No. 870,711. PATENTED NOV. 12, 1907.

W. O. BLAIR & M. J. SCANLAN.

BRAKE BLOCK.

APPLICATION FILED FEB. 15, 1907.

Fig. 1.

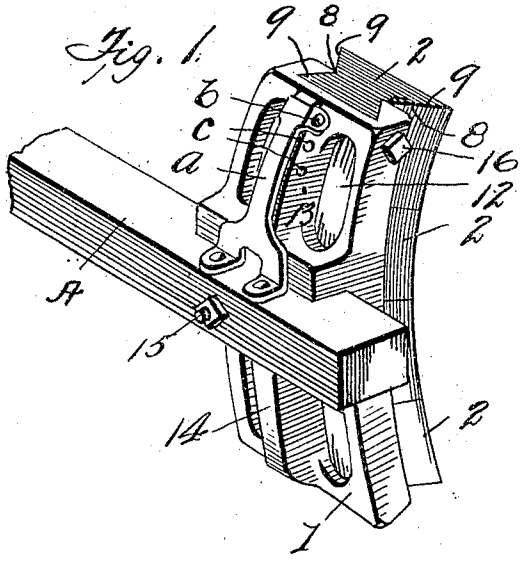


Fig. 2.

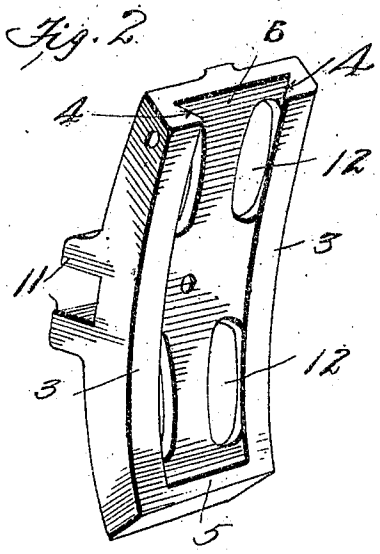


Fig. 3.

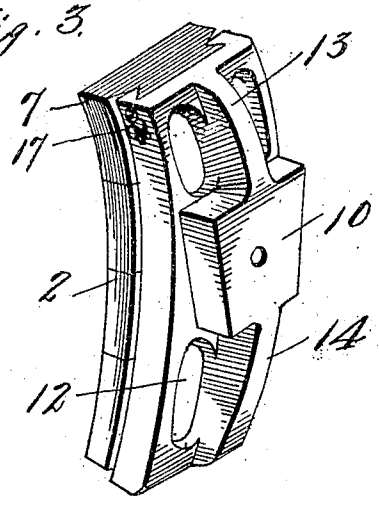
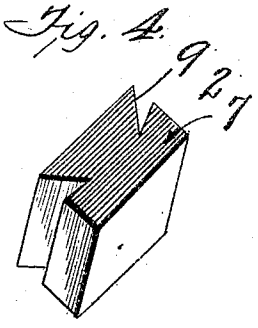


Fig. 4.



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UNITED STATES PATENT OFFICE.

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BRAKE-BLOCK.

No. 870,711. Specification of Letters Patent. Patented Nov. 12, 1907.

Application filed February 15, 1907. Serial No. 357,530.

To all whom it may concern:

Be it known that we, WALTER O. BLAIR and MARCELLUS J. SCANLAN, citizens of the United States, residing at Keystone in the county of Pennington and State of South Dakota, have invented certain new and useful Improvements in Brake-Blocks, of which the following is a specification.

This invention relates to new and useful improvements in brake blocks and has particular reference to a block comprising a casting and friction shoes of suitable material held therein for engagement with the periphery of the wheel.

The invention aims primarily to provide a casting including in its construction, novel means for detachably securing the same upon the brake beam and novel means for holding the above mentioned friction shoes in detachable relation, whereby when worn they may be reversed or replaced by new ones at will.

The invention aims as a further object to provide a device of the above type in which accidental displacement of the shoes from the holder in the course of use shall be prevented, and in which ready access may be had to said shoes to remove the same, manually or with a suitable instrument at option.

The detailed construction will appear in the course of the following description in which reference is had to the accompanying drawings forming a part of this specification, like characters of reference designating similar parts throughout the several views, wherein,

Figure 1 is a perspective view illustrating from the rear a brake block and its associated parts constructed in accordance with my invention. Fig. 2 is a perspective view of a holder with the blocks forming the friction shoe as an entirety detached therefrom. Fig. 3 is a detailed perspective view taken from the rear of a modified embodiment of the invention, and Fig. 4 is a detailed perspective view of a modified embodiment of a single friction block detached.

Referring specifically to the accompanying drawing the numeral 1 designates the holder and the numeral 2 the blocks constituting as an entirety the friction shoe for engagement with the wheel and received within the holder 1. Said holder is preferably cast from an integral section of metal and is of arc shaped curvature to conform to the curvature of the vehicle wheel. As clearly shown in Fig. 2 the holder 1 adjacent its concaved face is formed with a gripping flange 3 of substantial U shape and extending along the sides and bottom thereof so as to afford at the base of the block a stop 5 for preventing the downward displacement of the blocks 2 and at the top of the holder an open space 6 for the introduction of said blocks between the side flanges 3. Throughout its length the flange 3 has its inner surface beveled or undercut as at 4, whereby a substantially dovetailed recess is afforded for the reception of the blocks 2. The preferred form of the latter is illustrated in Fig. 1 in which it will be noticed that in cross section each of the blocks 2 is of hour-glass shape, being of constricted width at their central portions as at 8 and having its ends converging outwardly on each side of said constricted central portion as at 9 to afford two substantially dovetailed projections at either end, either one of which may be engaged in the holder 1.

In the embodiment of the invention illustrated in Fig. 4, the blocks 2 are not reversible as in the previous instance, but are formed with a single dovetailed projection 9 and with a substantially rectangular engaging portion 7.

The holder 1 also embodies means for engagement with the brake beam, a preferred embodiment of which is illustrated in Fig. 1 and an alternative embodiment in Fig. 3. In Figs. 1 and 2 it will be noted that the embodiment of fastening means disclosed, comprises rearwardly extending spaced parallel flanges 11 cast upon the rear face of the block 1 and affording a suitably shaped recess for the reception therethrough of the brake beam A. Said brake beam carries on its upper surface a fixed brace *a* which at its upper end carries a pin *b* for engagement in any selected one of a series of apertures *c*, the latter being provided with a longitudinal central rib 13 arranged on the rear face of the holder 1 above the upper flange 11. A similar rib 14 is provided adjacent the lower rib 11. In the disposition of the parts described the beam A is positively held in its position between the flanges 11 by one or more bolts 15 extending therethrough and through the holder 1. In Fig. 3, instead of the flanges 11, said holder is cast with a wedge shaped lug 10 upon its rear face, the lug 10 being designed for reception in a conformable recess provided therefor in the brake beam, and being further designed to receive a bolt therethrough by which said holder may be securely locked to the beam.

For the purpose of reducing the cost of manufacture and of providing a lighter structure, it is preferred to provide the body of the holder 1 with a series of elongated openings 12. The openings 12 also afford means for permitting the insertion of a tool through the holder to facilitate the assemblage of the blocks 2.

For heavy work it is desirable that the blocks 2 be positively held within the holder 1. A fastening pin 16 is accordingly passed transversely through the side flanges 3 at the upper end of the holder and through the uppermost block 2. The pin 16 is held from displacement by a cotter 17.

It will be readily apparent that the blocks 2 may be of any material capable of an efficacious grip upon the

vehicle wheel. It is preferred to employ friction blocks of flexible wood, although composition may be equally as advantageously used.

It will be apparent that the ribs 13 and 14 effectively reinforce the holder 1. In the form of the invention illustrated in Fig. 1, the brace *a* materially aids in sustaining the holder in an upright position.

While the elements herein shown and described are well adapted to serve the functions set forth, it is obvious that various minor changes may be made in the proportions, shape and arrangement of the several parts without departing from the spirit and scope of the invention as defined in the appended claims.

Having fully described my invention I claim:

1. A holder for brake blocks adapted to carry friction shoes upon its front face and having its rear face provided intermediate its ends with an enlarged integral section adapted for attachment to a brake beam, reinforcing ribs extending centrally and longitudinally from said section to the ends of the holder, said holder having openings formed therethrough on both sides of said ribs.

2. A holder for brake blocks adapted to carry friction shoes upon its front face and having its rear face provided intermediate its ends with an enlarged section comprising spaced integral flanges adapted for attachment to a brake beam, reinforcing ribs extending centrally and longitudinally from said section to the ends of the holder, said holder having openings formed therethrough on both sides of said ribs.

3. A holder for brake blocks adapted to carry friction shoes upon its front face and having its rear face provided with a brake beam attaching section and central longitudinal reinforcing ribs extending therefrom, one of said ribs being provided with transverse openings, a brace attachable to the brake beam and provided with openings at one end adapted to be alined with one of said openings in said rib, and a removable pin adapted for insertion to lock the same.

4. A device of the character described comprising a holder having a front face formed with a dovetailed recess open at one end for the reception of a conformable friction shoe, and having a rear face provided intermediate its ends with an enlarged integral section adapted for attachment to a brake beam, reinforcing ribs extending centrally and longitudinally from said section to the ends of the holder, said holder having openings formed therethrough on both sides of said ribs.

In testimony whereof we affix our signature in presence of two witnesses.

WALTER O. BLAIR.
MARCELLUS J. SCANLAN.

Witnesses:
ELMER CAPLE,
JAS. HALLEY, Jr.