

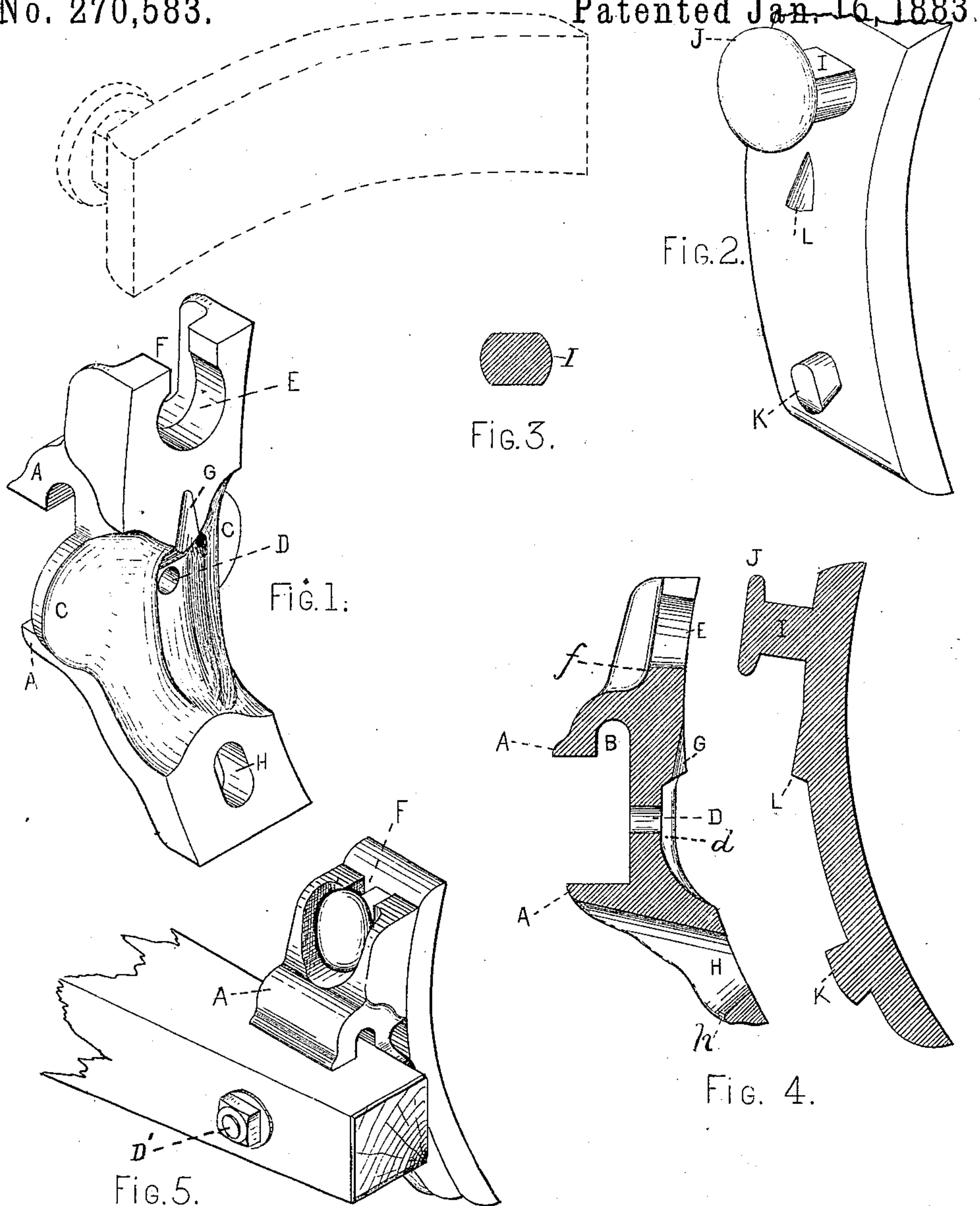
(No Model.)

C. E. GORE & J. EISELE.

BRAKE SHOE.

No. 270,583.

Patented Jan. 16, 1883.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES E. GORE AND JOSEPH EISELE, OF LAFAYETTE, INDIANA; SAID
EISELE ASSIGNOR TO BENJAMIN F. MASTEN, OF SAME PLACE.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 270,583, dated January 16, 1883.

Application filed October 26, 1882. (No model.)

To all whom it may concern:

Be it known that we, CHARLES E. GORE and JOSEPH EISELE, citizens of the United States, residing at La Fayette, in the State of Indiana, have invented certain new and useful Improvements in Car-Wheel Brake Blocks and Shoes, of which the following is a specification.

The object of our present invention is to provide a brake-block and a brake-shoe of such construction that they can be readily and cheaply made and expeditiously and securely connected together. This object we have accomplished in the brake block and shoe hereinafter described, illustrated in the accompanying drawings, and particularly defined in the claims at the end of this specification.

Figure 1 is a perspective view of the front of the brake-block, showing in dotted lines above the same the brake-shoe at right angles thereto. Fig. 2 is a perspective view of the back of the brake-shoe, the upper portion being broken away. Fig. 3 is a sectional view through the shank of the flanged lug of the brake-shoe. Figs. 4 and 4^A are views in central vertical section of the brake block and shoe, respectively. Fig. 5 is a perspective view, showing the brake block and shoe in position on the brake-beam.

The block for holding the brake-shoe is provided at its back with the lips or jaws A, which fit over the brake-beam, as shown, and through this beam and the perforation D of the block is passed the retaining-bolt D', by means of which the block is securely held in place. On the back of the block are also formed the lateral flanges C, which bear against the beam and prevent any lateral rocking or twisting of the block thereon. These flanges C are preferably furnished with suitable lugs, adapted to fit into corresponding sockets in the beam and to serve as additional security against looseness or displacement. On the under side of the upper one of the flanges A is formed a transverse recess, B, to receive the hangers by means of which the brake-beams are suspended from the car-truck frame.

In the upper part of the block is formed the perforation E, from which extends the contracted slot F to the top of the block. Back of the perforation E is formed a recess, the inner wall, *f*, of which is made inclined, as

shown, for a purpose to be hereinafter stated. The face of the shoe-block is provided about its central portion with the oblong recess *d*, above which is formed the vertical groove G, and is furnished near its bottom with the vertically-oblong perforation H, having the inclined bottom *h*.

From the above description it will be seen that in order to attach the shoe-block upon the beam the jaws A are slipped over the same, so that the lugs on the flanges C enter the sockets adapted to receive them, and through the perforation D and a corresponding perforation in the beam is passed the headed retaining-bolt D', and by means of the threaded nut upon this bolt the block is held firmly on the beam. The square head of the bolt is prevented from turning by the side walls of the recess *d*.

The brake-shoe, which is designed to be attached to the above-described block in a manner to be hereinafter described, consists of a segmental plate with face corresponding in curvature with that of the car-wheel. Upon the back and near the top of this shoe is formed the laterally-oblong lug I, adapted, when the shoe is in position on the block, to rest in the perforation E, the flanged head J of the lug bearing against the inclined wall *f* of the recess. Below the lug I, and slightly above the center of the shoe, is formed an inclined lug, L, corresponding in shape with and adapted to fit into the groove G of the block. The brake-shoe is provided at the back near its bottom with the oblong lug or horn K, the lower curved surface of which is made downwardly inclined, as shown, to enable it to hook more securely in the perforation H.

In order to attach the brake-shoe upon the block, it is placed at right angles thereto, with the flanged lug I above the slot F, as shown in Fig. 1, so that the narrowed portion or shank of the lug may pass readily through the slot F into the perforation E. The shoe is then turned a quarter of a revolution and is pressed upward, so that the lug I bears against the top of the perforation E until the lug K is inserted in the perforation H, when it is dropped into place. It will be noticed that the perforation E is somewhat greater in vertical diameter than the distance between the flat sides of

the lug, thus permitting a slight movement of the latter, and as the shoe is dropped the flange J moves downwardly on the inclined wall *f*, and the shoe is drawn by its gravity 5 tightly to the block. The inclined lug L is at the same time caused to fit snugly in the groove G, and the inclined bottom of the lug K is pressed against the correspondingly-inclined wall of the perforation H, thus serving to prevent the separation of the shoe and block. 10

From this construction it is apparent that the shoe can only be released by reversing the above operation, and as this obviously cannot occur from any motion of the cars it is safely 15 guarded against accidental displacement.

It will be seen that by reason of their peculiar shape the block and shoe can be readily cast, as in so doing one core only is needed for the block, while none is required for the shoe. 20 Again, it will be noticed that all bolts or hinged lugs for attaching the block and shoe together are dispensed with—a feature of importance, as these, when lost or broken, are not always readily replaced.

Our present improvements enable us to furnish a cheap brake block and shoe of such construction that when a shoe becomes worn it can be quickly replaced with a new one. 25

Having thus described our invention, what 30 we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the brake-block having at its top the perforation and slot, of the brake-shoe having a flanged lug adapted to enter said perforation and slot, substantially as described. 35

2. The combination, with the brake-block having the perforation E, and slot F, and perforation H, of the brake-shoe having the flanged lug I and lug K, substantially as described. 40

3. The combination, with the brake-block having a slot, F, a perforation, E, a perforation, H, and inclined wall *f*, of a brake-shoe having a flanged lug, I, and lug K, substantially as described. 45

4. The combination, with the brake-block having the perforation E, slot F, groove G, and perforation H, of the brake-shoe having the flanged lug I and the lugs K and L, substantially as described. 50

5. The brake-shoe having on its back the flanged lug I and lug K, having downwardly-inclined bottom, substantially as described.

In testimony whereof we have hereunto set 55 our hands this 21st day of October, 1882.

CHARLES E. GORE.
JOSEPH EISELE.

Witnesses:

FRANK M. CARY,
ALFRED H. DIVER.