S. M. DEWEY.

Station-Indicators.

No. 166,510. Patented Aug. 10, 1875.

Fig: 1.

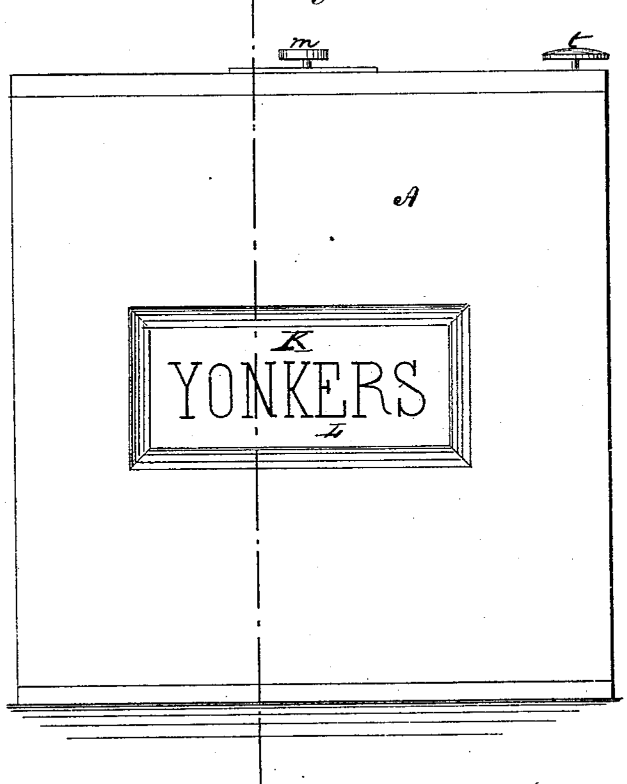


Fig: 2.

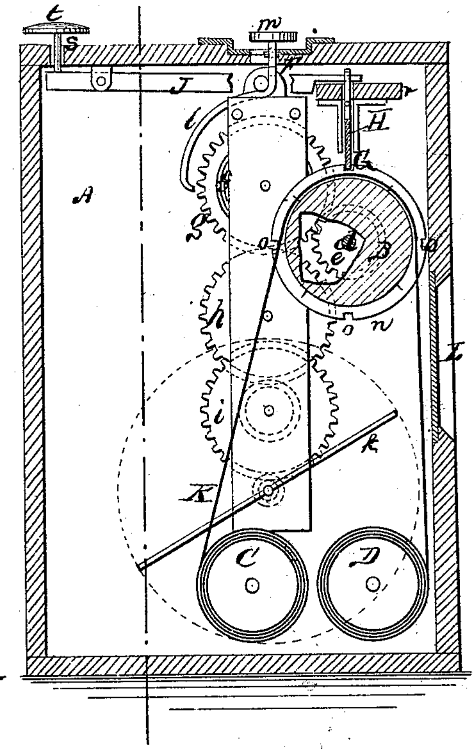
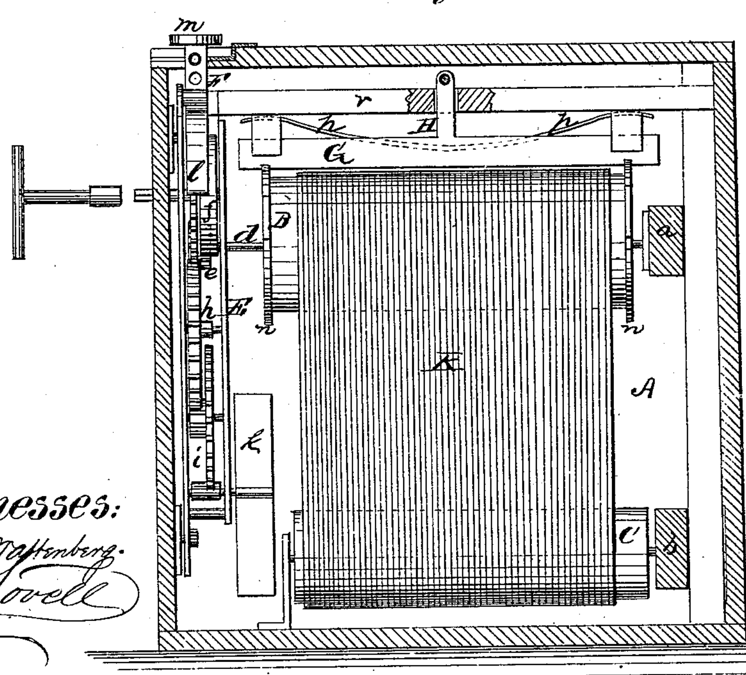


Fig: 3.



Witnesses:

W. Lovell

Inventor:

Stanley M. Dewey

per

atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

STANLEY M. DEWEY, OF NEW YORK, N. Y.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **166,510**, dated August 10, 1875; application filed January 7, 1875.

To all whom it may concern:

Be it known that I, STANLEY M. DEWEY, of the city, county, and State of New York, have invented a new and Improved Railroad-Station Indicator; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention is in the nature of an improvement in station-indicators for railways; and the invention consists in a station-indicator constructed with two spring drums or cylinders arranged to revolve in opposite directions, combined with a main drum, which latter drum is combined with a train of clock-work; and the invention further consists in the construction, arrangement, and combination of the several parts of a station-indicator, as hereinafter described.

In the accompanying sheet of drawings, Figure 1 is a side elevation of my invention; Fig. 2, a cross-section of case, showing interior; and Fig. 3, a longitudinal section of same.

Similar letters of reference indicate like parts in the several figures.

The usefulness of a device that shall indicate, automatically or otherwise, successively the stations on the line of a railroad is so obvious that but little need be said on this point. To make such an indicator that shall be simple, and not liable to disarrangement from ordinary accidents, is the main object of my invention, as will be seen from the following description and accompanying drawings, wherein—

A represents a box or case, which may be made of any suitable material. Fitted into suitable bearings *a* and *b* within this case are three drums or rollers, B, C, and D. The upper one, B, of these rollers is placed in the upper part of the box A, and the other two rollers, C and D, near the bottom of the same and in the same plane, the roller B being arranged immediately above the space between the rollers C and D. Within these rollers C and D are affixed springs similar in construction and arrangement to springs used in what are known as "Hartshorn's shade-rollers," but so placed as to revolve these two rollers in opposite directions. Over the roller B is passed the bight of a band of silk or other suitable material, K, the ends of which are confined to the rollers C and D, respectively. Onto one end of the shaft *d* which passes through and supports the roller B is secured a gear-wheel, *e*. Secured to the side of the case A is a train of gearing or clock-work, E, actuated by a spring, *f*. The uppermost of these wheels *g* and *h* are arranged so as to be one slightly above and the other slightly below the axis of the shaft *d*, and to the third wheel *i* is affixed a fan or regulator, *k*. The whole train is secured between suitable bearing-plates, by which they are fastened to the side of the box A in such manner as will permit the entire train to have a slight vertical movement when occasion requires. To the upper end of one of the bearing-plates is placed a lever, F. This lever is pivoted to the plate, so that it may have horizontal play. One end of the lever is curved into a pawl or dog, *l*, and the other end terminates in a knob, *m*. Onto each end of the roller B is fitted a head, *n*, the edges of which project beyond the surface of the roller. Into these heads are formed gates *o*, and immediately over and resting upon the peripheries of these heads is a dogging-plate, G, with a spring, *p*, affixed to its upper surface, and resting against a bearing, *r*. This plate has a projection, H, fastened to it. Secured to the under side of the cover or top of the box A is a lever, J, one end of which engages with the upper end of the projection H, and the other end is provided with a stem, *s*, which projects through the cover of the case A, and terminates in a knob, *t*.

My indicator being constructed substantially as above described, its operation is as follows: The spring which actuates the train of gear-wheels having been wound up, the train is drawn upward by the knob *m*, the upper gear-wheel *g* meshing into the gears of the wheel *e* on the end of the shaft *d*, which instantly causes the drum or roller B to revolve in one direction, carrying with it the band K; and as the band is thus carried one of the lower rollers, C, revolves in one direction, giving off from its surface the band which is wound around it, and the other of said rollers, D, revolving in a contrary direction, gathers up

the slack of the band thus given off until the upper or main roller B ceases to revolve, which occurs when the dogging-plate G enters into the gates *o*, the spaces between each of the gates *o* representing a space on the band K which is occupied by the name of a given station. When the band K is revolved in one direction until all the stations on the line of road have been passed by the train the knob *m* is pressed down, causing the train of clock-work to be forced downward until the gear-wheel *h* meshes into the wheel *e*, which causes the roller B to revolve in an opposite direction, exposing the names of the stations on the band K in a reverse order for the return trip of the train on which the device is placed. The names of the stations as they successively appear on the band are seen through a window, L, in the case A. After the dogging-plate G enters the gates *o* the roller B remains stationary until the dogging-plate is raised from the gates by pressing down the knob *t*, which operates the lever J, raising the projection H and the dogging-plate from the gates *o*. The roller being thus freed, it revolves until the dogging-plate again enters the gates, and so on, until the entire list of stations has been exhibited.

This operation may be performed by hand or automatically, as desired, and the device being placed inside the car the passengers can see at a glance each station as it is reached.

To prevent the spring running down when the gear-wheel *e* is midway between the wheels *g* and *h*, as would be the case, the pawl *l* enters into the meshes of the wheel *g*, and holds the wheels in position while the train is being moved up or down. This pawl operates for this purpose whenever the entire train is moved by simply moving the knob *m* backward, causing the pawl to engage with the teeth of the wheel *g*.

The spring which operates the train of wheels, &c., is wound up from the outside of the case A; or, instead of a spring, a weight may be substituted therefor.

It is obvious from the foregoing description of the construction and operation of my device that it may be used for many purposes where it is desirable that an endless band should travel in one direction, the motion being intermittent at any given point, and also travel in a reverse direction under like circumstances.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a station-indicator having winding-drums revolving in opposite directions, the combination of the main roller B, gearing *g h i*, combined lever and pawl F, and dogging-plate G, arranged and operating substantially as shown and described.

2. In a station-indicator, the combination of a train of wheels with a detaining pawl or stop, with which the wheels may be dogged when the main roller is being changed, so that it may revolve in a given direction, substantially as described.

STANLEY M. DEWEY.

Witnesses:

H. L. WATTENBERG,

G. M. PLYMPTON.