Z. M. HIBBARD.
Station-Indicator.

No. 209,122. Patented Oct. 22, 1878.

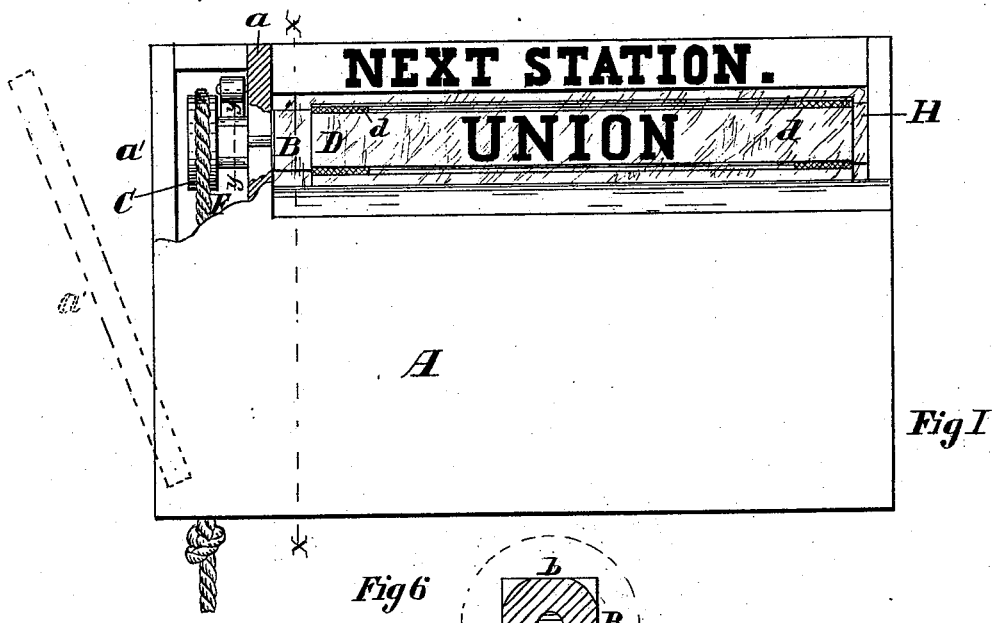


Fig 1

Fig 2

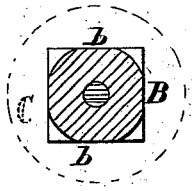
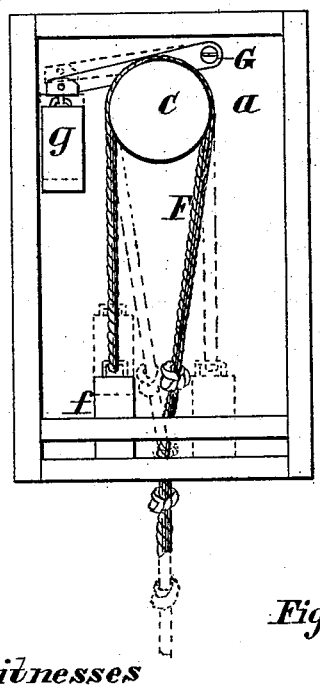


Fig 6



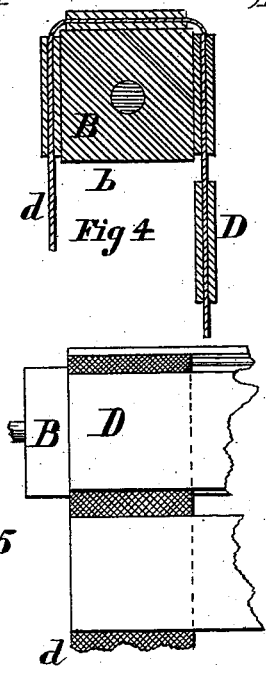


Fig 4

Fig 5

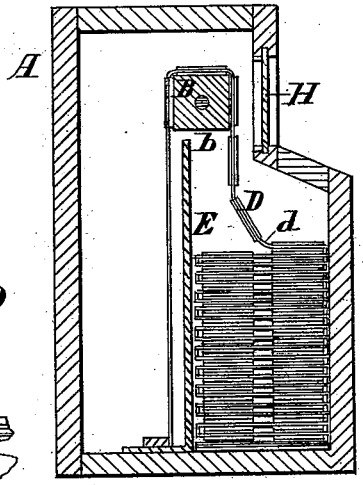


Fig 3

Witnesses
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UNITED STATES PATENT OFFICE.

ZEBINA M. HIBBARD, OF FREEPORT, ILLINOIS.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **209,122**, dated October 22, 1878; application filed March 21, 1878.

To all whom it may concern:

Be it known that I, ZEBINA M. HIBBARD, of Freeport, in the county of Stephenson and State of Illinois, have invented a new and useful Improvement in Station-Indicators, which is fully set forth and described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a front elevation of my improved indicator, a portion of the case being broken away at one end to show the operating devices; Fig. 2, an end elevation with the end of the casing removed or turned down; Fig. 3, a transverse section taken on the line *x x*, Fig. 1; Fig. 4, an end elevation of the indicator-shaft on an enlarged scale; Fig. 5, a front elevation of a part of the same; and Fig. 6, a transverse section taken on the line *y y*, Fig. 1.

My invention relates to an apparatus to be placed in cars and operated at the proper intervals to indicate the station which is being approached.

The invention consists in certain combinations of special devices for giving the proper movement to the indicator-apron holding the feed-roller in position when the indication is made and reversing the rotation of the latter, all of which will be hereinafter more fully set forth.

In the drawing, A represents a case of any suitable form adapted to receive the feed-roller and indicating-web. Near one end of this case I place a partition, *a*, and hinge the end-piece *a'*, thereby providing at this end of the case a small chamber or compartment, access to which is obtained by means of the hinged end piece.

In the upper part of the case a roller, B, is mounted, which is journaled at one end in the end piece of the case and at the other in the partition *a*. It projects into the chamber above described, and on the end within the latter is provided with a grooved pulley, C. This roller is made with plain faces *b*, which may be of any number desired, three or more, according to the number of the stations which are to be indicated by the apparatus. For ordinary use and short distances, however, a rectangular form will be found suitable.

Strips D, on which are printed the names of the stations along the railway, are attached at each end to narrow belts *d*. The named strips are made a little narrower than the width of one of the faces of the feed-roller, and are attached to the bands at a little distance from each other, so that a narrow open space will intervene. The strips are made of about the length of the roller inside the case. There is a partition, E, within the case, just below the feed-roller, and the web of station-names is passed over the roller and attached at each end to the bottom of the case on opposite sides of this partition. A cord, F, is passed over the pulley C within the small chamber, and a weight, *f*, attached to one end. This weight rests upon the bottom of the chamber, and the other end of the cord is passed out through the bottom, so as to be reached from the outside. The weight is made sufficiently heavy to cause the roller to revolve by reason of the friction of the cord thereon whenever the other end of the latter is pulled down outside of the case.

A lever, G, is pivoted to the partition *a* in the upper part of the chamber at one side of the shaft or roller B, across which it extends, and is arranged to rest upon the top thereof, as shown in Fig. 2 of the drawings.

A weight, *g*, is hung upon the free end of the lever, thereby holding the latter down upon the feed-roller with considerable force. This weight may be increased or diminished, as desired, but must be sufficient to hold the roller from rotating when no force is applied thereto, and at the same time should not be heavy enough to overcome the friction of the cord on the pulley, so as to prevent the feed.

In the front of the case, opposite the feed-roller, a glass, H, is inserted, so that the front side of the roller is exposed to view. The upper portion of the case may be contracted, if desired, so as to bring the glass nearer to the roller, as shown in Fig. 3 of the drawings.

From the description above it is evident that one of the strips bearing the name of the station will always be on the side of the roller exposed to view. Now, whenever it is desired to indicate the next station, the end of the rope below the case is pulled down, thereby turning the roller. The weighted lever G will be lifted slightly by the rotation of the roller,

and as soon as the next face of the latter comes up will rest upon it and stop any retrograde motion, while the cord slips back over the pulley under the influence of the weight.

Stops should be placed on the cord, so that a single pull upon the latter will turn the roller just one space or face, thereby preventing any confusion in the indication by moving the feed-roller too far.

The web of station-strips is, of course, arranged for the trip, and will be run over and deposited on one side of the case at the end of the course. On the return the web must be moved in the opposite direction, and to reverse motion it is only necessary to open the end of the case, lift the cord from the pulley, and replace it with the weight in a reverse position, when, of course, the feed will be in an opposite direction from what it was before. A very cheap and simple apparatus is thus provided for use upon railway-cars of all descriptions.

The weighted stop-lever may be arranged on either side of the partition, though I prefer to place it in the small chamber; and instead of this lever a small pawl and double ratchet may be employed. Springs may also be substituted for the weights, if desired, though I prefer the latter, as they are simpler and more easily adjusted. The feed-shaft may be round and only that portion under the stop-lever be plain-faced, if desired.

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

1. The feed-roller B, provided with a pulley, C, in combination with a detached cord, F, running loosely over the pulley, and provided with a weight, *f*, at one end, but free at the other, whereby the roller may be turned and the cord changed to reverse the motion, substantially as described.

2. The indicator feed-roll B, in combination with the weighted cord F and weighted stop-lever G, substantially as and for the purpose set forth.

ZEBINA M. HIBBARD.

Witnesses:
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