

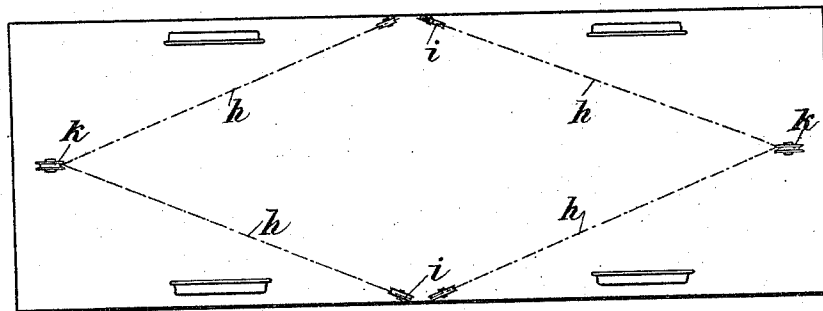
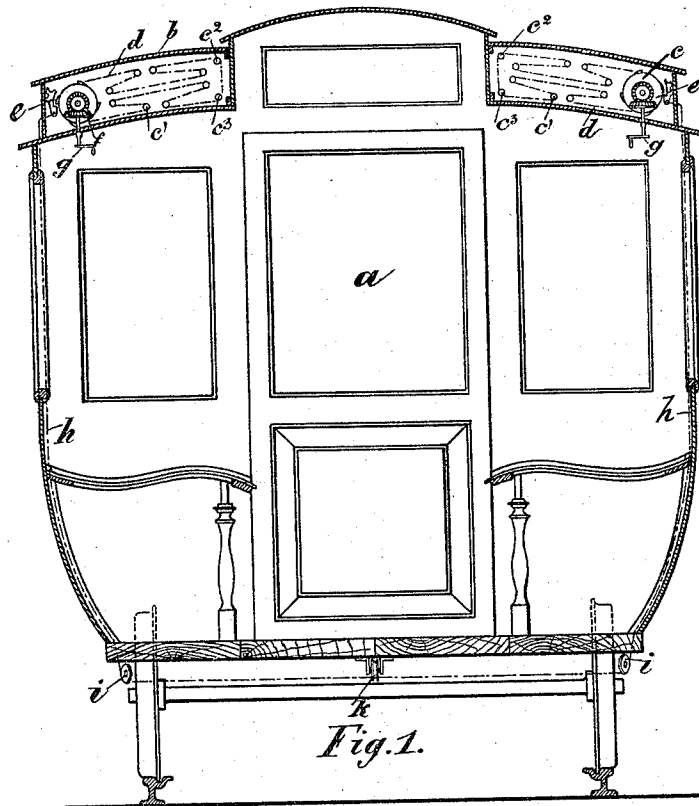
(No Model.)

2 Sheets—Sheet 1.

M. FÜRST.
STATION INDICATOR.

No. 572,977.

Patented Dec. 15. 1896.



Witnesses:
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Inventor:
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(No Model.)

2 Sheets—Sheet 2.

M. FÜRST.
STATION INDICATOR.

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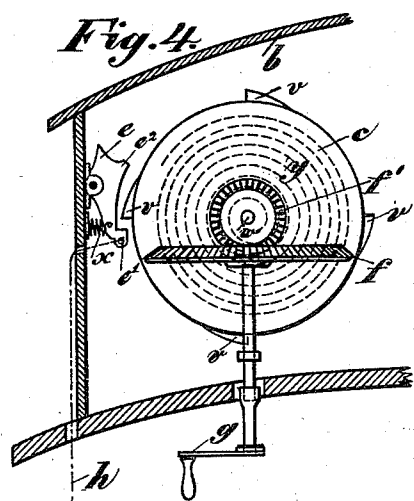
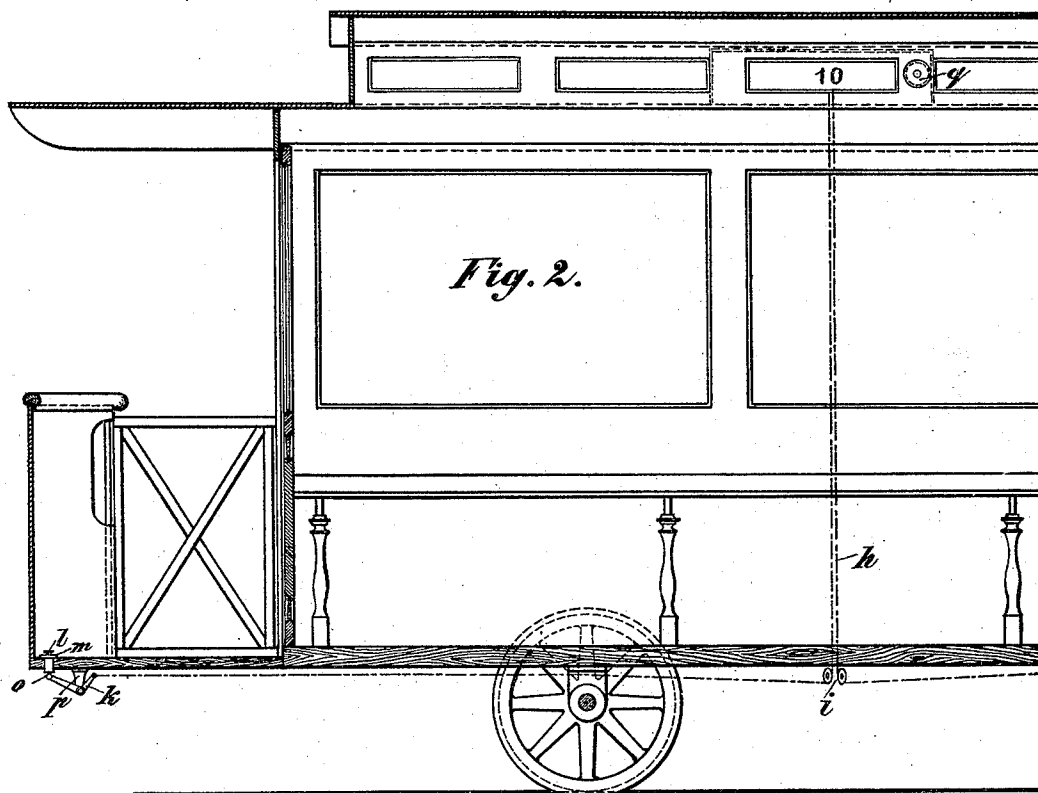


Fig. 5.

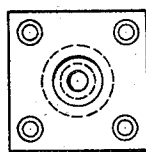
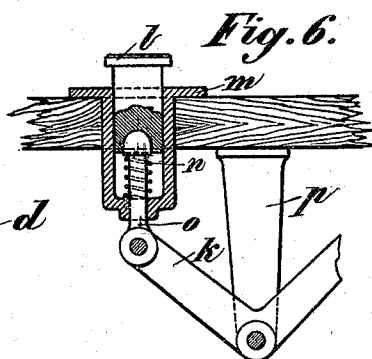
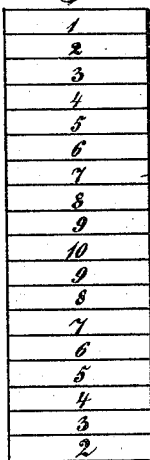


Fig. 7.

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UNITED STATES PATENT OFFICE.

MAXIMILIAN FÜRST, OF BERLIN, GERMANY.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 572,977, dated December 15, 1896.

Application filed May 11, 1894. Serial No. 510,923. (No model.)

To all whom it may concern:

Be it known that I, MAXIMILIAN FÜRST, residing at Berlin, in the Empire of Germany, have invented certain new and useful Improvements in a New or Improved Device for Indicating the Names of Streets, Advertisements, and the Like in Tram-Cars and other Conveyances; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to make and use the same.

This invention has for its object a new or improved device which renders it possible for vehicles which travel over a given course to afford to passengers, mainly when the windows are obscured, owing to frost or other causes, as well as in the dark, or at any time, a rapid and convenient means of ascertaining whereabouts they are at any point of the journey, while at the same time, as the name of the street is indicated, the attention of the passengers is directed to suitable advertisements.

The invention is best described in the accompanying drawings, in which—

Figure 1 is a cross-section of the mode of attachment of the indicating device to a tram-car; Fig. 2, a longitudinal section of the same; Fig. 3, a view showing a method of attaching the moving device beneath a carriage or car; Fig. 4, a section, on an enlarged scale, showing an arrangement of the roller carrying an endless band and the stopping and winding-up mechanism; Fig. 5, an arrangement of names on the endless band; Fig. 6, a section, on an enlarged scale, showing the mechanism operated by means of the foot; Fig. 7, a plan of the guide box or holder for the tread bolt or lever.

The arrangement and mode of working of the apparatus will now be more particularly described as follows:

On each side about the middle of the length of the roof of the tram-car *a* a box *b* is arranged, which contains a large roller *c* and several smaller rollers *c'*, over which the endless band *d*, containing the names of streets and advertisements, is carried in such a way that at each rotation of the roller *c* the band is unrolled to a suitable extent, corresponding to the rotation of the roller *c* and the distance

of the inner pair of rollers *c² c³*. Between these last-named rollers there appears, when the apparatus is in operation, each time the name of the street which the car will next pass, while a bell *q*, Fig. 2, arranged inside the car, is simultaneously caused to ring. The indicating device is preferably arranged in place of the already-existing top light in the center of each longitudinal side of the tram-car, so that each passenger can read the names in question.

The method of operating the apparatus is as follows: A treadle-bolt *l*, placed in a holder or socket *m*, is arranged on the front and rear platforms of the car in any suitable position near the driver. This bolt is constantly pressed upward by the pressure of a spiral spring *n*. The bolt *l* is loosely seated on another bolt, *o*, which is connected by means of a hinge or pivot with an elbow-lever *k*, arranged on a support *p*. Two thin wires, cords, or the like *h* run from the free end of this elbow-lever *k* beneath the car to the middle of the two longitudinal sides of the car and are carried by means of rollers *i i* vertically to the top of the car to a peculiarly-shaped lever or pawl *e*. This pawl or lever *e* is pressed with its lower part *e'* against the roller *c* by the pressure of a spiral spring *x*, so that when not in action one of the ratchet-teeth *v* of the roller *c* presses against the lower part *e'* of the lever or pawl *e*. If the cord or wire *h* be drawn tight by the driver pressing on the bolt *l*, the part *e'* releases the ratchet-tooth *v* and the roller can revolve until the next ratchet-tooth either rests against the part *e²* or the part *e'* of the pawl or lever *e*. If the bolt *l* be pressed too long, the tooth *v* will rest against the part *e²* of the lever *e*, and by such an arrangement of the pawl the entire unwinding of the band on the roller *c* at one operation is prevented.

For winding up the roller *c* the spiral spring *y* is arranged on the fixed spindle *w*, and the winding up is performed by means of two bevel cog-wheels *f f'*, which engage with each other, which wheels may be revolved by a removable crank *g* or other suitable device. The cog-wheel *f* only engages during the winding up with the cog-wheel *f'*, while when not in action the former drops out of engagement by its own weight.

The bolt *l* is withdrawn from the platform

not occupied by the driver in order to prevent an improper operation of the apparatus by the public.

Fig. 5 shows by means of numbers the succession of the street-names, from which it is evident that the roller can always revolve in the same direction, even when the car is on a return journey.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

The combination with a tram-car of a compartment in the roof thereof a large roller *c* journaled within the compartment, smaller rollers *c*², *c*³ also journaled therein, one above the other and adjacent to the inner open end of the compartment, an endless band travel-

ing over said rollers *c*, *c*², *c*³, the portion of said band intermediate the rollers *c*² *c*³ being adapted to be displayed to the occupants of the car, ratchet-teeth on the roller *c*, a lever *e* pivoted within the compartment, said lever having projecting portions *e*¹, *e*², adapted to alternately engage the ratchet-teeth when the lever is tilted, an operating-cord attached to the portion *e*¹ of lever *e* and adapted to be operated from a platform of the car, and means for winding the roller *c*.

In witness whereof I have hereunto set my hand in presence of two witnesses.

MAXIMILIAN FÜRST.

Witnesses:

PH. LENTZ,

WILH. DÜCHTING.