

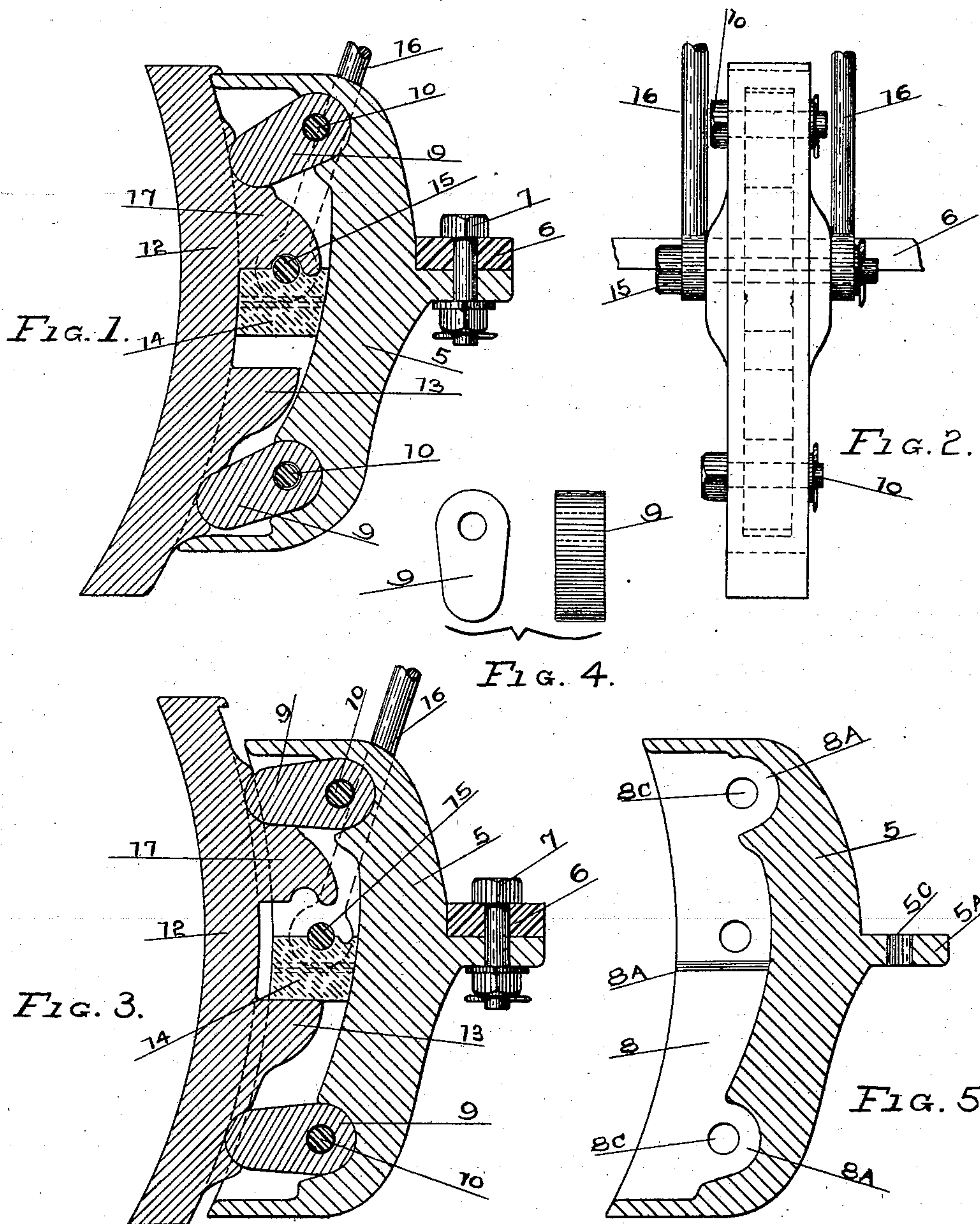
No. 654,808.

Patented July 31, 1900.

W. H. SAUVAGE.
AUTOMATIC BRAKE BLOCK.

(Application filed Nov. 13, 1899.)

(No Model.)



WITNESSES:

J. H. Borkenfeld
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INVENTOR.
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BY *[Signature]*
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UNITED STATES PATENT OFFICE.

WILLIAM HENRY SAUVAGE, OF DENVER, COLORADO, ASSIGNOR OF TWO-THIRDS TO HENRY NEWTON WOOD AND CHARLES C. WELCH, OF SAME PLACE.

AUTOMATIC BRAKE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 654,808, dated July 31, 1900.

Application filed November 13, 1899. Serial No. 736,787. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY SAUVAGE, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Automatic Brake-Blocks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in automatic brake-blocks; and it consists of the features, arrangements, and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a vertical longitudinal section taken through my improved automatic brake-block. Fig. 2 is a front view of the same. Fig. 3 is a section similar to Fig. 1, but with the brake-shoe in the raised position or in the position when the brake is applied. Fig. 4 illustrates a cam-arm in detail, two views being shown. Fig. 5 is a sectional view in detail of the brake-head.

Similar reference characters indicating corresponding parts in the views, let the numeral 5 designate the brake-head, which is provided with a rearward projection 5^a, in which is formed an opening 5^b. The head is secured to the brake-beam 6 (which may be of any suitable construction) by a bolt 7, passing through an opening 5^c and a registering opening in the beam. The front face of this head is provided with a central longitudinal groove 8, at whose extremities are formed curved bearings 8^a, adapted to receive the extremities of cam-arms 9, which are held in place by bolts 10, upon which they turn freely. The curves of the bearings 8^a are arcs of circles whose centers are the centers of the openings 8^b, and the extremities of the cam-arms fitted into these bearings are correspondingly curved and made to engage the bearings, whereby the end thrust of the cam-arms incident to setting the brake is resisted

by the brake-head and there is no tendency to break the bolts 10, as there is no strain on said bolts. The outer extremities of the cam-arms 9 are curved to fit into counterpart recesses formed in the brake-shoe 12. The adjacent faces of the shoe and the head are curved to fit each other, and they are in actual contact with each other when the shoe is at its lowest limit of movement. (See Fig. 1.) When the curved faces of the head and shoe are in contact with each other, the cam-arms are downwardly inclined, their outer extremities being lower than their inner extremities. As soon as the brake-head is moved outwardly sufficiently to bring the curved front face of the shoe in contact with the tread of the car-wheel (not shown) the resulting friction causes the shoe to travel upwardly. The upward movement of the shoe imparts a corresponding movement to the outer extremities of the cam-arms. These cam-arm extremities travel in the arc of a circle, and hence the cam-arms will force the brake-shoe outward against the car-wheel until the cam-arms occupy a horizontal or approximately-horizontal position. (See Fig. 3.) As soon as the cam-arms reach this position the upward movement of the shoe is checked by the engagement of a rearward projection 13 with a stop-cushion 14, located in the groove of the head between the cam-arms. This cushion is held in place by a rib 8^d, formed in the wall of the head on each side of the groove. The cushion is prevented from moving upwardly by a bolt 15, passing transversely through the head, the upper surface of the cushion being recessed to fit the bolt. To this bolt are also attached the brake-head-supporting links 16. The shoe 12 is also provided with a rearward projection 17, located above the cushion and adapted to rest on the bolt 15 when the shoe is inactive and at its lowest limit of movement. (See Fig. 1.)

The projections 13 and 17 are located in the groove 8 of the head and are suitably separated to permit the shoe the necessary vertical movement to perform the brake-setting function in the manner heretofore described.

Having thus described my invention, what I claim is—

1. A brake-block composed of a head hav-

ing a horizontal groove formed in its front face, a stop located in said groove between the extremities of the head, a cooperating shoe having two rearward projections entering the groove of the head, the one above and the other below the stop, and interposed cam-arms taking end bearing in the shoe and the head for the purpose set forth.

2. The combination with a suitable brake-beam adapted to move back and forth in proximity to the car-wheel, of a head mounted thereon and having a groove in its front face, a stop-cushion located in said groove inter-

mediate its extremities, a brake-shoe having rearward projections entering said grooves, the one above and the other below the stop-cushion, and interposed cam-arms engaging the head and the shoe for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM HENRY SAUVAGE.

Witnesses:

GRACE MYTINGER,
A. J. O'BRIEN.