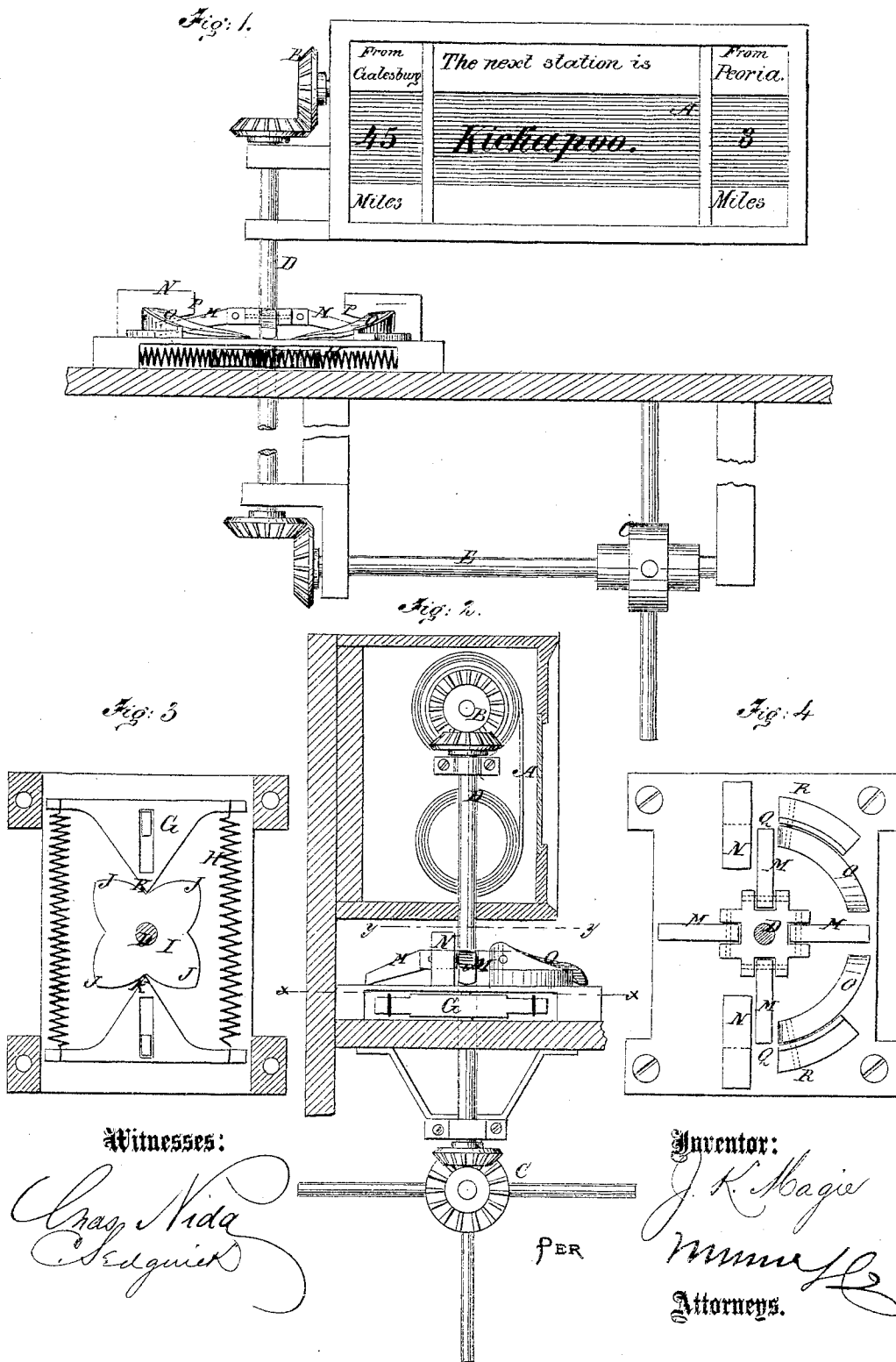


J. K. MAGIE.
Station Indicators.

No. 137,853.

Patented April 15, 1873.



UNITED STATES PATENT OFFICE.

JAMES K. MAGIE, OF CANTON, ILLINOIS.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **137,853**, dated April 15, 1873; application filed January 18, 1873.

To all whom it may concern:

Be it known that I, JAMES K. MAGIE, of Canton, in the county of Fulton and State of Illinois, have invented a new and useful Improvement in Station-Indicators, of which the following is a specification:

The invention consists in the improvement of station-indicators, as hereinafter described and pointed out in the claim.

Figure 1 is partly a front elevation and partly a side elevation of a station-indicator's apparatus having my improvements. Fig. 2 is a sectional elevation taken at right angles to the plane of Fig. 2. Fig. 3 is a horizontal section taken on the line *xx* of Fig. 3; and Fig. 4 is a horizontal section of Fig. 2 on the line *yy*.

Similar letters of reference indicate corresponding parts.

A is the endless belt carrying the names of the stations, and working over rollers, one of which is turned by the shaft and wheel B, which gears with the pin-wheel C through the medium of the shafts D and E and suitable wheels, all to operate by a stop-piece arranged on the track at the stations, against which one of the pins of the wheel C comes as these contrivances are commonly arranged. It is desirable in this kind of apparatus to have the pin-wheel turn further than it naturally will by the influence of the stop against which it comes, in order to have the next pin in advance be high enough to clear the blocks in all contingencies when not set to be acted upon by them, and yet come down to a vertical line to be ready for the next stop, which cannot well be done if the pin and the stop alone are depended upon unless the pins are placed too near together. Practically it is the most desirable to have only four pins in the wheel, and have it make a quarter of a revolution at each movement, but without some auxiliary force to continue the motion after the pin escapes from the stop it would fail to turn so far. I therefore propose to combine the sliding push-plates G and springs H with a cam, I, on the shaft

D, the cam being relatively arranged with the pins of the wheel, so that the points J will be carried beyond the points K of the plates before the pin-wheel ceases to be moved by the stop, so that the motion will be continued afterward by the pushing of the plates G on the cam under the influence of the springs till the points K arrive at the bottom of the notches between the points J of the cam. As the springs act very quick and give such impetus to the parts as would be liable to move them too far, and, besides, as they are also liable to this objection under any system of apparatus capable of moving them far enough, I apply arms M to the shaft and stop-blocks N on the frame for said arms to come against and stop the shaft; and in order that the arms shall be permitted to move on again without hindrance by the stops they are pivoted to the shaft, so as to rise and fall, and an inclined plane, O, is placed in front of each stop to cause the arm to rise above a notch, P, in the lower part of the stop to strike against its side for arresting the shaft, and then fall down to the notch between the upper end of the incline and the stop, where space is provided for the purpose, as shown at Q. Two of these stops and inclines are employed and so arranged that the indicator's apparatus may work in both directions, and the inclines are pivoted at R and arranged to allow the arms to pass under them when going contrary to the direction in which they are operative in their special functions.

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

The combination, with a railway-indicator apparatus, of pivoted arms M and two stops, N, and inclines O, the stops having a notch, P, in the lower part, the inclines being arranged relatively thereto, and pivoted as described.

JAMES K. MAGIE.

Witnesses:

L. WILLIAMS,
G. W. STRONG.