

No. 748,220.

PATENTED DEC. 29, 1903.

W. D. SARGENT.  
SEPARABLE BRAKE BLOCK AND SHOE.  
APPLICATION FILED JUNE 10, 1903.

NO MODEL.

Fig. 1

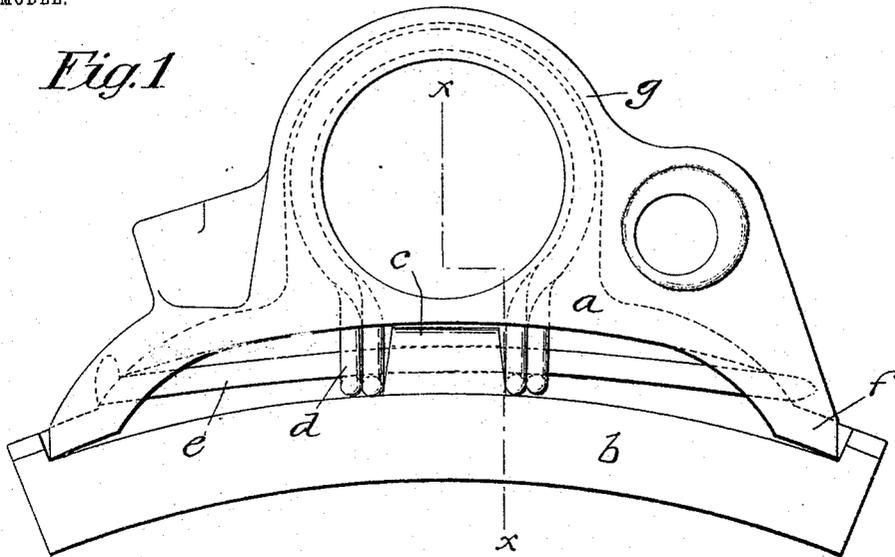


Fig. 2

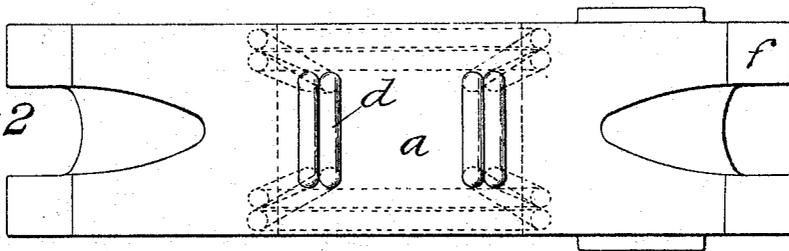
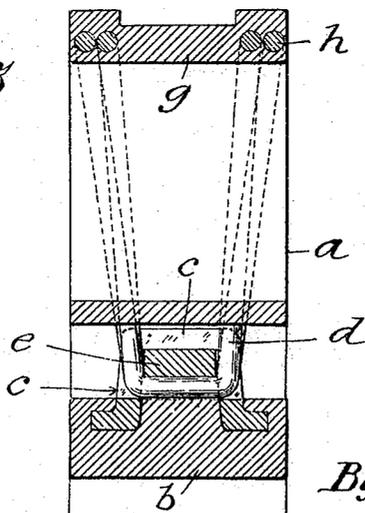


Fig. 3



Witness:

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By

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*Att'y.*

# UNITED STATES PATENT OFFICE.

WILLIAM D. SARGENT, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN BRAKE SHOE & FOUNDRY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

## SEPARABLE BRAKE BLOCK AND SHOE.

SPECIFICATION forming part of Letters Patent No. 748,220, dated December 29, 1903.

Application filed June 10, 1903. Serial No. 160,903. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM D. SARGENT, a citizen of the United States, residing at New York, in the State of New York, have invented a certain new and useful Separable Brake Block and Shoe, of which the following is a specification.

My invention relates to wheel brakes such as are commonly used on railway cars, and particularly to that type of brake head designed to embrace the end of the brake beam, as when placed close to the wheel. The objects of my invention are, to provide a separable combined brake block and shoe which will occupy an extremely small space and does not require room for the provision of cast lugs upon the parts; to provide a brake block with a renewable wearing shoe on the face of the same; to provide reliable and economical means for attaching the wearing sole of a combined brake block for positions where there is not room to use the ordinary brake head; and to generally improve the design and increase the economy in wear of combined brake blocks and shoes.

These objects, together with other advantages which will hereinafter appear, I attain by means of the construction and assembly of parts as illustrated in preferred form in the accompanying drawings, wherein—

Figure 1 is a side elevation of my device.

Figure 2 is an under plan of the head part, the removable shoe being taken away to show the novel form of malleable lug I use upon the head.

Figure 3 is a vertical section on the line  $x-x$  in Figure 1, showing the block and wearing sole joined together.

The form of integral brake block or head formerly in wide use in our own railway practice, and still almost universally used in Europe, is very expensive because when the sole of the block is worn down it is necessary to discard the whole block as scrap metal and replace it anew. To avoid this difficulty separable brake shoes are provided, and the head portion is made to perform only the function of holding the shoe in place. But in places where there is little room the ordinary separable cast heads and shoes can-

not be used, even when the head is provided with a socket which embraces the brake-beam, because the cast attaching eye lugs require considerable space to attain the necessary thickness and strength. In order to provide a separable brake block and shoe which may be indefinitely reduced in the space it occupies between the wheel and the beam, I provide for connecting the two parts with malleable lugs, as shown in the drawings.

The head part  $a$ , designed to go upon the brake beam, is provided with an annular ring  $g$  cast integral therewith and has four legs  $f$  which rest upon the wearing sole or shoe proper,  $b$ . In order to attach the block  $b$ , I use some form of malleable lug such as the embedded strap  $c$ , as shown in Figure 3, and on the head portion  $a$  I use eye lugs  $d$ , formed of malleable wire embedded in the metal and which may also surround the open portion of the head, being embedded in the ring  $g$ , and making two loops on each side as shown in Figure 2.

The four feet or legs  $f$  rest directly upon the cast part of the block  $b$ , and the central malleable lug  $c$  fits between the two lugs  $d$  of the head portion and is held in place by means of any ordinary key  $e$ , as shown in the drawings, the lug  $c$  being thus brought up close under the position of the brake beam itself, which works in the opening within the ring  $g$ , as will be understood.

The loop  $h$  of the wire which forms the lugs on the head, thus surrounding the brake beam itself and taking directly all the necessary strain, the thickness of metal between the brake beam and the position to be occupied by the lug  $c$  may be made extremely small, and thus great economy of space may be attained. At the same time by reason of the combination shown, the block  $b$  when worn out may be replaced and the customary loss of the whole casting which forms the block is avoided. By this means also, the head may be all cast except the malleable lugs  $d$  without danger of breakage.

The many advantages of this device will readily occur to those familiar with its use.

Having thus described my invention and illustrated its use, what I claim as new, and

desire to secure by Letters Patent, is the following:

1. A combined brake block and shoe made in separable parts and the two parts being  
5 attached by means of a malleable eye lug between them.

2. A combined brake block and shoe composed of two parts, the wearing shoe being  
10 attached to the block by means of lugs on the latter composed of malleable wires surrounding the brake beam and projecting to form  
eye lugs, substantially as described.

3. A brake block and shoe comprising a  
15 a cast block to support the same on the beam, also provided with malleable eye lugs.

4. The combination of a wearing shoe having a malleable attaching eye lug and a brake

block having malleable attaching eye lugs, whereby the space between the brake beam 20 and the shoe may be reduced approximately to the height of the key way.

5. A combined brake block and shoe having a renewable wearing face, the two parts  
25 being attached by means of malleable eye lugs, and the lug upon the head portion being formed of wires surrounding the brake beam.

In testimony whereof I have hereunto signed my name in the presence of the sub-  
30 scribed witnesses.

WILLIAM D. SARGENT.

Witnesses:

WILLIAM CONOVER,  
BRONSON C. BUXTON.