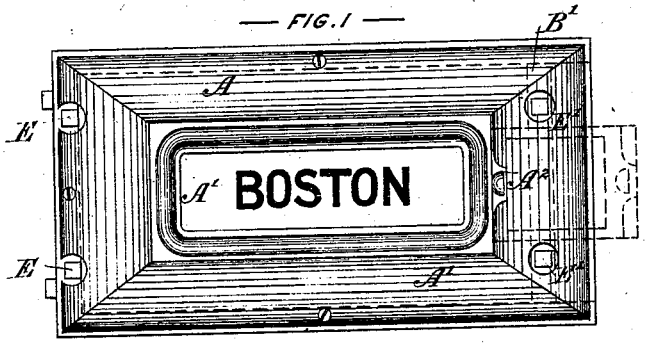
G. ALLAN, A. J. M. TENNY, J. & J. ALLAN.

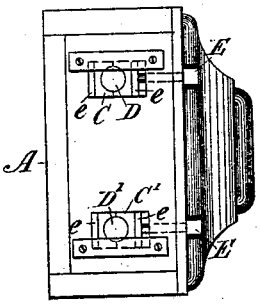
STATION INDICATOR.

No. 183,482. Patented Oct. 24, 1876.

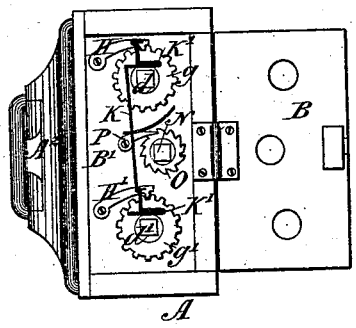
— FIG. 1 —



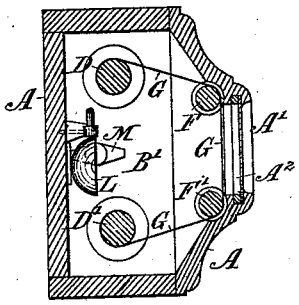
— FIG. 2 —



— FIG. 3 —



— FIG. 4 —



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UNITED STATES PATENT OFFICE.

GEORGE ALLAN, OF WATERLOO, ARTHUR J. M. TENNY, OF ST. JOHNS, JOHN ALLAN, OF ST. VINCENT DE PAUL, AND JAMES ALLAN, OF MONTREAL, QUEBEC, CANADA.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **183,482**, dated October 24, 1876; application filed April 25, 1876.

To all whom it may concern:

Be it known that we, GEORGE ALLAN, of the village of Waterloo, in the county of Shefford, ARTHUR JAMES MOODIE TENNY, of the town of St. Johns, in the county of Iberville, JOHN ALLAN, of the village of St. Vincent de Paul, in the county of Laval, and JAMES ALLAN, of the city of Montreal, in the district of Montreal, all in the Province of Quebec, Canada, have invented certain new and useful Improvements in Station-Indicators; and we do hereby declare that the following is a full, clear, and exact description of the same.

It is well known that the largest proportion of accidents which occur to persons traveling happen as they get into or alight from the conveyance, and a fruitful, if not the chief, source of such disasters is the lack of some apparatus to give the passengers any information as to their next stopping-place, and their consequent unpreparedness and haste when their destination is reached. Again, although no actual harm may be sustained to life or limb, it is obvious that any means of apprising passengers by rail, steamboat, &c., of the name of the next station or wharf to be reached would prevent a great amount of confusion and inconvenience, and would also be a great saving of time, as the passengers, having had due notice and time to prepare, would be ready to alight immediately on the stoppage of the train or boat, without any preliminary gathering together of baggage. This would also prevent any chance of a not infrequent occurrence—*i. e.*, a passenger being carried beyond his destination.

We claim for our invention that it completely does away with the above dangers and inconveniences, and that at the same time it is cheap, easily operated, thoroughly efficient, and incapable of being tampered with by the passengers.

For full comprehension, however, of the apparatus, reference must be had to the annexed drawings, in which similar letters indicate like parts, and where—

Figure 1 is a front view of our indicator. Fig. 2 is a side view of our indicator. Fig. 3 is a side view of our indicator with door open, showing the working-parts. Fig. 4 is a transverse vertical sectional elevation.

A is a box, provided with suitable means for securing it in any desired position, and having, as shown, an opening, A^1, preferably glazed, and into which fits a slide, A^2. B is a door, preferably on one side, by which access is obtained to the working parts; and B′, a partition or diaphragm, in which and the other side of the box A are arranged boxes or bearings C C′, by preference of metal, to receive the ends of the rollers D D′. These boxes are adjustable, and secured in place by screws E E, being also provided, as shown at *e*, Fig. 2, with elastic packing. F F′ are guide rollers, over which passes the band of linen, or other suitable substance, G, upon which the names of the stations or stopping-places are inscribed, together, if desired, with any other information, such as the distance between the stations, time taken in passing from one to the next, &c., the whole being arranged to suit the size of the opening A^1. As shown at *d d′*, Fig. 3, the ends of the rollers D D′ are extended, and either squared or formed into any suitable shape to fit the pipe of a key carried by the conductor. Upon these rollers are mounted, outside of partition B′, toothed wheels *g g′*, into which fall the pawls H H′, preventing the rollers D D′ from being rotated. These pawls are, as shown, each connected to a rod, K, bent, as shown at K′ K′, so that when the proper key is pushed onto either of the ends *d d′* the pawls H H′ are simultaneously raised and the wheels *g g′* released, thus allowing the rollers D D′ to revolve freely, the pawls, however, at once dropping into place and stopping the rotation directly the key is withdrawn.

L is a gong, of any approved kind, secured where shown, and struck by a lever, M, operated by rotating a short spindle, N, having its end made to fit the key by which the rollers D D′ are turned. A ratchet-wheel, O, is secured on the spindle N, and worked upon by a pawl, P, provided with a spring.

In many instances it will be found preferable to omit the spindle N with ratchet O and pawl P, and to operate the striking-lever M

by the rotation of each of the rollers D D′ in any usual way.

The operation of our invention will be so clearly understood from the foregoing and from the drawings as to need but a very brief description. The conductor, directly on leaving a station, will turn the roller which is to take up the band G from the other until the name of the next station is brought opposite to the opening A^1, the lifting of the rod K freeing the roller (from which the band is taken) from the clutch of the pawl H H′, and allowing it to revolve freely. By turning the spindle N the gong L is struck, and the attention of the passengers called to the change thus made, (or this gong may be struck, as before mentioned, by the rotation of either of the rollers D D′, carrying the band G,) thus allowing ample time for preparation to disembark, and obviating any chance of an accident happening to life or limb from the passengers' hurry, and also saving time, since the passengers being ready to alight directly the train stops, they can get off at once, and the train will thus not be so long delayed at each station. This operation is repeated after leaving each stopping-place, the only difference being that when the conveyance is going in the opposite direction the roller from which the band G is unwound becomes the take-up.

Should the passengers require to be notified of a new or temporary stopping-place, this can very easily be done by inserting into the slide A^2 a card or metal or wooden slide bearing the name.

What we claim as our invention is as follows:

In combination with the rollers D D′, with ends *d d′*, the tootbed wheels *g g′*, with pawls H H′ and rod K, as and for the purposes herein set forth.

Montreal, 15th day of April, A. D. 1876.

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St. Johns, 6th day of April, A. D. 1876.

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Montreal, 12th day of April, A. D. 1876.

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