

(No Model.)

E. A. SHARP.
RAILWAY SIGNAL.

No. 385,963.

Patented July 10, 1888.

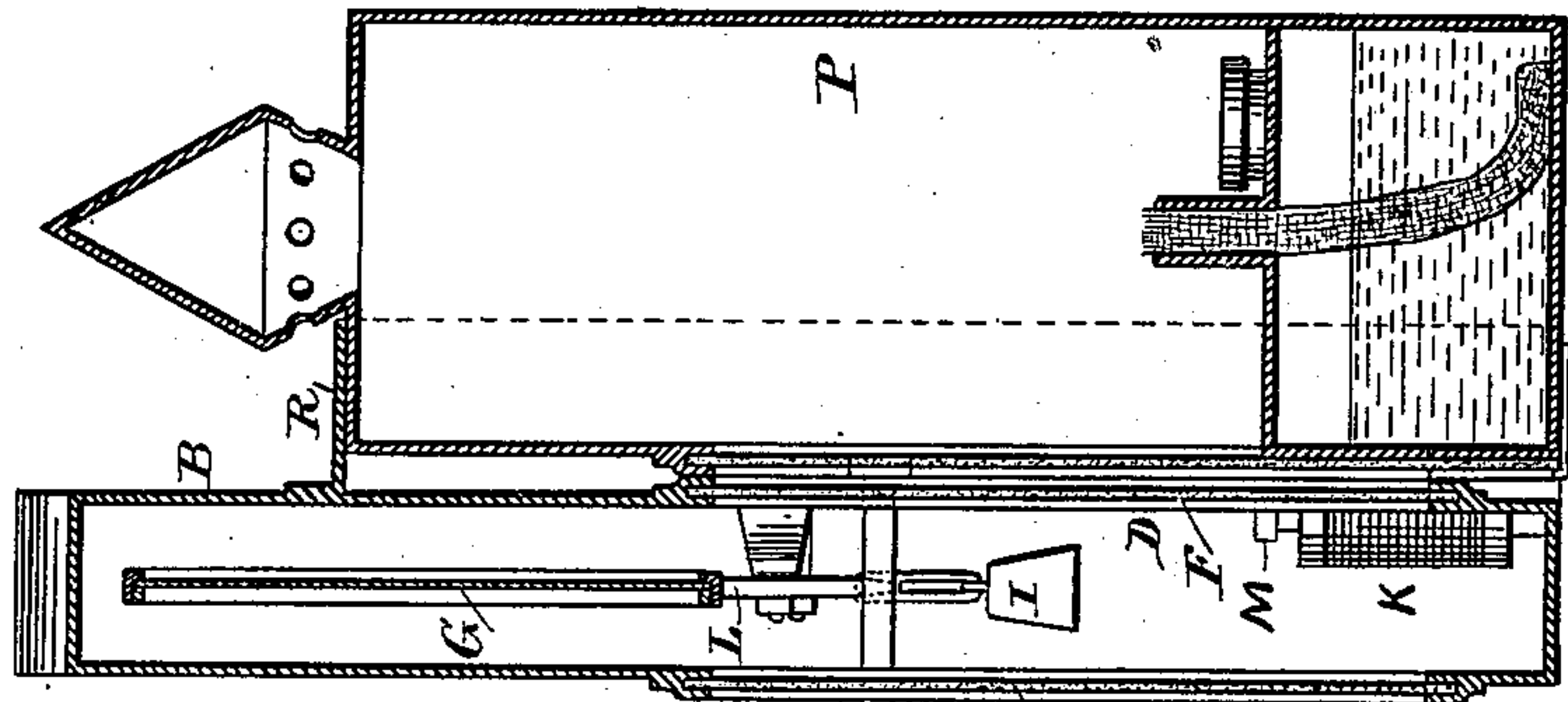


Fig. 3.

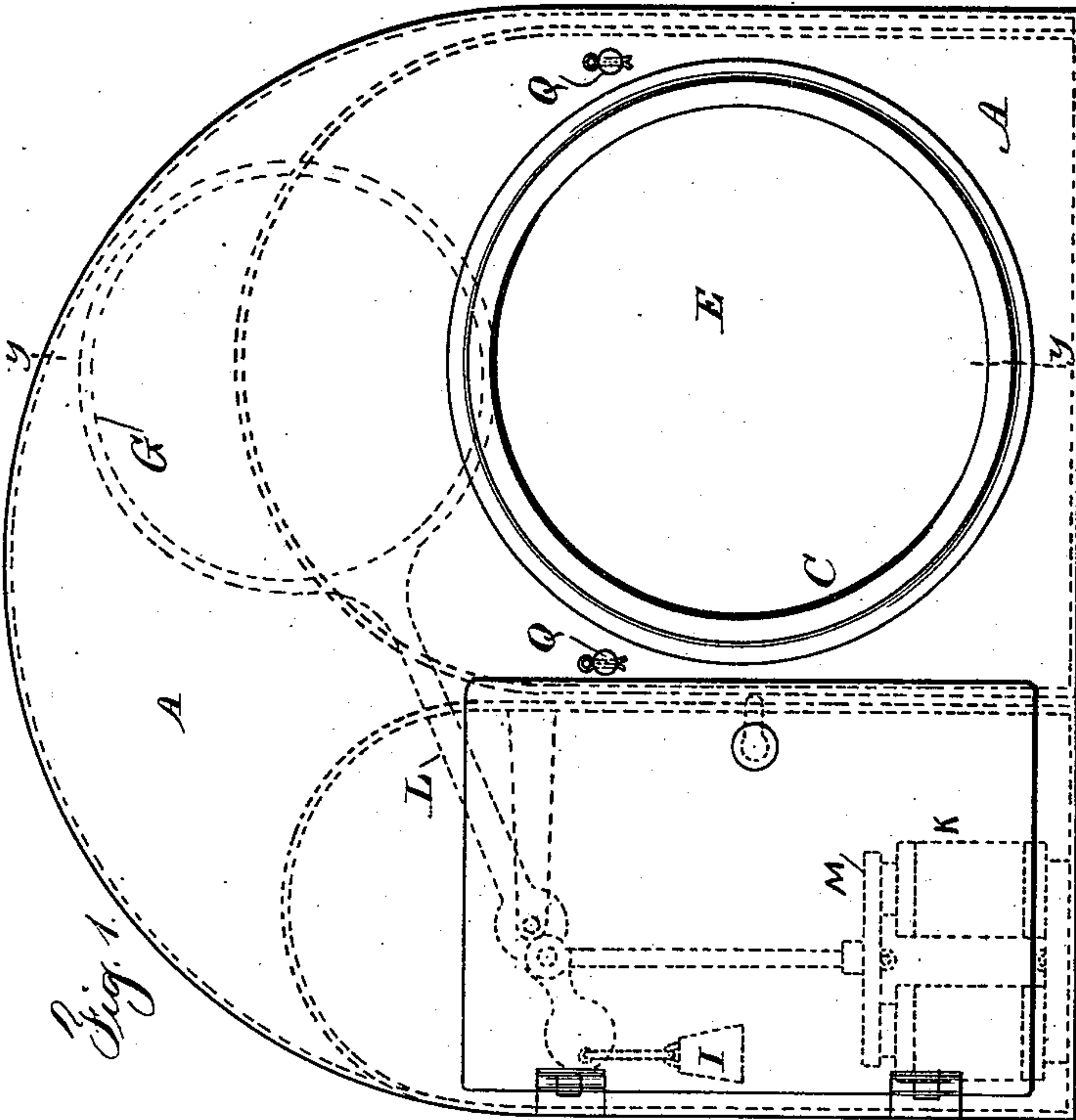


Fig. 1.

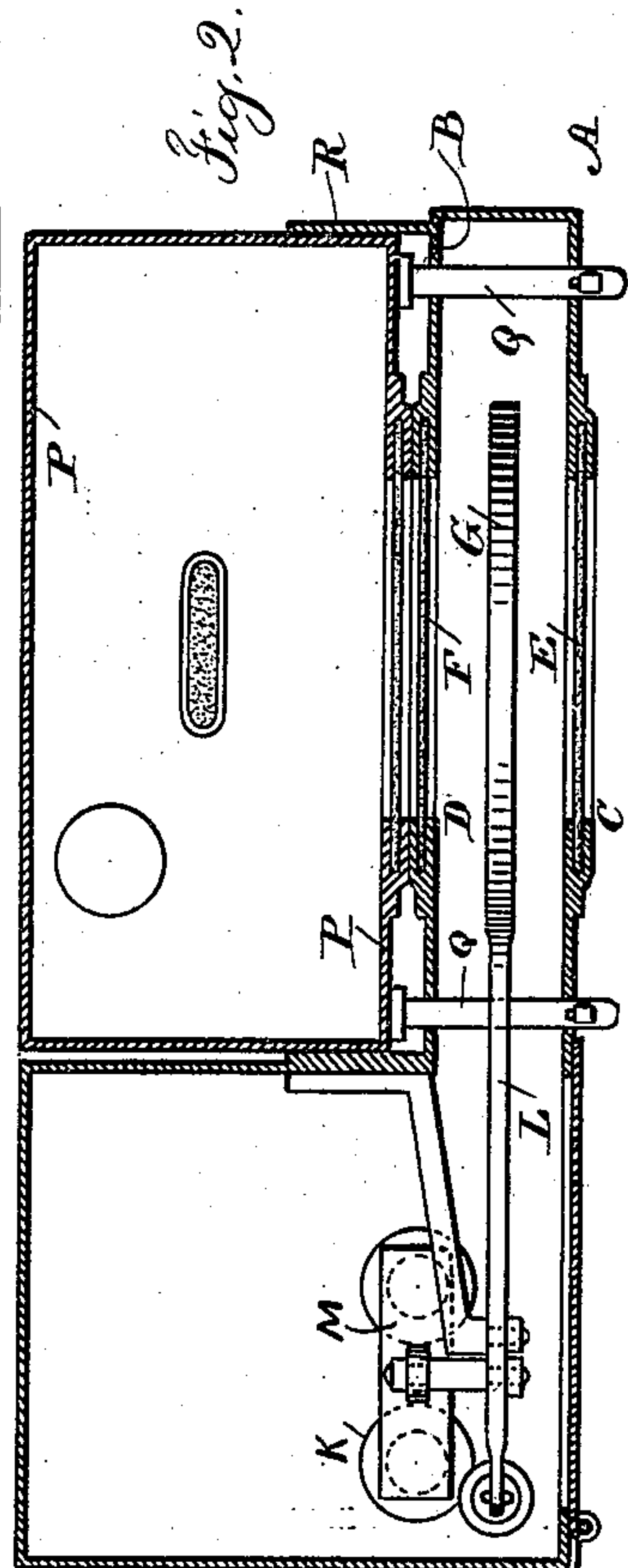


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

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RAILWAY-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 385,963, dated July 10, 1888.

Application filed March 12, 1888. Serial No. 266,942. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. SHARP, of Rogers Park, in the county of Cook and State of Illinois, have invented an Improvement in Railway-Signals, of which the following is a specification.

Before my invention railway-signals had been made with a swinging lever carrying a banner or layer of translucent material of a red or other suitable color for giving the signal, and this banner has been worked by electrical appliances, so as to maintain a danger-signal in view until the passing train has reached a safe distance, after which this red banner is removed. In signals of this character a lamp has sometimes been placed so as to illuminate the banner at night; but the lamp, being within the same case as that which holds the banner, is objectionable, because the banner becomes smoked and the electrical devices injured by the heat, especially where the flame of the lamp is too high or the oil overflows and catches fire.

In my improvements the banner-case is complete and independent of the lamp, and the lamp is applied at one side of the case and outside of the same, so that the banner-case and electrical devices are fully protected from injury, and the lamp can be removed for trimming and lighting, which is a great convenience, especially in the elevated positions where railway-signals are usually employed.

In the drawings, Figure 1 is an elevation of the railway-signal. Fig. 2 is a sectional plan at the line *x x*, representing the signal and lamp; and Fig. 3 is a vertical section at the line *y y* of Fig. 1.

The signal-case is made of the two sides A B, connected together, and with openings at C D, which are usually circular and filled with glass or mica, as shown at E F. The red or other colored banner G is upon a lever, L, so pivoted that it may swing up into the case and out of line with the openings C D; or it may be swung down into line with said openings, so as to be visible through the same and give the danger or other signal, and the banner and lever are counterpoised at I, so that the same

may be moved with but little power. The electro-magnet K and armature M are employed to move the banner and lever, and a system of electric connections similar to those represented in Letters Patent No. 316,201 may be made use of, or any other desired electric devices.

The lamp case P is provided with an oil-receptacle and a suitable burner, and one side of the case is open, and this opening may have a glass, and the projecting arms Q upon the case of the lamp pass through openings in the case A B, so that the lamp is hooked upon the signal-case, and is easily removed for trimming or lighting. The lamp is not put in its place against the side of the signal until after it is lighted, so as not to obstruct the view of the signal by transmitted light during the day-time. The projecting shield R prevents snow or rain passing down between the signal-case and the lamp when the latter is in position, and the connecting devices for the lamp are not such that they become obstructed by snow or ice, and the signal and signal-case are not liable to injury should the lamp catch fire, smoke, or explode.

I claim as my invention—

1. The combination, with the closed signal-case having within it the swinging signal or banner, of a movable lamp that is independent of the case and hooks or connecting devices for supporting the lamp outside of the signal-case, substantially as set forth.

2. The combination, with the removable independent lamp and the connecting or suspending devices, of a signal-case having coinciding openings containing transparent material, a lever and banner or signal within the case, and counter-weight to the banner-lever, and an electro-magnet for moving such banner and lever, substantially as set forth.

Signed by me this 24th day of September, 1887.

EDWARD A. SHARP.

Witnesses:

N. J. ZOLL,
J. C. SHARP.