

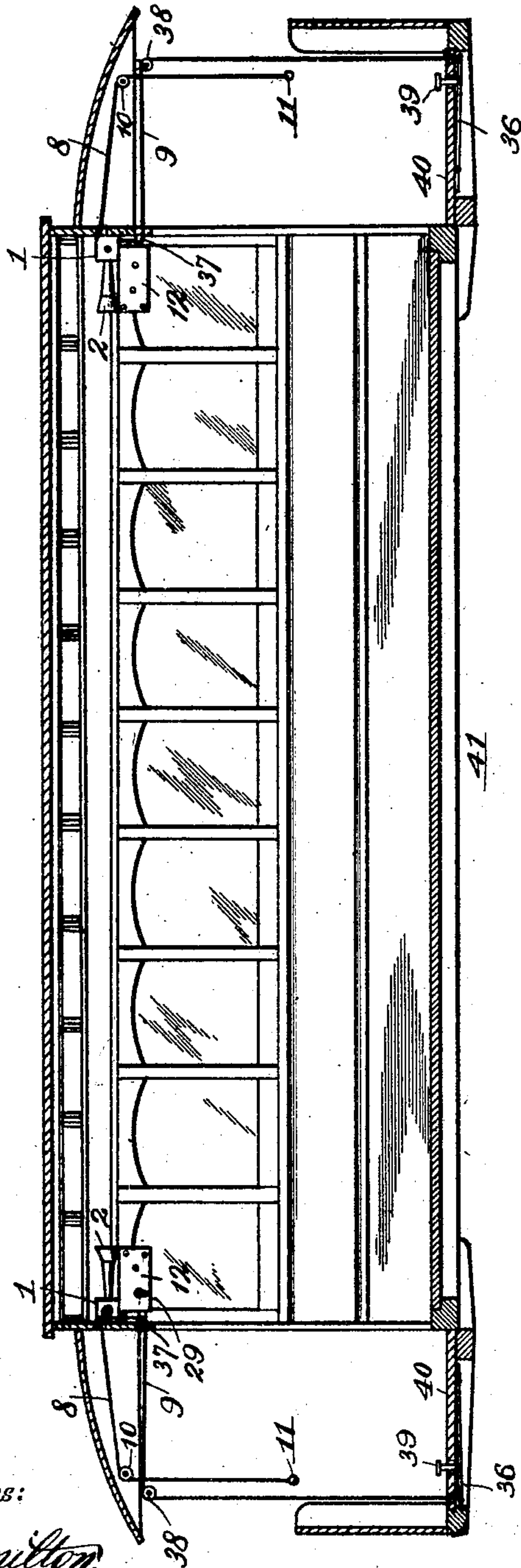
No. 855,393.

PATENTED MAY 28, 1907.

R. B. EUBANK, JR.
ANNUNCIATOR FOR CARS.
APPLICATION FILED JULY 28, 1906.

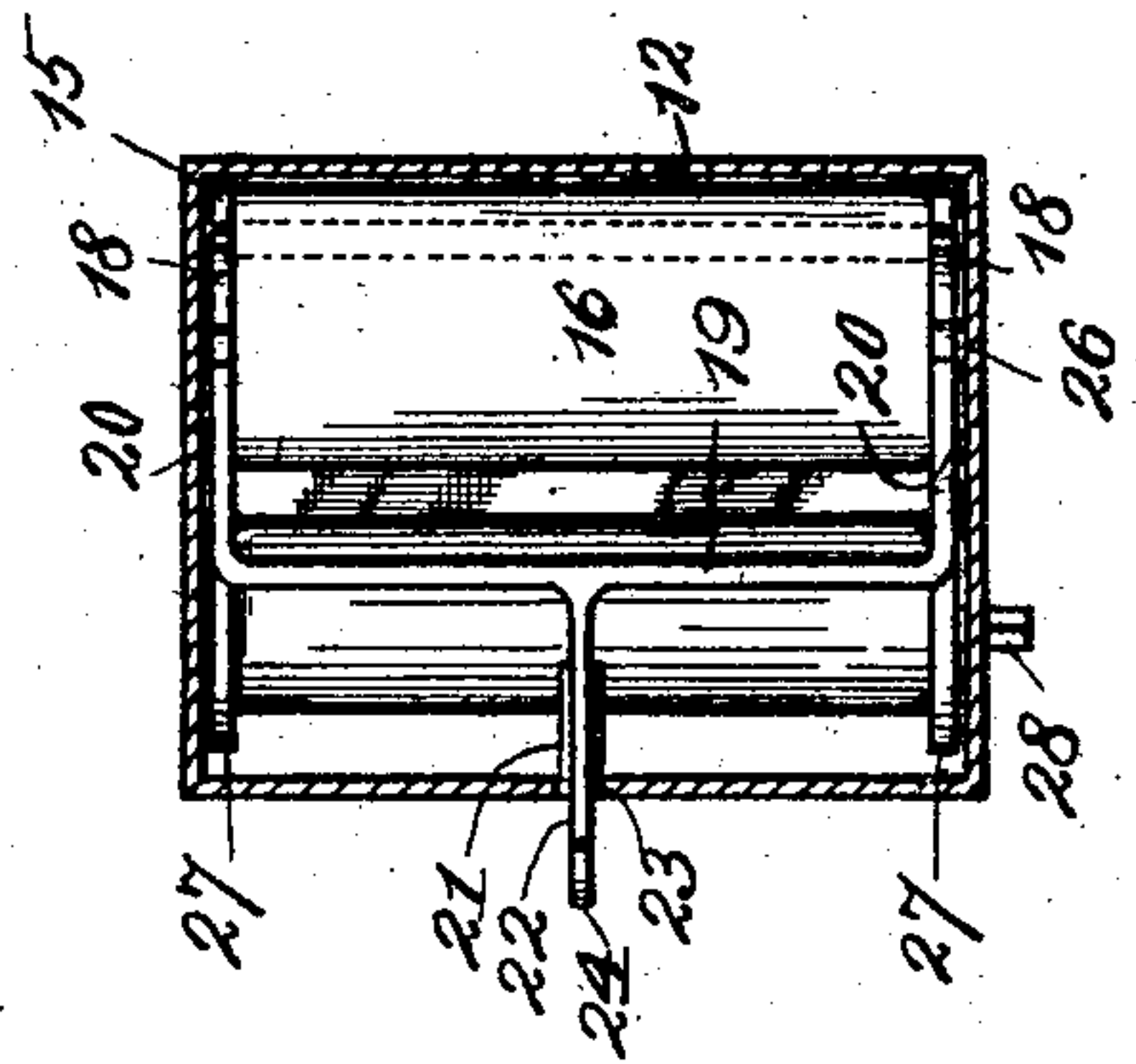
2 SHEETS—SHEET 1.

Fig. 1



Witnesses:
R. Hamilton
J. M. M.

Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 2.

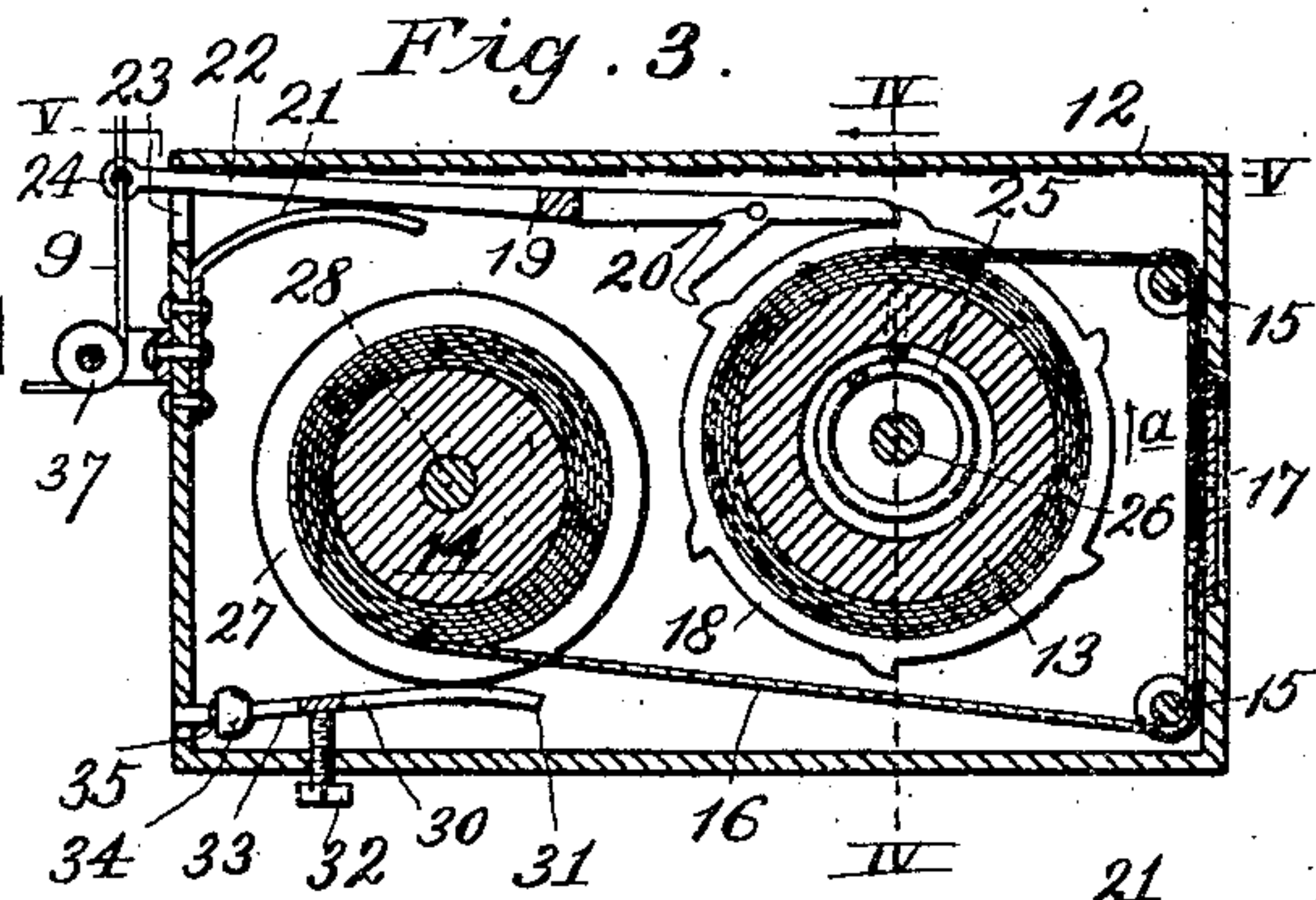
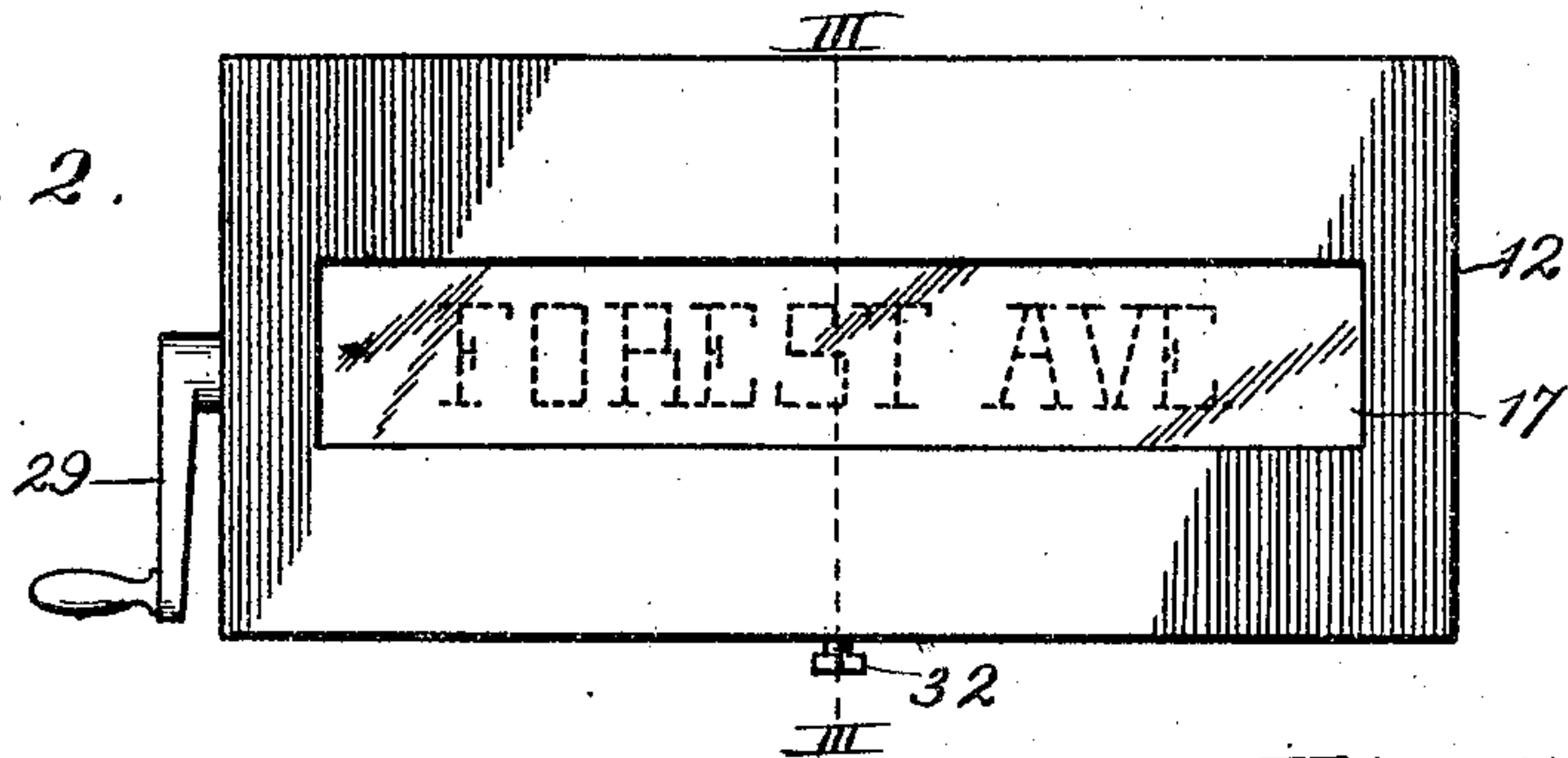


Fig. 7.

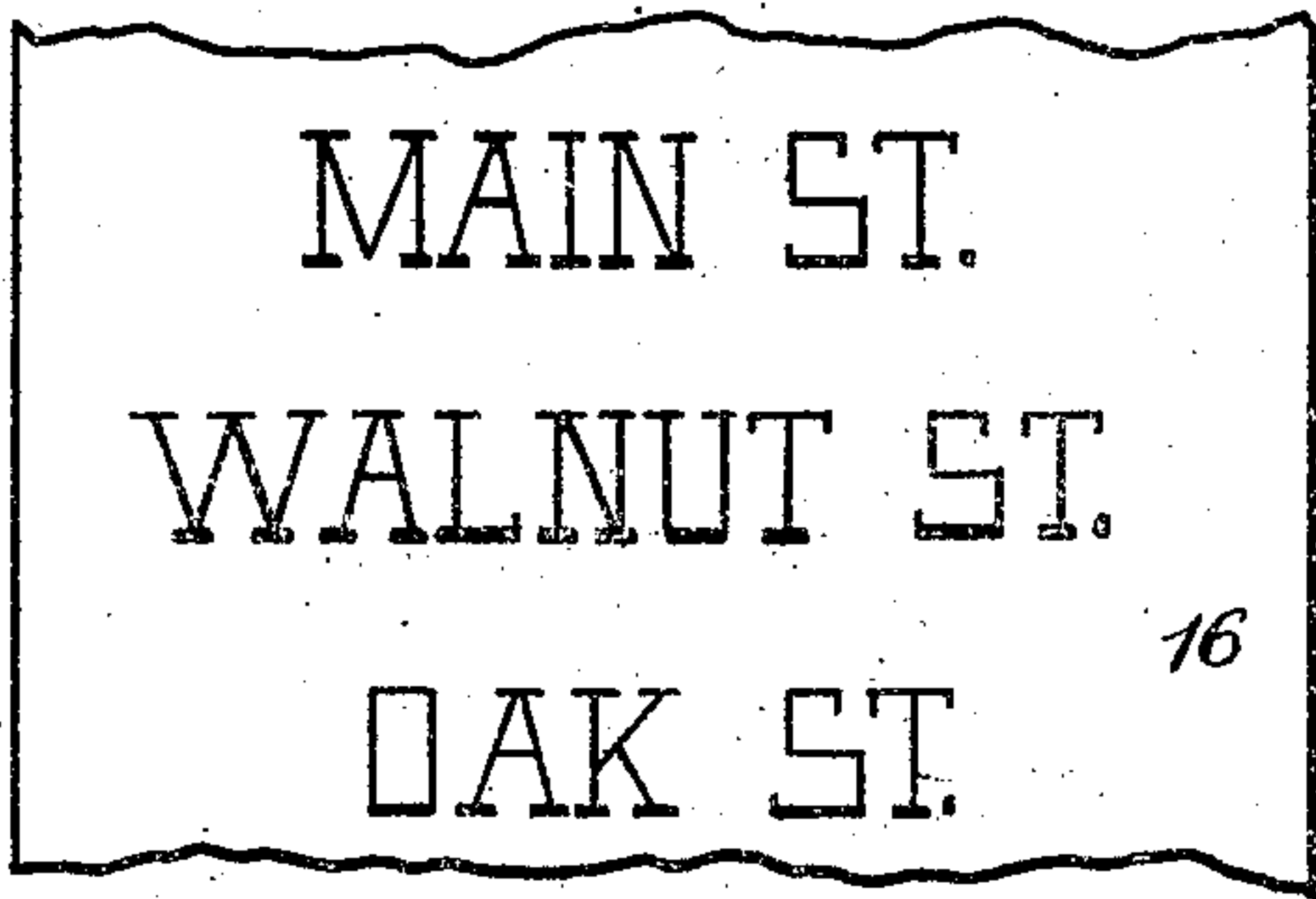


Fig. 4.

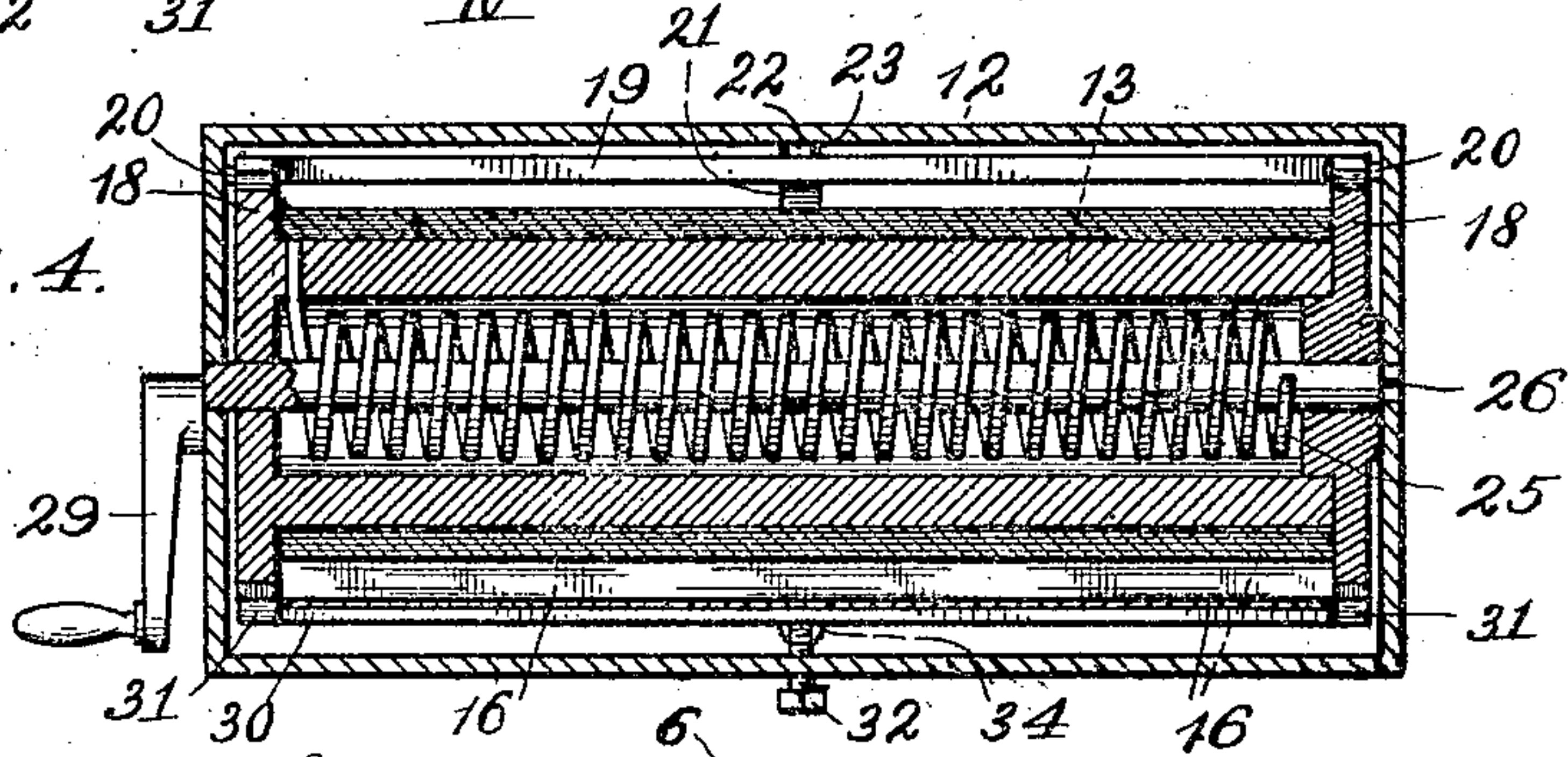
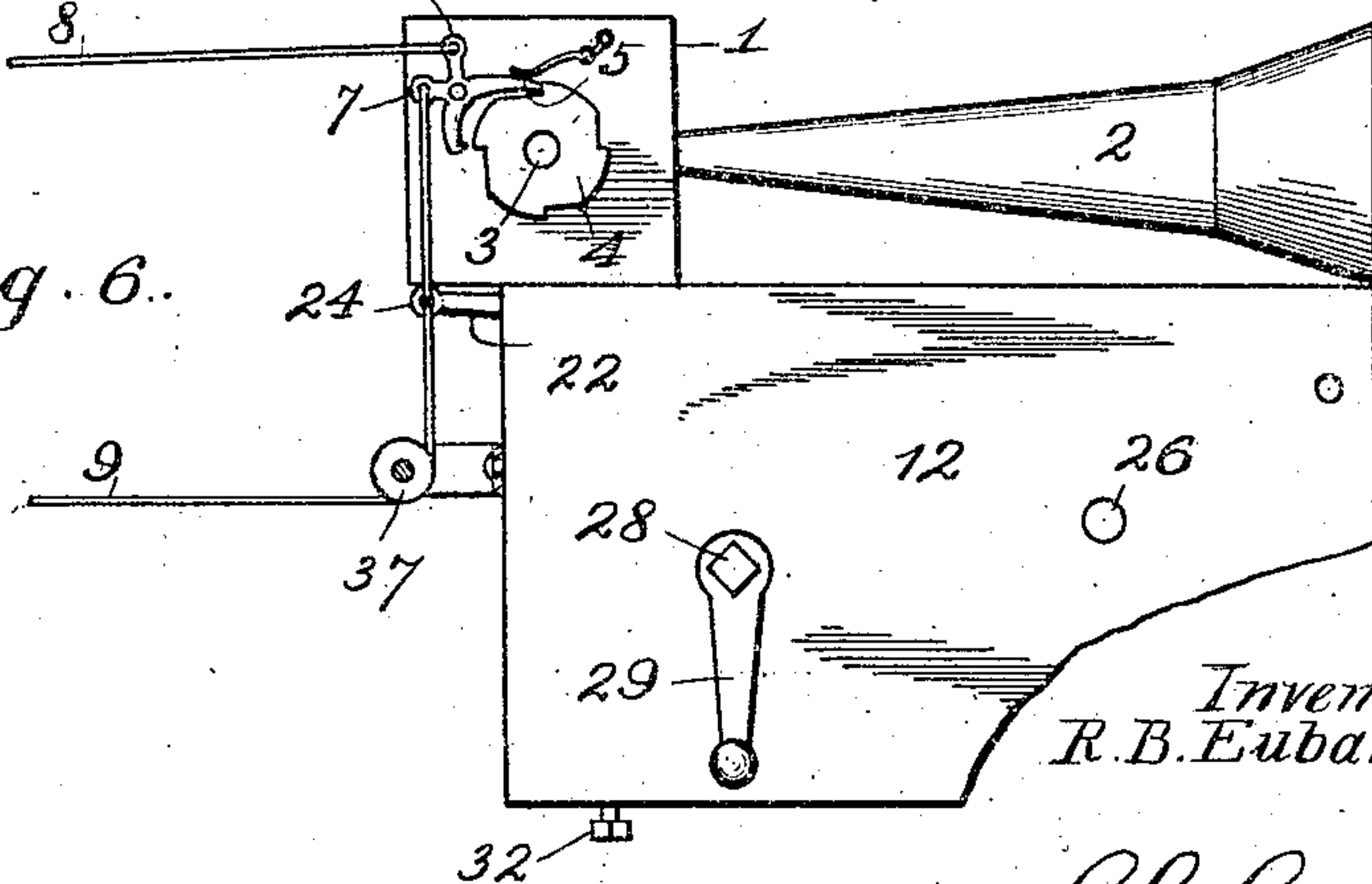


Fig. 6.



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UNITED STATES PATENT OFFICE.

REUBEN B. EUBANK, JR., OF KANSAS CITY, KANSAS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE EUBANK INDICATOR MANUFACTURING COMPANY, A CORPORATION OF MISSOURI.

ANNUNCIATOR FOR CARS.

No. 855,393.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed July 28, 1905. Serial No. 271,582.

To all whom it may concern:

Be it known that I, REUBEN B. EUBANK, Jr., a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Annunciators for cars, of which the following is a specification.

My invention relates to improvements in annunciators for cars; and my object is to produce an apparatus of this character for announcing street crossings or railway stations, the invention being equally adaptable for use on street cars and passenger trains.

The invention consists of a phonograph for successively calling street crossings, or railway stations, a device containing the names of said crossings or stations, and means for operating the phonograph and said device so that the names of the crossings may be simultaneously called and displayed, or when desired the phonograph may be operated independently of the display device, so that it will repeat a name while the display device remains inoperative.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings, in which:—

Figure 1 shows a longitudinal section of a car provided with my invention. Fig. 2 is a front elevation of the display device forming part of said invention. Fig. 3 is a central vertical section of same taken on line III—III of Fig. 2. Fig. 4 is a transverse section of same taken on line IV—IV of Fig. 3. Fig. 5 is a sectional plan view taken on line V—V of Fig. 3. Fig. 6 is an enlarged side elevation partly broken away, showing the manner in which the phonograph and the display device are connected. Fig. 7 is an enlarged broken elevation of a portion of the ribbon containing the names of the street crossings, or railway stations.

In said drawings, 1 designates a phonograph of usual or preferred construction provided with a speaking-trumpet 2 and a motor-shaft 3.

4 designates a ratchet-wheel rigidly mounted upon one end of the motor-shaft and engaged by a spring-pressed pawl 5. The indentations on the record of the phonograph are arranged to repeat the name of each street-

crossing a suitable number of times and call the name of the successive street-crossings, the spaces between the teeth of the ratchet-wheel 4 being of sufficient length to permit the longest name being called between the time of the disengagement of pawl 5 from one of the teeth and its engagement with the following tooth, it being understood that the instant said pawl is disengaged from a tooth the motor will rotate the record until the operation of the motor is stopped by the pawl engaging the following ratchet-tooth.

Pawl 5 has two terminals 6, 7, arranged at right-angles to each other for the reception of cables 8, 9, respectively, the former of which passes outwardly through the end of the car, thence downwardly over a pulley 10 and terminates within convenient reach of the motorman, the terminal of said cable being provided with a handle 11.

The display device consists of a casing 12 and the ribbon carrying and controlling mechanism all of which is preferably arranged beneath the phonograph and its trumpet so that the apparatus will be compact and occupy but little space. The ribbon carrying mechanism consists of two spools 13, 14 and a pair of guide-rollers 15 which latter cause the vertical portion of the ribbon 16 to travel close to the glazed opening 17 in the front side of the casing so that as the names on said ribbon successively appear at the opening they may be easily read by the passengers.

Spool 13 is tubular in form and provided at its ends with ratchet-wheels 18, normally engaged by the bifurcated ends of a Y-shaped pawl 19 fulcrumed upon pins 20 and normally held in engagement with the ratchet-wheel by means of a spring 21 pressing upwardly beneath its rearwardly extending arm 22 which projects through slot 23 in the rear wall of the casing. Arm 22 is provided at its rear terminal with an eye 24 to which cable 9 is attached.

From the foregoing description it will be understood that the phonograph and the display device may be simultaneously operated by pulling on cable 9, or the phonograph may be operated alone by pulling on cable 8.

Ribbon 16 is attached at its ends to spools 13—14 and is intermittently wound upon the

former whenever pawl 19 is disengaged from ratchet-wheel 18, the names on the ribbon being arranged to correspond with the spaces between the ratchet-teeth so that when the latter move the distance of one of said spaces a new name will appear at opening 17.

Spool 13 is automatically rotated in the direction of arrow *a* by an internal spring 25 secured at one end to said spool and at its opposite end to a stationary shaft 26 upon which the spool is journaled, said shaft being secured at its ends in the sides of the casing.

Spool 14 is provided at its ends with flanges 27 which, like ratchet-wheels 18, are larger in diameter than the spool in order to properly guide the ribbon thereon. Spool 14 is rigidly mounted upon a shaft 28 journaled in the opposite sides of the casing and provided at one end with a crank 29 affording a convenient means for rotating the spool so that the ribbon may be wound thereon from spool 13 when the car reaches the end of a trip. In order to keep the ribbon taut while it is being unwound from spool 14 I retard the movement of the latter by means of a Y-shaped brake 30 having two spring-members 31, adjustably held in contact with flanges 27, by means of a set-screw 32, so that the friction between said spring-members and the flanges may be regulated as desired. The rearwardly projecting arm 33 of the friction-brake has a socket 34 snugly embracing a ball 35 so that said brake may accommodate itself to flanges 27, consequently if one of said flanges should wear faster than the other the spring-members 31 will continue to bear with equal force thereon.

By making pawl 19 and the friction-brake Y-shaped so that they will bear at opposite ends of their respective spools the latter will be held parallel to each other and cause the ribbon to properly wind and unwind therefrom, as the wear on their bearings will be equal.

When the apparatus is applied to a street-car, as shown in Fig. 1, cable 9 is guided to a lever 36 by means of pulleys 37 38 so that it may be operated by a pedal 39 extending upwardly through platform 40 of the car 41.

By arranging cables 8 and 9 as shown, it is obvious that the motorman may operate the apparatus without having his attention directed from prospective passengers or the road in front of the car.

When the apparatus is applied to the cars of a passenger train, cables 8 and 9 will, preferably, be attached to cables extending through all of the passenger cars so that the apparatus of each car may be simultaneously operated by the brakeman or conductor while on any one of said cars.

In practice, an apparatus will be placed at each end of a car, consequently when said car is traveling in either direction the apparatus in front of the passengers may be operated so

that the attention of said passengers will be directed, by the phonograph, to the names of the street-crossings as they are consecutively shown by the display device.

Although I have described and shown the apparatus applied to a car, it may be used for a variety of purposes, for instance, it may be used in depots for announcing the time of the arrival and departure of trains; it may also be used to advantage for making announcements in theaters or other public buildings.

While I have shown the preferred construction of my invention I, of course, reserve the right to make such changes as properly fall within the spirit and scope of the appended claims.

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

1. In an apparatus of the character described, a casing having an opening, spools journaled in said casing, a ribbon arranged to be alternately wound upon the spools, said ribbon containing suitably-spaced information to be consecutively displayed at the opening, means for operating the spools, a brake having two members engaging the ends of one of said spools, a universal joint upon which the brake is mounted so that its two members may bear with equal pressure upon the spool, and a device for simultaneously adjusting said members.

2. In an apparatus of the character described, a casing having an opening, spools journaled in said casing, a ribbon arranged to be alternately wound upon the spools, said ribbon containing suitably-spaced information to be consecutively displayed at the opening, means for operating the spools, a brake having two resilient members engaging the ends of one of the spools, a universal joint upon which the brake is mounted so that its two members may bear with equal pressure upon the spool, and a set-screw for simultaneously adjusting said members.

3. In an apparatus of the character described, a display device consisting of a casing having an opening, spools journaled in said casing, flanges formed integral with the ends of one of said spools, guide-rollers journaled in the casing near its opening, a ribbon arranged to be alternately wound and unwound from the spools and travel around the guide-rollers, said ribbon containing suitably spaced names to be consecutively displayed at the opening in the casing, means for rotating the spools, spacing mechanism for controlling the rotation of the spool so the latter will move the ribbon step by step, distances corresponding to those at which the names are placed upon said ribbon, a Y-shaped brake having two spring-members bearing against the flanges, a ball and socket joint connecting said brake to the

casing, and a set-screw for adjusting the brake.

4. In an apparatus of the character described, the combination of a phonograph arranged to call a list of names, a device for displaying said names, a ratchet-wheel mounted upon the motor-shaft of the phonograph for the purpose of stopping the phonograph after it has called each name, a pawl normally

held in engagement with said ratchet-wheel, and a cable attached to said pawl and the controlling mechanism of the display device.

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

REUBEN B. EUBANK, JR.

Witnesses:

F. G. FISCHER,
J. MOORE