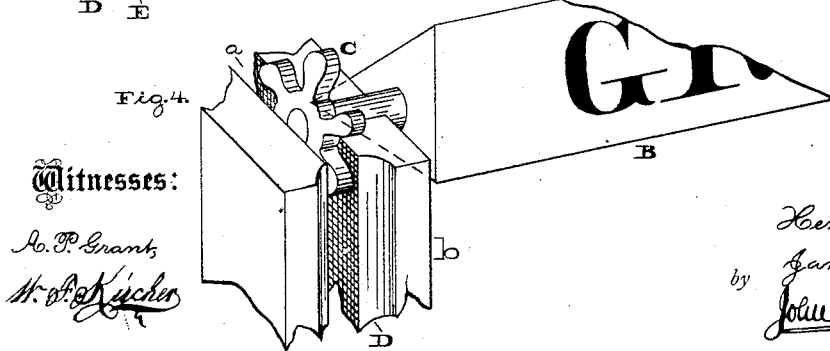
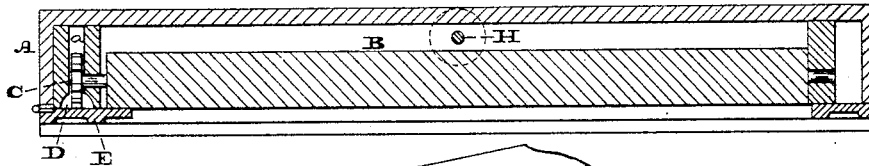
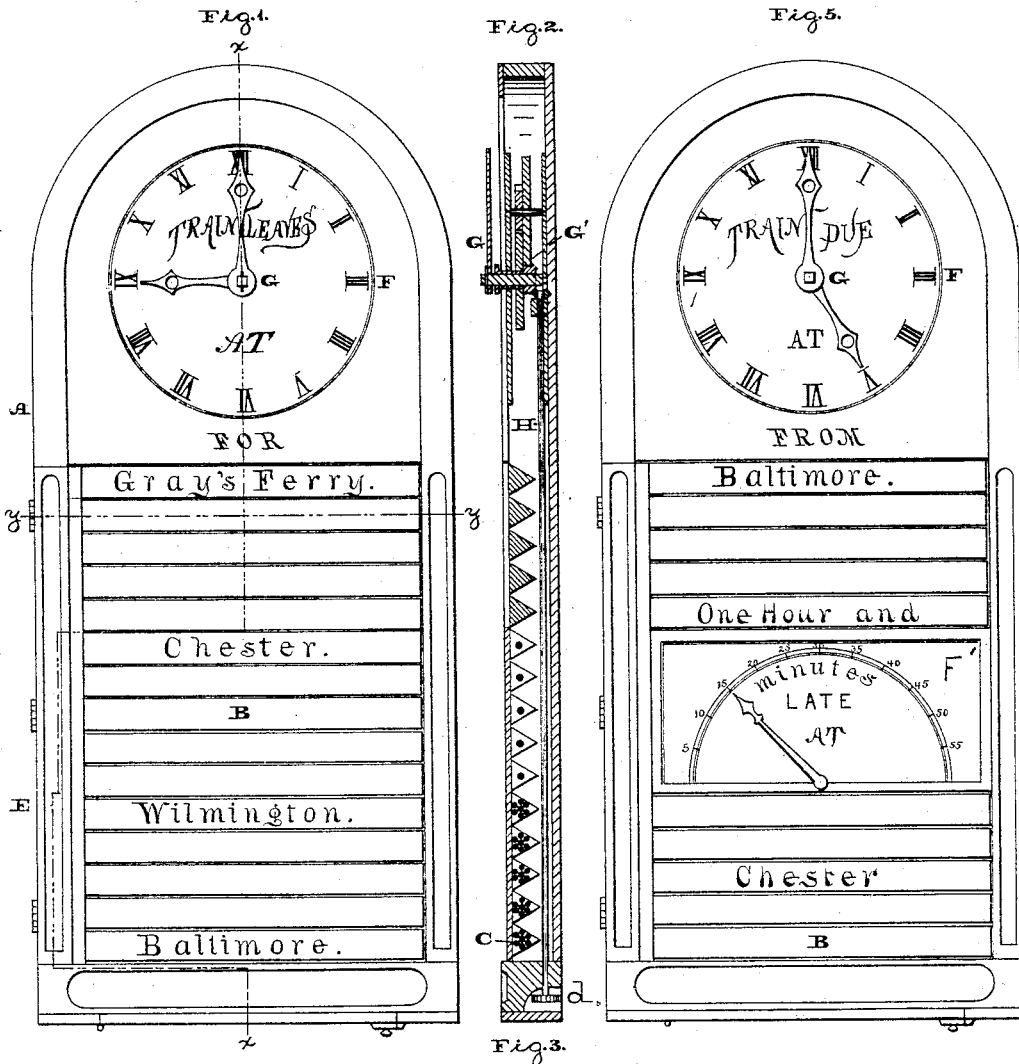


## Indicator for Trains.

**No. 216,862.**

**Patented June 24, 1879.**



Witnesses:

A. P. Grant,  
W. F. Kucher

Inventors:

Henry C. Hayes,  
James L. Smith,  
John A. Diersheim,  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

HENRY C. KEYES, OF PHILADELPHIA, PENNSYLVANIA, AND JAMES L. SMITH,  
OF WILMINGTON, DELAWARE.

## IMPROVEMENT IN INDICATORS FOR TRAINS.

Specification forming part of Letters Patent No. **216,862**, dated June 24, 1879; application filed  
April 3, 1879.

*To all whom it may concern:*

Be it known that we, HENRY C. KEYES, of the city and county of Philadelphia, and State of Pennsylvania, and JAMES L. SMITH, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Improvement in Bulletins or Indicators for Trains and other Purposes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a front view of the bulletin or indicator embodying our invention. Fig. 2 is a vertical section thereof in line *x x*, Fig. 1. Fig. 3 is a horizontal section in line *y y*, Fig. 1. Fig. 4 is a perspective view of a portion thereof enlarged. Fig. 5 is a front view of another form of a bulletin or indicator embodying our invention.

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

Our invention consists of a series of rotating slats pivoted to a suitable frame, and provided with toothed wheels, said frame having a groove, into which said wheels project. The slats have painted or otherwise marked upon them the names of stations of a railroad and other information, whereby the names of stations at which the next train is to stop, specialties of the train, or the names of stations of an expected arriving train are readily indicated and announced. The faces of the slats are changeable, according to circumstances, without the slats disturbing or being disturbed by each other, and the groove of the frame permits the application of, and serves to guide, a wand or stick, whereby the slats may be readily rotated.

It further consists of means for simultaneously locking the several slats or preventing rotation thereof.

It also consists of a dial provided with minute and hour hands, which are set for purposes of indicating the hour of the outgoing and incoming trains by means of a vertical rod, which extends behind the slats, and is conveniently accessible at the bottom of the frame. The rod has its head or button covered by a door for preventing improper access thereto, and as the slats are similarly provided, the movable parts are duly guarded.

Referring to the drawings, A represents a frame, which is adapted to be hung or supported in a conspicuous or proper position in a depot, station, or elsewhere. B represents slats, which are arranged one above the other and journaled to the side pieces of the frame. To one journal of each slat is secured a toothed spur-wheel, C, the several wheels being fitted in grooves *a* in the respective side pieces, *b*, of the frame A, and appearing at the front face of said side piece.

The slats B are separated one from another, so that the slats are entirely independent of or uncontrolled by each other, as are also the wheels C; and the slats are prismatic or many-sided, with names of different stations or different matter printed, painted, or otherwise marked on each side.

On the front face of the side piece or strip, *b*, of the frame A there is a groove, D, which extends the length of said piece, and the peripheries of the wheels C protrude at said groove, so that their teeth are accessible from the front of the frame. To the side piece, *b*, of the frame there is hinged a vertical bar or strip, E, which, when closed, covers the wheels C and groove D, and is in contact with the wheels or a small portion of the exposed faces of the slats B, said bar being provided with a proper lock.

F represents a dial, which is located at the top of the frame A; and G are minute and hour hands, which are connected to suitable gearing G', so as to rotate similar to the minute and hour hands of a clock. To the first wheel of the train of said gearing G' is connected a rod, H, which extends vertically behind the slats, and terminates at the bottom of the frame, where it is provided with a suitable knob, button, or handle, *d*.

The operation is as follows: The bar E is swung open, thus freeing the slats B or wheels C from contact therewith and uncovering said wheels and the groove D. A wand or stick is now moved in the groove D, up or down, so as to strike the wheels C, thus rotating the several slats and causing each slat to present another face, whereon is printed, painted, or marked the names of the required station or other information. The bar E is again closed and locked, whereby it rests against the slats

and covers the wheels, thus preventing rotation of the slats, either by direct action against the slats or operation of the wheels. The rod H is also operated in order to move the hands to the time of the starting or arrival of the next train; and it will be seen that by proper words at the top of the frame A or on the dial—such as “Train will leave at,” “For,” for the outgoing train, or “Train due at,” “From,” for the incoming train—the passengers or waiting people may readily acquaint themselves with the nature of the trains or other information and govern themselves accordingly.

A depot or station master will soon become expert in presenting the proper faces of the slats, either by one sweep of the wand or stick in the groove D or turning each slat separately, in which case said groove serves as a guide for the wand or stick and directs it to the wheel of the desired slat.

The knob *d* of the rod H will be covered by a door, E', hinged to the bottom of the frame, in order to prevent improper operation of the hands G.

For the indicator for incoming trains a dial, F', is provided, as in Fig. 5, wherein the number of minutes late will be announced, the in-

dex therefor being operated by gearing and a rod conveniently accessible. On one of the slats of this indicator may be printed, painted, or marked the number of hours late of the expected train, and other matter of interest or importance to the waiting people.

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

1. The independent rotating slats B and toothed wheels C, in combination with the frame A, having the grooved side piece, *b*, substantially as and for the purpose set forth.

2. The rotating slats B and toothed wheels C, in combination with the covering and locking bar E, common to the wheels, substantially as and for the purpose set forth.

3. The hands G, with gearing G', and the frame A, with slats B, in combination with the vertical rod H, the locking-bar E, and covering-door E', substantially as and for the purpose set forth.

HENRY C. KEYES.  
J. L. SMITH.

Witnesses:

T. KING WALKER,  
ALBERT HAVERSTICK.