Aug. 29, 1933. W. A. BLUME 1,924,345

FRICTION BRAKE

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Fig. 1.

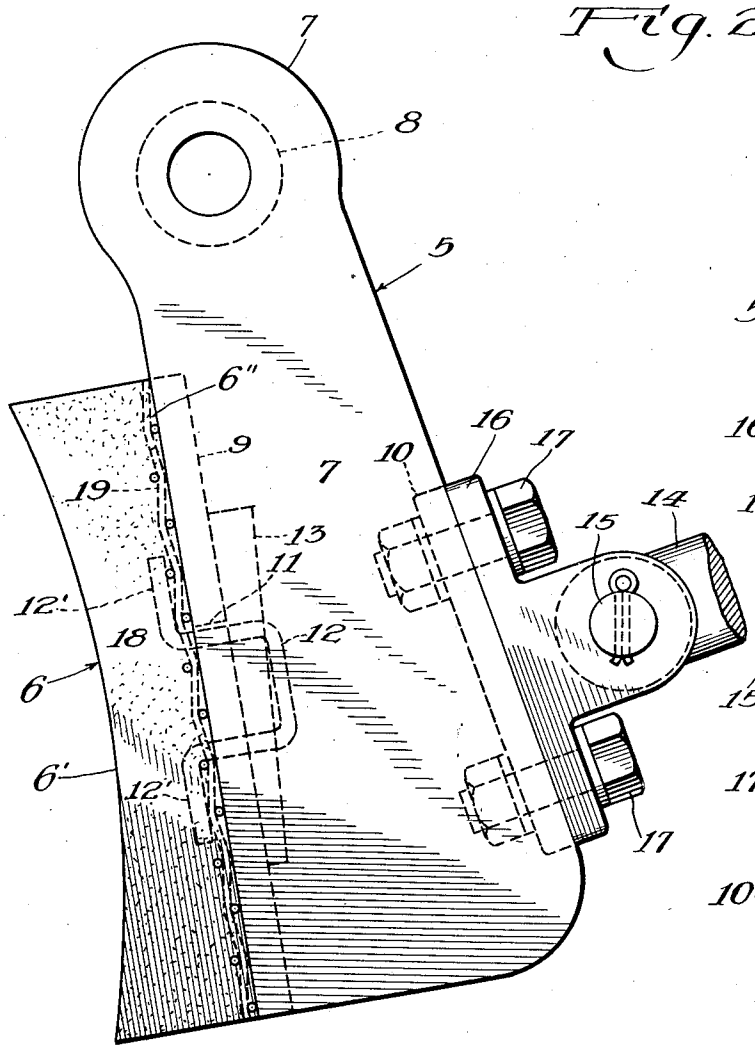
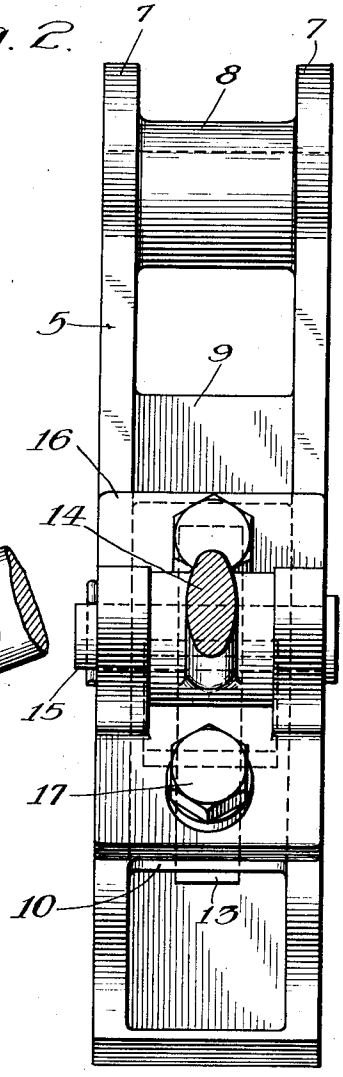


Fig. 2.



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Fig. 3.

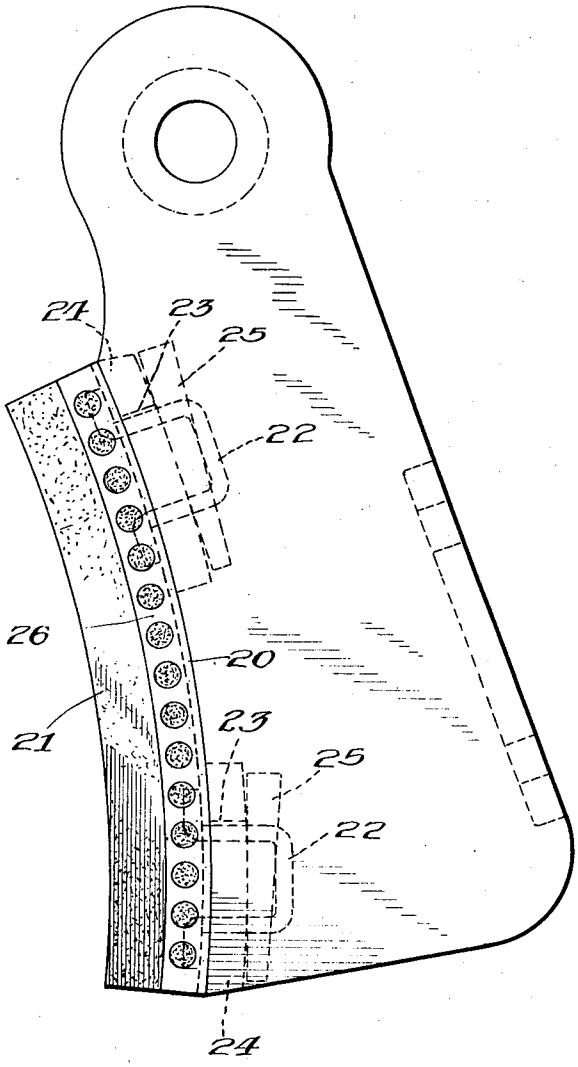
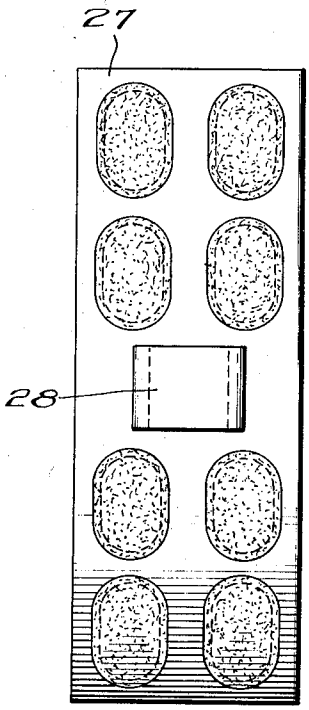


Fig. 4.



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UNITED STATES PATENT OFFICE

1,924,345

FRICTION BRAKE

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Application May 23, 1931. Serial No. 539,531

3 Claims. (Cl. 188—53)

This invention relates to friction brakes generally and it has for its object to provide a novel brake assembly of block and support especially adapted for rail cars as used by section and other employees of railroads.

It has been customary heretofore to provide rail cars with solid wood blocks which are pivotally suspended from the car and operated by lever devices to frictionally engage the wheels of the car. My invention has for its object to provide a support of novel and simple construction which can be pivotally mounted on the car and operated by the same means heretofore employed and having a brake block detachably mounted thereon for engagement with the wheels.

In the accompanying drawings illustrating selected embodiments of the invention,

Fig. 1 is a side elevation showing the invention with the operating lever broken away and in section.

Fig. 2 is a rear elevation.

Fig. 3 shows another embodiment of the invention.

Fig. 4 shows a block with a different kind of back.

Referring to the drawings, 5 is a hanger which constitutes the support for the brake block 6. The hanger is of skeleton form and it may be a casting or the parts may be fabricated separately and secured together in a suitable manner. I have chosen to illustrate the hanger in the form of a casting which has two side plates 7, 7 connected at the top by a bushing 8, at the front by a plate 9 and at the back by a plate 10. The front plate has an opening 11 therein to receive the attaching lug 12 of the block 6 and the block is secured in place against the front plate 9 and on the hanger by a key 13 which passes through a keyway in the attaching lug and bears against the back of the front plate 9. The brake operating mechanism comprises a rod 14 which is pivotally engaged at 15 with a connector plate 16 and the latter is rigidly fastened to the back plate 10 by bolts 17. The skeleton hanger support is strong and substantial but comparatively light in weight. It is adapted to be pivotally mounted upon the frame or other part of the car and to hang downwardly adjacent the wheel tread. The block 6 is made with a concave face 6′ to contact with the tread of the wheel and with a flat back face 6″ to contact with the flat front face of the front plate 9 on the hanger support. Any suitable block may be used in connection with the hanger support but I prefer to use a block having a composition body 18 provided with a reenforced back 19. This back may be made of wire mesh, as shown, or it may be a metal plate, a metal shell or a fibre back. The attaching lug 12 is preferably made in the form of a metal strap having ends 12′ embedded in the body beneath the reenforced back. The block is held flatly and snugly against the front plate 9 and is locked in this position securely by the key 13 which is preferably made in the form of a wedge and is driven through the keyway in the attaching lug while bearing against the front plate. The hanger support has an opening at the back thereof and above the connector plate, and at its bottom below the connector plate, which permits access to the inside of the skeleton hanger support for inserting and removing the key. I may make the hanger support as shown in Fig. 3 with a curved face 20 to receive a block 21 having a curved back and I may provide the block with two attaching lugs 22 which pass through separate openings 23 in front plates 24 of the hanger to receive the separate keys 25. I have shown the block 21 provided with a shell back 26. I may make the block with a plate back 27 having an integral attaching lug 28 as shown in Fig. 4 and this back may be applied to a block which is flat or which is arcuate at the back.

I have shown the invention in a simple embodiment which I believe to be desirable and satisfactory for the purpose because of its strong, substantial and convenient but light construction which especially adapts it for rail cars, but I do not limit the invention to the particular form, construction and arrangement of parts shown and described but reserve the right to make all such changes therein as may be necessary or desirable for different adaptations of the invention within the scope of the following claims:

I claim:

1. The combination of a brake block support for a rail car comprising a skeleton hanger having a pivot bushing at its upper end and a front plate provided with an opening, a brake block having an attaching lug arranged in said opening, and a key within the hanger engaging said attaching lug and the back of the front plate to secure the block snugly on the hanger and against the front plate.

2. The combination of a brake block support for a rail car comprising a hollow hanger having a pivot bushing at its upper end and a front plate having an opening therein, a brake block

having a back adapted to snugly contact with said front plate, an attaching lug on the block projecting through the opening in the front plate into the interior of the hanger and having a keyway, and a wedge-shaped key in the portion thereof within the hanger passing through said keyway and engaging the inner side of the front plate to secure the block on the hanger.

3. The combination with a brake block having an attaching lug, of a support for the block comprising a hanger having a pair of spaced parallel side plates, an integral bushing connecting said plates at the upper portions thereof, an integral front plate between the side plates to form a bearing for the block, an integral back plate connecting the side plates to receive the brake operating devices, said front plate having an opening therein to receive the attaching lug, and a key engaged with the attaching lug and the back of the front plate to secure the shoe on the hanger, said hanger being open at the back between the side plates and above the back plate and also being open at the bottom between said plates to permit access to the interior of the hanger for inserting and removing the key.

WILLIAM A. BLUME.