

No. 697,308.

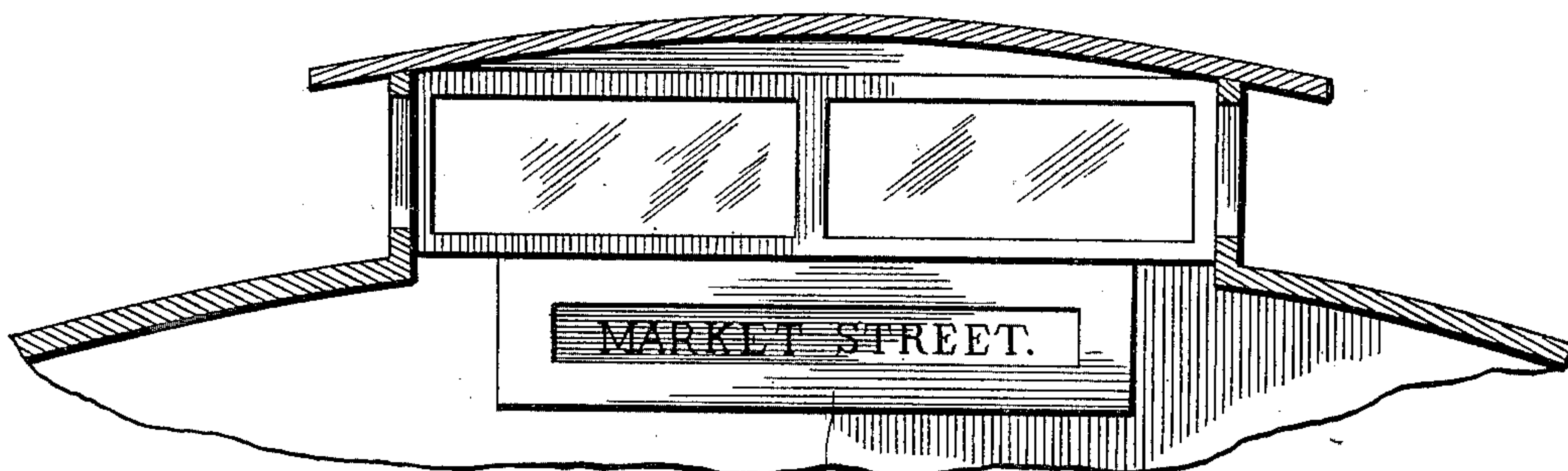
Patented Apr. 8, 1902.

J. C. WUERTH.  
STREET INDICATOR FOR STREET CARS.

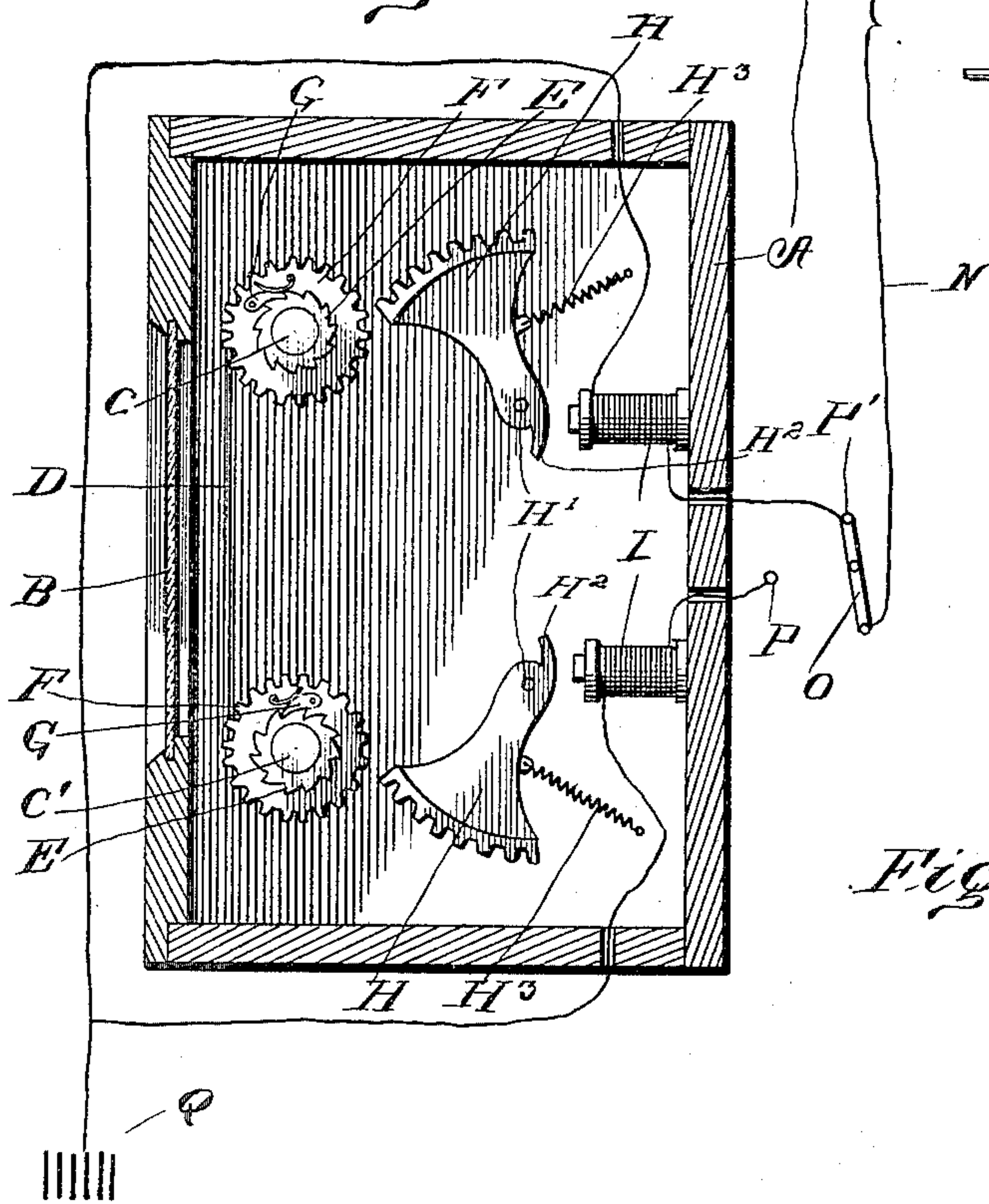
(Application filed June 26, 1901.)

(No Model.)

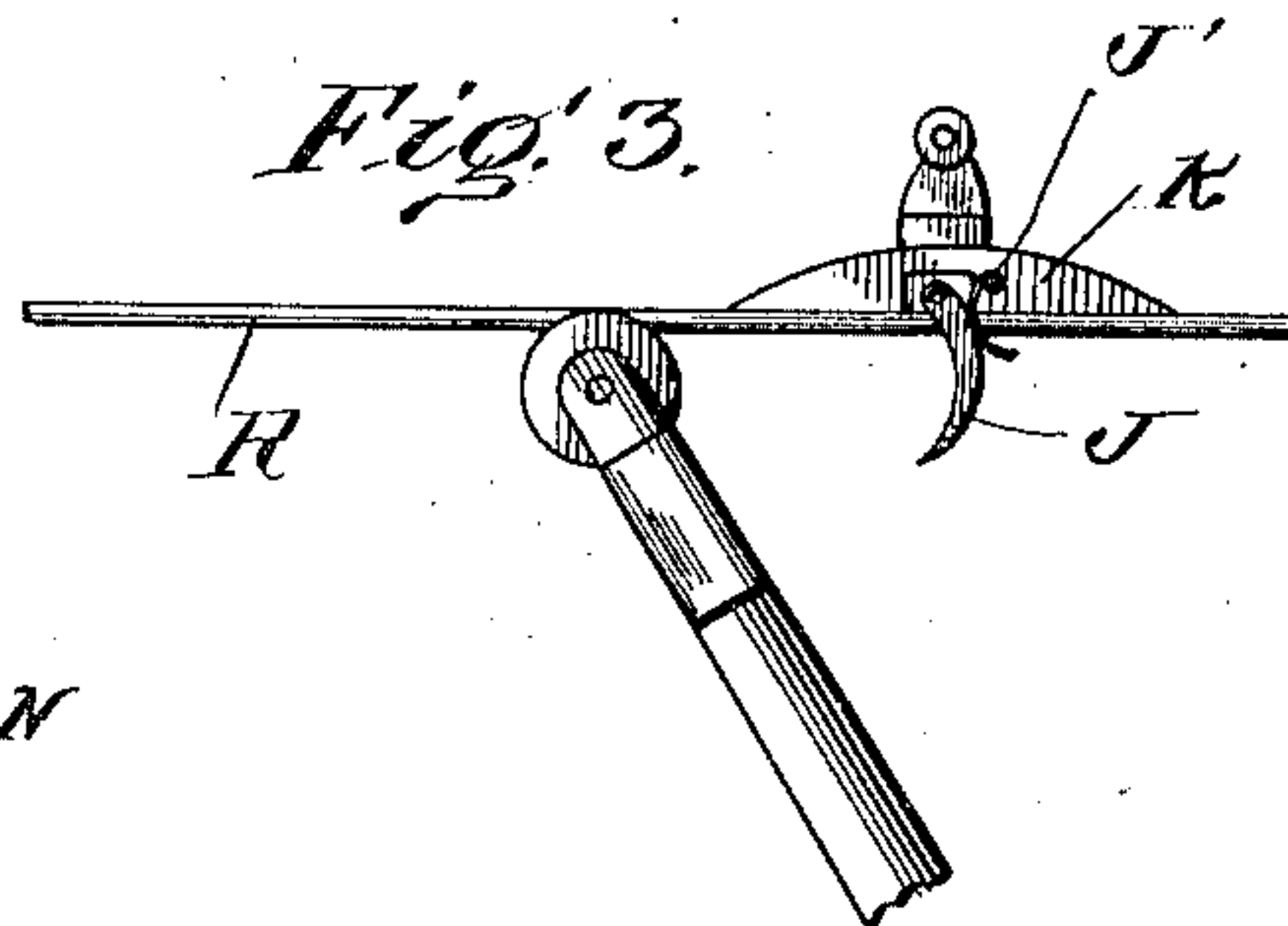
*Fig. 1.*



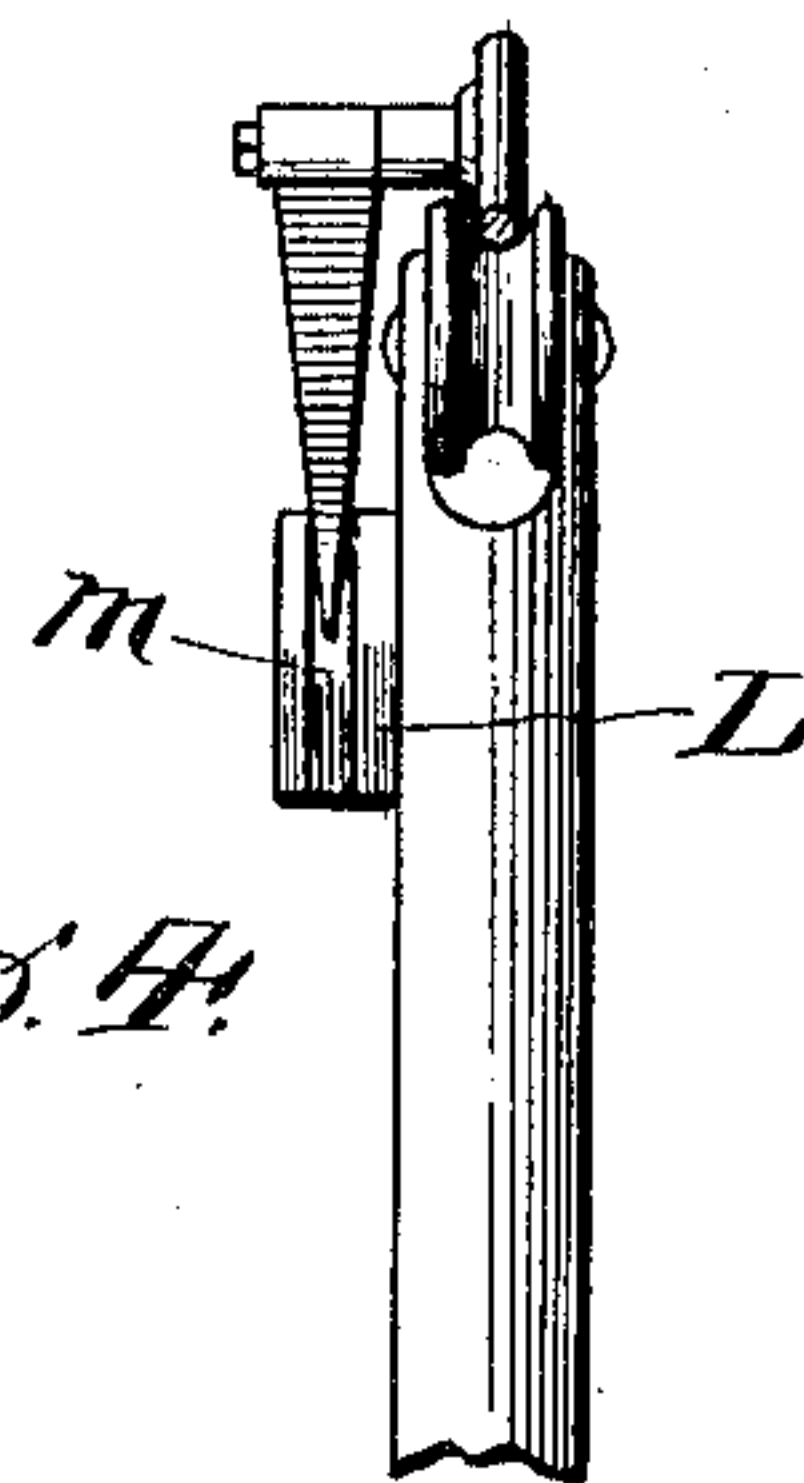
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN C. WUERTH, OF ST. LOUIS, MISSOURI.

## STREET-INDICATOR FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 697,308, dated April 8, 1902.

Application filed June 26, 1901. Serial No. 66,086. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. WUERTH, a citizen of the United States, residing at St. Louis, State of Missouri, have invented a certain new and useful Improvement in Street-Indicators for Street-Cars, of which the following is a specification.

My invention relates to a new and useful improvement in street-indicators for street-cars, and has for its object to provide a device of this description which will automatically indicate the cross-street which the car is approaching; and it consists in having the name of the streets represented upon a flexible band, which will be rolled upon one roll and unrolled from another as the car progresses in one direction, and the action will be reversed as the car returns.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a view of the upper front portion of a car, showing my invention applied thereto; Fig. 2, a cross-section of my indicating device, showing the wiring in diagram; Fig. 3, a detail side elevation of the contact mechanism located upon the wire and the trolley, and Fig. 4 a detail front elevation of Fig. 3.

In carrying out my invention as here embodied, A represents a casing, which may be of any suitable shape, design, or material, which is adapted to inclose the working parts of my invention.

B is a pane of glass secured in the front of the casing, through which the name of the streets can be read.

C and C' are two rolls which are journaled in suitable bearings in the sides of the casing, and upon these rolls is wound a strip D of flexible material, upon which are painted or otherwise represented the names of the different streets. This strip D is wound upon the upper rolls and extends downward to the

lower roll, and this strip between the rolls will lie directly behind the pane of glass B, so that the name of the street represented upon this strip will be exhibited through the glass B.

E represents ratchet-wheels, which are secured rigidly to and adapted to revolve with the rolls C and C'.

F represents gear-wheels journaled loosely upon the rolls C and C', and G represents pawls pivoted to the gear-wheels F and adapted to engage the teeth of the ratchet-wheels E.

H represents segments, which are pivoted to the casing at the point H', and these segments are so arranged that when they are rocked upon their pivots H' the teeth of the segments will be brought into mesh with the gear-wheels F, and thus rotate the same.

I represents electromagnets secured to the casing and arranged in juxtaposition to the armatures H<sup>2</sup>, which project from the segments H from the opposite side of the pivots to the teeth of the segments. It is now obvious that if either one of the magnets is energized it will attract to it its armature H<sup>2</sup>, which will rock the segment H upon its pivot H' and rotate one of the gears F, which will communicate the motion through the pawl and ratchet to the roller upon which they are arranged. This will revolve the roller a certain distance and wind upon it the flexible strip D. The segments H being normally held out of engagement with the gears F by means of the springs H<sup>3</sup> will allow the opposite roller, from which the material is unwound, to be rotated by reason of the winding of the material upon the opposite roller. When the magnet is deenergized, the spring H<sup>3</sup> will return the segment to its normal position, which will revolve the gear F backward; but the rollers will remain stationary, because the pawl will spring over the ratchet-teeth without revolving the ratchet. One of the segments will be energized always when the car is traveling in one direction, and when the car returns the current will be so switched as to energize the other magnet, which will cause the flexible strip D with the names upon it to be reversed and rolled upon the other roller.

For the purpose of automatically exciting the magnets I provide at each street-crossing



a pivoted contact J, which is pivoted to the hanger K, which usually supports the trolley-wire, and is held downward in its normal position by the spring J'. This contact J extends outward at one side from the wire, so that it will not come in contact with the trolley-wheel when passing the same.

Secured to the side of the trolley-pole is a block of insulation L, which has a vertical groove formed in the same. A metallic plate M is secured at the rear of this groove, and to this metallic plate is connected the wire N, which extends downward to the switch O. This switch O is adapted to contact either of the contact-points P or P', to which contacts are connected one end of the winding of the magnets. The other end of the winding of each of the magnets is connected with the ground Q. The contact J is always in electrical connection with the trolley-wire R. So it will be obvious that when the contact J comes in contact with the metal plate M a circuit will be established through either one of the magnets, depending upon the position of the switch, and this will operate the segments, as before described. When the end of the ratchet is reached and it is desired to reverse the mechanism, the switch O is turned so as to bring it in contact with the other contact-point, which will cause the current within to flow through the opposite magnet.

The advantage of my invention is that by the use of very simple mechanism the names of the streets will be automatically indicated a block in advance. This is of great advantage in street-cars, as the patrons of the line do not have to depend upon understanding the name of the street the conductor is supposed to call out.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

In a street-indicating device, a casing, a glass opening formed through the casing through which the names of the streets are adapted to be read, two rolls, a flexible strip upon which the names of the streets are adapted to be represented, said strips adapted to be wound and unwound from said rolls and extend between the same, ratchet-wheels secured to and adapted to revolve with the roll, gear-wheels journaled loosely upon said rolls, pawls pivoted to the gear-wheels and adapted to engage the ratchet-teeth of the ratchet-wheels, pivoted segments, the teeth of which are adapted to be brought into mesh with the gear-wheels, springs adapted to hold said segments normally out of mesh with the gear-wheel, armatures secured to the segments, electrical magnets arranged in juxtaposition to said armatures, means for establishing a circuit at predetermined times from the trolley-wire through one or the other of the magnets to the ground, and a switch adapted to switch one or the other of the magnets in or out of its circuit, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JOHN C. WUERTH.

Witnesses:

JOHN MICHEL,  
JACOB BUFF.