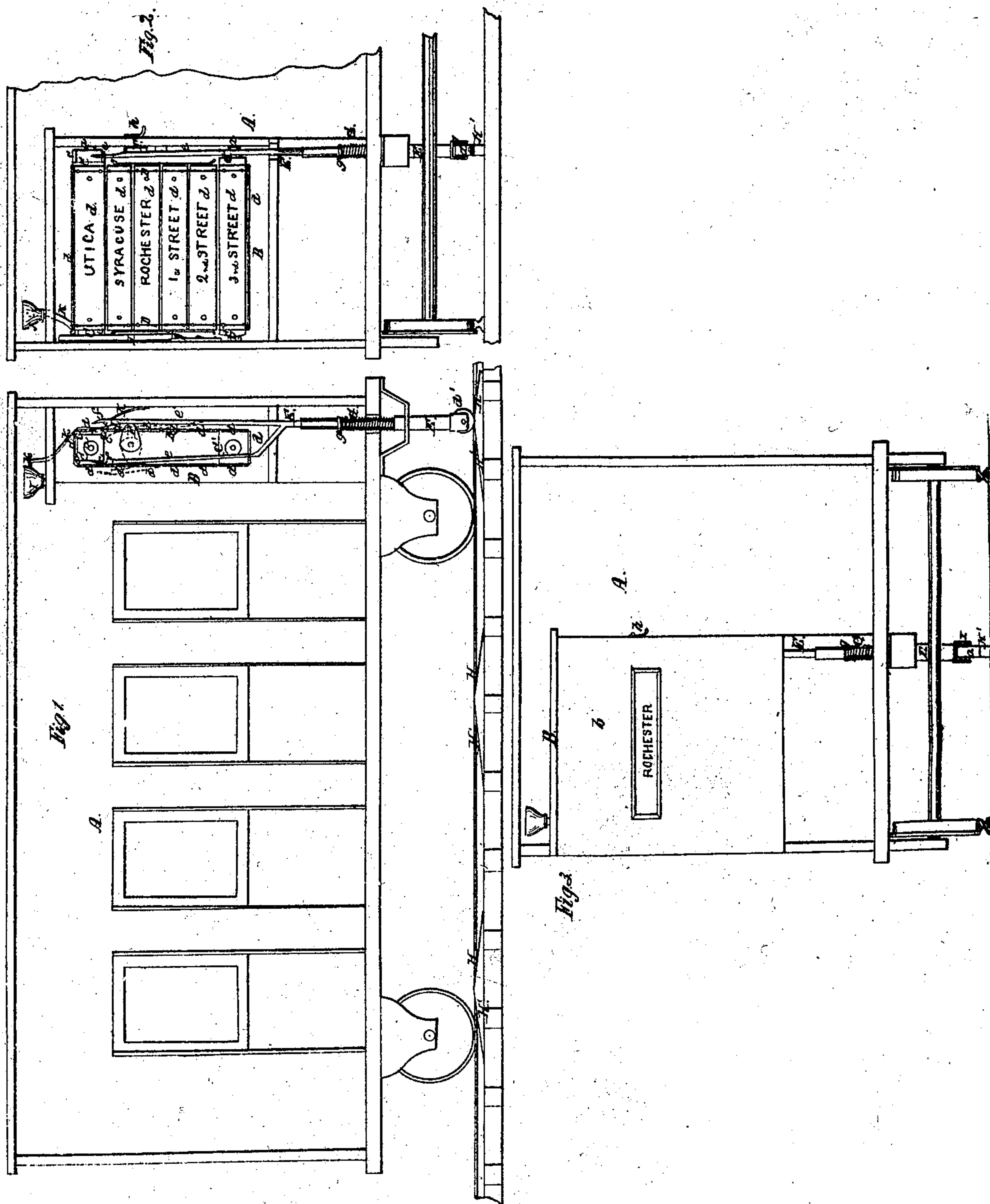


No. 19,847.

PATENTED APR. 6, 1858.

N. J. BECKER & J. M. HARVEY.
RAILROAD STATION INDICATOR.



UNITED STATES PATENT OFFICE.

JOHN M. HARVEY, OF AMSTERDAM, AND N. J. BECKER, OF FLORIDA, NEW YORK.

RAILROAD-STATION INDICATOR.

Specification of Letters Patent No. 19,847, dated April 6, 1858.

To all whom it may concern:

Be it known that we, J. M. HARVEY, of Amsterdam, and N. J. BECKER, of Florida, both in the county of Montgomery and State of New York, have invented a new and useful Improvement in Railroad-Station Indicators; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a vertical, longitudinal section of a rail road car and track with our improvement applied to the same, the side of the case containing the indicator being removed. Fig. 2, is a vertical transverse section of the same, the front of the case containing the indicator being removed. Fig. 3, is a transverse section of the same, the case containing the indicator being closed on all sides as when in use.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of our invention consists, 1st, in the arrangement of a series of separated printed indicating cards, plates or boards, on a flexible endless belt or chain, and having the same revolve over a flat, square or many-sided revolving shaft, within a case which has a transparent front, as presently set forth; this arrangement presenting a full printed card to view and avoiding a possibility of a part of one card and a portion of another coming into view at the same time, as is the case when a printed strip of paper or cotton cloth winds on and off two round shafts.

Our invention consists, 2nd, in the employment of a self adjusting forked rod, leading down to the rail road rails, and furnished with a catch on each prong, in combination with projections on the corners of the square or many sided shaft, a reversing cam and double inclines or bevel stops, arranged along the track at the different stations or streets; whereby the shaft and flexible endless chain of separated cards are operated, reversed, and controlled in a perfect manner.

Our invention consists, 3rd, in the combination of a spring self adjusting bell hammer and bell, with the square or many sided shaft and its projections, for the purpose of giving a signal to the passengers when a new indicating card comes in view.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

A, represents a rail road car. B, is a box or case constructed at one end of the same, on either side of the entrance. This case has a hinged door *b* in which is formed a window *a*, through which the indicating cards are seen.

C, represents a shaft with flat or square sides arranged at the top of the case so as to turn on short journals *a, a*. Another shaft C', similar in construction and similarly arranged may be provided at the lower end of the case. At each corner of the upper shaft, near each end, a projection *c*, is provided.

D, is a jointed or hinged sectional belt or chain arranged to run over the shaft C, and under C', if used. On each section of this chain a printed card, plate or indicating board *d* is attached as shown in Fig. 2. The several cards are marked with the different stations or streets, along the route, and are just the same width as the sides of the shaft C', and bear flat against the same as shown in Fig. 1 when opposite and above the same, and consequently one comes full into view while another passes full out of view.

E, is a vertical rod for operating the shaft C, and endless chain of cards. The lower end of this rod extends down through the bottom of the car to the surface of the railroad and has a small wheel *d'*, on it. The upper end is forked or furnished with two prongs *e, e'*, which extend up, one in front, and the other behind the shaft C, as shown in Fig. 1. Each of these prongs is furnished with a ratchet stop *f*, on its inner edge. These stops catch against projections *c, c, c, c*, of the shaft C, in the manner shown in Fig. 1. The stop of the prong *e*, comes into operation as shown in black when the train is moving in one direction and the stop or prong *e'*, as shown in red when the train is moving in an opposite direction. This change in the stops is effected by means of a cam F, which is pivoted to the inside of the case and arranged to stand between the prongs as represented. A crank *h*, is attached to the pivot of the cam, and the cam is moved by it from the position shown in black to the position shown in red, and vice-versa.

G, is a spiral spring arranged between a shoulder on the lower end of the rod I, and a fixed stop or guide *g* of the frame. This spring serves for adjusting the rod vertically downward, after it has been elevated by the inclines H, H', of the railroad, said inclines H, H', being placed at each station or cross street, the one H, answering for elevating the rod and operating the indicator when the car is moving in one direction and the other H', comes into action for a similar purpose when the car is moving in an opposite direction.

I, is a stop spring for preventing the shaft C, changing its position after the indicating card has been brought full into view until the proper time for bringing another card into view arrives.

J, is a bell for giving a signal whenever a new card comes into view.

K, is a spring bell hammer. Its handle or lower end extends down through the case B, and attaches to the inside of the same so as to stand behind the shaft C, in such relation to projections on the same, that, whenever it is turned, one of its projections strike it and force it, and the hammer, outward sufficiently to cause it to strike the bell a heavy blow in returning to or assuming

its proper position, which it does as soon as a new card comes full in view.

What we claim as our invention and desire to secure by Letters Patent, is—

1. The arrangement of a series of separated, printed indicating cards, plates or boards, on a flexible endless belt or chain, and having the same revolve over a flat, square or many sided revolving shaft within a case which has a transparent front, substantially as set forth.

2. The employment of a self adjusting forked rod leading down to the rail road rails, and furnished with a catch on each prong in combination with projections on the corners of the square or many sided shaft, a reversing cam and double inclines or bevel stops arranged along the track at the different stations or streets, substantially as and for the purposes set forth.

3. The combination of a spring self adjusting bell hammer and bell with the square or many sided shaft and its projections substantially as and for the purposes set forth.

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N. J. BECKER.

Witnesses:

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EDM. F. BROWN.