G. M. GUILD.

Station-Indicator.

No. 197,728. Patented Dec. 4, 1877.

Fig. 1.

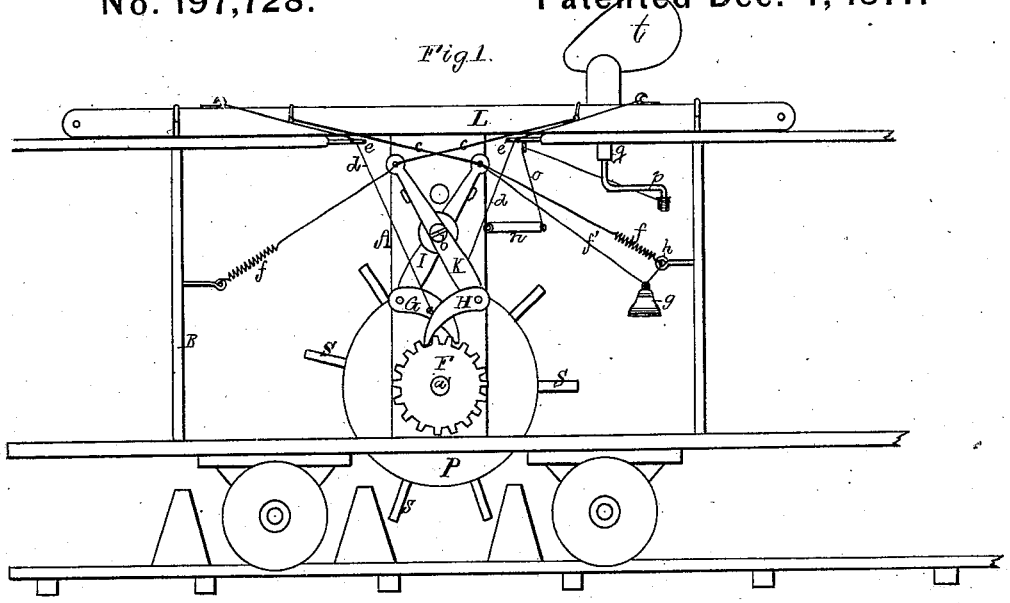



Fig. 4.

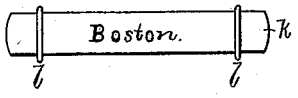



Fig. 5.

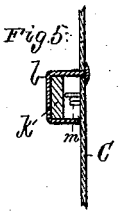



Fig. 2.

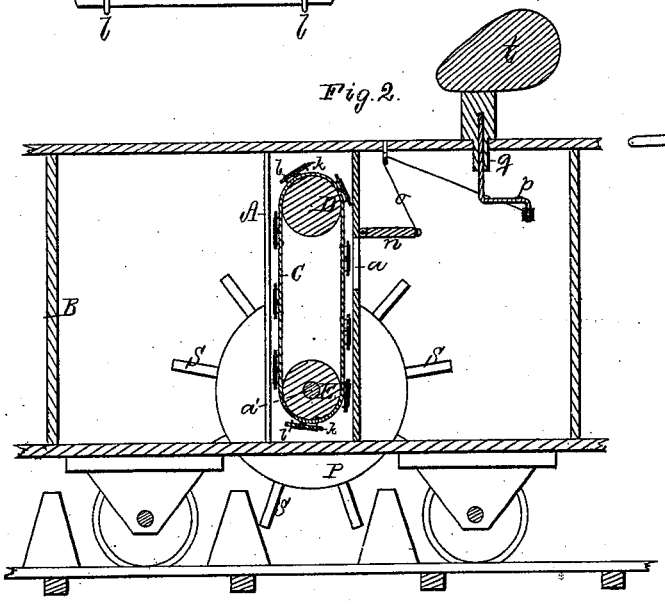



Fig. 3.

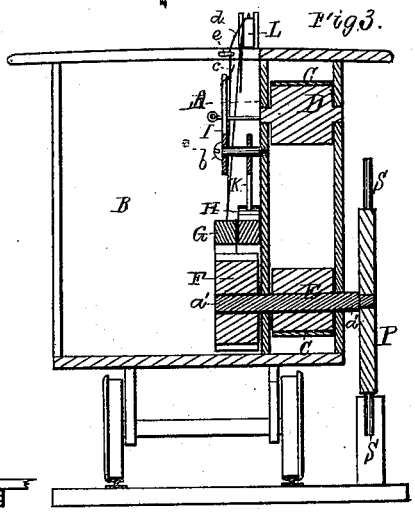
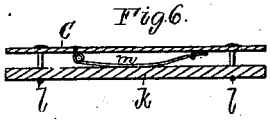



Fig. 6.




Witnesses.

S. N. Piper

L. H. Miller

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# UNITED STATES PATENT OFFICE.

GEORGE M. GUILD, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **197,728**, dated December 4, 1877; application filed November 6, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE M. GUILD, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Station-Indicators for Railway-Carriages; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is an elevation of my invention as applied to a car. Fig. 2 is a longitudinal section, and Fig. 3 a transverse section, of the car.

In such drawings, A denotes a case arranged within the car B, and having within it an endless belt, C, on whose outer surface the names of the places or stations are to be printed or affixed in any suitable manner, and they are to be brought successively in rear of an opening, *a*, so as to be seen by passengers in the car.

I contemplate using one of my station-indicators at each end of the car. The endless band goes around two supporting-drums, D E, arranged as shown, there being on the shaft *a'* of the lower one a gear, F, to co-operate with two pawls, G H, disposed over it. They are pivoted to two levers, I K, arranged, as shown, on one fulcrum, *b*. The upper arms of these levers, by means of lines *c c*, extending from them, as represented, are connected with a slide-bar, L, arranged on the top or other suitable part of the car. Furthermore, there is fastened to each pawl one of two lines, *d d*, that extend up from it, in manner as shown, and go through eyes or guides *e e*, and are fastened to the slide-bar. Each lever has fixed to it and the car a spring, *f*, to retract it, by means of a line, *f'*, extending from the lever to a bell, *g*, and thence up to a stationary eye, *h*. One of the levers has applied to it a bell for giving notice of a movement of the endless band.

On moving the slide-bar in either direction lengthwise of it, one pawl will be raised out of action with the gear, and the other will be forced into engagement with such gear, and will partially revolve it, so as to move the belt in a manner to bring into view the name of a station, or that to which the car may be approaching.

The endless belt may have a series of removable plates applied to it, the names of the stations being on them; and to hold each plate in place, the belt may have staples projecting from it, and a spring between them. On the plate being inserted in the staples, the spring will press it forward, so as to cause the staples to enter notches in the plate, whereby, by means of the staples, notches, and spring, the plate will be held to the belt.

Fig. 4 is a front view, Fig. 5 an end view, and Fig. 6 a horizontal section, of the plate, the belt, and such means of connecting the two, C being the belt, *k* the plate, *l l* the staples, and *m* the spring.

The opening *a* of the casing I provide with a door, *n*, hinged to it. This door, by means of a line, *o*, I connect with the wrist of a crank, *p*, projecting from a shaft, *q*, that goes up through the roof of the car, and is provided with a wing or vane, *t*, all being essentially as represented. As the car may be moved forward, this vane will be turned by the wind or atmosphere, and will raise the door, so as to enable persons in the car to see the indicator. The door of the indicator at the opposite end of the car will be closed by its vane. Thus it will be seen that, when the car is moving one way, the door will be closed; but when moving the opposite way, the door will be opened. This is to prevent a passenger mistaking a station by reading from the indicator at the rear end of the car.

Immediately after the car may have left a station, the conductor or other officer of the train is to move a slide-bar, so as to cause the name of the next station ahead to appear at the opening *a*. Should he accidentally omit to do this, there is combined with the indicator a mechanism for automatically effecting such. It consists of a wheel, P, fixed on the shaft of the lower drum of the endless band C. This wheel has a series of teeth or arms, S, projecting radially from its circumference.

At some proper part of the road-bed there should be one or more posts set up for the lowermost of the arms S to be carried in con-

tact with while the carriage may be passing such post or posts, the whole being so that the wheel may be made to revolve the required distance for causing the name of the approaching station to appear at the opening *a*.

I claim as my invention as follows:

1. The combination, substantially as described, for operating the station-indicator endless belt C, as set forth, such consisting of the gear F, pawls G H, levers I K, springs *f f*, slide-bar L, and the lines *c c d d*, connecting the levers and pawls with such slide-bar, all being arranged and applied essentially in manner and to operate as set forth.

2. The combination of the alarm-bell *g* and its carrying-line *f'* with the described mechanism for actuating the station-indicator endless belt.

3. The combination of the vane *t*, shaft *q*, crank *p*, and the line *o* with the car and the door *n* of the opening *a* of the case of the station-indicator, all being arranged to operate as explained.

4. The combination for securing each name-plate to the endless belt, such consisting in the notches in the plate and the staples and spring applied to the belt, all being arranged as represented.

GEORGE M. GUILD.

Witnesses:
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