No. 627,947. Patented June 27, 1899.

H. N. WOOD.

AUTOMATIC BRAKE BLOCK.

(Application filed Sept. 27, 1898.)

(No Model.)

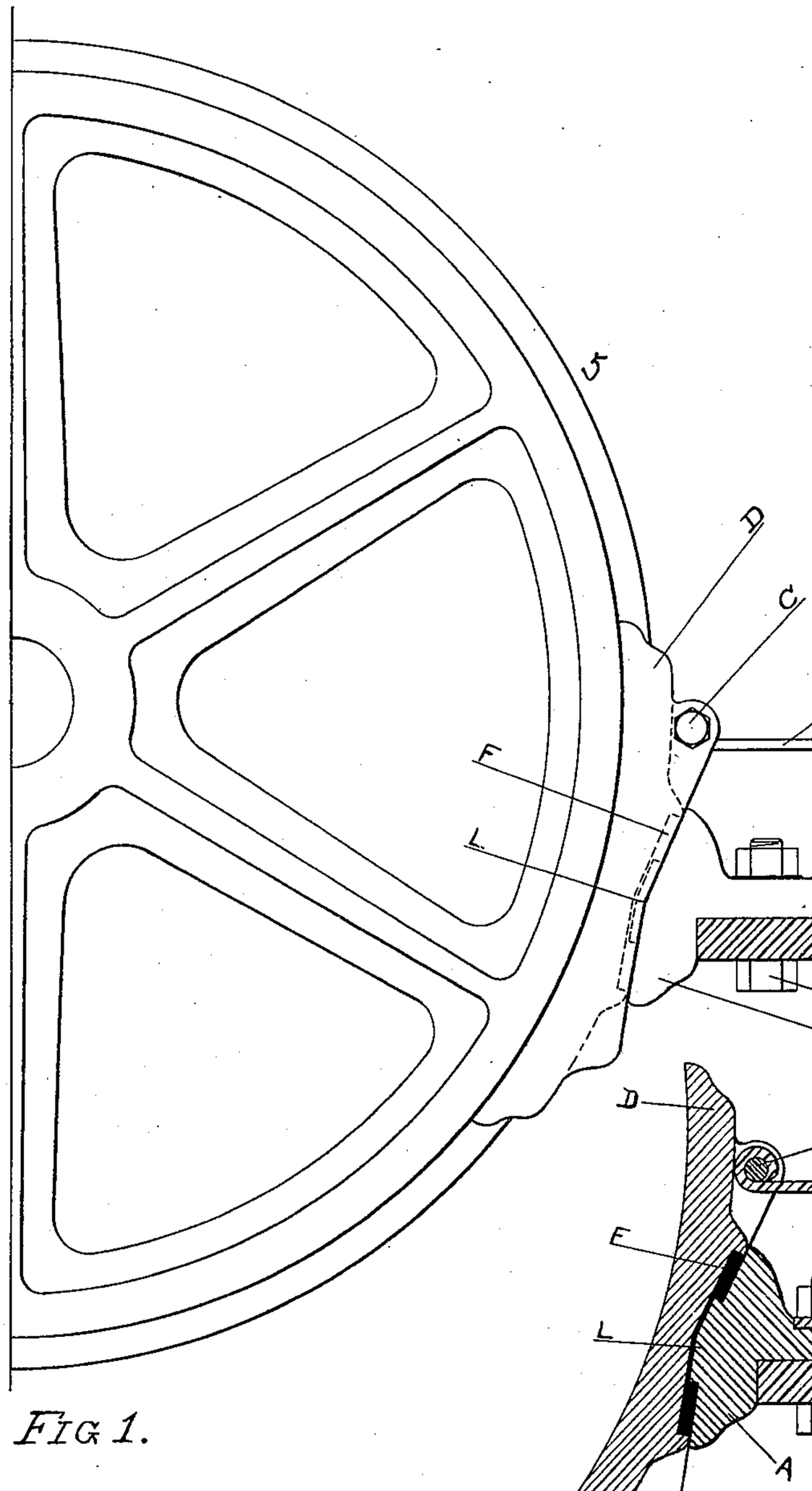

FIG 1.

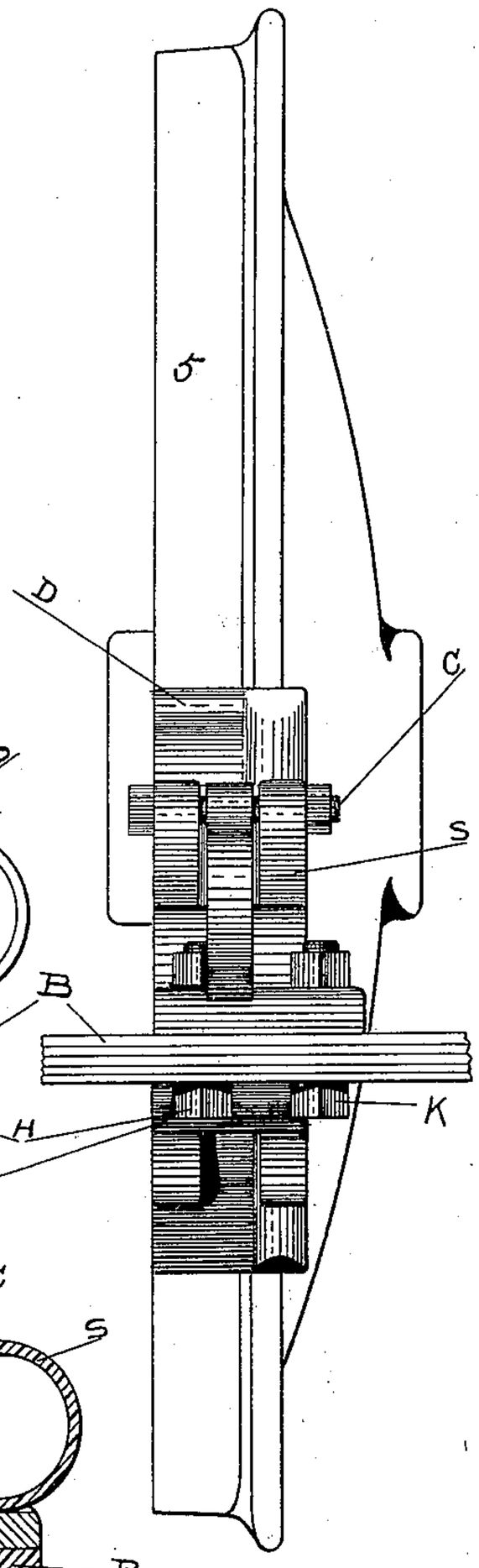

FIG 2.

FIG 3.

Witnesses
Edith Himsworth.
J. H. Backenfeld

Inventor
Henry Newton Wood.
By his Attorney

UNITED STATES PATENT OFFICE.

HENRY NEWTON WOOD, OF DENVER, COLORADO.

AUTOMATIC BRAKE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 627,947, dated June 27, 1899.

Application filed September 27, 1898. Serial No. 692,039. (No model.)

To all whom it may concern:

Be it known that I, HENRY NEWTON WOOD, 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 letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in automatic brake-blocks, my object being to provide a device of this class which shall be simple in construction, economical in cost, and reliable, durable, and efficient in use; and to these ends the invention consists of the features 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 illustrates the brake mechanism in elevation and applied to the wheel of a car, the brake-beam being shown in cross-section. Fig. 2 is a rear view of the same. Fig. 3 is a section taken through the apparatus.

Similar reference characters indicating corresponding parts in these views, let D designate the brake-shoe, whose friction-face is curved to conform to the tread of the wheel 5. The rear side of the shoe, or that opposite the friction-face, is provided with a groove F, adapted to receive a tongue L, formed on the adjacent face of a wedge A, which is secured to the brake-beam B by bolts H and K. The face of the wedge A is rearwardly inclined from a central point to engage corresponding inclines formed on the rear face of the shoe, whereby the movement of the shoe either upwardly or downwardly when in contact with the wheel-tread forces the shoe against the wheel by a wedging action. The friction incident to the engagement of the shoe with the wheel causes the shoe to move up or down, according to the direction of the wheel's movement, and consequently sets the brake automatically. Hence when it is desired to set the brake it is only necessary to shift the brake-beam B sufficiently to bring the shoe in contact with the wheel, after which the action of the shoe is entirely automatic. The tongue of the wedge coöperating with the groove of the shoe forms a guide for the shoe and prevents lateral displacement. The extremities of the groove F being closed prevent the movement of the shoe either upwardly or downwardly beyond a certain limit. The shoe is normally held in operative relation with the wedge by means of a spring S, one extremity of which is attached to the wedge, as shown at C, while the other extremity is secured to the wedge by means of the bolt H and a nut screwed down upon the spring. After having performed the braking function the shoe is returned by this spring to the normal position shown in the drawings as soon as it is released from the wheel by the backward movement of the brake-beam.

It is evident that my improved brake construction is capable of use with any form of brake-beam whatever.

It must be understood that I do not limit the invention to the details of construction shown in the drawings, as I am aware that many modifications and changes in the form of the construction may be made without departing from the spirit of the invention.

Having thus described my invention, what I claim is—

1. The combination with a suitable support arranged to move back and forth in a horizontal plane, according as the brake is to be applied or released, of a shoe having two rearwardly-inclined faces, a wedge mounted on said support and having correspondingly-inclined coöperating faces engaging the faces of the shoe, the shoe being movable on the wedge while the latter is relatively stationary, and arranged to set the brake when the wheel is turning in either direction, and suitable means for maintaining the shoe in operative relation with the wedge.

2. The combination with a movable brake-beam, of a wedge made fast thereon, a shoe engaging the wedge and movable thereon, the wedge and the shoe each having two rearwardly-inclined, coöperating faces diverging from a central point, one of the said parts being provided with a tongue extending parallel with both inclined faces and engaging a

counterpart guide-groove formed in the other part, and suitable means for returning the shoe to its normal position after each braking action.

3. The combination with a movable brake-beam, of a wedge made fast thereon, a shoe engaging the wedge and movable thereon, the wedge and the shoe each having two rearwardly-inclined, coöperating faces, one of the said parts being provided with a tongue formed on both inclined faces and engaging a counterpart guide-groove formed in the other part, and suitable means for returning the shoe to the normal position after each braking action, comprising a spring attached to the shoe at one extremity and to the wedge at the opposite extremity.

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

HENRY NEWTON WOOD.

Witnesses:
A. J. O'BRIEN,
EDITH HIMSWORTH.