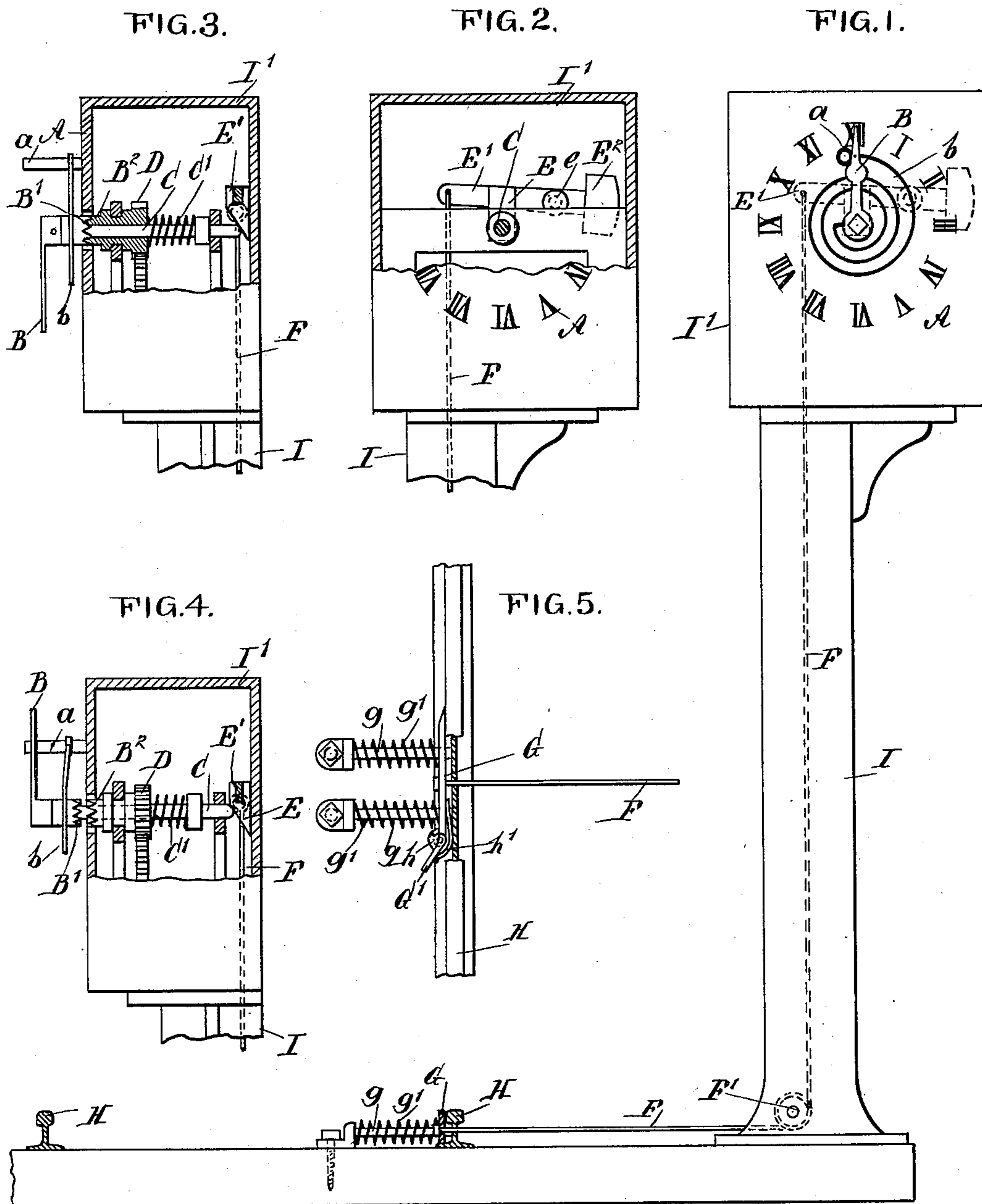


No. 615,934.

Patented Dec. 13, 1898.

H. J. WEMETT.  
RAILWAY TIME SIGNAL.  
(Application filed Jan. 15, 1898.)

(No Model.)



WITNESSES:

*Donn Titchell*  
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# UNITED STATES PATENT OFFICE.

HENRY J. WEMETT, OF LIMA, NEW YORK.

## RAILWAY TIME-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 615,934, dated December 13, 1898.

Application filed January 15, 1898. Serial No. 666,811. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY J. WEMETT, of South Lima, in the county of Livingston and State of New York, have invented a new and Improved Railway Signaling Device, of which the following is a full, clear, and exact description.

My invention relates to an improvement in railway signaling devices, having for its object the operation of a signal in such a manner that it will clearly indicate to an engineer what length of time has elapsed since the preceding train passed by a certain point, and comprises a clock mechanism to be mounted adjacent the track, and with an easily visible clock face and dial and a hand which may be freed from the clock mechanism and returned to zero, said freeing of the hand being caused by the action of a trip operated by a passing train.

The invention further consists of novel features which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an elevation of my device, showing the clock-face. Fig. 2 is an elevation of the casing inclosing the clock mechanism, showing a portion of the face removed. Fig. 3 is a side elevation, partially in section, showing the mechanism for freeing the hand. Fig. 4 is a similar view with the parts in a different position, and Fig. 5 is a plan view showing one rail and a trip mechanism by which the signaling device may be operated.

The result sought to be accomplished by my device is to give notice to the engineer or other members of a train-crew of the time which has elapsed since the passage of the last train. This is accomplished by mechanism one form of which is hereinafter described.

The mechanism herein shown is understood to be only one form in which my invention may be embodied; but it may be varied in many minor ways without changing the essential characteristics thereof. Close alongside the track and where it will be readily seen by the engineer is mounted upon a pillar I a casing I'. This casing contains a clock

mechanism which may be operated by a spring, a weight, or any other suitable means. The exact construction of the clock mechanism is not material, and consequently it is not described in detail. The requisite is that it should have a hand B extending outside the case, which hand shall move in the manner of the ordinary minute-hand of a clock. This hand B is mounted upon a central shaft C and is provided with one half B' of a clutch mechanism, the other half B<sup>2</sup> being connected to and operated by the clock mechanism. The two parts B' and B<sup>2</sup> are held in engagement by means of a spring C', which surrounds the inner portion of the shaft C and holds the toothed or serrated edges of the two parts B' and B<sup>2</sup> in contact. While these two parts of the clutch mechanism are in contact the hand B will be revolved. If the shaft C is moved outwardly or toward the left, as shown in Fig. 4, the hand B will be freed from the clock mechanism and be at liberty to swing backward. When this is done, the hand is swung backward by the action of the spring b, secured at one end to a pin a, projecting from the face of the clock, and at its other end to the central hub of the hand B. The pin a projects from the face of the clock a sufficient distance to be engaged by the hand B. This determines the zero-point of the dial, which is placed, as usual, at the point marked "12."

At the rear end of the shaft C is a lever E', which is pivoted at e and is provided at one end with a counterweight E<sup>2</sup> and is also provided with a wedge or cam surface E, adapted to engage the rear end of the shaft C. If the lever E' is swung downward under the influence of a pull upon the cord or wire F, which is connected to one end thereof, the wedge or cam surface E will engage the end of the shaft and force the hand B outward, so as to free the same from the clock mechanism. The lever E' is operated by means of the cord or wire F, which passes downward through the standard or post I and then horizontally to the trip-operating lever G.

The lever G consists of a thin plate located close alongside the head of the rail and having an extension G' hinged thereto at h. This hinge is one which will permit the part G' to swing close in to the rail when engaged on

the outer side, but is rigid in the other direction. The extension  $G'$  is normally held away from the rail by the spring  $h'$ . The plate  $G$  is mounted to slide upon bars  $g$ , which extend inwardly from the rail and at right angles thereto. Surrounding the bars  $g$  are spirally-coiled springs  $g'$ , which serve to hold the plate  $G$  toward the rail, yet permit the same to move inward when engaged by the flanges of the wheels. The wheel-flanges of a train moving in one direction will engage the side of the extension  $G'$  which is next to the rail and force the plate away from the rail, and thus operate the mechanism for releasing the hand  $B$ . The wheel-flanges of a train from the other direction would engage the opposite pointed end of the plate  $G$  and pass outside the plate, thus holding it close to the rail. The hinged portion  $G'$  would then swing close to the rail. The movement of the plate  $G$  away from the rail due to its engagement by the wheel-flanges will thus free the hand  $B$  from connection with the clock mechanism, and the hand will then be carried back to zero by the spring  $b$ . As soon as the train has passed the hand  $B$  will be engaged with the clock mechanism and will begin to swing about its center. To the engineer of the train following it will thus indicate the length of time which has elapsed since the passage of the last train. These clocks may be located at any convenient point in the line and being inexpensive in construction may be used in large numbers and so enable the engineers to know something as to the position of the preceding train.

It is evident that other means may be employed for tripping the hand  $B$ . A lever located in any position so that it may be struck by the passage of a train will answer as well as the plate  $G$  and the mechanism described in connection therewith. I do not therefore

wish to be limited to the use of the exact mechanism described in all its parts.

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

1. A railway signaling device, comprising a clock mechanism having a minute-hand mounted upon a longitudinally-movable shaft, a clutch mechanism adapted to connect said shaft with the driving mechanism, a spring acting on said hand to return it to zero when released, a stop for said hand located at the zero-point, a lever pivoted to one side of and extending across the shaft, said lever having a wedge or cam surface adapted to engage the end of said shaft and being counter-weighted, a bar adapted to be engaged and moved by the wheel-flanges of a passing train, and connections from said bar to the lever carrying the wedge, whereby the shaft is moved to release the hand by the passage of a train, substantially as described.

2. A railway signaling device, comprising a clock mechanism having a releasable hand and means for returning it to zero when released, a lever adapted to release said hand, a spring-held plate lying alongside the rail and adapted to be engaged by the wheel-flanges of passing trains, said plate having a hinged section at one end, a spring and a stop acting upon said hinged section to normally hold it at an angle with the rail, but permitting its swinging inward against the rail, whereby the plate is moved outward by trains passing in one direction and is unaffected by trains passing in the other direction, and connections from said plate to the releasing-lever, substantially as described.

HENRY J. WEMETT.

Witnesses:

EVERARD BOLTON MARSHALL,  
H. L. REYNOLDS.