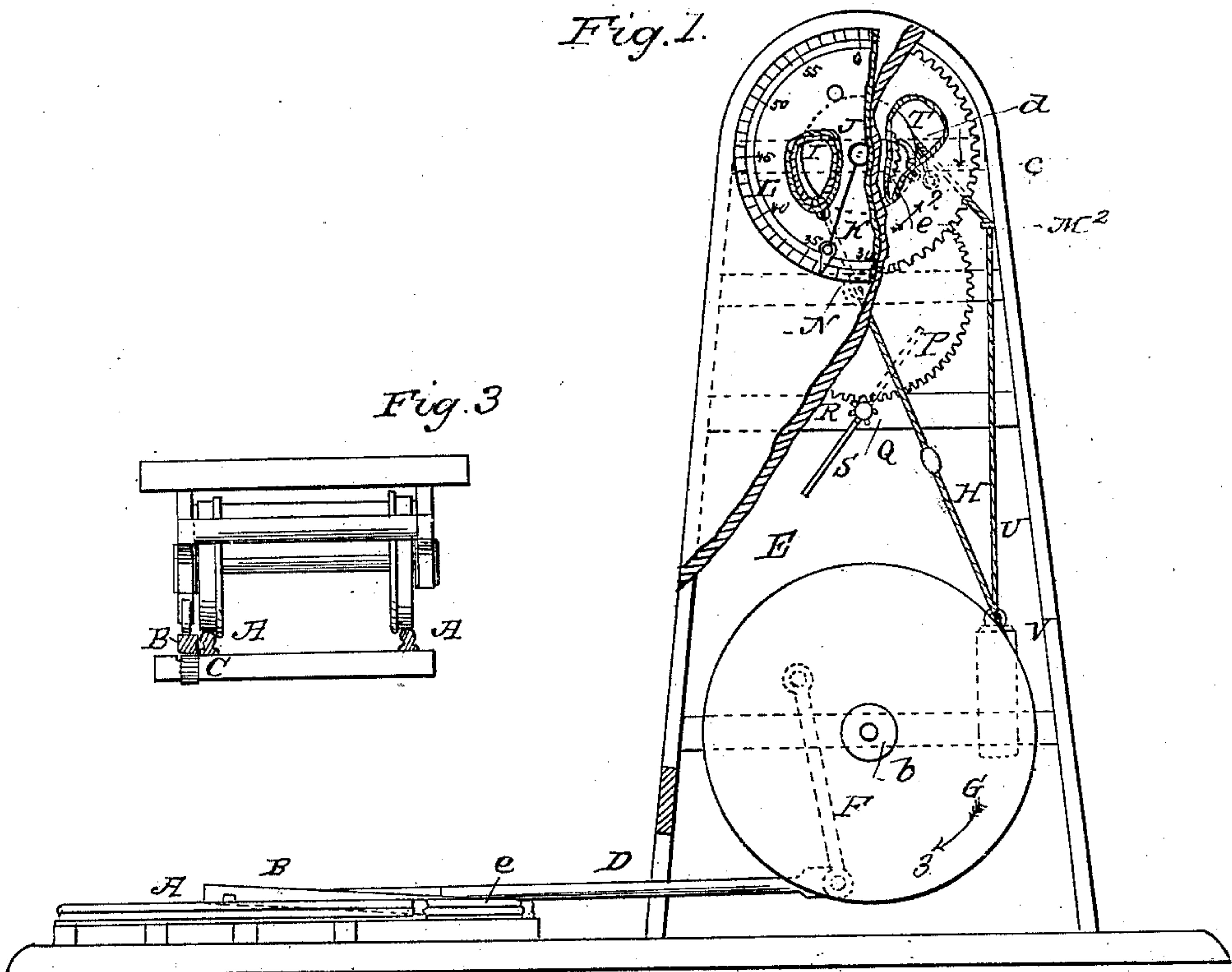


# Railroad Station Indicator.

No. 59,685.

Patented Nov. 13, 1866.



Witwesses

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## IMPROVEMENT IN STATION-INDICATORS FOR RAILWAYS.

Specification forming part of Letters Patent No. 59,685, dated November 13, 1866.

*To all whom it may concern:*

Be it known that I, EDGAR B. VAN WINKLE, of the city, county, and State of New York, have invented a new and Improved Indicator for Railways; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of my invention, the case which incloses the working parts being partly broken away for the purpose of showing the same; Fig. 2, a plan or top view of the same, a portion of the top of the case being removed for the purpose of showing the working parts; Fig. 3, a transverse section of the railway-track to which my improvement is applied, taken in the line *x x*, Fig. 2, and looking in the direction indicated by the arrow.

Similar letters of reference indicate like parts.

This invention relates to a new and improved indicator for railways, and is designed to indicate to the conductors of trains, on arriving at a depot or at any point on the line of the road where the invention is placed, the exact time a preceding train passed said depot or point, so that collisions, which not unfrequently occur in consequence of the slow motion or delay of one train on a track and the rapid motion of a succeeding one will be avoided.

A A represent the rails of a railway-track, and B is a lever, one end of which is attached to the outer side of one of said rails, and has a spring, C, underneath it, which has a tendency to keep the free or disengaged end of said lever above the surface of the rail to which it is attached.

D is a lever, which is connected to the free or disengaged end of lever B, and has its fulcrum *a* in one of the ties of the rails, as shown in Fig. 2. This lever D extends within the lower part of a case, E, and is connected by a rod or link, F, with a pulley, G, the rod or link F being attached to the pulley G, between its axis or shaft *b* and its periphery, as shown clearly by the dotted lines in Fig. 1.

H is a cord, which is attached to the periphery of the pulley G, and extends upward, and is attached to the periphery of a pulley, I,

on a shaft, J, in the upper part of case E. One end of this shaft J passes through the case E, and has an index or pointer, K, upon it, which works over a graduated dial-plate, L, attached to the case.

On the shaft J there is placed loosely a toothed wheel, M, which gears into a pinion, N, on a shaft, O, below J, the shaft O having a toothed wheel, P, keyed upon it, which gears into a pinion, Q, on a shaft, R, the latter having a fly, S, attached. On the shaft J there is keyed a pulley, T, having a cord, U, attached, with a weight, V, suspended at its lower end.

The toothed wheel M is connected with the shaft J by means of a pawl, *c*, which is attached to one side of M, and is made to engage by means of a spring, *d*, with a ratchet, *e*, on shaft J, and when the shaft J is turned in the direction indicated by the arrow 1 the wheel M will not be turned with it; but when said shaft is turned in the opposite direction, as indicated by arrow 2, the wheel M will be turned.

The operation is as follows: When the device is at rest or not in motion, the index or pointer K is at zero on the dial-plate L, and when a train passes over the rails A A, the elevated end of the lever B is depressed or forced down by the car-wheels and the lever D is actuated, its end within case E being thrown upward, and the pulley G turned in the direction indicated by arrow 3, in consequence of being connected to lever D by the link or rod F. The cord H turns the pulley I, and consequently the shaft J, in the direction indicated by arrow 2, and the index or pointer K is turned backward one revolution on the dial-plate, and the cord U wound upon the pulley T, the weight V being raised. When the train has passed over the lever B, the weight V actuates the train of wheels through the medium of pulley T, the latter turning the shaft J in the direction indicated by arrow 1, and said shaft turning the wheel M. The fly S serves to regulate the motion, and the index or pointer is gradually turned forward to the zero-point on the dial, it being designed that the index shall occupy an hour in moving back over the dial-plate. Hence it will be seen that the conductor or engineer of a succeeding train, in passing the device, by a glance at the dial-plate L, will have indicated to him the pre-

cise length of time a preceding train is ahead; that is to say, if it is not more than one hour ahead, and if the index or pointer K is at zero, indicating that a preceding train is at least an hour ahead, there will be no danger, an hour's time between trains being amply sufficient to guard against accidents.

These devices may be placed on the line of a road at any convenient or desirable points, a greater or less number being employed, as occasion may require.

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

A train of wheels for operating or giving the proper movement to an index or pointer, K, which works over a graduated dial-plate, L, a weight, V, or its equivalent, applied to said wheels and to the pulley G, link or rod F, and lever D, for connecting the train of wheels with the lever B, applied to one of the rails A, all arranged to operate substantially in the manner as and for the purpose set forth.

EDGAR B. VAN WINKLE.

Witnesses:

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