

No. 654,806.

Patented July 31, 1900.

W. H. SAUVAGE.
AUTOMATIC BRAKE BLOCK.

(Application filed Nov. 13, 1899.)

(No Model.)

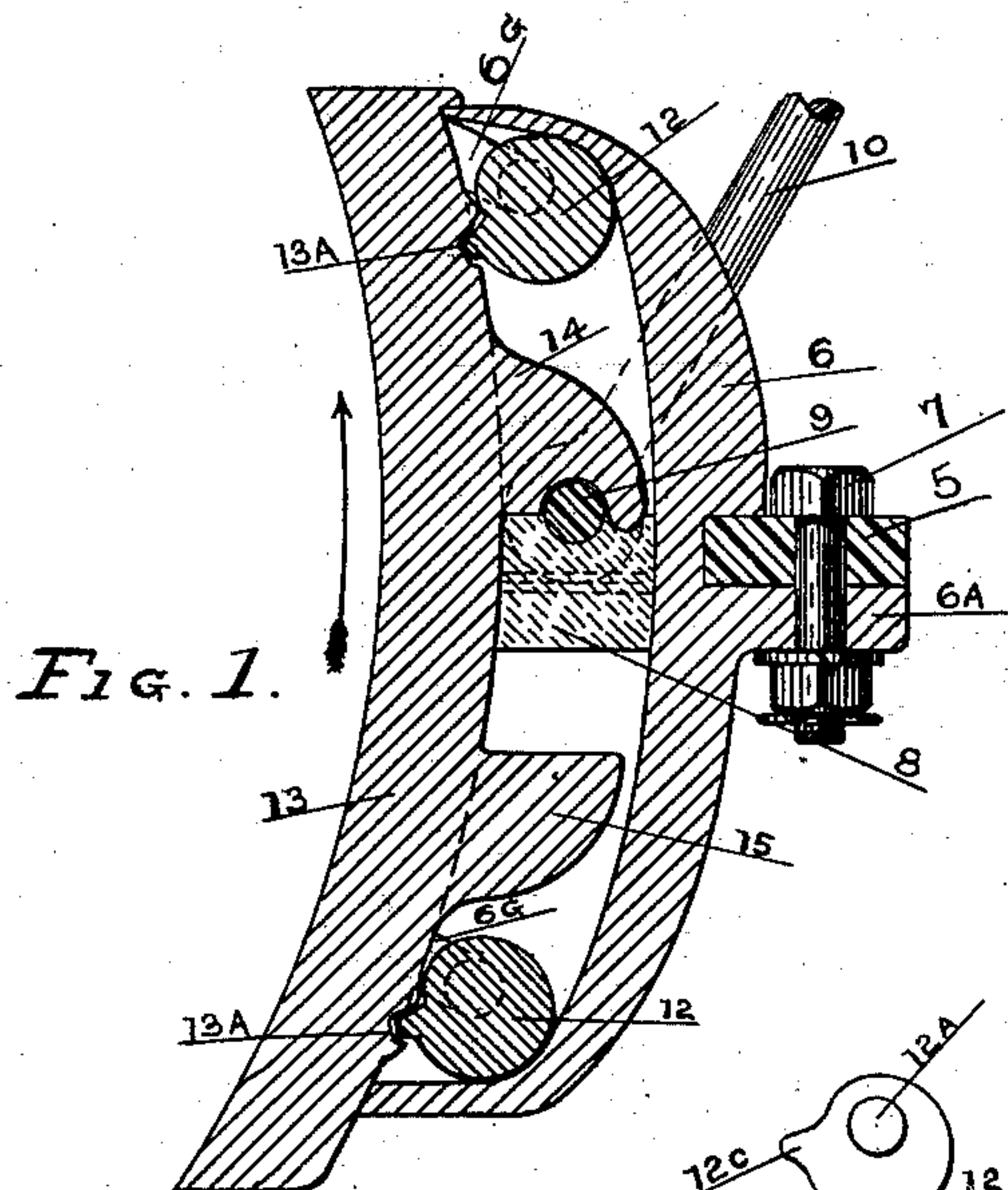


FIG. 1.

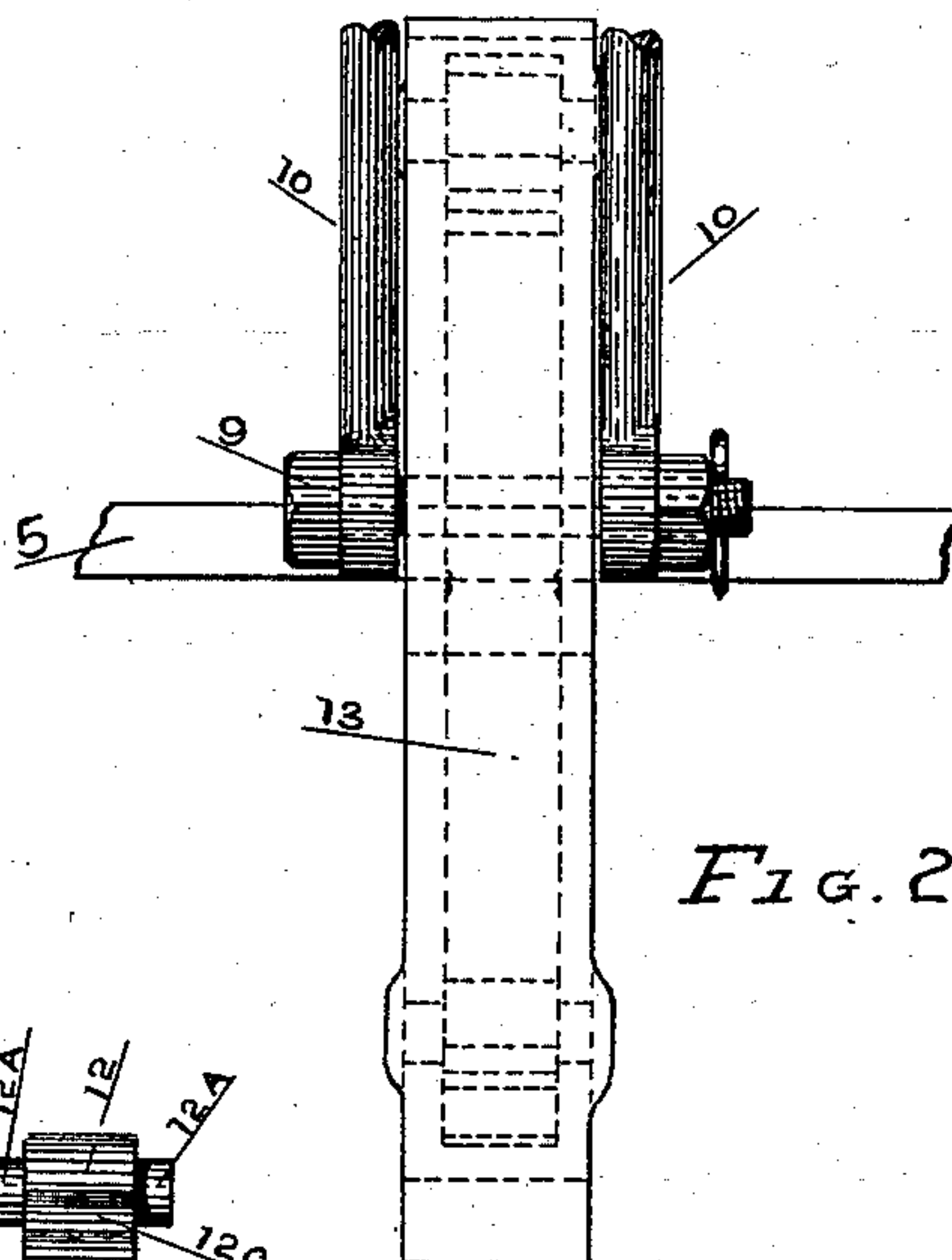


FIG. 2.

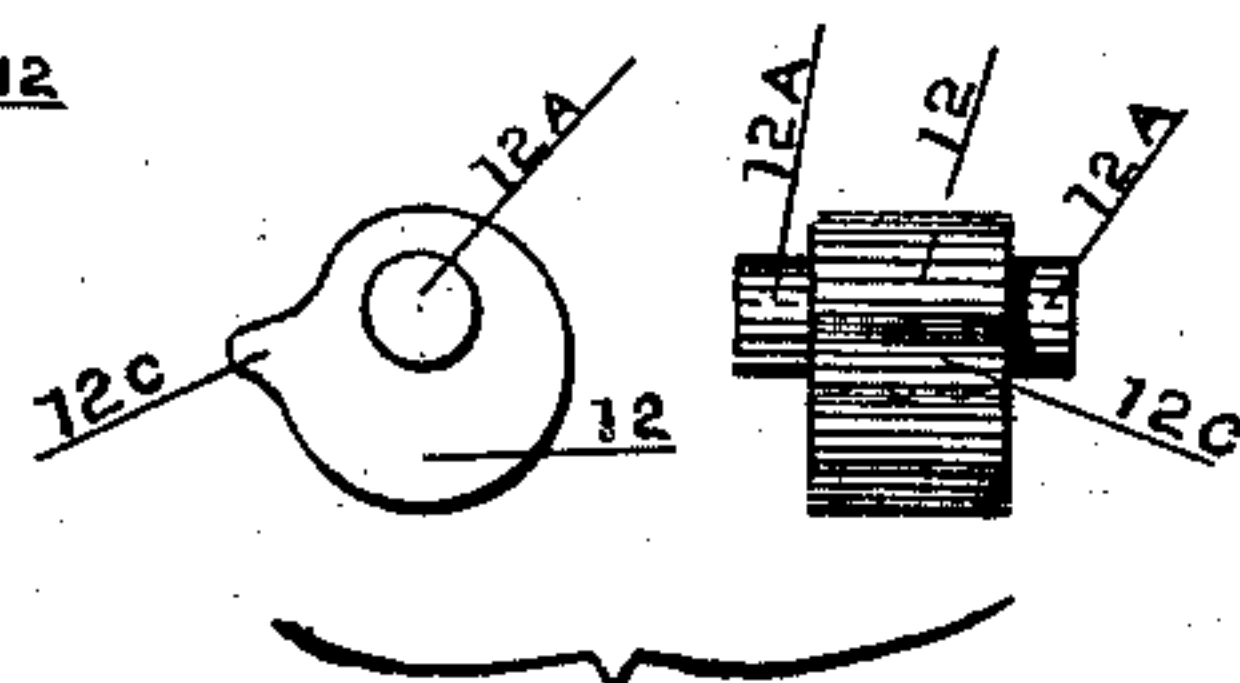


FIG. 4.

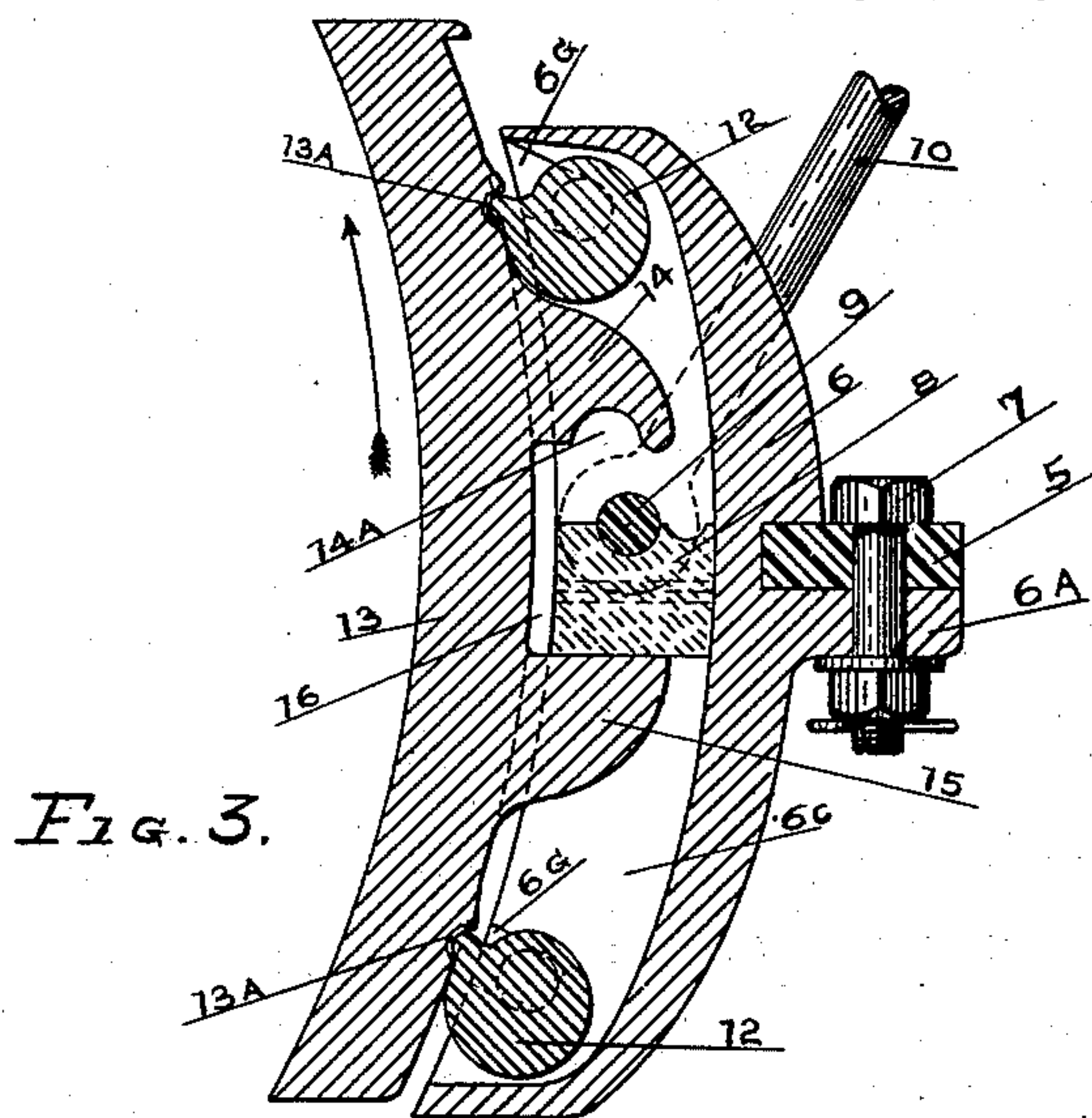


FIG. 3.

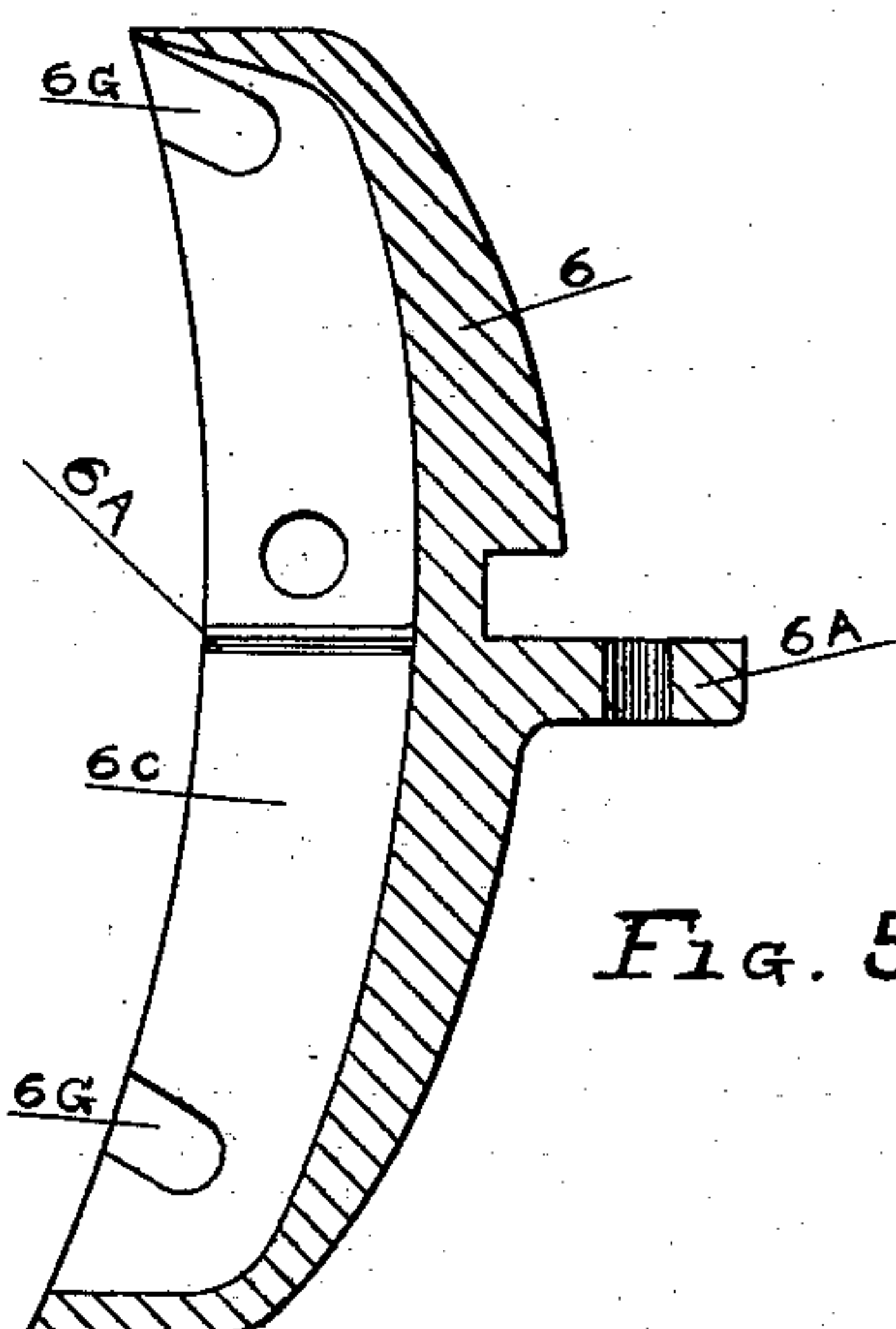


FIG. 5.

WITNESSES:

J. H. Boekenfeld
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INVENTOR.

William Henry Sauvage
BY *[Signature]*
ATTORNEY.

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. 654,806, dated July 31, 1900.

Application filed November 13, 1899. Serial No. 736,785. (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.

This 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 brake-block. Fig. 2 is a front view of the same. Fig. 3 is a section similar to Fig. 1, but with the shoe in the raised position—that is to say, in the position when the brake is applied. Fig. 4 shows two views of the eccentric cam in detail. 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-beam or other suitable support, to which the head 6 is attached by bolt 7, which passes through an opening formed in the beam and a registering opening formed in a projection 6^a of the head. The head is provided with a central longitudinal groove 6^c. Approximately in the vertical center of this groove and extending transversely across the same is located a cushion 8, composed of rubber or other suitable yielding material. This cushion engages small ribs 6^d, which are formed on the opposite walls of the groove, whereby the cushion is supported in place. The upper surface of the cushion is raised to fit a bolt 9, passed transversely through the head and to whose protruding extremities the supporting-links 10 are connected. The bolt 9 forms a positive

stop against the bodily upward movement of the cushion when acted on by the shoe, as hereinafter explained. Each extremity of the head 6 is recessed on opposite sides of the groove to form open bearings 6^e, which are engaged by the journals 12^a of the eccentric cam 12, which is provided with a tooth or cog 12^c, adapted to engage a counterpart recess 13^a, formed in the shoe 13. This shoe is provided with upper and lower rearward projections 14 and 15, which extend into the groove 6^c of the head and which are located respectively above and below the cushion 8. Normally or when the shoe is inactive the projection 14 rests on the bolt 9 and the cushion which it engages from above, the projection being recessed, as shown at 14^a, to fit over the said bolt. The two projections 14 and 15 are sufficiently separated to permit the shoe the necessary movement in setting or applying the brake, as hereinafter explained. The function of the projection 15 is to limit the upward movement of the shoe 13 by engagement with the cushion. (See Fig. 3.)

The brake-beam 5 is so supported that it may be moved forward and backward horizontally, accordingly as it is necessary to apply or release the brake-shoe. The brake-shoe acts automatically when brought into contact with the wheel (not shown) of the car when turning in the direction indicated by the arrows in Figs. 1 and 2. As the shoe is brought into contact with the wheel the shoe is carried upwardly by the friction incident to such engagement, being at the same time forced outwardly against the wheel by the eccentric cams 12, whose teeth or cogs insure the positive automatic movement of the shoe by virtue of their contact with its counterpart recesses 13^a. The space 16 between the shoe and the brake-head (see Fig. 3) indicates the degree of the shoe's movement toward the wheel while traveling upward, as heretofore explained. As soon as the shoe is released from the wheel it falls downward by gravity to the normal position shown in Fig. 1.

Having thus described my invention, what I claim is—

1. A brake-block composed of two members, namely a supporting-head and a shoe

connected therewith and movable thereon, and an eccentric cam mounted on one member and engaging the other member to force the shoe toward the wheel as the brake-setting movement is imparted to the shoe.

2. A brake-block composed of a supporting-head, a brake-shoe and interposed eccentric cams causing the shoe to move forwardly away from the head during the brake-setting operation.

3. The combination of a brake-head, a cooperating shoe connected therewith and movable thereon, an eccentric cam journaled in each extremity of the brake-head and adapted to engage the shoe during the brake-setting operation whereby the latter is moved away from the head.

4. The combination of a brake-head longitudinally grooved, an eccentric cam journaled in the head at each extremity of the groove, a cushion located in the groove intermediate the cams, and a shoe provided with projections engaging the groove of the head on opposite sides of the cushion, the shoe being

arranged to be engaged by the cams to force the shoe away from the head during the brake-setting operation.

5. The combination with a brake-beam or other suitable support, of a brake-head mounted thereon and provided with a longitudinal groove formed in its front face, a cushion located in said groove at a suitable point between its extremities, an eccentric cam journaled in the head at each extremity of the groove and provided with a tooth or cog protruding therefrom, a cooperating shoe provided with rearward projections entering the groove of the head on opposite sides of the cushion, the rear side of the shoe being provided with recesses adapted to engage the tooth or cog of each cam carried by the head.

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

WILLIAM HENRY SAUVAGE.

Witnesses:

GRACE MYTINGER,
A. J. O'BRIEN.