F. G. JOHNSON.

Station-Indicators.

No. 158,798. Patented Jan. 19, 1875.

Fig: 1.

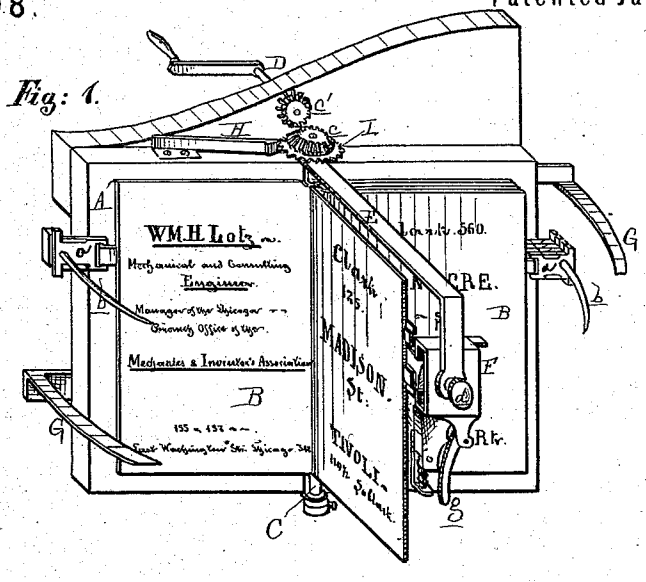


Fig: 2.

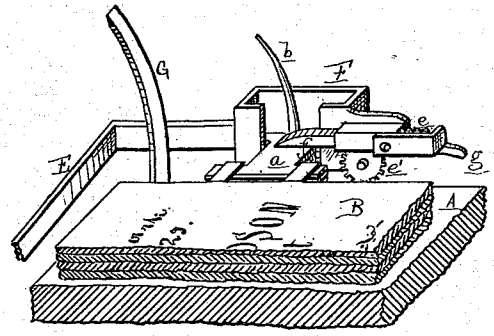
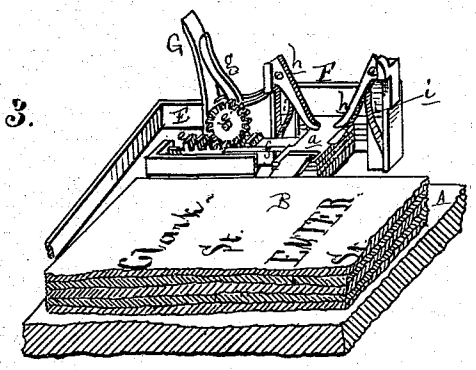


Fig: 3.



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UNITED STATES PATENT OFFICE.

FRANK G. JOHNSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **158,798**, dated January 19, 1875; application filed November 10, 1874.

To all whom it may concern:

Be it known that I, FRANK G. JOHNSON, of Chicago, in the county of Cook and State of Illinois, have invented an Improved Station-Indicator, of which the following is a specification:

My invention has for its object to furnish a street-indicator, to be placed at one end of a horse-car, in book form, the pages on one side to show the name of the street on which the car is running, the number passed or approaching, and the name of a cross-street, while the other side of the page is devoted to advertising matter; and the invention consists in the peculiar devices for turning the leaves of the book consecutively.

Figure 1 is a perspective view of the indicator, showing the apparatus in the act of turning a leaf; Fig. 2, a perspective view of the locking-mechanism, as it appears while grasping a leaf-tag. Fig. 3 is a perspective view of the same, while in the act of releasing the leaf-tag.

In the drawing, A represents a board or bracket in the upper part of the front end of a street-car, to which is secured a book, B, having on the face of each left-hand page an advertisement, and on the right-hand pages the name of the street on which the car runs, the numbers as passed, and the name of the next cross-street, and such other matter as will be necessary to inform or direct those traveling in the car. Each leaf has a tag, *a*, of metal, secured to its edge by a rubber strap, and has an eye to slip over a curved wire-rod, *b*, projecting from the face of the bracket at each side of the book. C is a shaft journaled in a groove in the bracket behind the back of the book, with a bevel-gear, *c*, at the top end, with which meshes a pinion, *c'*, on the inner end of a shaft, D, journaled horizontally through the end of the car, and provided with a crank within easy reach of the driver. On the shaft C, under the gear *c*, there is secured an arm, E, reaching across the top and part-way down the side of the book, which arm is vibrated from one side to the other by the driver as he passes each crossing. To the extremity of the arm is secured the locking and leaf-turning mechanism, which must be reversed at the termini of the road, being fastened with a set-screw, *d*, for that purpose. The device consists of a plate, F, having a re-entering flange on the two inner sides or ends, and a spring-bolt, *f*, shooting part of the way across the open space opposite the flanges. There is a rack, *e*, on the bottom of the spring-bolt, with which meshes a pinion, *e'*, on the inner end of a shaft journaled in a lug below, with a lever, *g*, on its outer end. Below the bolt, a dog, *h*, is pivoted on a lug below each flange of the plate F, with a leaf-spring, *i*, behind it, which springs throw the upper inner ends of said dogs toward each other. There is a segment, G, projecting from the bracket at each side of the book in the plane of the path of the lever *g*, which strikes its top and is turned with the shaft and pinion *e'*, causing the latter to retract the spring-bolt as the plate F is moved down past the edge of the book. A click-spring, H, and ratchet I may be used to attract the attention of the passengers to the changes of leaves as they are made, by the noise they make in changing the position of the arm. The leaves being all turned over to one side at the beginning of a trip, and their tags strung on the rod *b*, the arm is swung over to that side until the bolt strikes the upper tag, under whose edges the dogs *h h* pass and engage with it. As the car approaches the first cross-street, the driver turns the crank to throw the arm over to the other side, carrying the tag and leaf with it, filing the tag on the other rod *b*, and at the same time the lever *g*, striking the segment, retracts the bolt and releases the tag, when the arm is immediately returned to the other side of the book to engage with the second leaf-tag, the first leaf being left in position, the process being repeated at each successive street-crossing.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the bracket A, having rods *b*, of the book B, provided with

tags *a*, connected to the leaves of the same by rubber straps, each having an eye to slip over said rods, as set forth.

2. The combination, with the bracket A, of the shafts C D, and arm E, adapted to be vibrated as described, and having attached to its extremity a locking and leaf-turning device, substantially as set forth.

3. The combination, with the locking and leaf-turning mechanism fastened to the arm E, vibrated as shown, of the segment G, as and for the purpose set forth.

FRANK G. JOHNSON.

Witnesses:
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