

(No Model.)

G. A. PIDDUCK.

STREET INDICATOR FOR CARS.

No. 382,769.

Patented May 15, 1888.

Fig. I.

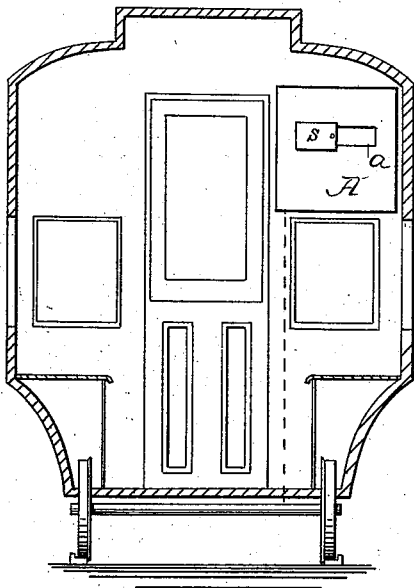


Fig. II.

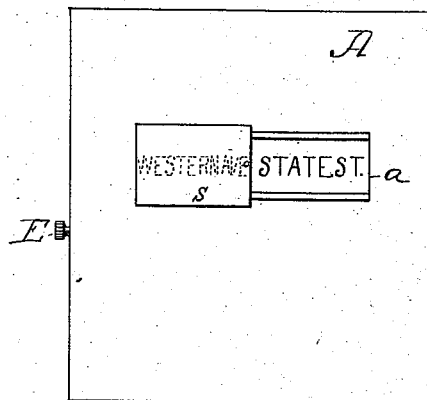
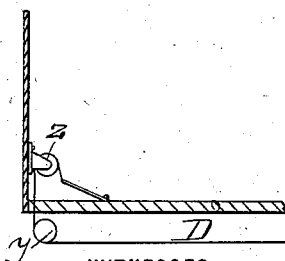
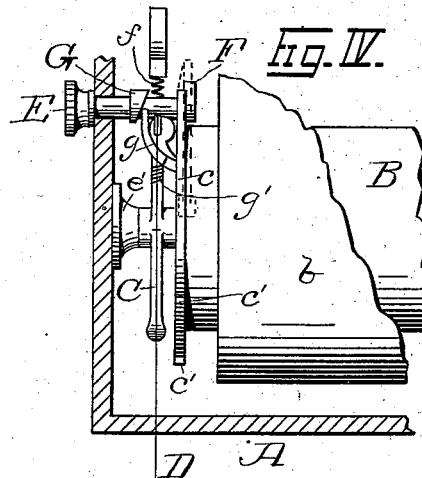
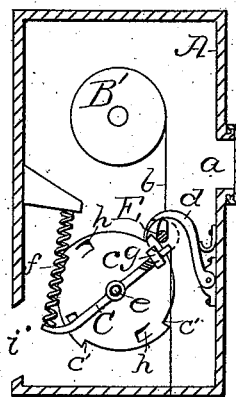


Fig. III.



WITNESSES:

B. M. Whitaker.
D. W. Loan.

Fig. V.

George Albin Pidduck.
INVENTOR.

BY F. D. Thomson

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UNITED STATES PATENT OFFICE.

GEORGE ALBIN PIDDUCK, OF ENGLEWOOD, ILLINOIS.

STREET-INDICATOR FOR CARS.

SPECIFICATION forming part of Letters Patent No. 382,769, dated May 15, 1888.

Application filed May 24, 1887. Serial No. 239,177. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ALBIN PIDDUCK, residing in Englewood, Cook county, Illinois, have invented certain new and useful
5 Improvements in Car-Indicators, of which the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 My invention is principally designed as a street or station indicator for street-cars, and is of such construction that it can easily be operated by the driver of the car without much effort and without the necessity of using his
15 hands, substantially as hereinafter described, and as illustrated in the drawings, in which—

Figure I shows the end of a car, looking at it from the inside, having my improved indicator placed therein. Fig. II is a front elevation of one of my indicators. Fig. III is a side
20 elevation of the indicator with the end of the case removed, and showing the devices for actuating it. Fig. IV is a front elevation of the lower part of the indicator having the
25 front of the case removed, and Fig. V is a detail view.

Reference being had to the drawings, A represents a suitable case placed in one end of the car, and on the inside thereof in such position
30 that it can easily be seen by the passengers. It is provided with an opening, *a*, closed by glass, so that the name of the street on the web *b*, traveling back of said opening, can easily be seen.

35 Journaled in the ends of case A, parallel to and one above the other, are the rollers B and B'. The upper roller, B', is a spring-actuated roller, much the same as the curtain-rollers now in use, with the exception of the pawls or
40 other devices for stopping it at any point desired, which I dispense with. Around roller B' is wound the web *b*, which has the names of the streets or stations arranged consecutively across it, beginning with the name of the street
45 first approached after it leaves one terminus, then the second, and so on consecutively until the other terminus is reached. The order in which the streets are arranged is then reversed, so that the web may be moved in one
50 direction all the time while the car is in tran-

sit from the home terminus to the other terminus or turning-point, and back again to said home-terminus. The names or titles of the streets on the web *b* are arranged across it at such distances apart that as said web is wound
55 around the lower roll, B, (as will hereinafter be more fully described,) the names on the web, as they pass from the upper to the lower roller, will be in register back of opening *a*.

Secured concentrically on the end of roller
60 B is a circular plate, *c*, having serrations *c'* *c'* in its periphery, one-quarter of its circumference apart, which are engaged by a pawl, *d*, pivoted between suitable lugs projecting from a plate secured to the front of case A, as shown.
65 The purpose of the serrations in plate *c* and pawl *d* is to prevent the upper spring-actuated roller B' from automatically unwinding roller B, and the reason the serrations in plate *c* are one-quarter of the circumference apart is to
70 make them correspond to the forward movement intermittently imparted to roller B. In order to obtain this intermittent movement of roller B, I loosely journal on the stud *e*, projecting centrally from plate *c* and between
75 the latter and the bearing *e'* therefor, as shown, the lever C. This lever is fulcrumed about its center of length, and has secured to one end the cord or wire D, and has pressing downward on its other end the spring *f*. The wire
80 D passes vertically down to and through the floor of the car around a suitable sheaf, *x*, then horizontally toward the contiguous end of the car until it arrives at a point nearly under the dash-board of the car, where, passing around
85 sheave *y*, it travels up through the floor of the car around another sheave, *z*, and has attached to its pendent end the treadle *r*. By pressing his foot upon this treadle the driver oscillates lever C, and when the foot is raised therefrom
90 the spring *f* restores said lever to its original position.

In order to impart the motion of lever C to roller B, I journal on said lever, between its fulcrum and the end thereof, to which wire D
95 is attached, the pawl *g*. The engaging-point of this pawl is kept bearing against the adjacent surface of plate *c* by means of a spring, *g'*, which, as shown, is fastened at one end to and coils around said lever and has its other end
100

pressing down upon said pawl. In plate *c*, I make depressions *h*, which are located about on the same radial line as serrations *c'* and in the line of travel of pawl *g*. Thus when lever C is oscillated pawl *g* enters said depression *h* and revolves roller B one-quarter of a revolution, which, it will be understood, rolls the web *b* thereon just sufficient for the name of the next street to appear back of opening *a* in case A.

In order that when the car has completed a trip the web in the indicator may be automatically unrolled from roller B back onto the upper spring-actuated roller, B', pawl *g* must be disengaged from plate *c* and depressions *h* thereof and pawl *d* likewise disengaged from serrations *c'*. To accomplish this, I journal in and pass through the end of case A a bolt, E, the circumference of the head of which is preferably milled to afford a good hand-grasp. Its inner end passes between pawls *d* and *g*, and is provided with a tumbler, F, on its extremity, of an elliptical form, and has a boss, G, on its barrel nearest pawl *g*, whose inner end edges are on an oblique plane to the length of said bolt. When bolt E is turned, the tumbler F raises pawl *d*, and at the same time the oblique edges of boss G push against an elongated butt of pawl *g* and raise its engaging-point away from plate *c*, thus releasing roller B and permitting roller B' to wind the web *b* back onto itself.

In order that the driver may see and know just what names of streets are being exposed behind opening *a* of the case A inside the car, I make a small opening, *i*, in the rear of said case to one side of the transverse plane of opening *a* and on the horizontal plane of roller B, and make on the web *b*, in register with said opening *i*, a list of streets or stations, so arranged with reference to the name of the street appearing behind opening *a* that the name of the same street appears simultaneously behind opening *i*.

If desired, there may be two indicators in each car, one placed at each end. In this event the names of the streets appearing on the web used in one indicator are in the reverse order to those appearing on the other. One of these indicators would indicate the streets while traveling in one direction, while the other would indicate the names of the streets when traveling in the opposite direction.

If considered desirable, the width of web *b* might be increased and arrange the names of the streets crossed by the railroad while traveling in one direction in one row, and the names of the streets while traveling in the opposite direction in a parallel conterminous row. Should this be done, however, it would be necessary to lengthen opening *a* and provide a sliding shutter, *s*, which covers but half of said opening at a time and is moved from side to side to expose first the names in one row and then the names in the other.

I do not wish to be confined to the operat-

ing of wire D by foot, as shown, for, while thus preferred, the wire could extend through the front of the car, so as to be conveniently grasped by the hand and operated.

What I claim as new is—

1. In a street-car indicator having a rectangular case with opening in front, the combination, with two rollers thereof parallel to and placed one above the other, and a web of paper, having the names of streets thereon, so wound on said rollers as to roll from one onto the other, of plate *c* on the end of the lower roller, having serrations in its edges and depressions *c'* in its face, lever C, journaled on the central projecting stud of said plate, spring-actuated pawl journaled on the end of said lever and engaging depressions *c'*, spring *f*, depressing the end of lever C opposite said spring actuated pawl, wire D, attached to the end of said lever contiguous to pawl *g*, and pawl *d*, engaging the serrated periphery of said plate.

2. In a street car indicator, the combination, with spring-roller B', roller B, parallel with and immediately under the same, and a web of paper having the names of streets thereon and adapted to be wound from one of said rollers onto the other, of spindle-plate *c*, secured to one end of roller B, having its periphery serrated and provided with depressions *c'* in its face, lever C, journaled on the spindle of said plate, spring-actuated pawl *g*, journaled on the end of lever C, spring *f*, depressing the opposite end of lever, wire D, attached to the end of said lever contiguous to pawl *g*, and pawl *d*, engaging the periphery of plate *c*.

3. In a street-car indicator, the combination, with spring-roller B', roller B, parallel with and immediately under the same, and a web of paper having the names of streets thereon and adapted to be wound from one of said rollers onto the other, of spindle-plate *c*, having its periphery serrated and provided with depressions *c'* in its face, lever C, journaled on the spindle of said plate, spring-actuated pawl *g*, journaled on the end of lever C, spring *f*, depressing the opposite end of said lever, wire D, attached to the end of the lever contiguous to pawl *g*, pawl *d*, engaging the periphery of plate *c*, sheaves *x*, *y*, and *z*, the former two under the car and the latter journaled next the dash-board thereof, around which said wire travels, and a treadle to which the end of said wire is attached, substantially as and for the purpose set forth.

4. In a street-car indicator, the combination, with spring-roller B', roller B, parallel with and immediately under the same, and a web of paper having the names of streets thereon and adapted to be wound from one of said rollers onto the other, spindle-plate *c*, having its periphery serrated and provided with depressions *c'* in its face, lever C, journaled on the spindle of said plate, spring-actuated pawl *g*, journaled on the end of le-

ver C, spring *f*, depressing the opposite end of said lever, wire D, attached to the end of the lever contiguous to pawl *g*, and pawl *d*, engaging the periphery of plate *c*, said pawl *g* having an extension opposite its engaging-point, in combination with tumbler E, having projections *h* and *i* so arranged and constructed

with reference to pawls *g* and *d* that when it is turned it disengages said pawls from plate *c*, as and for the purpose set forth.

GEORGE ALBIN PIDDUCK.

In presence of—

FRANK D. THOMASON,
D. W. COAN.