No. 658,290. Patented Sept. 18, 1900.

# W. M. SIX & O. R. DAILY.

## TRAIN INDICATOR.

(Application filed June 14, 1900.)

(No Model.)

Fig. 1.

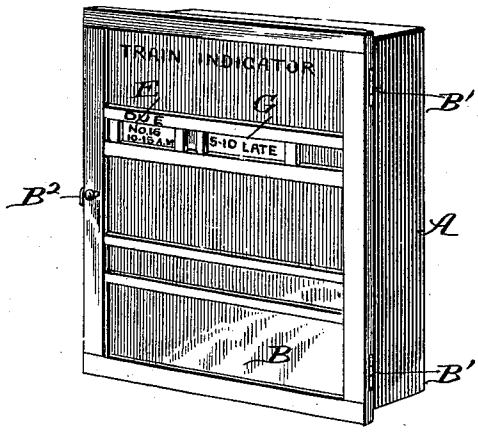



Fig. 2.

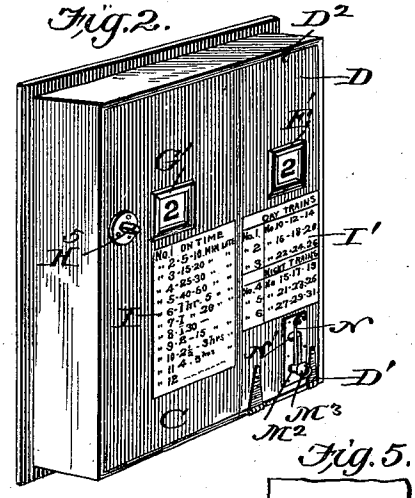



Fig. 5.

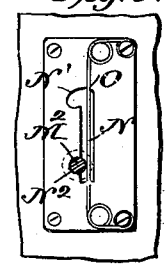



Fig. 3.

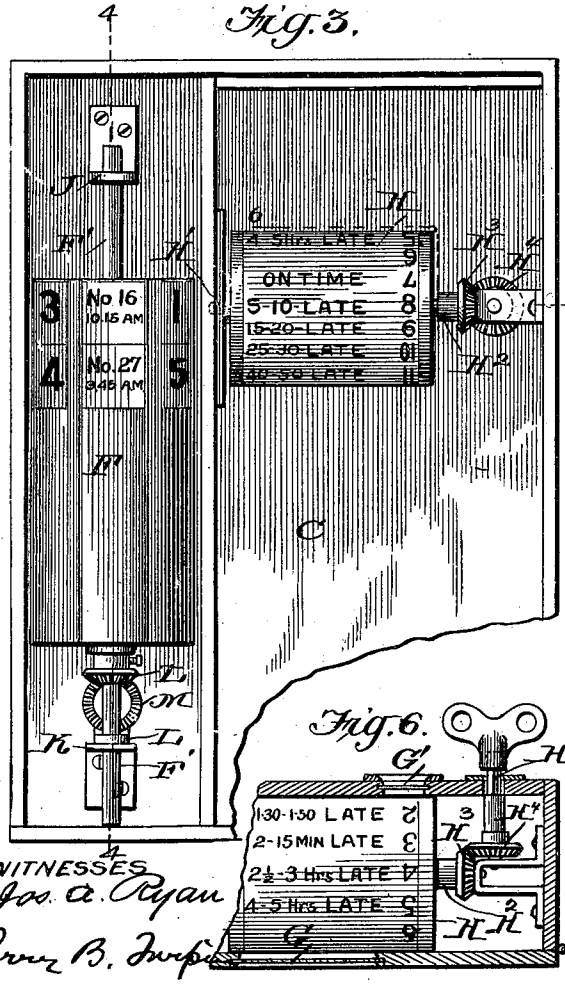



Fig. 4.




Fig. 6.




WITNESSES
Jos. A. Ryan
Percy B. Swope

INVENTORS
William M. Six.
BY O. R. Daily.
Munn & Co.
ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

WILLIAM M. SIX AND OLIVER RUSH DAILY, OF LEBANON, INDIANA.

## TRAIN-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 658,290, dated September 18, 1900.

Application filed June 14, 1900. Serial No. 20,261. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM M. SIX and OLIVER RUSH DAILY, residing at Lebanon, in the county of Boone and State of Indiana, have invented a new and useful Improvement in Train-Indicators, of which the following is a specification.

Our invention is an improvement in train-indicators, and has for an object to provide a simple novel construction wherein the operator from the back of the case can manipulate the indicating devices which are constructed and adapted to expose at the front of the case the number of the train, the time when such train is due, and information whether the train is on time, and, if late, to what extent.

The invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a front perspective view, and Fig. 2 a rear perspective view, of an indicator embodying our invention. Fig. 3 is a front elevation, the front of the case being removed. Fig. 4 is a vertical longitudinal section on about line 4 4 of Fig. 3. Fig. 5 is a detail view of the detent devices, and Fig. 6 is a detail cross-section on about line 6 6 of Fig. 3.

In carrying out our invention we provide a suitable case A, having a front B hinged at B′ and suitably secured at $B^2$ and a back composed of the section C, which may be fixed, and the section D, which is hinged at D′ and suitably secured at $D^2$. The front is provided at E with a sight-opening through which the train-indicator F is exposed and with a sight-opening G, through which the time-indicator H is exposed, as shown in Fig. 1. The back of the case has a sight-opening E′, through which the train-indicator is exposed, and a sight-opening G′, through which the time-indicator is exposed, and these openings E′ and G′ are preferably arranged directly opposite and in line with their respective openings E and G.

The time-indicator H is in the form of a drum, having its shaft journaled at H′ and $H^2$ and provided with a bevel-pinion $H^3$, meshed by a bevel-gear $H^4$, whose shaft $H^5$ is arranged at the rear of the casing, so it may be readily turned by the operator by means of a suitable key. The time-indicator H is provided with different inscriptions, such as "4 hours late," "On time," "5-10 late," &c., which inscriptions may be exposed consecutively or otherwise separately exposed through the sight-opening G, as shown in Fig. 1. The drum H also has figures or other indicating-marks which are arranged to be exposed through the sight-opening G′ at the rear of the case, and these numbers correspond with determined ones of the inscriptions which are exposed to the opening G and are preferably directly opposite their corresponding inscriptions. Thus the figure "2" as exposed through opening G′ in Fig. 2 is directly opposite the inscription "5-10 late" shown in Fig. 1, the figure "3" is directly opposite the inscription "15-20 late," and so on, as indicated in the table I in Fig. 2. Thus in operation if the operator wishes to indicate that a train is between five and ten minutes late he would turn the time-indicator H until the figure "2" would be exposed through the opening G′, and to indicate any other time in the opening G he would turn the drum until the figure corresponding to such time would be exposed through the opening G′. By this means the indicator can be operated from the back of the case to accurately indicate on the front of the case that a train is on time, or, if late, to what extent.

To indicate the train, we provide a train-indicator F, which is journaled in bearings J and K on the hinged section D of the back of the case, and we preferably arrange such drum so it can be moved longitudinally to expose one or another set of indicating-inscriptions through the sight-opening E. In carrying out this feature of our invention we provide the drum F with trunnions F′, which are movable longitudinally in the bearings J and K, and the lower trunnion F′ has fixed to it a bevel-gear L within a housing L′, which also supports the shaft M′ of a bevel-gear M, which meshes with the bevel-gear L, so it can be operated to turn the indicator-drum F. The shaft M′ of the gear M is adapted at $M^2$ to operate in a slot N, formed longitudinally in a suitable plate supported by the casing, and which slot has at its upper end a notch N′, in which the shaft M′ may seat when the indicator F is in its uppermost position. The

shaft M′ has the handle M³, by which it may be turned and may be raised and lowered to adjust the indicator F up, as indicated in dotted lines, Fig. 4, or down, as shown in full lines in said figure and in Fig. 3. By this construction the same device serves for operating the indicator F to rotate it and for adjusting it up and down, and by preference we provide a lower notch N², in which the shaft M′ may be seated when in its lowermost position, and a spring O, extended longitudinally adjacent to the slot N, so that it will press the shaft M′ laterally and force it into the notches N′ and N². The upper series of inscriptions upon the indicator F are exposed through the openings E and E′ when the indicator is lowered, while the lower series of inscriptions show through such openings when the indicator F is raised, as indicated in dotted lines, Fig. 4. These inscriptions include figures which are designed to show through the rear openings E′ and other inscriptions corresponding to such figures and showing through the front opening E. Thus when the figure "2" is exposed through the rear opening E′ the corresponding inscription, "No. 16, 10-15 A. M.," will show through the opening E and indicate that the next train is No. 16 and is due at 10.15 a. m. The table I′ on the rear of the casing indicates the proper numbers to be exposed through the opening E′ in order to indicate the desired inscription through the front opening E. It will be noticed from the table I′ that the upper series of inscriptions on the drum F is for day-trains, while the lower series is for night-trains.

By supporting the indicator-drum F on the hinged section D it is conveniently accessible at all times for any desired purpose.

By our invention the operator at the rear of the casing may conveniently and accurately indicate at the front of the casing the desired information to the public.

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

1. An indicator having upon it indicating characters arranged in longitudinal and circumferential series and movable both longitudinally and circumferentially or rotatably to bring any desired one of said characters to exposed position and a shaft connected with said drum and adapted to operate it both longitudinally and circumferentially substantially as set forth.

2. The combination of the drum F having the trunnions and the bearings in which said trunnions are movable longitudinally and rotatably, the gear L, the gear M, the boxing, the shaft of gear M journaled in said boxing and having the handle M³, and the casing having a slot in which said shaft is movable up and down substantially as set forth.

3. In an indicator substantially as described, the combination of the casing having a hinged section D provided with a slot N, the drum F having a gear L, and supported on said section D, the shaft M′ having a gear meshing with the gear L and operating in the slot N, the shaft M′ being movable bodily in the slot N in a direction at right angles to its axis and the boxing supporting the shaft M′ substantially as set forth.

4. An indicator comprising the casing having sight-openings E E′ and G G′, the time-indicator having inscriptions arranged to be exposed through the openings G and G′, and the train-indicator having openings arranged to be exposed through openings E and E′, the said train-indicator having its inscriptions arranged in two series and being movable longitudinally, whereby either of said series may be exposed through the openings E and E′ substantially as set forth.

5. An indicator comprising the casing having sight-openings E and E′, G and G′, the time-indicator consisting of a drum arranged horizontally and having inscriptions which may be exposed through the openings G, G′, the train-indicator in the form of a drum having upper and lower series of inscriptions and movable longitudinally and rotatably and an operating-shaft geared with the train-indicator and adapted to rotate the same, and to move it longitudinally, substantially as set forth.

WILLIAM M. SIX.
O. RUSH DAILY.

Witnesses:
EMPSON T. LANE,
J. N. RITCHIE.