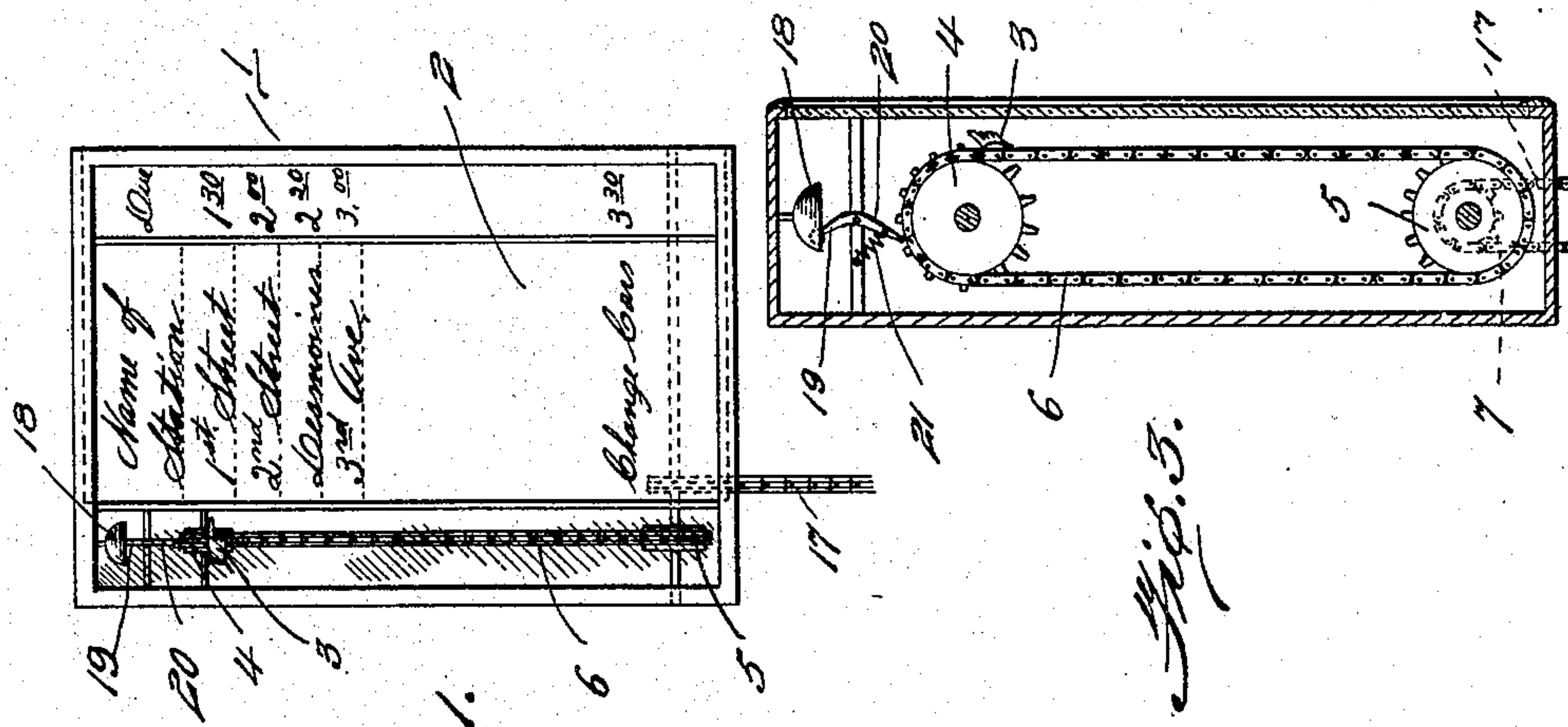
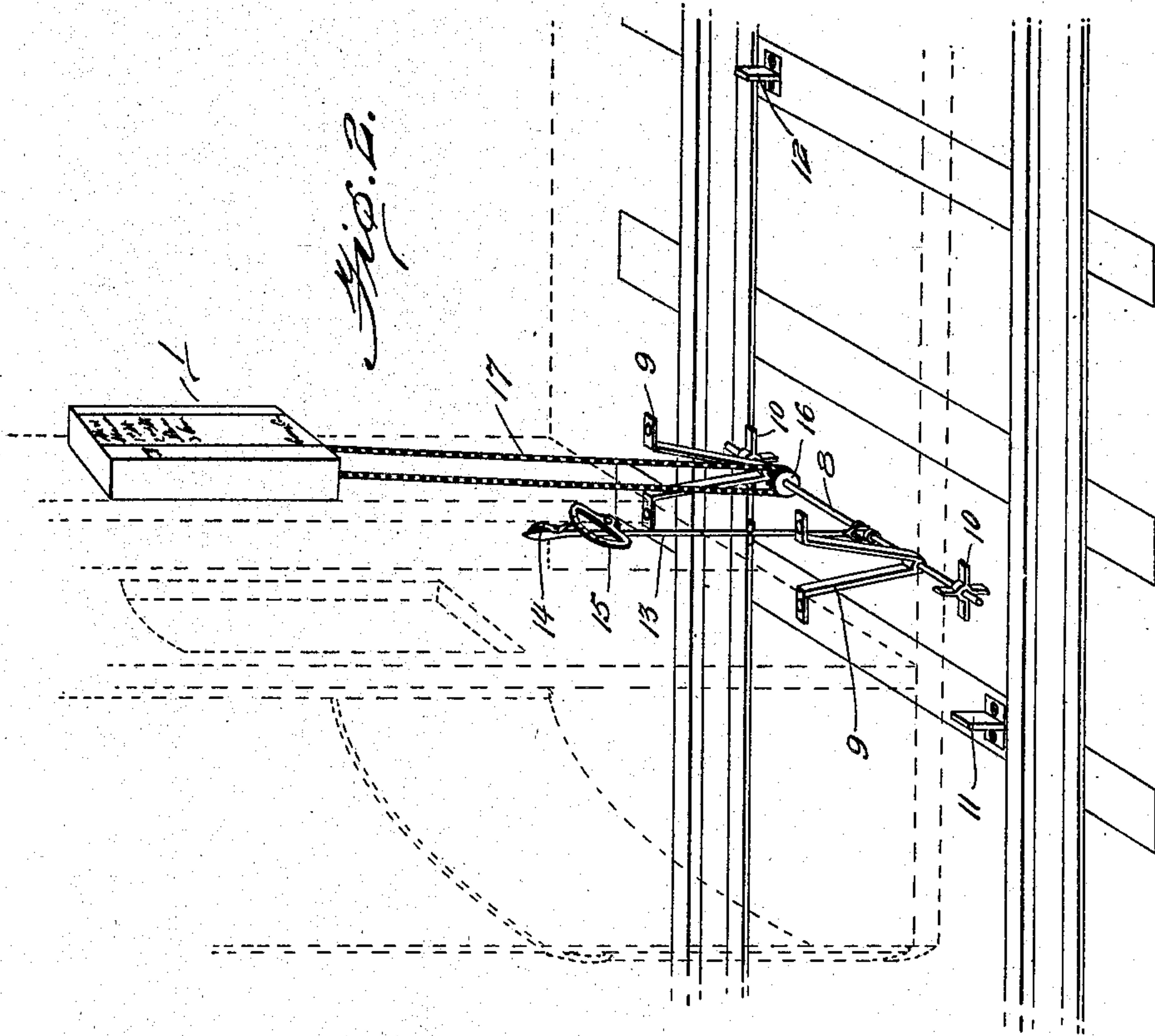


# INDICATOR FOR STREET RAILWAY COACHES.

APPLICATION FILED NOV. 23, 1907.

**911,666.**

Patented Feb. 9, 1909.



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# UNITED STATES PATENT OFFICE.

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## INDICATOR FOR STREET-RAILWAY COACHES.

No. 911,666.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed November 23, 1907. Serial No. 403,570.

*To all whom it may concern:*

Be it known that I, EMANUEL MILLER, a citizen of the United States, and resident of Primghar, in the county of O'Brien and State of Iowa, have invented certain new and useful Improvements in Indicators for Street-Railway Coaches, of which the following is a specification.

This invention relates more particularly to those indicators used on street cars to announce the names of the different streets as they are approached.

The object of the invention is to provide simple and efficient, automatically-operated means for indicating the name of every street or station as it is approached, whereby passengers, by watching the indicator, may know when they reach the street or station at which they wish to get off.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 represents a front elevation of an indicator constructed in accordance with this invention; Fig. 2 is a perspective view of a portion of a street railway track, showing the outline of a car provided with this improved indicator and means for operating it; and Fig. 3 is a vertical section through the indicator casing.

In the embodiment illustrated an indicator, 1, is shown, which may be of any suitable size and composed of any suitable material, preferably being made about three feet long, two feet wide and six inches deep more or less. The face of this indicator is made of heavy cardboard or of any suitable material and is provided with the names of the various streets arranged in consecutive order thereon with the time at which the car is due at each of the stations or streets arranged opposite the name thereof. These faces, 2, are made removable to provide for the insertion of other plates or faces when the car is to be used on a different route. One side of this plate, 2, is provided with an open space preferably covered by a transparent material through which space the pointer, 3, is adapted to travel with a

step by step movement which is hereinafter described. 55

Mounted in the indicator box or casing, 1, preferably at opposite ends are two sprocket wheels, 4 and 5, over which an endless belt or chain, 6, is arranged to pass and which carries a hand or pointer, 3, hereinbefore referred to. A cog wheel, 7, is fixed to the shaft of the sprocket wheel, 5, for a purpose to be described. 60

A rod, 8, is secured to the bottom of the car by any suitable means, preferably by brackets, as 9, which are bolted or otherwise secured to the lower face of the car bottom and spaced transversely a suitable distance apart to support the rod, 8, which is slidably mounted therein for a purpose to be described. Mounted on opposite ends of this rod, 8, are two cog wheels, as 10, which may be provided with any desired number of cogs or arms, preferably four, which are adapted to engage with upwardly extending bolts or projections 11 and 12 arranged on opposite sides of the track, near the inner faces of the respective rails, and which are approximately the same height as the rail, being rigidly fastened to the ties. 70 75 80

A lever, 13, is secured at one end to the rod, 8, with its other end extending into the car and is provided with a dog or tooth, 14, adapted to engage with a segmental rack bar, 15, for locking the lever in adjusted position. This lever, 13, may be operated to move the rod, 8, longitudinally in either direction to arrange the cog at either end thereof for position for engagement with the projection, 11 or 12, at opposite sides of the track as may be desired. This is essential in order that the machine may indicate the next station or street as soon as it passes a station and hence the projection, 11 or 12, must be placed near the station so that when the car is going in one direction it is on one side of the track and when returning it is on the opposite side. 85 90 95

A cog wheel, 16, is mounted on the rod, 8, preferably about midway of the length thereof and a chain, 17, passes over this wheel, 16, and over the wheel, 7, connected with the sprocket wheel, 5, so that when one of the cog wheels, as 10, comes in contact with a projection, 11 or 12, the wheel is turned one-fourth around, which also turns 100 105



the rod, 8, and cog wheel, 16, causing the chain, 17, to move and turn the cog wheel, 7, which imparts motion to the endless belt or chain, 6, and moves the cog wheel, 4, a distance of one tooth, the pointer or hand, 3, being thereby moved from one station to the next as shown on the face-plate, 2, of the casing, 1. It will thus be seen that the hand or pointer, 3, moves up as the car is going in one direction and down as the car is returning or going in the opposite direction, thus indicating the name of the street as it is approached.

At the top of the casing, 1, is arranged a bell, 18; the striker, 19, thereof being in the form of a bell crank lever, one arm, 20, of which is arranged with its free end in position to engage the teeth of the cog wheel, 4, and is connected to the casing by means of a spring, 21, so that every time the cog wheel, 4, is moved to indicate an approaching street, the striker, 19, rings the bell to warn passengers of the approaching street.

The distance the hand or pointer, 3, is to move is determined by the size of the letters indicating the street names and is regulated by the size of the cog wheel, 16, as this turns one-fourth around on each engagement of the cog wheel, 10, with one of the projections or obstructions at the side of the track. The cog wheel, 7, must be of the same size as the cog wheel, 6.

From the fore-going description taken in connection with the accompanying drawings,

the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claim.

I claim as my invention:—

In a street and station indicator for railways the combination of a driving shaft supported from the bottom of the car and provided with means for engaging an obstruction upon the track for operating said shaft, an indicator casing arranged within the car and having the names of the streets arranged consecutively thereon, an endless belt arranged within said casing and provided with a pointer adapted to move into position opposite the name of a street on the movement of said belt, a cog wheel connected to operate said belt, a cog wheel corresponding in size to said first mentioned cog wheel and carried by the driving shaft, a chain connecting said cog wheels, and adjustable means for moving said shaft longitudinally to cause it to engage the obstructions at opposite sides of the track, as desired.

EMANUEL MILLER.

Witnesses:

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