2 Sheets—Sheet 1.

J. ORT.

STATION INDICATOR.

No. 190,072. Patented April 24, 1877.

Fig. 1.

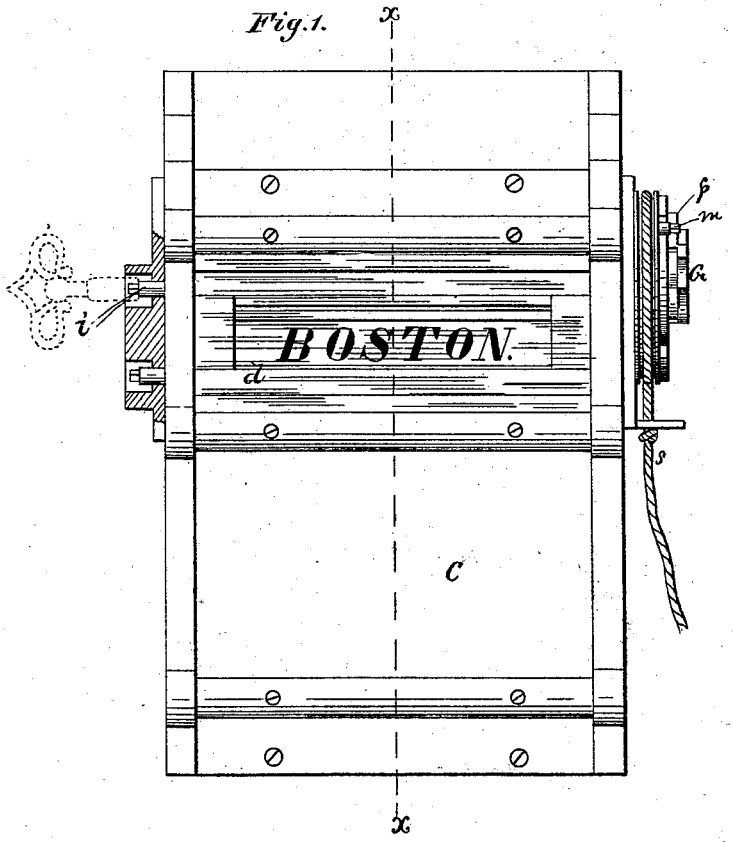
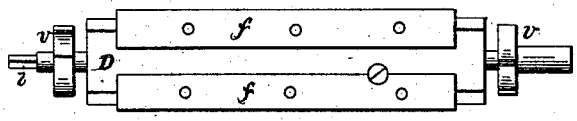


Fig. 4.



WITNESSES

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2 Sheets—Sheet 2.

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STATION INDICATOR.

No. 190,072. Patented April 24, 1877.

Fig. 2.

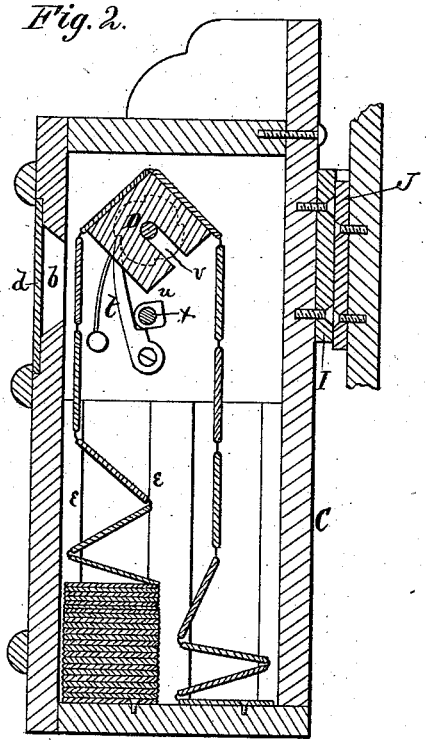


Fig. 3.

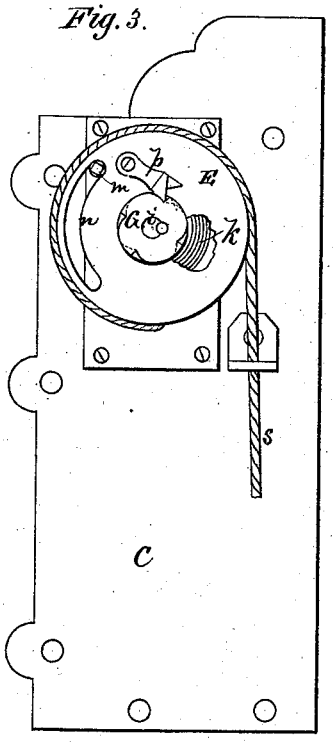
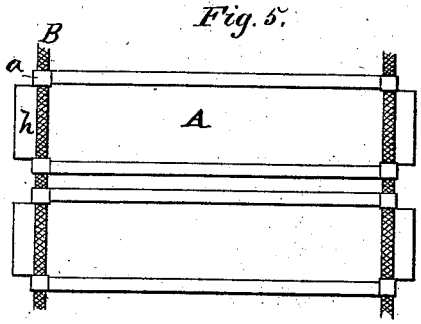


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JACOB ORT, OF CHAMPAIGN, ILLINOIS.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **190,072**, dated April 24, 1877; application filed February 26, 1877.

To all whom it may concern:

Be it known that I, JACOB ORT, of Champaign, in the county of Champaign, and in the State of Illinois, have invented certain new and useful Improvements in Railway Station and Street Indicator; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a station or street indicator, for the purpose of notifying the passengers of the next approaching station or street, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a front view of my indicator. Fig. 2 is a transverse vertical section, and Fig. 3 a side elevation, of the same. Figs. 4 and 5 are detailed views of parts thereof.

The names of the various stations or streets are printed, or otherwise affixed or attached, to a series of elongated metal plates, A A, which are connected near the ends by means of tapes B B, passing through and fastened to the edges of the plates by clinches *a a*. These clinches are formed by cutting and bending a portion of the metal at each corner of the plates or frames A A, the whole thus forming a chain or apron, which is inclosed within a suitable case, C, of any required dimensions. In the front, near the top of this case C, is an aperture, *b*, covered by a glass plate, *d*, through which the sign opposite said opening can be seen and read.

In forming the clinches *a a* on the frames A A, a tenon, *h*, is produced at each end, which passes through or between guides *e e*, and causes the chain or apron to fold regularly in a zigzag manner into either the front or back part of the case. This apron is carried over a square pulley or roller, D, provided on each side with a plate, *f*, projecting beyond the roller, so as to enter in the spaces between the frames A, and thus guide and feed the apron when the roller is rotated. Each side of the roller D is of the same width as the metal frames.

i i are the journals of the rollers D, which have their bearings in suitable plates or boxes attached to the ends of the case C, and the roller may be operated by a key, or by a reciprocating combined wheel and spring case. The end of one of the journals *i* is made square, to receive a key for rotating the roller, while on the projecting end of the other journal is loosely placed a circular case or wheel, E. Within this case is a spiral spring, *k*, so arranged as to return the case or wheel to its original position when turned, its rotation being limited by means of a stationary stud, *m*, projecting through a slot, *n*, in the case. On the outer side of the case or wheel E is pivoted a double-acting pawl, *p*, which may be thrown to either side, so as to operate upon either one of two ratchet-wheels, G G, secured on the projecting end of that roller-journal.

The wheel or case E is turned, by means of a cord, *s*, one-quarter of a revolution, thereby rotating the roller D one-fourth of a revolution, so as to bring the next sign in view. Each sign, as it appears at the window, is held in position by the spring-pawls *t* engaging with ratchet-wheels *v*, one at each end of the roller D inside of the case. These ratchets work in opposite directions, one only being in use at a time. They are reversed by means of cams *w* on a shaft, *x*, below the square roller D.

After the car has reached its destination, or at any point when it is to return, it is necessary to turn the cam-shaft *x* about one-quarter of a revolution, thereby throwing the pawl that was in gear out of gear, and vice versa. The roller D can then be turned the other way, which exhibits the names of the stations or streets for the return-trip.

The spring *k* in the reciprocating wheel E should have power to turn the pulley D by the pawl and ratchet *p* G, as in one direction the spring must turn the same, while in the other direction the cord *s* performs this function. By removing the stud *m* the wheel E may be turned in either direction, so as to loosen or tighten the spring *k*, when the stud is again inserted in its place. The case

is suspended at either end of the car by means of a dovetailed clasp, I, fastened to the back of the case, and fitting over a dovetailed key, J, one of which is fastened at each end of the car.

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

1. The metallic frames A A, formed with the clinches *a a* at each end, and connected by the tapes B B, passing through said clinches, substantially as herein set forth.

2. The tenons *h h* at the ends of the metallic frames A A, connected as described, in combination with the guides *e e* in the ends of the case, substantially as and for the purposes herein set forth.

3. The combination, with the roller D, of the wheel or case E, with cord *s* and spring *k* the double-acting pawl *p*, and ratchet-wheels G G, substantially as and for the purposes herein set forth.

4. The combination of the spring wheel or case E, having slot *n*, and the stud *m*, as and for the purposes herein set forth.

5. The combination of the roller D, with ratchet-wheels *v v*, the spring-pawls *t t*, and the cams *w w* on the shaft *x*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of February, 1877.

JACOB ORT.

Witnesses:
A. H. BRYAN,
E. N. MCALLISTER.