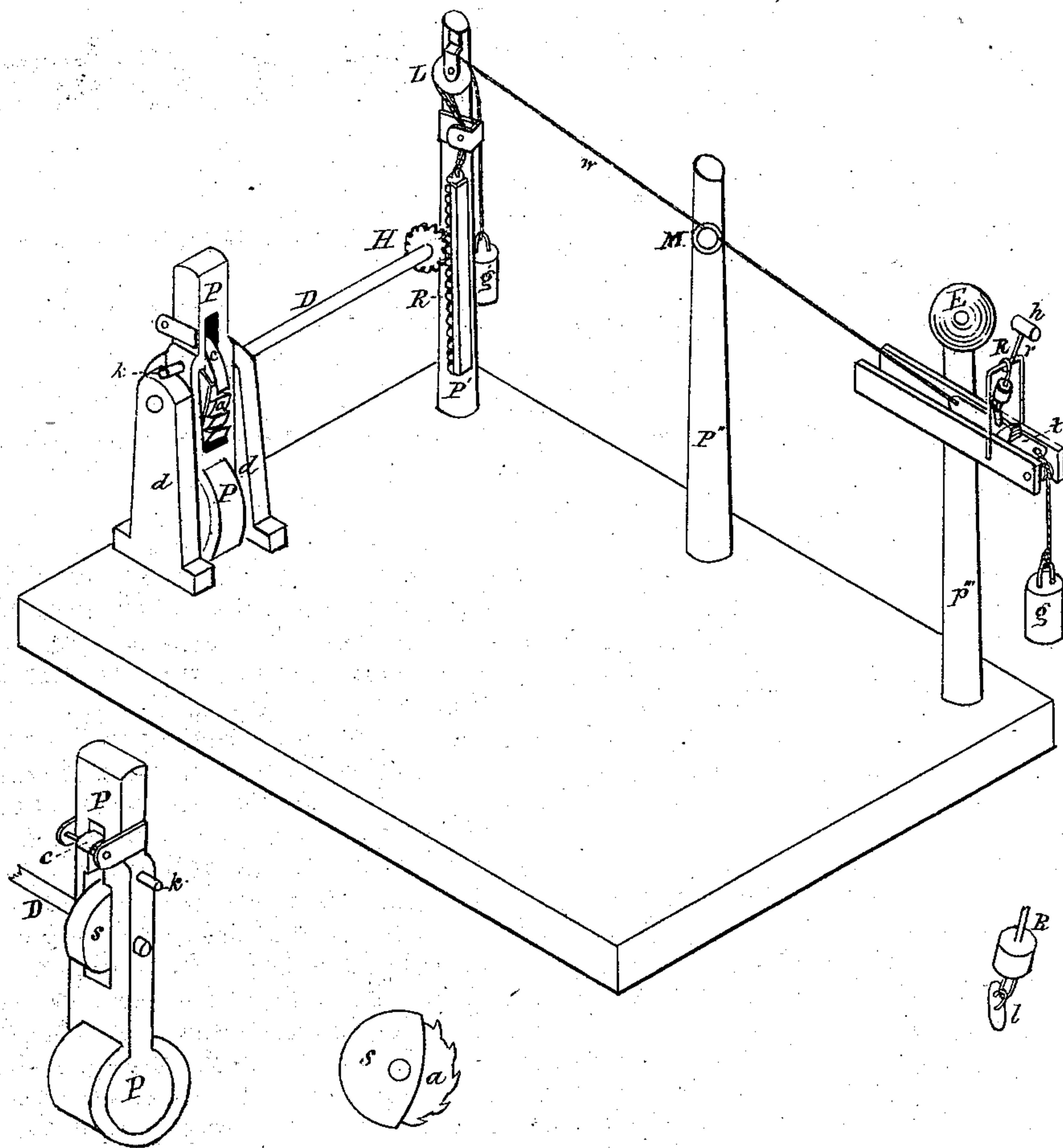


J. A. McCLURE.
Railroad-Signals.

No. 154,559.

Patented Sept. 1, 1874.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH A. McCLURE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-SIGNALS.

Specification forming part of Letters Patent No. **154,559**, dated September 1, 1874; application filed August 6, 1874.

To all whom it may concern:

Be it known that I, JOSEPH A. McCLURE, of Philadelphia city, State of Pennsylvania, have invented an Improvement in Railroad-Signals, of which the following is a specification:

This invention relates to improved apparatus for signaling the approach of locomotives or railroad-trains, and consists in placing a pendulous-weighted lever at some point near a railroad-track, where it will be operated upon by the wheels or some other part of the passing locomotive or cars, and by its connection with a suitable apparatus be made to ring a distant alarm-bell.

In the accompanying drawings, P is the weighted lever suspended between the two standards *d d*, loosely upon the shaft D, which is connected with the rack H and pinion R attached to the post P'. The vertical slot in the lever P incloses the ratchet-wheel *a*, which is attached firmly to the shaft D. The pawl *c* is hinged to the rear, and passes through the slot so as to act upon the ratchet-wheel, which is partly covered by the shield *s*, so that the pawl will not act upon the ratchet when the train is passing out from the station. The stop *k* is to prevent the lower end of the weighted lever P from coming up too high when the upper end is thrown forward, in which case it might catch against some part of the passing train. The top of the lever P is placed near the track, so that the wheel of

the locomotive or some other part of the train shall strike it and throw it forward, when the pawl *c* engages the ratchet-wheel *a*, which turns the shaft D and pinion H, and the rack R is drawn down, pulling the cord or wire *w*. The wire *w*, being carried over the pulleys L and M, connects with the sliding trip *t*, attached to the post P'', or some part of the station-house, and rings the alarm-bell E. The weight *g* is to pull the sliding trip *t* back, and keep the wire *w* at its proper tension. To avoid the use of springs in the apparatus for ringing the alarm-bell, the hammer *h* is attached to the weighted lever *r*, to the lower end of which is suspended, by a toggle-joint, the catch *l*, which catch engages the trip *t* when moving forward, but slides over it upon its return. Another weight, *g'*, is attached to the rack R by a cord or wire passing over the pulley L, to give the proper tension. The position of the lever P is reversed when placed on the opposite side of the station, so that only the approaching trains are signaled.

I claim—

The weighted lever P, provided with the ratchet-wheel *a*, pawl *c*, and shield *s*, in combination with suitable device for ringing an alarm-bell at a distance, substantially as set forth.

JOSEPH A. McCLURE.

Witnesses:

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