E. E. HUNSTABLE.

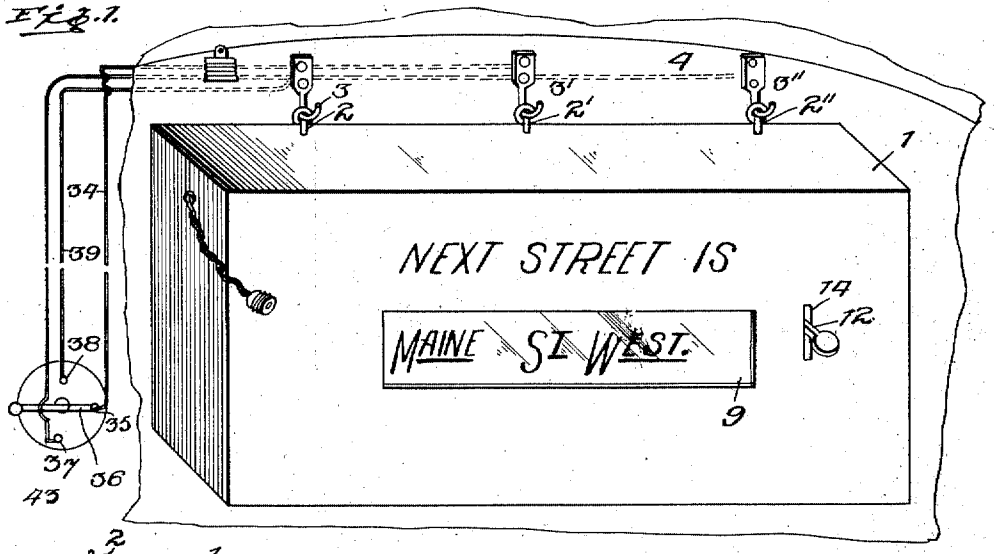
STREET REGISTER.

APPLICATION FILED APR. 27, 1910.

986,061. Patented Mar. 7, 1911.

2 SHEETS—SHEET 1.

Fig. 1.



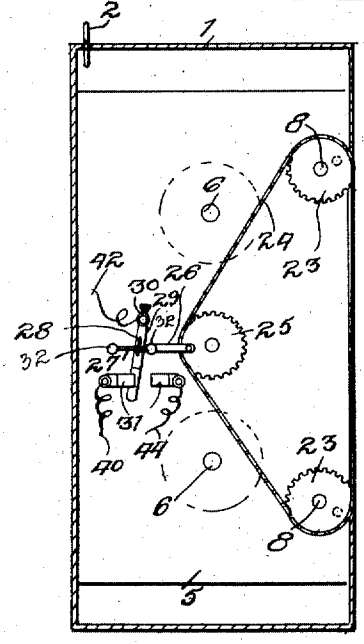


Fig. 3.

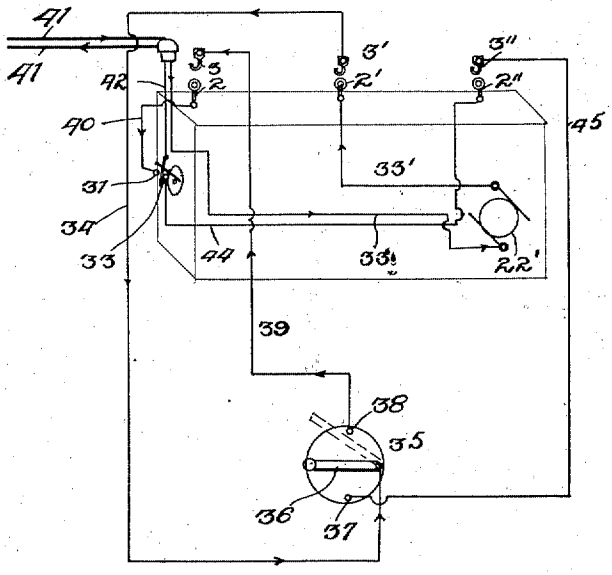


Fig. 4.

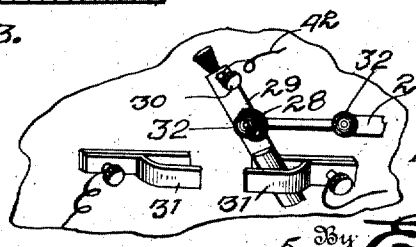


Fig. 5.

Witnesses

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2 SHEETS—SHEET 2.

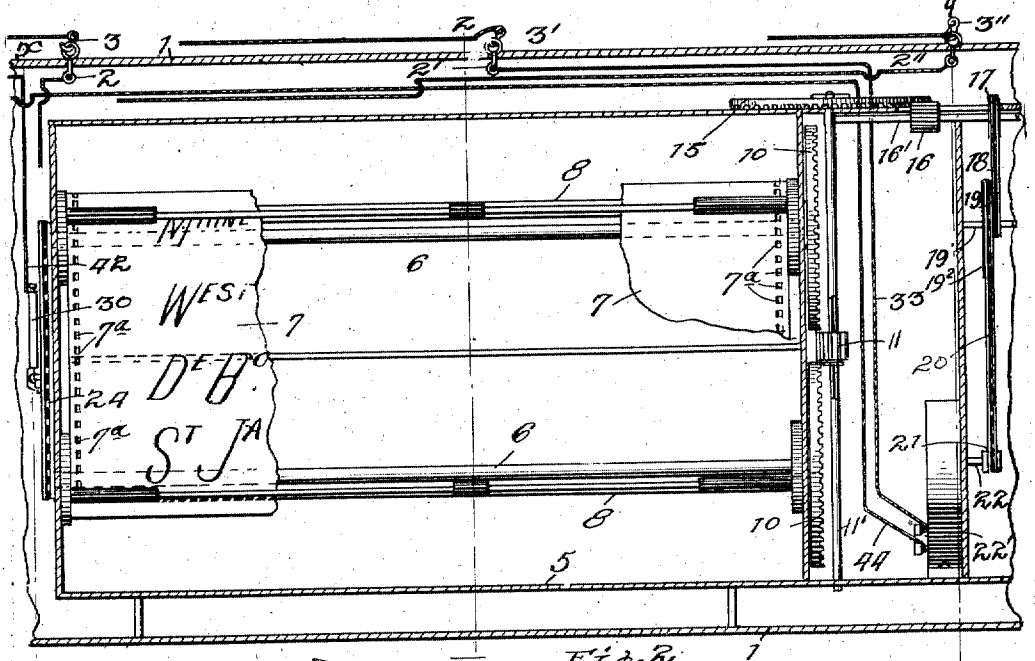

Fig. 2.

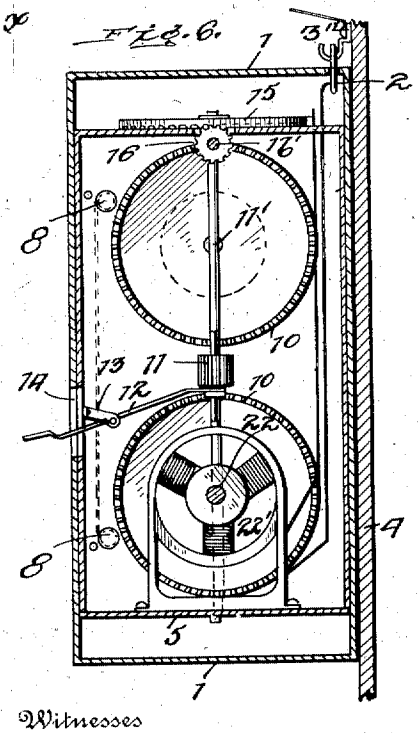

Fig. 6.

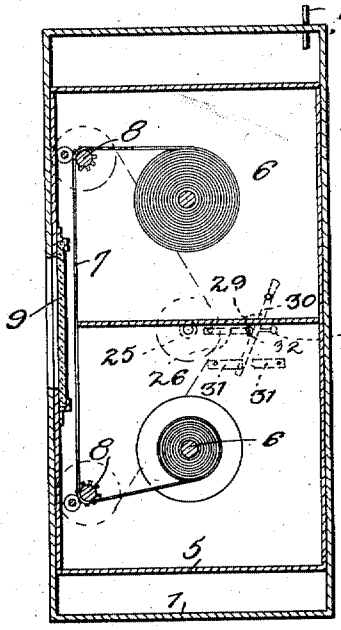

Fig. 7.

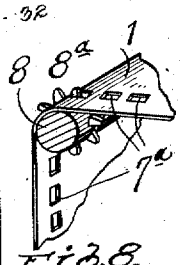

Fig. 8.

Witnesses

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STREET-REGISTER.

986,061. Specification of Letters Patent. Patented Mar. 7, 1911.

Application filed April 27, 1910. Serial No. 558,072.

To all whom it may concern:

Be it known that I, EDWARD E. HUNSTABLE, a citizen of the United States of America, residing at Muskogee, in the county of Muskogee and State of Oklahoma, have invented certain new and useful Improvements in Street Registers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to devices by means of which the names of streets are displayed as a street car arrives at a street.

The invention has especial reference to that class of devices which are employed in the street cars, by means of which the name of a street is automatically displayed as the car approaches the cross street.

The invention has for its object to provide an improved device of this kind which is especially adapted for electric cars, and by means of which the name of each street will be disclosed as the cars approach the cross street.

In carrying out the invention, the apparatus for displaying the name of a street is preferably inclosed in a portable box which may be hung up in a car and electrically connected with the electric circuit of the car, and which is so electrically operated that the name of each street, as the car approaches the cross street, will be automatically displayed and then moved out of the way.

Referring to the accompanying drawings: Figure 1 is a view in perspective of a portable casing inclosing mechanism for displaying the name of a street and detachably suspended in a car by electrical connection. Fig. 2, Sheet 2, is a side view of the invention showing the casing in which it is inclosed in longitudinal section. Fig. 3 is an end view of the device in vertical section on the line x—x of Fig. 2. Fig. 4 is a diagrammatic view showing the electric circuits of the apparatus. Fig. 5 is an enlarged detail view showing an electric switch employed in the device. Fig. 6 is an end view in vertical section on the line y—y of of Fig. 2. Fig. 7 is a vertical cross section on the line z—z of Fig. 2. Fig. 8 is a detail perspective of the means for driving the curtain.

In carrying out the invention, a casing 1, preferably consisting of a portable rectangular box of sheet metal or other suitable material is provided and has eyes 2, 2′ and 2^2, by means of which it is suspended on hooks 3, 3′ and 3^2, secured to the wall 4 of the street car. Within the casing 1 is mounted an inner casing 5 in which is inclosed and supported the street name displaying device and its operating mechanism, which consists of a pair of rotary rolls or shafts 6 having their ends supported in the end walls of the casing 5, said rolls 6 having wound thereon a band 7 on which is inscribed the names of the streets at intervals thereon, said band 7 unwinding from one of the rolls 6 and passing over rolls 8, extending across the casing adjacent to its front side, in which is located a window 9, through which the names of streets are successively displayed as the band 7 moves past the window 9, and is wound up on the other roll.

In order to operate the rolls 6, a suitable mechanism is provided, and as here shown, preferably consists of a pair of toothed wheels 10, each mounted on one end of one of the rolls 6 which projects through one of the end walls in the casing 5, said toothed wheels 10 being adapted to be engaged with a toothed pinion 11, slidably mounted on a shaft 11′ and moved into and out of position to engage one or the other of the toothed wheels 10 by means of a lever 12 pivoted to a bracket arm 13 on the inside of the casing 5, said lever 12 projecting through a slot 14 in the side of the casing, whereby its projecting end may be manipulated to move the toothed wheel 11 on the shaft 11′ into engagement with one or the other of the toothed wheels 10, accordingly as it is desired to reverse the direction of travel of the band 7. The shaft 11′ is provided at its upper end with a toothed wheel 15, which meshes with a pinion 16 on a shaft 16′ on which shaft is a toothed wheel 17, over which passes an endless chain 18, which engages the toothed wheel 19, on the shaft 19′, having a toothed wheel 19^2, over which extends an endless chain 20 engaging a toothed wheel 21 on the end of a shaft 22 connected with a motor 22′. One end of each of the shafts 8 has mounted thereon outside of the casing 5 a toothed wheel 23, over which extends an endless chain 24, which passes over a toothed wheel 25 having at one side of its periphery an arm 26 pivoted thereto at one end, and having a projection 27 at its other end, which extends through an insulated ring 28 on a

switch lever 29, pivoted at one end at 30, and having its other end adapted to alternately contact with contacts 31, said switch lever 29 being operated by projections 32 thereon, which are alternately brought into contact with the ring 28 as the arm 26 is reciprocated by the rotation of the toothed wheel 25.

The circuits connecting the electric motor with the main supply wires 41 are as follows: A conducting wire 33 extends from one of the main supply wires 41 to the electric motor 22′, and from thence through the conducting wire 33′ and the eye and hook 2′ and 3′, conducting wire 34 to a switch 35 having a switch arm 36 movable into contact with either a contact 37 or a contact 38, and when in contact with the contact 37 completing the circuit through the conducting wire 45, hook 32, eye 2², conducting wire 44, contact 31, switch arm 29 and conducting wire 42. Or if the switch arm 36 is in contact with the contact 38 through conducting wire 39, hook 3, eye 2, branch wire 40 to the other contact 31, and through the switch arm 29 in contact therewith, and conducting wire 42 to main line wire 41.

The switch arm 36, in the position shown in Fig. 4 has broken the electric circuit, and the sign-displaying mechanism is at rest. When it is desired to operate the device, the circuit is closed by moving the arm 36 into contact with the contact 37 or 38. The band 7, moving past the window 9 by the operation of the mechanism driven by the electric motor, continues in motion as long as the switch arm 29 is in contact with one of the contacts 31. While the band 7 continues to move, the endless chain 24 being moved by the pulleys 23, operates the toothed wheel 25, and as the latter revolves, the arm 26 and its extension 27 causes the switch arm 29 to be moved from one contact 31 to the other. When the switch arm 29 is thereby brought from one of the contacts 31 to the other it is brought in contact with a dead wire, the electric circuit is broken and the operating mechanism stopped, the switch arm 36 is out of contact with the contact 37 thereby bringing the band 7 to a stop with the name of the street to which the car is approaching, the toothed wheel 25 continuing to revolve by its momentum, the contact arm 29 will be brought in to contact with the other contact 31, and the band 7 will be caused to pass the window 9 when the name of the next street is brought into view.

It will be seen that by means of this invention, the name of each street will be brought automatically into view and remain in sight until the street is reached and then the following or succeeding street will be similarly brought into view and remain in sight until the street is reached.

The rollers 8 are provided near each end thereof with a plurality of cogs 8ª, which cogs are adapted to engage the apertures 7ª formed along each edge of the curtain 7. By having the cogs engage the apertures, as shown in Fig. 8, it will be obvious that the curtain will be prevented from slipping and will at all times be controlled while passing over the rollers 8.

Having described the invention, I claim:

In an apparatus of the character described, a casing having an opening in one side, rollers mounted in said casing, a band containing the names of streets and mounted on said rollers and extending past said opening, a gear mechanism connected with said rollers, means for reversing said gear mechanism, an electric motor for driving said gear mechanism, and an endless chain and toothed wheels connected with said rollers, a toothed wheel connected with said endless chain and having a pivoted arm, an electric circuit in which said electric motor is located, and an electric control switch located in said circuit and connected with said arm on said toothed wheel, whereby said switch is operated to automatically break said circuit and stop the mechanism when a name is displayed.

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

EDWARD E. HUNSTABLE.

Witnesses:
OSCAR F. JOHNSON,
E. W. MERCHANT.