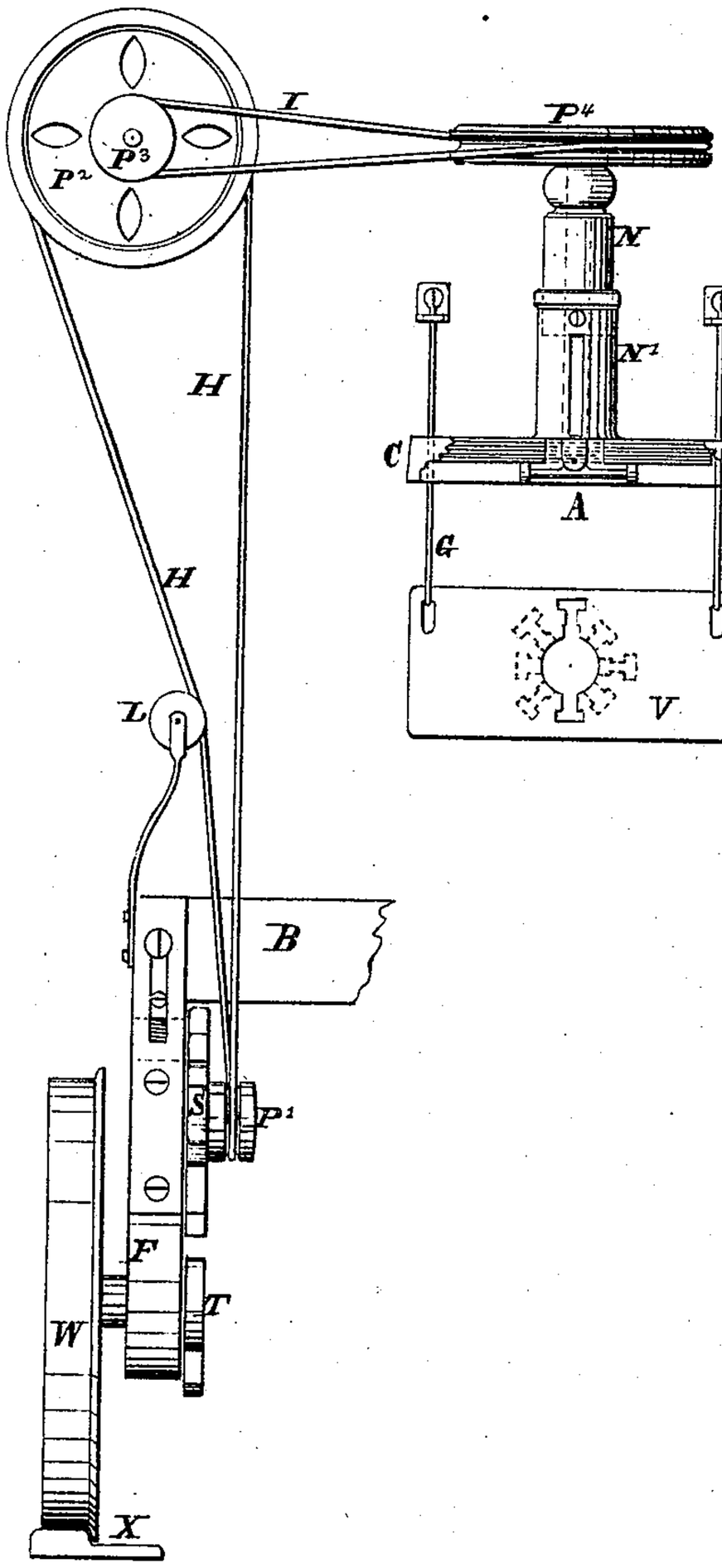
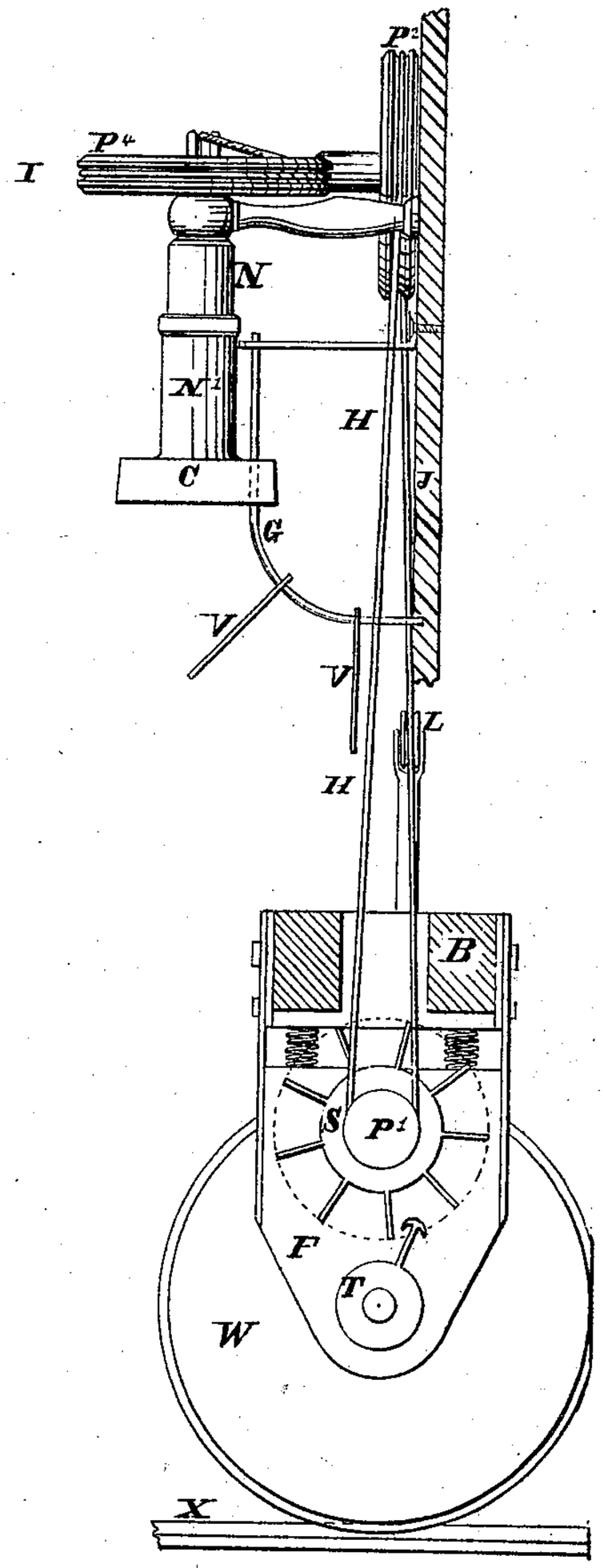
J. P. RHOADS.

STATION-INDICATOR.

No. 171,531. Patented Dec. 28, 1875.





Witnesses

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UNITED STATES PATENT OFFICE.

JOHN P. RHOADS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **171,531**, dated December 28, 1875; application filed October 19, 1875.

To all whom it may concern:

Be it known that I, JOHN P. RHOADS, of the city of Philadelphia, State of Pennsylvania, have invented an Automatic Indicator, designed to be placed in street-cars, which indicator shall designate cross-streets occurring at irregular intervals, stations, hotels, or any object of interest or convenience to passengers, and which shall act as follows, being fully set forth in the following specifications, reference being had to the accompanying drawings.

A wheel, W, (other than those supporting the car,) shall run on the track X, used by the other wheels mentioned, and the motion thus imparted to it is reduced in speed, first, by a trip-wheel, T, and a spoke-wheel, S, working into each other, as shown. On the axle of the spoke-wheel S is a fast pulley, P^1, and both its axle and the axle of the driving-wheel W bear in journals set in a spring-frame, F, bolted to the side beam of the front platform of the car, designed to adapt itself to inequalities in the track or spring motion of the car. The pulley P^1 drives the pulley P^2 by means of a belt, H, any required number of times slower than itself, (depending on their relative sizes.) The spring L takes up all slack in the belt H occasioned by inequalities in the track. Pulley P^3 fast on P^2's axle drives pulley P^4 by the belt I. The axle of P^4 passes through the two hollow cylinders N N, and carries with it a revolving eccentric arm, A, having a small wheel on either end. The outside cylinder N terminates in the case C. This cylinder and case are pushed up over the cylinder N. The little arm A is dipped on its point, (the wheels entering notches that fit either,) and plates slotted, as represented by whole and dotted lines in V, are pushed up past the end of the arm A, which is then replaced to the horizontal position, and the case (with the plates) is let down to its limit, resting on the eccentric arm. When the pulley P^4 revolves it carries with it the arm A, which, as it passes over the slotted plates, allows the first one whose slot it fits to drop, and hang suspended upon the guide-wires G, which run through the case C and each plate contained in it. These wires hang in open sight inside the front of the car and display the plate, when it falls, with the name printed thereon, to the passengers. The position of the slots and the arrangement of the plates in the case regulate the time at which the plates will be dropped, one by one, and hang suspended upon the guide-wires G.

With the wheels proportioned as in the accompanying drawing a plate can be dropped at any distance (the car may go) from six feet to four hundred and twenty-seven feet, (and before a complete circuit is made by the eccentric arm,) the relative dimensions being as follows: Driving-wheel W, twelve inches diameter; wheel S, nine spokes; P^1, one inch diameter; P^2, five inches diameter; P^3, one inch diameter; P^4, three inches diameter.

A greater distance than four hundred and twenty-seven feet can be traversed by the car before a plate is dropped by enlarging the size and increasing the spokes of wheel S, or by increasing the diameter of pulleys P^2 and P^4.

I claim—

1. The wheel W, with the pinion T, operating the spoke-wheel S attached to pinion P^1, and connected with pulleys P^2, P^3, and P^4 by the belts H and I, in combination with perpendicular cylindrical case N N′ containing revolving shaft, and with eccentric arm A and slotted plates V, the whole operated substantially as and for the purpose specified.

2. The plates V, with slots arranged in them, respectively, so as to drop but one plate at a time on the guide-wires G G, as the eccentric arm A in its revolutions comes in conjunction with the slot in each plate, substantially for the purpose set forth.

JOHN P. RHOADS.

Witnesses:
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