

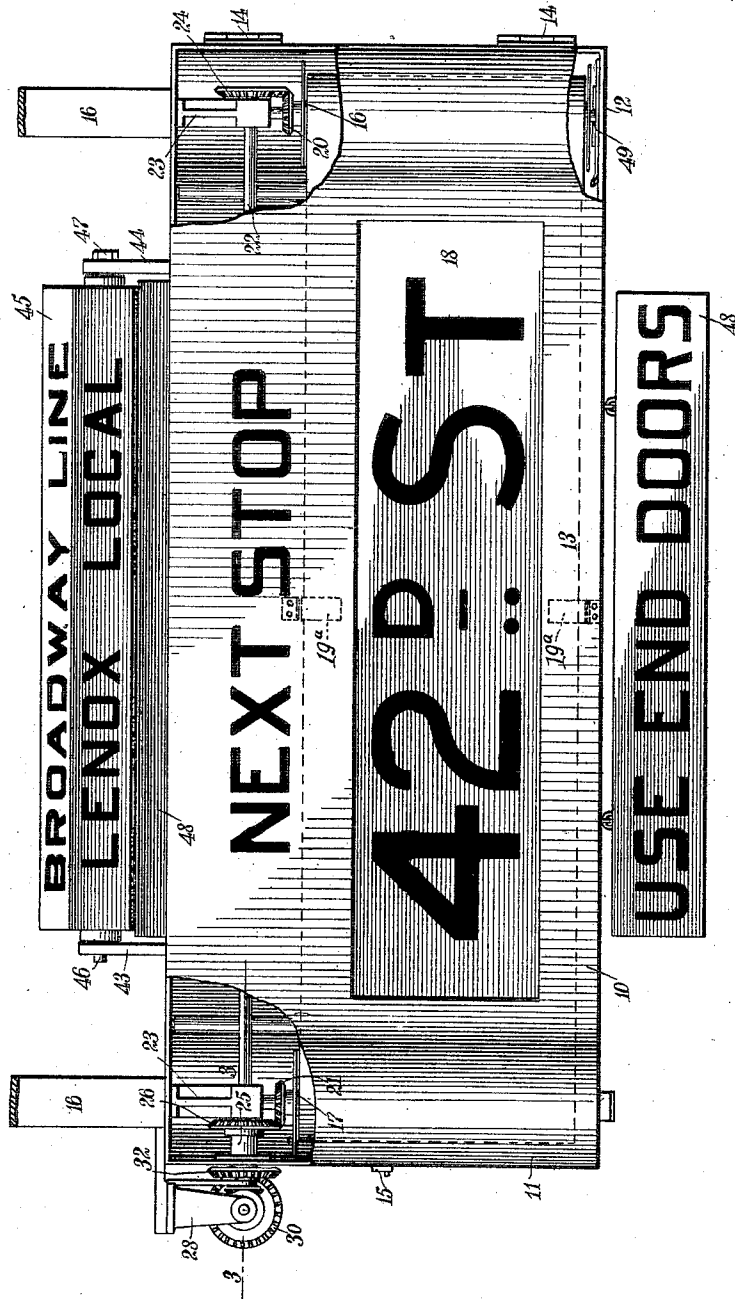
983,145.

B. KENDE.
STATION INDICATOR,
APPLICATION FILED MAY 2, 1910.

Patented Jan. 31, 1911.

2 SHEETS—SHEET 1.

Fig. 1



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INVENTOR
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ATTORNEYS

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2 SHEETS-SHEET 2.

Fig. 2.

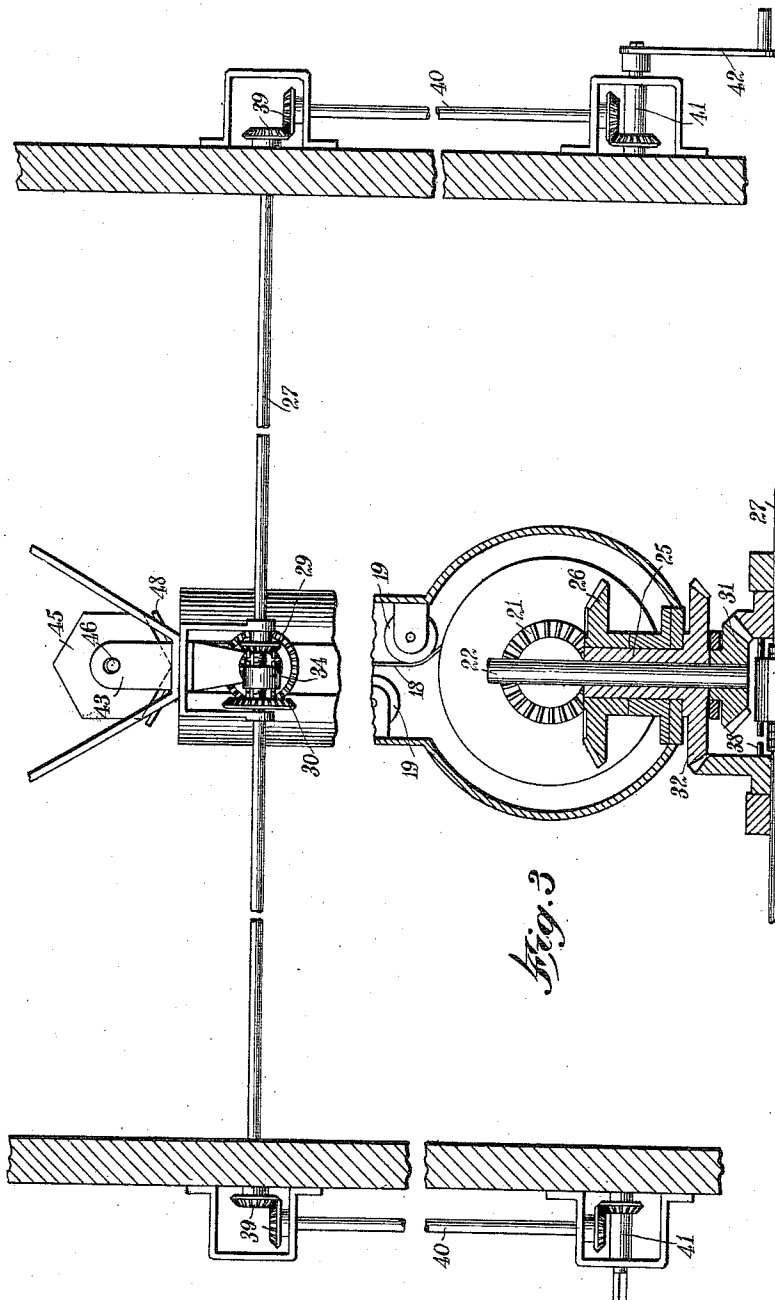
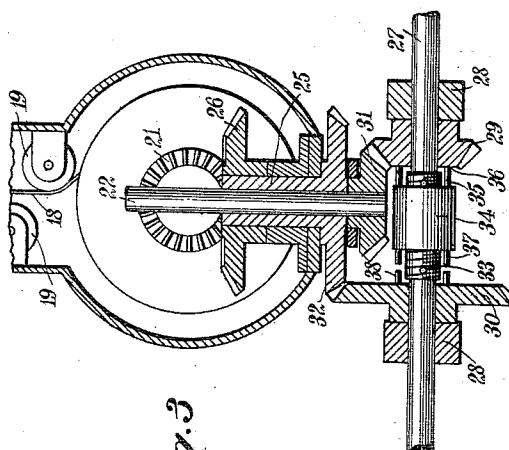


Fig. 3.



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UNITED STATES PATENT OFFICE.

BERTHOLD KENDE, OF NEW YORK, N. Y.

STATION-INDICATOR.

983,145.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed May 2, 1910. Serial No. 558,798.

To all whom it may concern:

Be it known that I, BERTHOLD KENDE, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Station-Indicator, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in indicators for use on passenger vehicles, to inform the passengers as to the name of the next succeeding place or station at which the vehicle will stop.

My invention is especially adaptable for use on cars and is of a form particularly designed to be secured in position transversely of the car adjacent the ceiling thereof, whereby the information imparted by the indicator may be readily seen by persons at either end of the car.

In my improved station indicator, a tape or band is employed upon which the names of the stations are successively printed, and my invention relates particularly to the means for supporting this tape or band and causing it to travel in either direction by the use of a single operating member.

The invention consists in the combination of parts and general arrangement herein-after set forth and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a front elevation of an indicator constructed in accordance with my invention, a portion of the casing thereof being broken away; Fig. 2 is a vertical section through the car lengthwise thereof and showing the upper portion of the indicator in end elevation; and Fig. 3 is a horizontal section on an enlarged scale, on the line 3—3 of Fig. 1.

In my improved station indicator, I employ a casing 10, preferably of sheet metal and having two vertically-disposed tubular portions 11 and 12, adjacent opposite ends thereof and connected together by a body portion 13, the walls of which are spaced a short distance apart and extend substantially parallel. The side wall of the body portion and one-half of each terminal tubular portion, is preferably formed of a single sheet of metal and constitutes a clo-

sure which may be opened to gain access to the interior of the casing. As shown, suitable hinges 14 connect the two halves of the terminal tubular portion 12, while a catch 15 connects the two halves of the opposite terminal tubular portion 11. The casing is suspended from the ceiling of the car in any suitable manner, as, for instance, by brackets 16, and is of a length somewhat less than the width of the car. In fact, the casing may be of any length desired, but is of such size that the names of the stations may be clearly read from the ends of the car. Each side wall 13 is provided with an opening therethrough, and in the two tubular terminal portions are two spools 16 and 17, to which the opposite ends of the tape or band 18 are connected. This tape or band is movable lengthwise past the openings in the two side walls, and has the names of the successive stations printed thereon.

Within the casing and upon the opposite sides thereof along the body portion, are suitable rollers 19 19^a, which guide the band and hold it midway between the side walls and avoid undue friction during the longitudinal movement of the band. The rollers 19 adjacent the spools are each of a length substantially equal to the length of the spool, but the rollers 19^a opposite the openings in the side walls are disposed only above and below said openings.

One of the main features of my invention is the means employed for rotating either spool desired and liberating the other spool, so as to move the band in either direction. As shown, the two spools 16 and 17 have bevel pinions 20 and 21, adjacent their upper ends, and a shaft 22 extends lengthwise of the casing above the band. This shaft is supported in suitable hangers 23, and upon one end thereof there is a bevel pinion 24 for engagement with the bevel pinion 20 of the spool 16. At the opposite end of the shaft is a loose sleeve 25 having a bevel pinion 26 thereon for engagement with the bevel pinion 21 of the spool 17. Outside of the casing is a clutch mechanism, shown particularly in Fig. 3, and by means of which either the shaft 22 or the sleeve 25 may be rotated and the other liberated. The main operating shaft 27 extends lengthwise of the car adjacent the sleeve and passes one end of the station indicator casing. This shaft is supported in suitable hangers 28 opposite the end of the casing and between these

hangers are two loosely mounted bevel gears 29 and 30. The shaft 22 extends through the center of the casing and has a bevel gear 31 which intermeshes with the bevel gear 29, and the sleeve 25 extends through the end of the casing and has a bevel gear 32, which intermeshes with the bevel gear 30. Between the two bevel gears 29 and 30, there is provided means which will engage with either the gear 29 or the gear 30, to lock it to the shaft 27. As shown, the shaft 27 has a threaded portion 33, upon which there is a collar 34. Pins 35 extend outwardly from one end of this collar for engagement with pins 36 on the gear 29, the pins 37 extend outwardly at the opposite end for engagement with pins 38 on the gear 30. As the shaft 27 is rotated in one direction, the sleeve 34 tends to move lengthwise toward the gear wheel 29 until the pins 35 engage with the pins 36 and lock the two together and prevent further relative rotation of the shaft 27, the collar 34 and the gear 29. Upon rotating the shaft 27 in the opposite direction, the collar moves lengthwise toward the gear 30, and the pins 37 and 38 interlock to cause the gear 30 to rotate with the shaft. Thus by turning the shaft 27 in one direction, the spool 16 may be rotated to pull the band in one direction, while by rotating the shaft 27 in the opposite direction the other spool will be rotated and the band pulled in the opposite direction. No shifting mechanism of any kind is required, as the clutch operates entirely automatically, and the direction of rotation of the shaft 27 is the sole means for controlling the direction of movement of the band. The shaft 27 may be rotated by any suitable mechanism, but preferably it extends lengthwise of the car to the ends thereof, and is provided at each end with bevel gear connections 39 with a vertical shaft 40, extending downwardly to within convenient reach of the car conductor or other employee of the transportation company. Each shaft 40, at its lower end, may have bevel gear connections with a short outwardly-extending stub shaft 41, to which a handle 42 may be readily connected for rotating it. The handle is preferably removable, so that persons other than those properly authorized cannot operate the indicator.

The station indicator is preferably also constructed so as to indicate the name of the line upon which the car is traveling, in order that a passenger can readily ascertain whether or not he is on the right line. As shown, the top wall of the casing is provided with two upwardly-extending brackets 43 and 44, and between these brackets is disposed a multi-sided indicator 45. This indicator is illustrated as being six-sided, and at one end it has an axial extension 46, for engagement in a round opening in the bracket 43, and at the opposite end it has a hex-

agonal axial extension 47 for engagement in a vertical slot in the bracket 44. This hexagonal extension 47 prevents rotation of the indicator, and such rotation is also prevented by two upwardly-extending baffles or shields 48 carried by the top of the casing 10 and concealing the two lower sides of the indicator. When it is desired to rotate the indicator to present new faces to view, it is necessary to raise the extension 47 out of the slot in the bracket 44 to such a height that the indicator may be freely rotated. The opening in the bracket 43 is preferably slightly larger than the extension 46, so as to permit this angular movement.

When my improved device is supported adjacent the horizontal line of vision, the indicating member 45 will show two names one above the other, but with the device in place in a car and at an elevation above the line of vision of the passengers, the name on the upper side of the member 45 will be practically concealed from view and only one name will appear.

The casing may serve to detachably support a further indicator for giving any special directions to the passengers. As illustrated, I suspend a plate 48 from the under side of the casing and extending lengthwise thereof, so that the opposite sides will be visible to the persons at opposite ends of the car.

When it is desired to change the line of travel of the car upon which my improved device may be employed, it is only necessary to remove the indicator 45 and to remove the band 18. To remove the band the entire band is transferred to one spool, for instance, the spool 16, and the opposite end of the band is detached from the spool 17. The spool 16 is preferably removable from the casing. Any suitable form of bearings may be provided for this spool, for instance, a detachable bearing 49, at the lower end, which when removed permits the lateral movement of the lower end of the spool and the removal of the upper end of the axis of the spool from the support for the latter.

Various changes may be made in the construction of my improved device without departing from the spirit of my invention as set forth in the appended claim.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A station indicator for cars having a continuous band bearing the names of the successive stations, two spools to which the ends of said band are secured and upon either of which the band may be wound, a shaft extending lengthwise of the band between the spools, bevel gear connections between said shaft and one of said spools, a sleeve on said shaft adjacent one end thereof, bevel gear connections between said sleeve and the other

of said spools, a drive shaft extending transversely across the end of the first-mentioned shaft, bevel gear connections between said drive shaft and said first-mentioned shaft,
5 bevel gear connections between said drive shaft and said sleeve, the gears of said connections on said drive shaft being loosely mounted, and a clutch having threaded engagement with said drive shaft to move longitudinally of the latter and adapted to en-

gage with either of the loose gears for locking the same to the drive shaft.

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

BERTHOLD KENDE.

Witnesses:

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