

(No Model.)

C. P. WILKINSON.
ELECTRIC TRACK SIGNAL.

No. 567,760.

Patented Sept. 15, 1896.

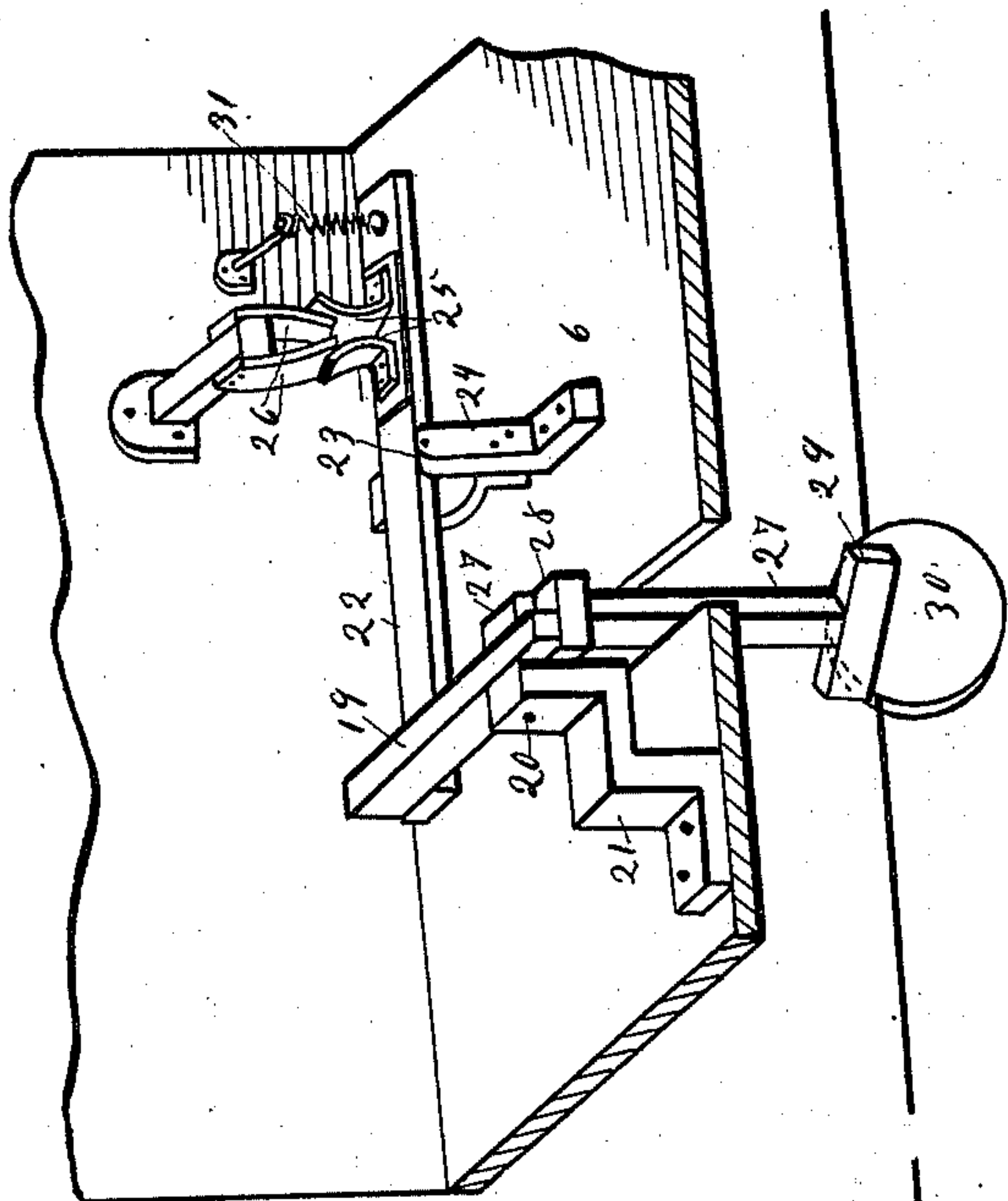


Fig. 2.

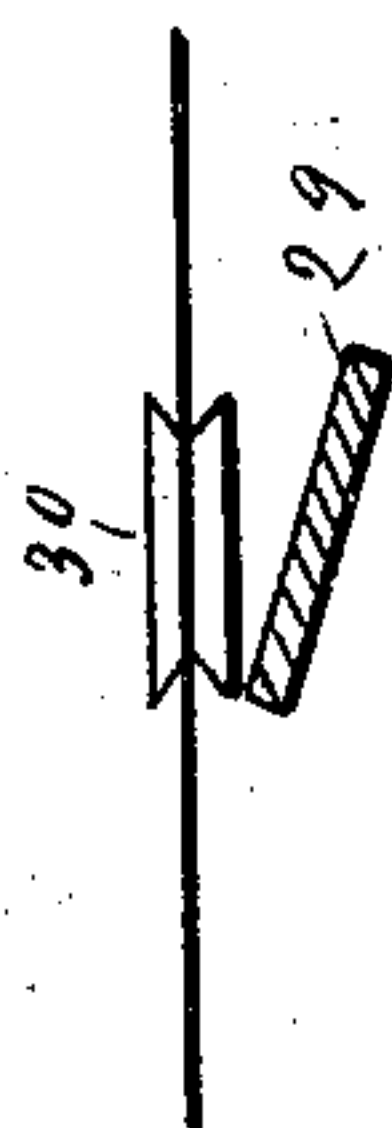


Fig. 4.

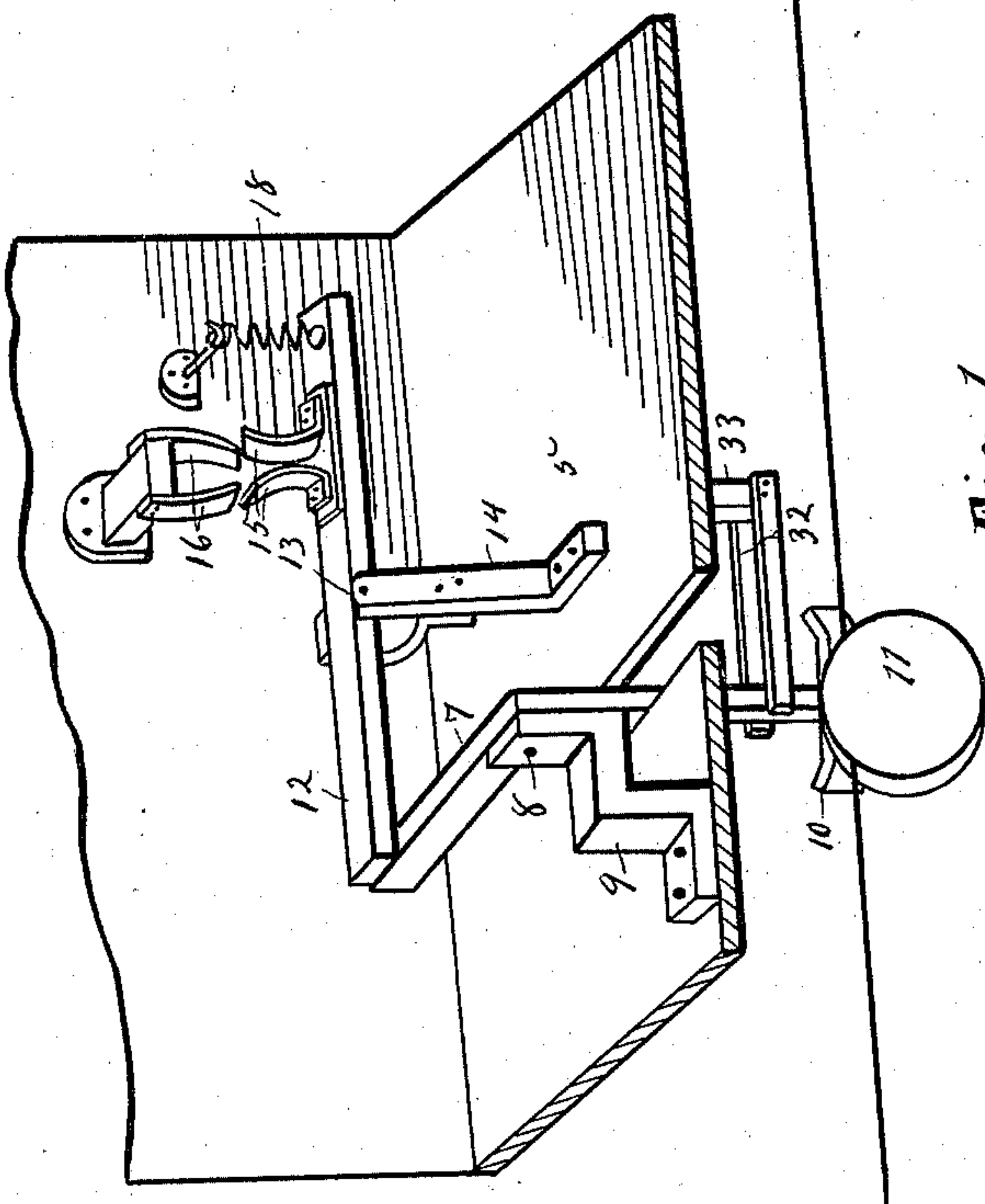


Fig. 1.



Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES P. WILKINSON, OF JACKSON, MICHIGAN.

ELECTRIC TRACK-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 567,760, dated September 15, 1896.

Application filed December 12, 1895. Serial No. 571,911. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. WILKINSON, a citizen of the United States, residing at Jackson, in the county of Jackson, State of Michigan, have invented a new and useful Electric Track-Signal, of which the following is a specification.

This invention relates to electric track-signals in which the trolley-wheel of the cars contacts with a lever of circuit-makers and circuit-breakers supported by the trolley-wire to make and break a signal-circuit to set the signal to "danger" and to "safety."

It has for its object certain improvements in circuit-makers and circuit-breakers, as set forth in the following description and claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of a circuit-breaker to be located, when in use, at the crossing, parts of the casing being broken away to better show interior; Fig. 2, same style of view showing a circuit-maker to be located, when in use, out a proper distance from the crossing; Fig. 3, a longitudinal section of the T-head which is operated on by the trolley-wheel in Fig. 1, taken near a line with the trolley-wire; and Fig. 4 is a longitudinal section of the T-head in Fig. 2 on a line near the trolley-wire.

Referring to the parts of the drawings pointed out by numerals, 5 is the case of the circuit-breaker at the crossing. This of course may be where one railroad crosses another or where a wagon-road crosses a railroad. 6 is the case of the circuit-maker to be operated by an incoming car to make a suitable circuit (none being here shown) to give the signal at the crossing.

In Fig. 1, 7 is an elbow-lever, pivoted at 8 to a support 9. The lower end of this lever is provided with a T-head 10, convex on the side next to the trolley-wheel 11, and is in position to be swung a little laterally by contact of the side of the trolley-wheel as the car passes the crossing. (No car is shown.)

At 12 is a horizontal lever, centrally fulcrumed at 13 to a suitable support 14, and the rear end of the elbow-lever 7 is beneath one end of the lever 12. The other end of lever 12 supports the contact-points or circuit-terminals 15. These circuit-terminals would

normally be in contact with the contact-points 16 when the signal was sounding, (signal not shown,) but as here shown the operation is illustrated as when the trolley-wheel 11 is crowding the T-head 10 laterally to break the connection at 15 and 16 and stop the signal. When the left-hand end of lever 12 is raised, the spring 18 expands, and as soon as the trolley-wheel 11 passes the crossing said spring contracts and makes the connection again at 15 and 16.

In Fig. 2 the construction is quite similar. The lever 19 is pivoted at 20 to a support 21, and the rear end of lever 19 is over the left-hand end of the fulcrumed lever 22, the latter lever being fulcrumed at 23 to support 24. The other end of lever 22 bears the circuit-terminals 25, which contact with the contact-points 26. The upper end of a vertical lever 27 is pivoted to the support 21 by the same pivot 20, and said upper end of the lever 27 is provided with an integral lug 28, which lug catches beneath a projecting end of the lever 19 forward of its pivot 20.

The lower end of the vertical lever 27 is provided with a flat T-head set at an oblique angle to the trolley-wire, Fig. 4, so that when the trolley-wheel 30 of an incoming car contacts with the side of the T-head 29 the lever 27 will be tilted, causing the lug 28 to raise up on the projecting end of the fulcrumed lever 19, causing the rear end of said lever 19 to bear down on the left-hand end of lever 22 and bring the circuit-terminals 25 into contact with the contact-points 26 and cause the signal to sound at the crossing. The circuit-terminals 25 and contact-points 26 are normally disconnected; but as here shown they are connected, as when the trolley-wheel 30 is operating the lever 27 to give warning at the crossing of an incoming train. When the left end of the lever 22 is borne down, the right-hand end raises against the resistance of the spring 31, so that when the trolley-wheel 30 leaves the T-head 29, the spring 31 will disconnect the circuit-terminals 25 from the contact-points 26.

There is a spring-bar 32 each side of the lower portion of the elbow-lever 7, said spring-bars being attached at the other end to the support 33. A like spring may be each side

of the vertical lever 27 and for the same purpose, which purpose is to prevent the wind from swaying the levers laterally out of their proper position and yet allow the levers to
5 yield when the trolley-wheel 11 or 30 contacts with the T-head 10 or 29.

Since the invention consists of features of construction relating to the circuit-maker and the circuit-breaker, it is not deemed necessary
10 to show any circuits nor signals, since the operation, from what has been said, will be understood.

Having thus described my invention, what I claim as new, and desire to secure by Letters
15 Patent of the United States, is—

1. In a signaling apparatus, the combination of a fulcrumed lever bearing contact-points, and an elbow-lever having one end engaging the end of the fulcrumed lever and
20 the other end provided with a T-head con-

vex in horizontal cross-section, substantially as set forth.

2. The combination of a fulcrumed lever bearing contact-points, a lever to be operated by the trolley-wheel, said lever being pivoted
25 at the upper end to a suitable support, and provided with the lug, and an arm pivoted by the side of the lever and having the end extension beyond its pivot and over the lug to be engaged by it, and the other end en-
30 gaging the end of the fulcrumed lever, substantially as set forth.

In testimony of the foregoing I have hereunto set my hand in the presence of two witnesses.

CHARLES P. WILKINSON.

Witnesses:

LUCIEN G. RANSOM,
WALTER CROSBY.