

(No Model.)

J. A. I. CLAUDON.
RAILROAD SIGNAL.

No. 266,097.

Patented Oct. 17, 1882.

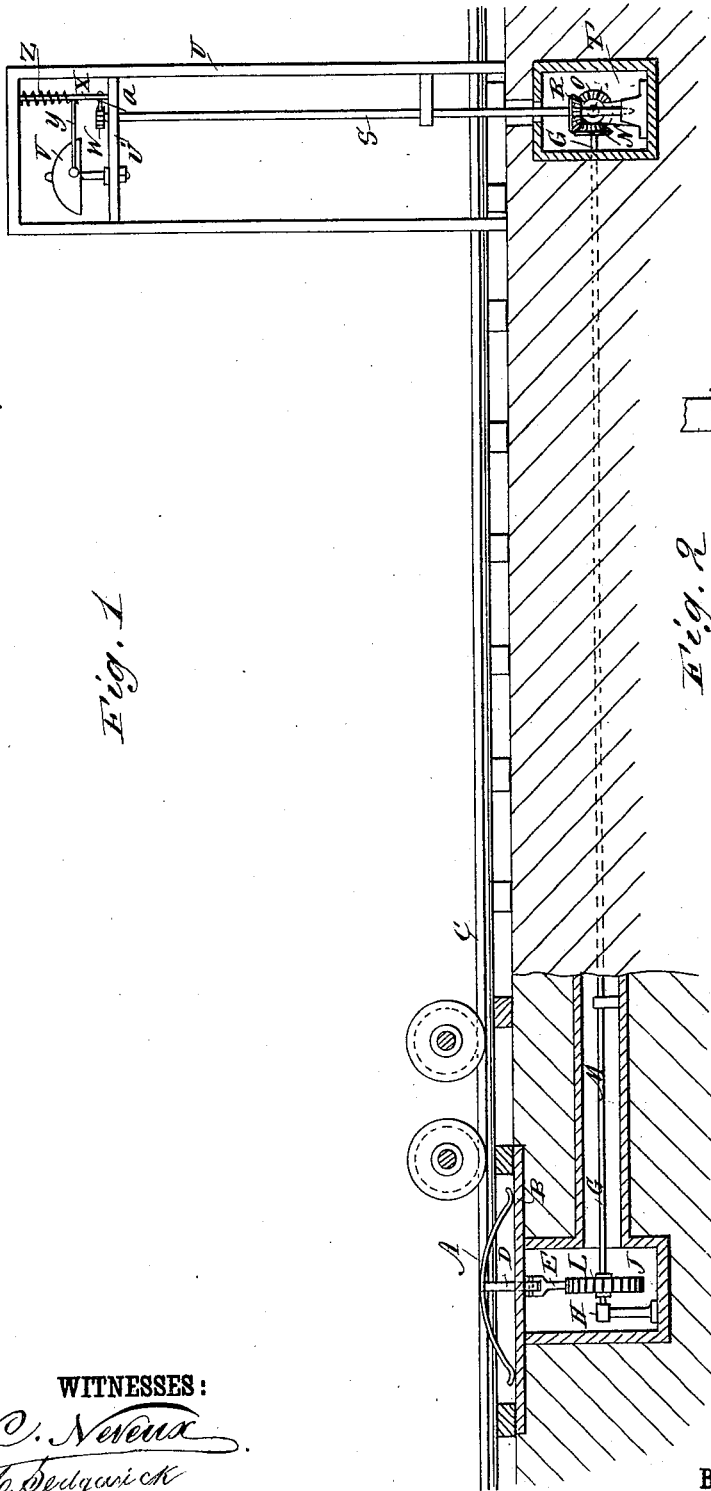


Fig. 1

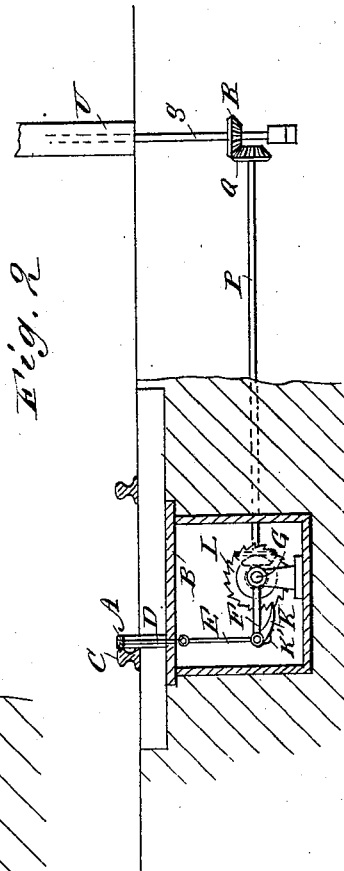


Fig. 2

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UNITED STATES PATENT OFFICE.

JOSEPH A. I. CLAUDON, OF TITUSVILLE, PENNSYLVANIA.

RAILROAD-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 266,097, dated October 17, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. I. CLAUDON, of Titusville, in the county of Crawford and State of Pennsylvania, have invented a new and Improved Railroad-Signal, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved railroad-signal for automatically signaling the approach of trains at crossings, bridges, stations, &c.

The invention consists in a spring at the side of the rail, connected with a pawl adapted to act on a ratchet-wheel in an underground box, which ratchet-wheel is mounted on a shaft in a longitudinal underground box or tube parallel with the rails, which shaft is connected by means of right-angled shafts and bevel cog-wheels with one or more vertical shafts journaled in vertical frames carrying bells adapted to be sounded by spring-hammers, which vertical frames are a greater or less distance from the spring. Every time a wheel depresses the spring the gongs are sounded, and the approach of the train will thus be signaled at stations, bridges, crossings, &c.

Reference is to be had to the accompanying drawings, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal sectional elevation of my improved railroad-signal, showing the manner in which it is arranged. Fig. 2 is a cross-sectional elevation of the same.

A semi-elliptical or other suitable spring, A, rests on a plate, B, at the inner side of the rail C in such a manner that the highest point of this spring will be about flush with the top of the rail. A rod, D, projecting downward from this spring, is pivoted to a rod, E, pivoted to the free end of an arm or arms, F, pivoted on a shaft, G, journaled in a standard, H, in an underground box, J, below the tracks. A pawl, K, pivoted to the free end of the arm or arms F, is pressed by a spring, K', against the teeth of a ratchet-wheel, L, mounted on the shaft G within the box J. This shaft G extends through and is journaled in a longitudinal underground box or tube, M, below and between the rails, which box or tube extends any desired length from the box J. On

the other end of the shaft G a bevel cog-wheel, N, is mounted, which engages with a bevel cog-wheel, O, on one end of a horizontal shaft, P, at right angles to the shaft G. On the other end of the shaft P a bevel cog-wheel, Q, is mounted, which engages with a bevel cog-wheel, R, on a vertical shaft, S, journaled in a bearing in an underground box, T, at the side of the track, and in an upright frame, U, provided with a cross-piece, U', carrying a gong or bell, V. A ratchet-wheel, W, is mounted on the upper end of the shaft S, and against this ratchet-wheel U a finger, a, of a vertical journaled rod, X, rests, which rod is provided with a hammer-arm, Y, and is surrounded by spiral torsion-spring Z, or other spring which presses the hammer-arm Y against the gong or bell V.

The operation is as follows: When a train passes over the track the flange of one wheel of each axle depresses the spring A, thereby depressing the arm F and causing the pawl K to partly rotate the shaft G, which causes a rotation of the vertical shaft S. The ratchet-wheel W presses against the finger a and moves the hammer Y from the gong, and the spring Z throws it back, whereby the gong will be sounded. The gong is thus sounded several times for each time the spring A is depressed by the flange of a wheel, and in this manner the approach of a train can be signaled at bridges, crossings, stations, tunnels, &c. One or more shafts S and gongs V may be combined with and operated by one shaft G.

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

1. A railroad-signal made substantially as herein shown and described, and consisting of a spring at the side of the rail, and provided with a rod pivoted to arms, to which a pawl is pivoted which acts upon a ratchet-wheel on a shaft connected with one or more shafts acting on gongs or bells, whereby these gongs or bells will be sounded every time the spring is depressed by the wheels, as set forth.

2. In a railway-signal, the combination, with the spring A at the side of the rail, of the pawl K, connected therewith, the ratchet-wheel L, the shaft G, the shaft P, the bevel cog-wheels N, O, Q, and R, the vertical shaft S, the frame

U, the bell or gong V, the ratchet-wheel W, and the spring-hammer X Y, substantially as herein shown and described, and for the purpose set forth.

5 3. In a railroad-signal, the combination, with the spring A at the side of the rail, of the pawl K, connected therewith, the ratchet-wheel L in an underground box, J, the shaft G, the box or tube M, the shaft P, the bevel cog-wheels

N O Q R, the vertical shaft S, the frame U, the bell or gong V, the ratchet-wheel W, and the spring-hammer X Y, substantially as herein shown and described, and for the purpose set forth.

JOS. A. I. CLAUDON.

Witnesses:

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