

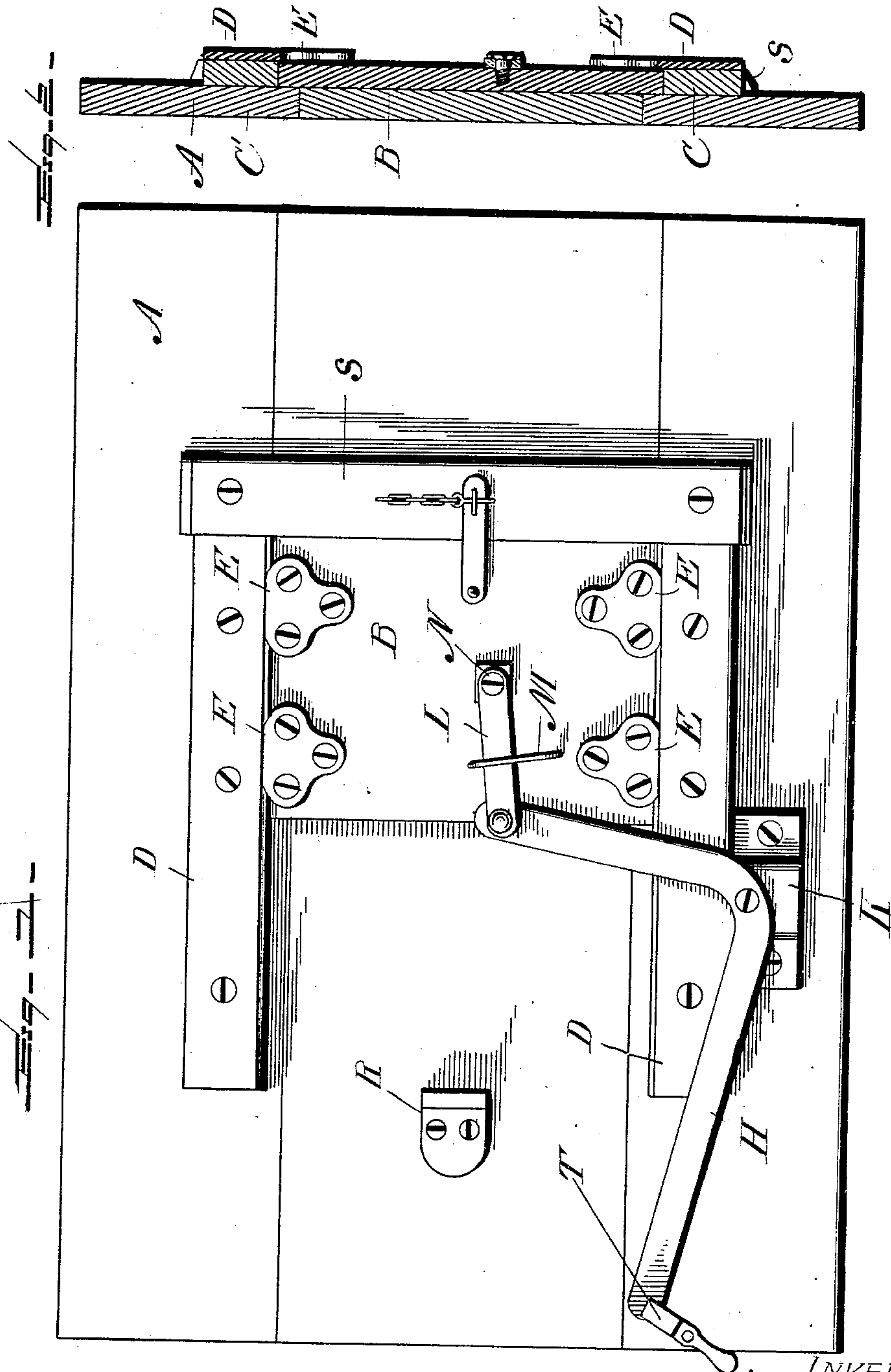
No. 677,511.

Patented July 2, 1901.

J. H. HAMILTON.  
CAR DOOR OPENER.

(Application filed Mar. 29, 1901.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOSEPH H. HAMILTON, OF HUDDLESTON, VIRGINIA.

## CAR-DOOR OPENER.

SPECIFICATION forming part of Letters Patent No. 677,511, dated July 2, 1901.

Application filed March 29, 1901. Serial No. 53,501. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH H. HAMILTON, a citizen of the United States, residing at Huddleston, in the county of Alleghany and State of Virginia, have invented certain new and useful Improvements in Car-Door Openers; 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 of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in car-door-actuating mechanism; and it consists in the various features of construction which will be hereinafter more fully described and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts in the views, in which—

Figure 1 is a side elevation of my invention. Fig. 2 is a vertical sectional view longitudinally through the door and the guide-plates secured thereto.

Reference now being had to the details of the drawings by letter, A designates the side of a car, and B the sliding door, which rests upon the beam C. Directly over the door is a second beam C', similar to the beam C and parallel therewith. To the outer faces of said beams are secured plates D, the inner edges of which are bevel-forming tracks for the guide-plates E, which are secured to the outer faces of the door. Each of said guide-plates has a grooved edge of shape to receive said beveled edge of a plate D. There may be one or more of these plates secured to the door, there being two shown in the drawings at the top of the door and two at the lower or bottom portion.

H designates an angle-lever which is piv-

oted near or at its angle to a block or bracket K, and to one end of said lever is pivoted a link L, the other end of which is pivoted to a pin N, secured to the door of the car. To hold said link from a lateral movement, a guide-rod M is provided, which is secured to the outside of the door on either side of the link.

For limiting the rearward throw of the door a stop R is provided, while the forward movement in closing the door is limited by means of the beam S.

From the construction before described and illustrated in the accompanying drawings it will be observed that when the lever is operated the pull on the door is substantially from the center of its outer face and in a horizontal plane, and the door is caused to slide back and forth easily and, owing to the leverage, with great ease, while the door is guided and held in place by said plates and guide-pieces. To hold the lever with its free end at its highest limit, an angle-lever T is pivoted at a location underneath the handle end of said door-actuating lever. After the door has been closed said lever T may be tilted, so that it will hold the lever H in the position shown in Fig. 1 of the drawings.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

In combination with the car-door, the tracks, the guide-plates, the angle-lever, and the bracket on which said lever is pivoted, a central pin secured to the face of the door, a link pivoted at one end to said pin, its other end pivoted to said lever, stops to limit the movements of the door, and a pivoted locking-lever for holding the door-actuating lever in a locked relation, as set forth.

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

JOSEPH H. HAMILTON.

Witnesses:

J. H. FERGUSON,  
R. L. PARRISH.