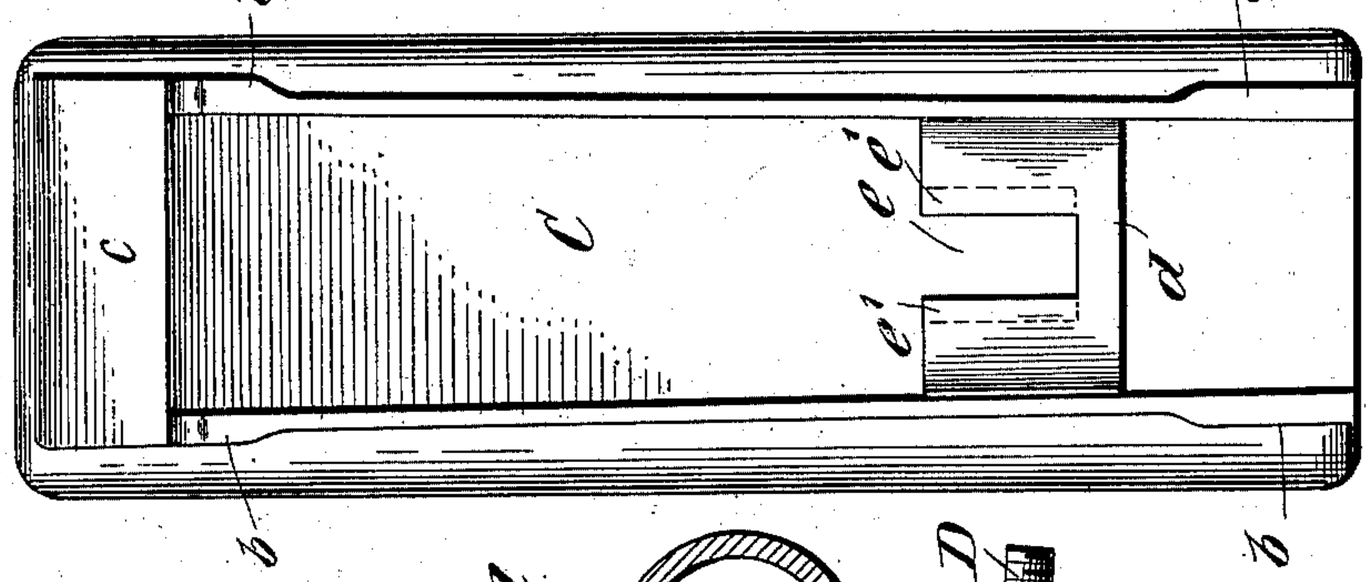
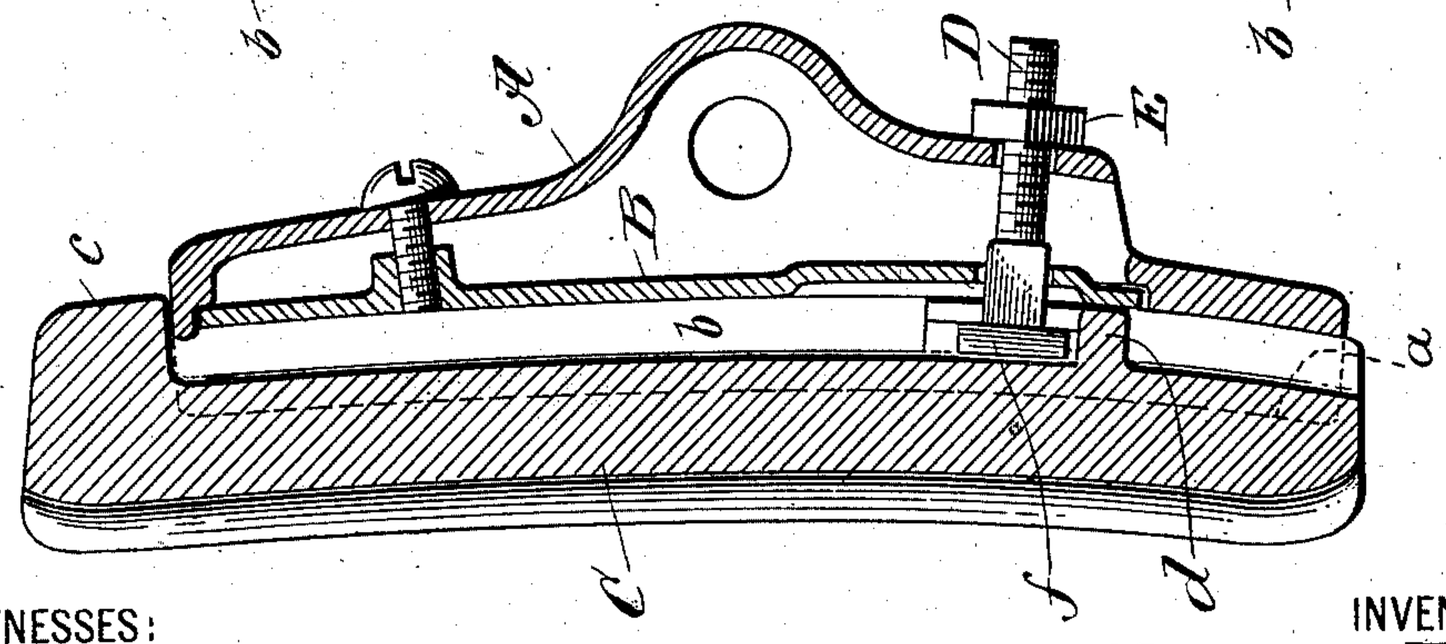


Fig. 1.



WITNESSES:

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No. 749,701. Patented January 12, 1904.

UNITED STATES PATENT OFFICE.

MORGAN POTTER, OF FISHKILL-ON-THE-HUDSON, NEW YORK, ASSIGNOR TO THE MORGAN POTTER COMPANY, A CORPORATION OF NEW YORK.

BRAKE-BLOCK SHOE.

SPECIFICATION forming part of Letters Patent No. 749,701, dated January 12, 1904.

Application filed March 30, 1903. Serial No. 150,097. (No model.)

To all whom it may concern:

Be it known that I, MORGAN POTTER, a citizen of the United States, residing at Fishkill-on-the-Hudson, county of Dutchess, and State of New York, have invented certain new and useful Improvements in Brake-Block Shoes, of which the following, taken in connection with the accompanying drawings and the letters of reference marked thereon, is a full, clear, and exact specification.

My present invention relates to brakes such as are employed in connection with the wheels of carriages, wagons, automobiles, and other road-vehicles, and especially does it relate to the shoes which are subject to wear and which are located in the brake-blocks and to the means employed for securing these shoes in the blocks.

My invention has for its object the production of a simple, cheap, and efficient form of brake-block shoe which may be used for contact with any species of tire without unnecessary damage thereto, which shall be abundantly strong and durable and capable of withstanding the wear to which it is subjected, which shall be easy to locate in proper position and as easy to dismount when required, and to supply novel and efficient means for locking and holding it within the brake-block against accidental dislodgment.

To accomplish these objects and to secure other and further advantages in the matters of construction, operation, and use, my improvements involve certain new and useful peculiarities of construction and relative arrangements or combinations of parts, as will be herein first fully described, and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a central vertical section and elevation of a brake-block with my improved form of shoe located and locked thereon in accordance with my invention, the brake-block shaft and interior spring being omitted, the particular form or construction of the brake-block itself not being essential to the present invention. Fig. 2 is a plan view of the inner face of the brake-shoe as it appears when detached from the block, showing the socket for receiving the head of the coupling-bolt. Fig. 3 is an elevation showing the inner face of the brake-block indicated in Fig. 1. Fig. 4 is a cross-section through the axis of the coupling-bolt, showing the shoe and block as finally locked together.

In all the figures like letters of reference wherever they occur indicate corresponding parts.

A represents the brake-block by which the shoe is sustained. This block is usually of cast metal and when in use is hung on a suitable brake-block shaft. While the block selected for illustration in the drawings is of the form within which a spring is usually employed, it may be of any other form or kind, it being only necessary that it shall be prepared to receive and hold the shoe in the manner required. It is employed to carry the shoe into contact with the vehicle-tire or to hold the same away from the tire, as occasion demands.

B is a metallic cover for the spring-cavity in the block, the same being employed in the special form of block represented in the drawings and omitted from other forms having no spring-cavity. In these other forms the brake-block is sometimes made solid.

The side walls *a a* of the brake-block, of whatever pattern that may be, are inclined slightly toward each other, as shown in Fig. 4, and the distance between these inclined side walls gradually diminishes from top to bottom of the brake-block, as indicated in Fig. 3, from which it will be seen that the shoe when finally located in the block is wedged to its seating and may be immovably locked in that position.

C is the brake-block shoe, the same being of a solid piece of metal, of which the bearing-face may be plain, if desired, but which is preferably slightly hollow, as represented in Figs. 1 and 4, so as the better to bear against the tire, especially against a rubber tire. The bearing-face of the block is smooth, so as not to cut the tire, and its ends are preferably rounded back, as indicated at Fig. 1. This shoe is fitted to be received between the in-

clined sides *a a* of the brake-block, the projecting sides *b b* being inclined toward each other from top to bottom and away from each other from side to side, so as to properly fit between the inclined sides *a a* of the brake-block. As it is not essential that the sides *b b* should bear against the sides *a a* throughout their entire length, the sides *b b* are left narrower in their middle portions and they only bear at their upper and lower parts. This saves grinding or fitting them throughout their entire length.

It has heretofore been proposed to lock and hold the shoe in place on the brake-block without permitting the locking-bolt to pass through the outer face of the shoe; but the means employed for engaging the head of the locking-bolt with the back of the shoe have not in all cases been satisfactory, and the means for preventing the shoe from being accidentally moved up in its seat have required a special construction of the brake-block, which it is my purpose to obviate. The shoe C is provided with an overharging projection *c*, which bears upon the top of the brake-block and effectually prevents the shoe from being forced down after it has been properly seated in the block. To provide for the reception of the head of the locking-bolt, I carry the material of the shoe between the walls *b b* entirely across, as at *d*, leaving an open space in the upper part of this portion, as at *e*, the inner sides of which space are beveled or inclined, as at *e' e'*, to receive the inclined faces of the locking-bolt, and this forms a socket.

D represents the locking-bolt, of which the head *f* is fitted to be entered in the recess *e*, wherein it will be prevented from turning and from which it cannot be displaced except by moving it upwardly, as will be apparent. The head of the locking-bolt being entered in its recess in the shoe, the shoe is then applied to the block, the perforations in the block for the accommodations of the bolt being a trifle large, so as to permit the necessary adjustments of the shoe in order to secure its final location. Then the nut E is turned to place and the shoe will be securely locked. As before explained, the shoe cannot then be forced downwardly in the brake-block. The locking-bolt effectually prevents the shoe from being forced upwardly, as the solid bridge *d* will bear against the head of the bolt, which is immovable upwardly. Thus the shoe is reliably locked in its proper position in the block and can only be moved therefrom by unturning the nut E.

The improved form of lock requires no special fitting of the brake-block and is found reliable and effective for the purpose intended.

While it is preferred to use the solid shoe, the improved means of locking may be applied in connection with shoes which have a separate bearing-face—as, for instance, with rubber or leather faced shoes.

The improved means of locking the shoe is durable and substantial, easy and cheap to construct, and calculated to answer all the purposes or objects of the invention above set forth.

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

1. In combination with a brake-block shoe, a projection at the top and a piece extending across the back, the latter piece being recessed at its upper part to receive the locking-bolt and being solid at its lower part to bear against the head of the bolt, substantially as shown and described.

2. The combination with a brake-block, of a brake-block shoe and a locking-bolt passing through the brake-block, the shoe being provided with a projection at its top and a piece extending across the back, the latter piece having a recess therein to receive the head of the locking-bolt and a solid portion at its lower part operating to bear against the head of the locking-bolt to prevent the shoe from being moved upwardly in its seat, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MORGAN POTTER.

Witnesses:
M. E. CURTISS,
THOMAS ALDRIDGE.