J. R. HUME.

STREET INDICATOR.

APPLICATION FILED JAN. 5, 1920.

1,415,933.

Patented May 16, 1922.

2 SHEETS—SHEET 1.

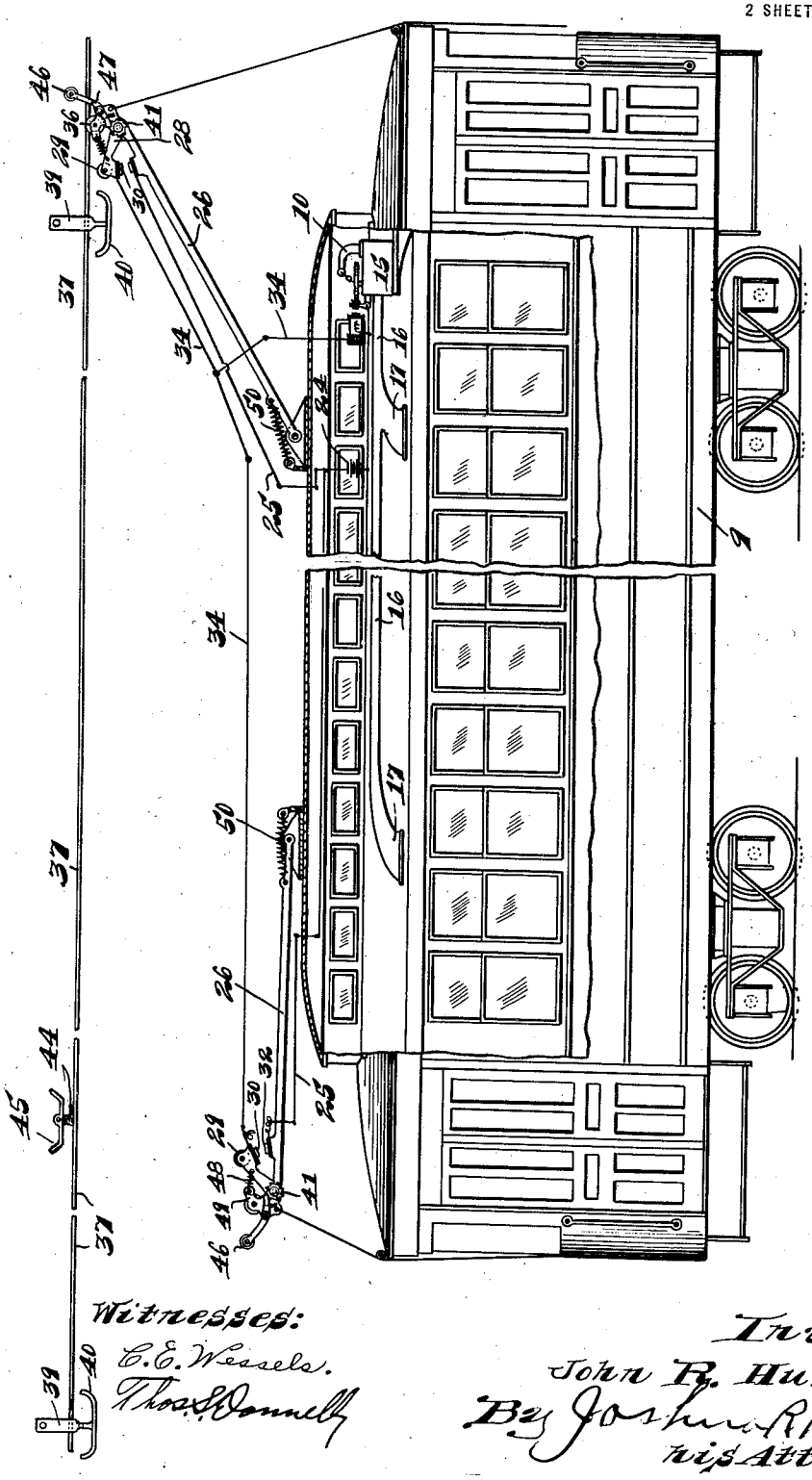


Fig. 1.

Witnesses:
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Thos. L. Donnelly

Inventor:
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By Joshua R. H. Potts
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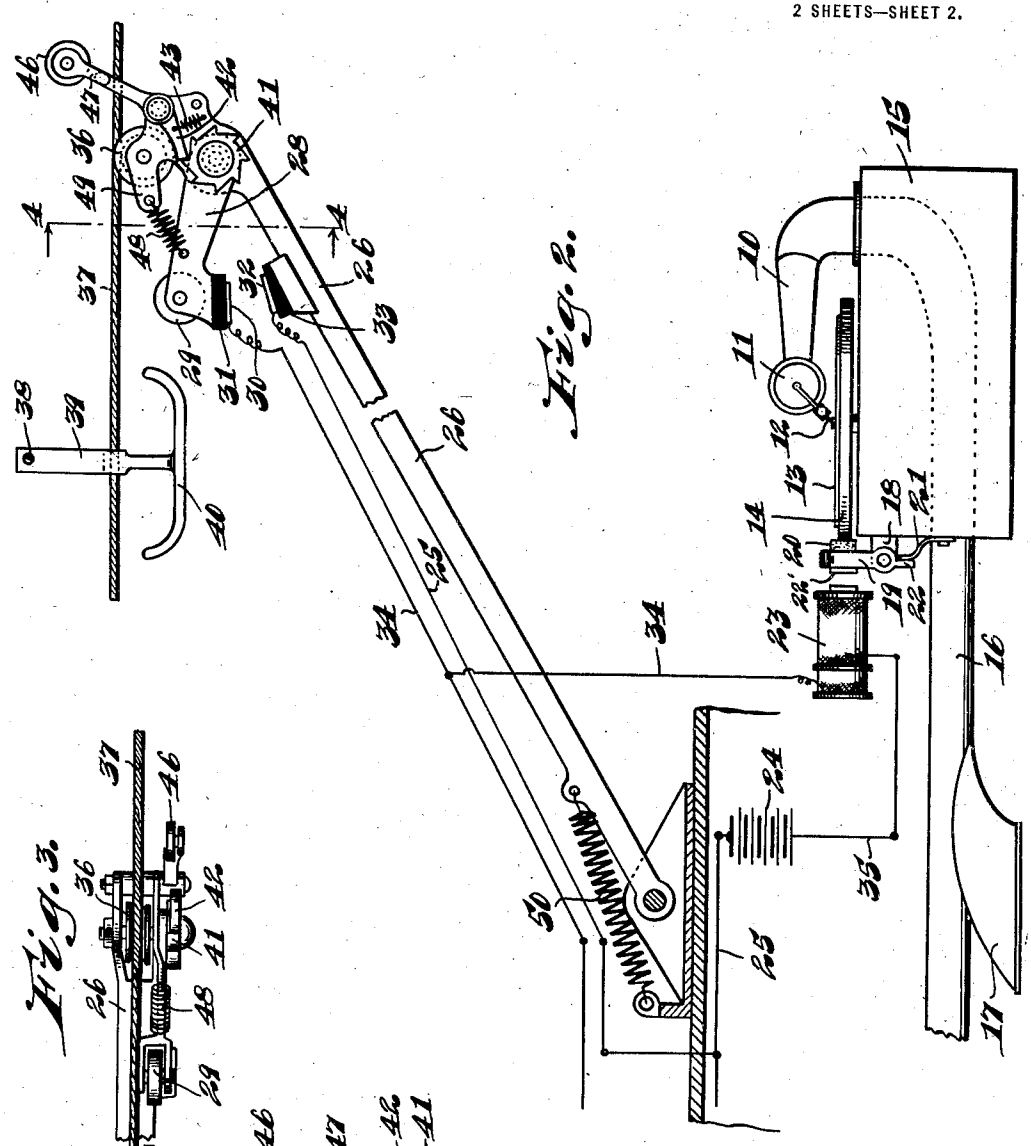


Fig. 2.

Fig. 3.

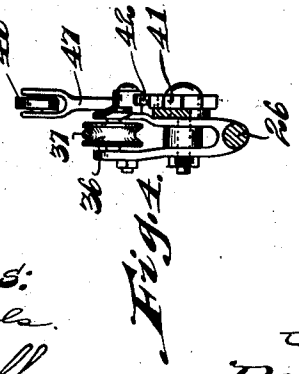


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN R. HUME, OF CHICAGO, ILLINOIS.

STREET INDICATOR.

1,415,933. Specification of Letters Patent. Patented May 16, 1922.

Application filed January 5, 1920. Serial No. 349,563.

To all whom it may concern:

Be it known that I, JOHN R. HUME, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Street Indicators, of which the following is a specification.

My invention relates to new and useful improvements in street indicators adapted for use upon trolley cars, and has for its object the provision of means for audibly announcing the cross streets approached by the trolley car. Another object is the provision of means for setting into operation and stopping the sound reproducing machine mounted upon a trolley car.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1, is a side elevational view of a trolley car embodying my invention, with parts removed,

Fig. 2, is a side elevational view of my invention applied to a trolley pole,

Fig. 3, is a top plan view of the mechanism mounted on the trolley pole, and

Fig. 4, is a sectional view taken on substantially line 4—4 of Fig. 2.

My invention is designed for use with a trolley car 9 and comprises a tone arm 10 having sound reproducing mechanism 11 attached to one end thereof. A stylus 12, such as is ordinarily used with a sound reproducing mechanism, is attached thereto and adapted to contact with a phonographic record 13 which is positioned upon a rotatable table 14. The table 14 is rotatably mounted upon a casing 15 in which the mechanism which rotates the table is assembled. The flaring end of the tone arm 10 is connected to a delivery tube 16, which is provided at intervals with branches 17 which terminate with flaring orifices. Mounted upon the box or casing 15 is a lug 18, upon which is pivotally mounted an arm 19, attached to which is a friction block 20 which is adapted, when the arm 19 is in normal position, to contact and frictionally engage with the periphery of the table 14. Mounted upon the casing 15 is a leaf spring 21, which engages against a lug 22 projecting downwardly from the arm 19. The mounting of the spring 21 is such as to normally retain the block 20 in engagement with the member 14 and produce sufficient friction between these elements to prevent rotation of the table. Mounted upon the opposite side of the member 21 is a contact block 22′ which is adapted, when the spring 21 is pressed inwardly and the arm 19 moved outwardly from the table 14, to contact with the pole of the electromagnet 23. Mounted upon the car 9 is a battery 24, to one of the terminals of which is attached an electric wire 25. Pivotally mounted upon the trolley pole 26, adjacent its upper end, is an arm 28 which is bifurcated at its free end. A roller 29 is rotatably mounted between said bifurcations. Mounted upon the free end of the arm 28 is a contact block 30 which is insulated from the arm 28 by suitable insulation 31. The block 30 is connected to the electromagnet 23 by means of a suitable wire 34. Mounted upon the trolley pole 26, adjacent its upper end, is a contact block 32 which is designed for co-operation with the block 30, the block 32 being insulated from the trolley pole by suitable insulation 33. The contact block 32 is connected by the wire 25 to the battery 24. The opposite terminal or pole of the battery is connected to the electromagnet 23 by suitable wire 35.

The construction is such that, upon the contact block 30 engaging the block 32, the circuit in which the electromagnet 23 is interpositioned is closed, thereby energizing the magnet. Upon the magnet 23 becoming energized, the block 22′ is attracted and caused to contact with the pole of the electromagnet, thereby swinging the arm 19 on its pivot so as to disengage the member 20 from the member 14, thereby permitting the mechanism contained within the casing 15 to rotate the table 14. The phonographic record which is used with the table has impressions which, when reproduced by the sound reproducing mechanism 11, will audibly announce the cross street which the street car is approaching. The name of the street is repeated several times, after which the phonograph calls out certain advertising matter which has been impressed upon the record. The trolley pole carries at its upper end, in the usual manner, a trolley wheel

36 which engages the trolley wire 37. Mounted upon the guy wires 38, to which the trolley wire 37 is attached, is an arm 39 which carries, at its lower end, a shoe 40 adapted to engage the roller 29 and press the contacts 30 and 32 into engagement with each other. Rigidly mounted upon the shaft upon which the arm 28 is mounted, is a ratchet wheel 41. Mounted upon the trolley pole 26 is a pawl which is adapted to engage the ratchet wheel 41 so as to retain the contact members 30 and 32 in engagement with each other after the arm 28 has passed the shoe 40, a spiral spring 43 being used for the purpose of retaining the pawl in engagement with the ratchet wheel. In use, the shoe 40 is mounted at a distance from the crossing, so that as the car approaches the crossing the sound reproducing mechanism is set in operation. Secured to another guy wire, and separated a considerable distance from the shoe 40, is a shoe 45, which is mounted upon an arm 44. The shoe 45 is adapted to engage a roller 46 mounted upon the free end of an arm 47 which is pivotally mounted upon the trolley pole 26 by means of the same pin upon which the pawl 42 is mounted. The construction is such that upon the arm 47 swinging on its pivot, the pawl 42 is carried with it. Therefore, when the roller 46 engages the shoe 45, the same is swung backwardly upon its pivot and causes pawl 42 to disenage the ratchet wheel 41. A spiral spring 48, which is connected to the arm 28 and to a lug 49 formed upon the trolley pole serves to raise the arm 28 so as to break the contact and thereby de-energize the magnet 23. When the magnet 23 is de-energized, the spring 21 causes the friction block 20 to again engage the table 14 and the table 14 thereby becomes braked or prevented from rotating.

When the records upon which the names of the streets are impressed are being made, a certain portion of the record is utilized for the name of each street and the advertising matter to be placed thereon. The position between the shoes 45 and 40 is regulated so that that portion of the record which is designed for use with a particular street will be allowed to be reproduced and then the mechanism checked.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. In combination with a trolley car carrying a sound reproducing machine; means mounted upon the outside of said machine for retaining said machine against operation; an electric circuit; an electric magnet interposed in said circuit; means mounted on said car for closing said circuit to energize said magnet for releasing said retaining means; and means for breaking said circuit after said car has travelled a certain distance, substantially as described.

2. In combination with a trolley car carrying a street announcing machine; means for retaining said machine against operation; a local electric circuit including means for releasing said retaining means upon closing the said circuit; means mounted on said car for closing said circuit; and additional means mounted on said car and actuated by means on the trolley wire for breaking said circuit, substantially as described.

3. In combination with a trolley car having a sound reproducing machine mounted thereon; means mounted on said machine for retaining said machine against operation; an electric circuit; means for releasing said retaining means upon the closing of said circuit; means mounted on the trolley pole of said car and actuated by a member on the trolley wire for closing said circuit; means for retaining said closing means in operative position; and additional means mounted on the trolley pole of said car and actuated by a second member on the trolley wire for releasing said retaining means and opening said circuit, substantially as described.

4. In combination with a trolley car carrying a sound reproducing machine; means for retaining said machine against operation; an electric circuit; means for releasing said retaining means on the closing of said circuit; an arm mounted on the trolley pole of said car; means for rocking said arm to close said circuit; and means for opening said circuit after said car has travelled a predetermined distance, substantially as described.

5. In combination with a trolley car carrying a sound reproducing machine; means for retaining said machine against operation; an electric circuit; means for releasing said retaining means on the closing of said circuit; an arm mounted on the trolley pole of said car; means for rocking said arm to close said circuit; and means for retaining said arm in said closing position, substantially as described.

6. In combination with a trolley car carrying a sound reproducing machine; means for retaining said machine against operation; an electric circuit; means for releasing said retaining means on the closing of said circuit; an arm mounted on the trolley pole of said car; means for rocking said arm to close said circuit; means for retaining said

arm in said closing position; and means for releasing said arm-locking means to enable said machine retaining means to operate, substantially as described.

7. In combination with a trolley car having a sound reproducing machine mounted thereon; means for normally retaining said machine against operation; a normally open electric circuit provided with means for releasing said retaining means upon the closing of said circuit; means on the trolley wire and car for closing said circuit to release said retaining means; holding means on said car to retain said circuit closing means in closed position; and additional means on said trolley wire and car to release said holding means from said circuit closing means to open said circuit and permit said machine retaining means to stop said sound reproducing machine, substantially as described.

8. In combination with a trolley car carrying a sound reproducing machine; means for retaining said machine against operation; an electric circuit; means for releasing said retaining means by the closing of said circuit; an arm mounted on the trolley pole of said car; a shoe adapted to engage said arm for rocking the same to close said circuit and release said retaining means; means to retain said arm in circuit closing position; and a trip arm for releasing said arm retaining means, substantially as described.

9. In combination with a trolley car carrying a sound reproducing machine; means for retaining said machine against operation; an electric circuit; means for releasing said retaining means upon the closing of said circuit; an arm mounted on the trolley pole of said car; a shoe adapted to engage said arm for rocking the same to close said circuit and release said retaining means from said machine; means for retaining said arm in circuit closing position; a trip arm for releasing said arm retaining means; and a second shoe adapted to engage said trip arm for actuating the same to release said arm retaining means, substantially as described.

10. In combination with a trolley car and a sound reproducing machine mounted thereon; a brake for retaining said machine inoperative; an electric circuit; electric means in said circuit for withdrawing said brake; means mounted on the trolley pole of the car for closing said circuit and energizing said electric means; a member mounted on the trolley wire for actuating said circuit closing means; means for retaining said second mentioned means in circuit closing position; trip means for releasing said retaining means; and a second member mounted on the trolley wire, at a regulated distance from said first member, to actuate said trip means and release said retaining means in order that the brake may engage and stop the sound reproducing machine, substantially as described.

11. The combination with a trolley wire and a trolley car carrying a trolley pole and a sound reproducing machine; of an upper and lower contact member mounted on said wire; a brake mounted on said machine for normally engaging the machine record and retaining same inoperative; a normally open electric circuit; a solenoid in said circuit for releasing said brake; an arm mounted on the trolley pole of said car arranged to be actuated by said lower shoe to close said circuit and actuate said solenoid; means on said car for holding said arm in circuit closing position; and a second arm on said trolley pole arranged to engage said upper shoe for releasing said holding means to open said circuit, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN R. HUME.

Witnesses:
JOSHUA R. H. POTTS,
B. G. RICHARDS.