

UNITED STATES PATENT OFFICE.

MARTIN V. WALKER, OF WENASOGA, MISSISSIPPI.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 297,320, dated April 22, 1884.

Application filed January 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, MARTIN V. WALKER, a citizen of the United States, residing at Wenasoga, in the county of Alcorn and State of Mississippi, have invented certain new and useful Improvements in Station-Indicators for Cars, of which the following is a specification.

My invention relates to certain improvements in station-indicators for cars, and will first be described, and then designated in the claims.

The invention is shown in the accompanying drawings, in which Figure 1 is a view of part of a railway-car with the side partly broken away to show the position of the station-indicator and the driving-cord which connects with the pulley on the axle. Fig. 2 is a front view showing the interior parts of the indicator, the case or box being removed for this purpose. Fig. 3 is an end view of the indicator, in which one of the brackets is partly broken away, particularly showing the signal mechanism. Fig. 4 is a section across the indicator-box, showing a portion of the mechanism.

The letter A designates the car; *b*, a pulley on the car-axle; C, the indicator-box, secured on the wall of the car at an elevated position, where it may be readily seen by the passengers; *d*, the drive-pulley on a shaft which has bearings in the box, and *e* the driving-cord, which passes over said drive-pulley and the pulley *b* on the axle.

The car-floor *f* has an opening, *f'*, through which the driving-cord *e* passes. It will be seen the position of this opening, instead of being directly over the car-axle, whereon the pulley *b* is placed, is in advance thereof, and that the drive-cord extends vertically from the indicator-box to and through the floor-opening, and from thence extends inclined—*i. e.*, down and back to the axle-pulley.

To the car-floor is secured a fixed friction-roller, *g*, and one part of the drive-cord bears thereon, while another friction-roller, *g'*, for the other part of the cord, is mounted on a slide frame or rod, *h*, which has a spiral spring, *i*, around it, whereby the last-named roller is made to bear normally on the cord with some pressure, but will yield to accommodate the springing up or rocking motion of the cars.

The canvas or roll L contains the names of

all the stations in consecutive order on the line of road. This roll is wound on one geared roller, *k*, from which it unwinds, to be wound on another geared roller, *k'*; or the rollers may wind in the reverse direction. Between these two rollers are two loose rollers, *m*, which stretch the canvas or roll. The vertical part of the roll stretched over these loose rollers comprises the face *n*, where the name of the station is exposed to view. In the present instance the name of the station exposed is "Corinth." The rollers *k*, *k'*, and *m* have bearings in the brackets *p*. A signal-bell, F, is mounted in the case near the roll, and two hammers, *q* *q'*, are arranged so that at each mile of road the car passes over one hammer will make one stroke on the bell. While the car moves in one direction one of the hammers strikes, and when the car moves in the opposite direction the other hammer is intended to strike.

Mechanism drives a single shaft, *r*, which latter moves or actuates both the station-name roll and signal-hammers. This mechanism consists of a shaft, *d'*, on which the cord-pulley *d* is mounted. A worm, *d''*, is also on this shaft.

Crosswise of the worm *d''* is a shaft, *s*, carrying a spiral gear-wheel, *s'*, which gears with said worm. A worm, *s''*, is also on this shaft.

Crosswise of the worm *s''* is a shaft, *t*, carrying a spiral gear-wheel, *t'*. At the end of this shaft is a pinion, *t''*, which gears with a pinion, *r'*, on the shaft *r*, and thereby this latter shaft is driven.

The foregoing-described gearing, by the aid of the drive-cord *e*, is arranged to turn the shaft *r* one revolution for each mile of track the car passes over. The shaft *r* moves the roll to expose consecutively at the face part *n* the names of the different stations, and also actuates the signal-hammers. This is done by a pinion, *r''*, on the end of the shaft gearing with the two pinions *l*—one being on each of the rollers *k* *k'*. One roller is thereby turned in one direction, (to unwind,) and the other roller in the opposite direction, (to wind.) A collar or hub, *u*, is fitted upon the shaft *r*, and is set fast thereon by a set-screw. This collar has a finger, *u''*, which projects, so as to strike the spring-arm *v* of one signal-hammer. As the shaft *r* turns, the projecting finger

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BALANCED SLIDE-VALVE.

