(No Model.)

B. RUSSELL & R. H. RAMSAY.

STATION INDICATOR.

No. 582,590. Patented May 11, 1897.

Fig. 1

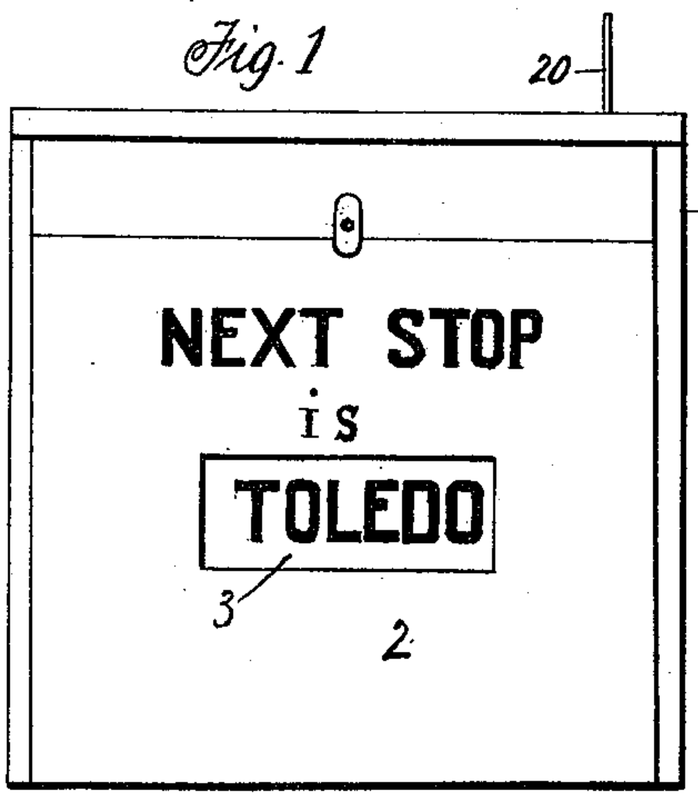


Fig. 2

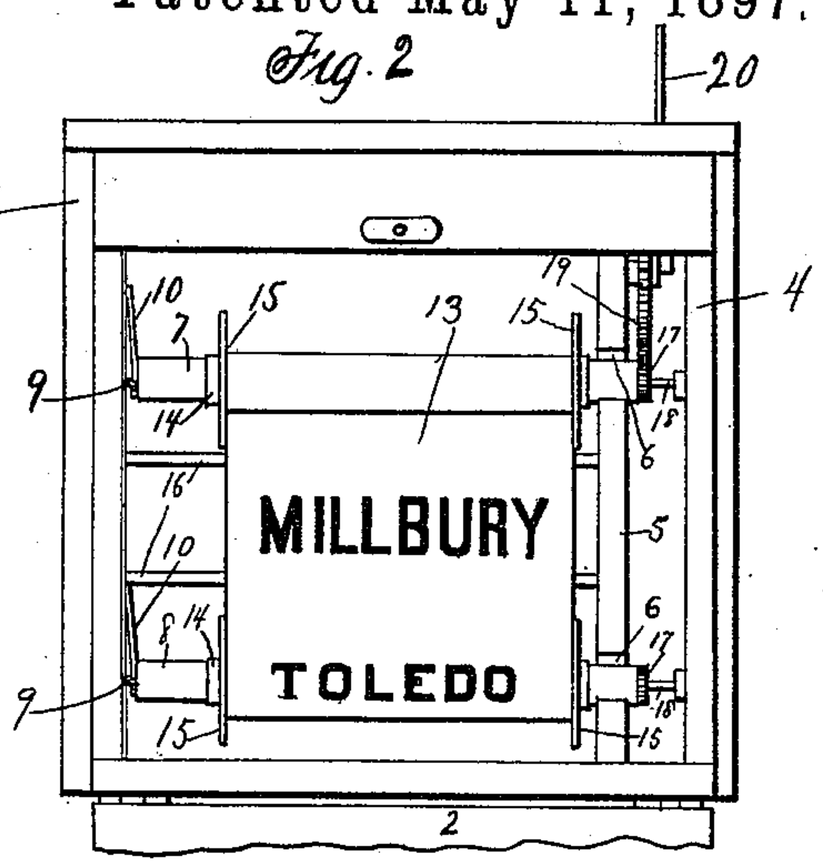


Fig. 3

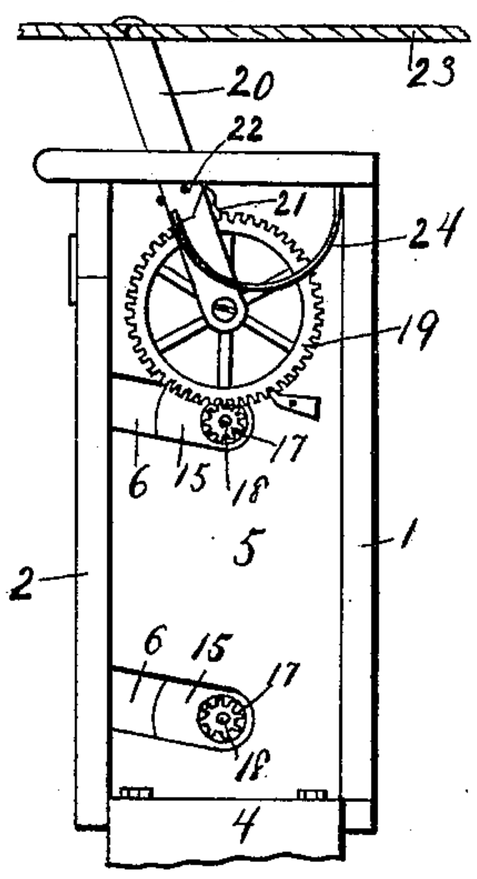


Fig. 4

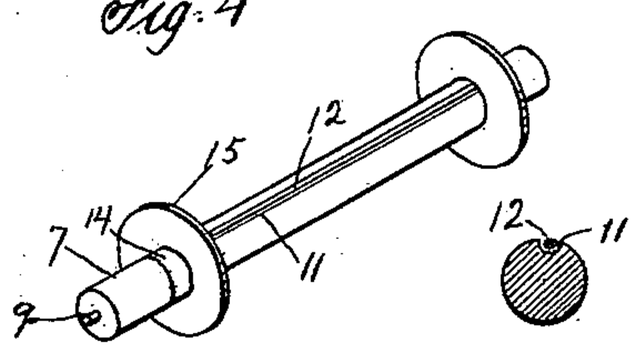
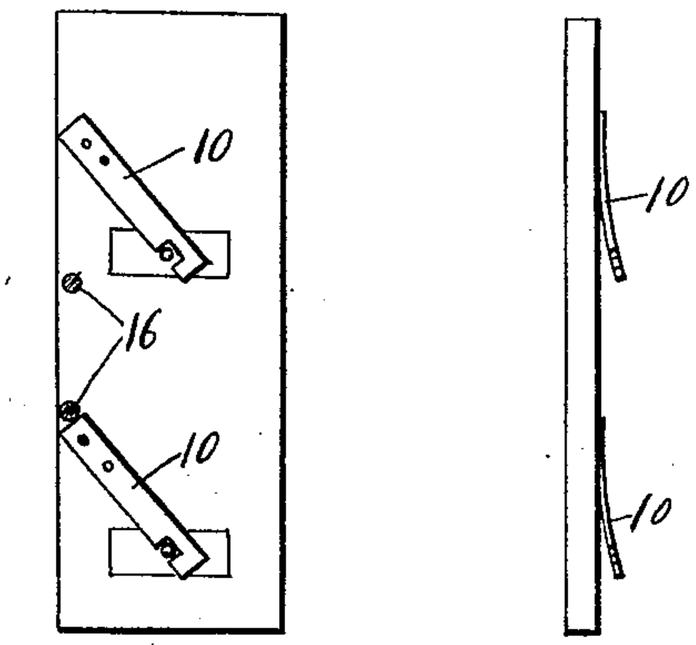


Fig. 5



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UNITED STATES PATENT OFFICE.

BERT RUSSELL AND ROBERT H. RAMSAY, OF MONROEVILLE, OHIO.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 582,590, dated May 11, 1897.

Application filed June 1, 1896. Serial No. 593,834. (No model.)

To all whom it may concern:

Be it known that we, BERT RUSSELL and ROBERT H. RAMSAY, citizens of the United States, residing at Monroeville, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Station-Indicators; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in station-indicators, the object of the same being to provide a simple device for attachment to the ends of different cars constituting a train, whereby they may be all operated simultaneously to indicate visually the next station at which the train stops.

The invention consists of a casing adapted to be located one at each end of a car, having an opening in the front face thereof, a pair of rolls mounted to rotate on the inside of said casing, a belt attached to each of said rolls, having the different stations along a certain railroad route printed thereon successively, pinions upon the outer ends of said rolls, a cog-wheel adapted to engage one or the other of said pinions, and a lever for turning said cog-wheel, connected to a cord passing through the train, whereby the rolls in each of the casings in all of the cars of the train may be turned simultaneously.

The invention also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a front elevation of our improved indicator, showing the same secured at one end of a car and the operating-lever thereof. Fig. 2 is a similar view of the same with the front of the casing removed. Fig. 3 is a side elevation with the side of the casing removed. Fig. 4 is a detail perspective view and cross-section of one of the winding-rolls detached. Fig. 5 is a detail view showing the inner face of the side of the casing and a side elevation of the same.

Like reference-numerals indicate like parts in the different views.

Our improved indicator is adapted to be secured at the two ends of each of the cars constituting a train and is made up of a casing 1, having a front face 2, hinged at the bottom, adapted to be swung down for the purpose of getting to the inside of the casing, and provided with an opening 3, covered with glass. The side 4 of the casing 1 is also hinged at its bottom and is adapted to open outwardly for a purpose which will hereinafter appear. Near the outer side of the casing is located a vertical partition 5, having notches or cut-away portions 6 6 therein, within which fit the outer ends of a pair of rolls 7 8, the said rolls being rotatably mounted at their opposite ends upon suitable pintles 9, extending into the opposite side of the casing 1, being held normally outward by the engagement of springs 10 10 with the ends thereof. Each of the rolls 7 and 8 is provided with a longitudinal groove 11 therein, within which fit rods 12 12 upon the outer ends of a belt 13, having different stations printed thereon, as clearly shown. Starting from one end of the belt or apron 13, the stations are printed successively on one side thereof, and starting from the opposite end of said belt or apron the same stations are printed successively on the other side. The rods 12 are securely held in place upon the rollers 7 8 by means of collars 14 14, which fit over the ends of said rods when inserted in the groove 11, the said collars being provided with flanges 15 15, forming guides for the belt or apron 13 as it is wound upon said rolls. In passing between the rolls 7 8 the belt or apron 13 passes around rods 16 16, extending transversely of the casing and secured at their outer ends to the partition 5 and the side bar of said casing.

As heretofore stated, the outer ends of the rolls 7 8 fit within the recesses or cut-away portions 6 in the partition 5 and also have secured to them pinions 17 and pintles 18, which find bearings in openings in the side 4 of the casing. Upon one side of the partition 5 is rotatably mounted a gear-wheel 19, which meshes with the pinion 17 on the upper roll 7. Loosely connected to the shaft upon which said gear-wheel is mounted is a lever 20, having a spring-actuated pawl 21 thereon, which engages the teeth in said gear-wheel. The lever 20 is jointed, as shown at 22, to allow for the lost motion between the cars con-

stituting the train, and the upper end thereof is connected to a cord 23, through which all of the indicators on all of the cars are operated. A spring 24, secured to the back of the casing, engages the side of the lever 20 and throws the same back to its original position after it has been operated to turn the gear-wheel 19.

As thus constructed the operation of our device is as follows, it being understood that one indicator is provided at each end of each car of a train, but that only one is provided with rolls at a time: As soon as a station has been passed the conductor or other official of the train will pull upon the rope 23, which will draw back each of the levers 20 and turn the gear-wheel 19, thereby rotating the upper roll 7 and moving a section of the belt or apron 13 from the lower roll 8 to the upper roll 7. This brings to view through the opening 3 in the front face of the casing 1 the next station at which the train is to stop. When the end of the division has been reached and the apron 13 has been wound entirely from the roll 8 to the roll 7, the said rolls are removed from their casing by opening the side 4, compressing the springs 10, and slipping said rolls out of the recesses 6 6. They are then inserted in the indicator-casing at the opposite end of the car, with the roll 7 beneath the roll 8. A further action of the lever 20 will therefore rotate the roll 8 and wind the apron from the roll 7 to it.

It should be stated that a gong or bell may be connected to the cord or rope 23, so that when the latter is pulled by the conductor or other official to operate the rolls 7 and 8 to bring the next station at which the train stops into view this bell or gong will be rung to call attention to the fact that a change in the indicator has been made.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In a station-indicator, the combination with a casing having an opening in its front face and one of the sides thereof hinged at its lower end and adapted to open outwardly, the said side having openings therein and a partition vertically mounted in said casing having annularly-arranged slots or recesses in the front edge thereof, of a pair of rolls having pintles upon their outer ends fitting the openings in said side and the rolls also adapted to fit in the recesses in said partition, a belt or apron connected at its ends to said rolls and passing over horizontal rods adjacent to the opening in the front of said casing, pinions upon the outer ends of each of said rolls, a gear-wheel engaging one of said pinions, a lever for turning said gear-wheel, a spring for returning said lever to its normal position and a cord by means of which said lever may be operated from a distant point, substantially as and for the purpose described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

BERT RUSSELL.
ROBERT H. RAMSAY.

Witnesses:
L. O. SIMMONS,
A. J. ZIPFEL.