

No. 875,123.

PATENTED DEC. 31, 1907.

P. H. SLAUGHTER.
RAILWAY SIGNAL.

APPLICATION FILED MAY 2, 1907.

3 SHEETS—SHEET 1.

Fig-7.

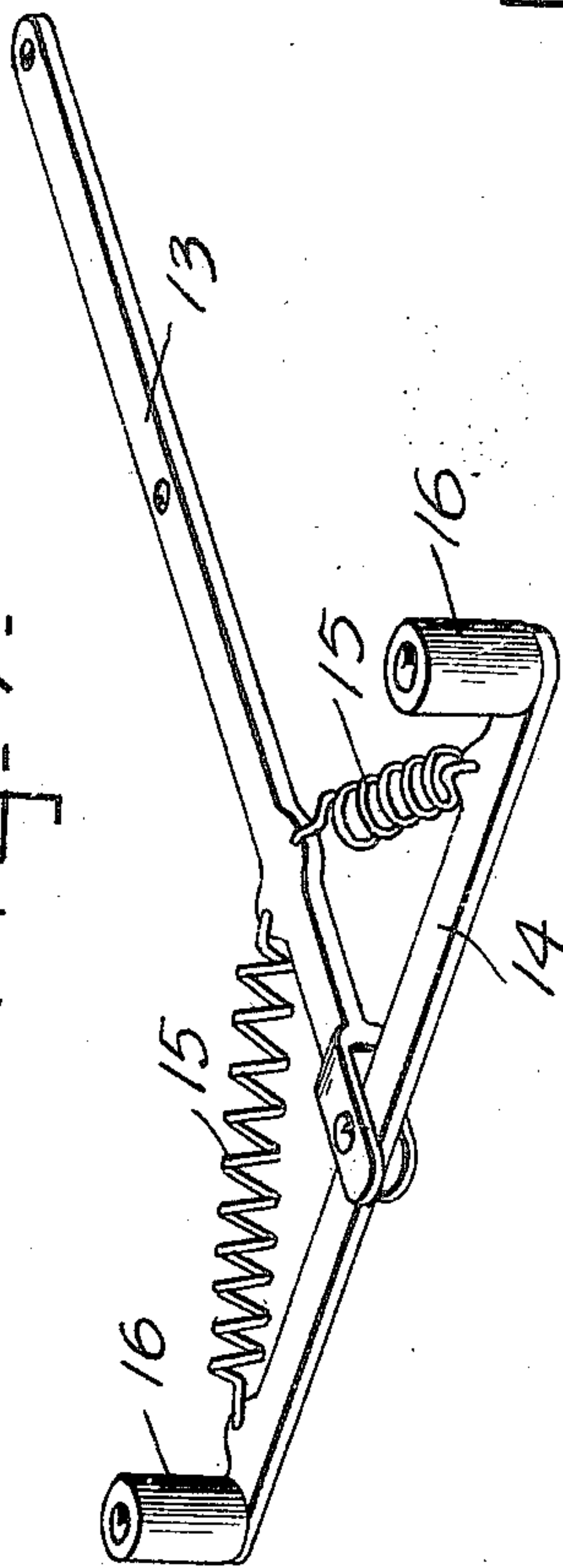
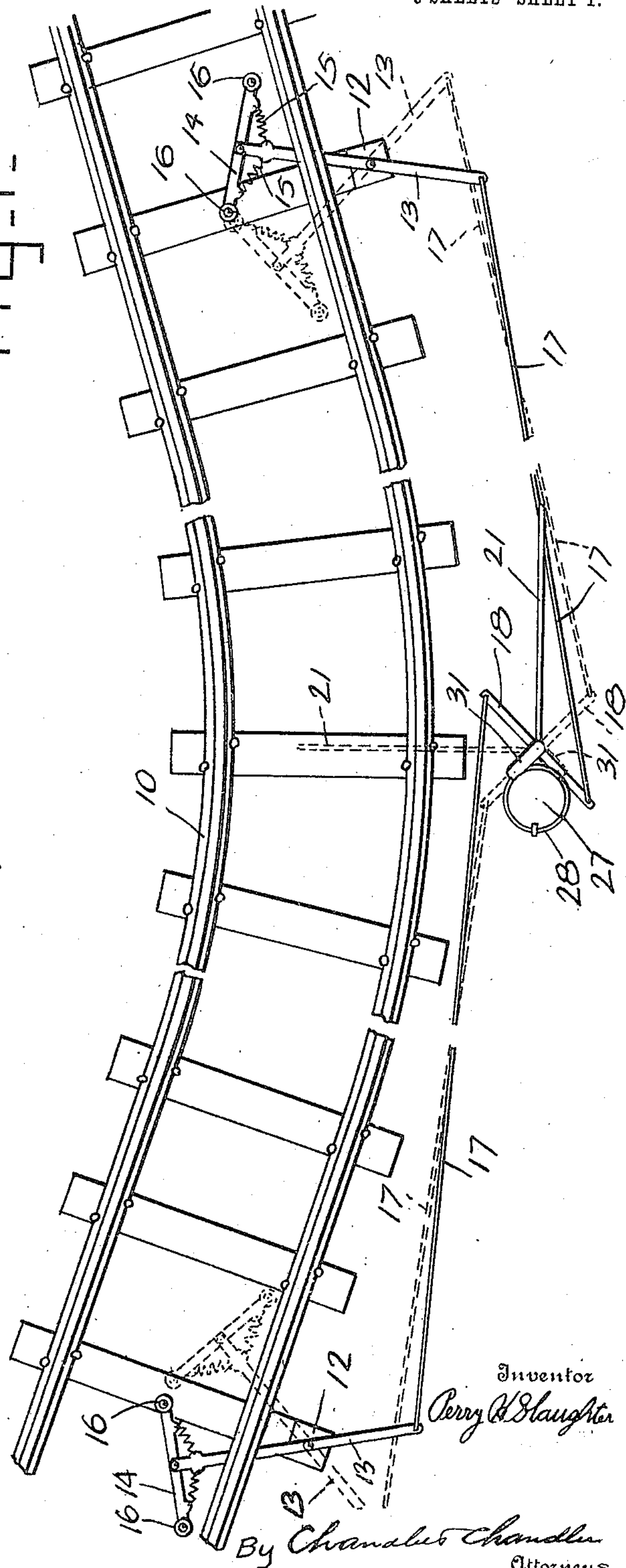


Fig-1.



Witnesses

W. M. Rockwell

H. G. Smith

Inventor

Perry H. Slaughter

By *Charles Chandler*
Attorneys

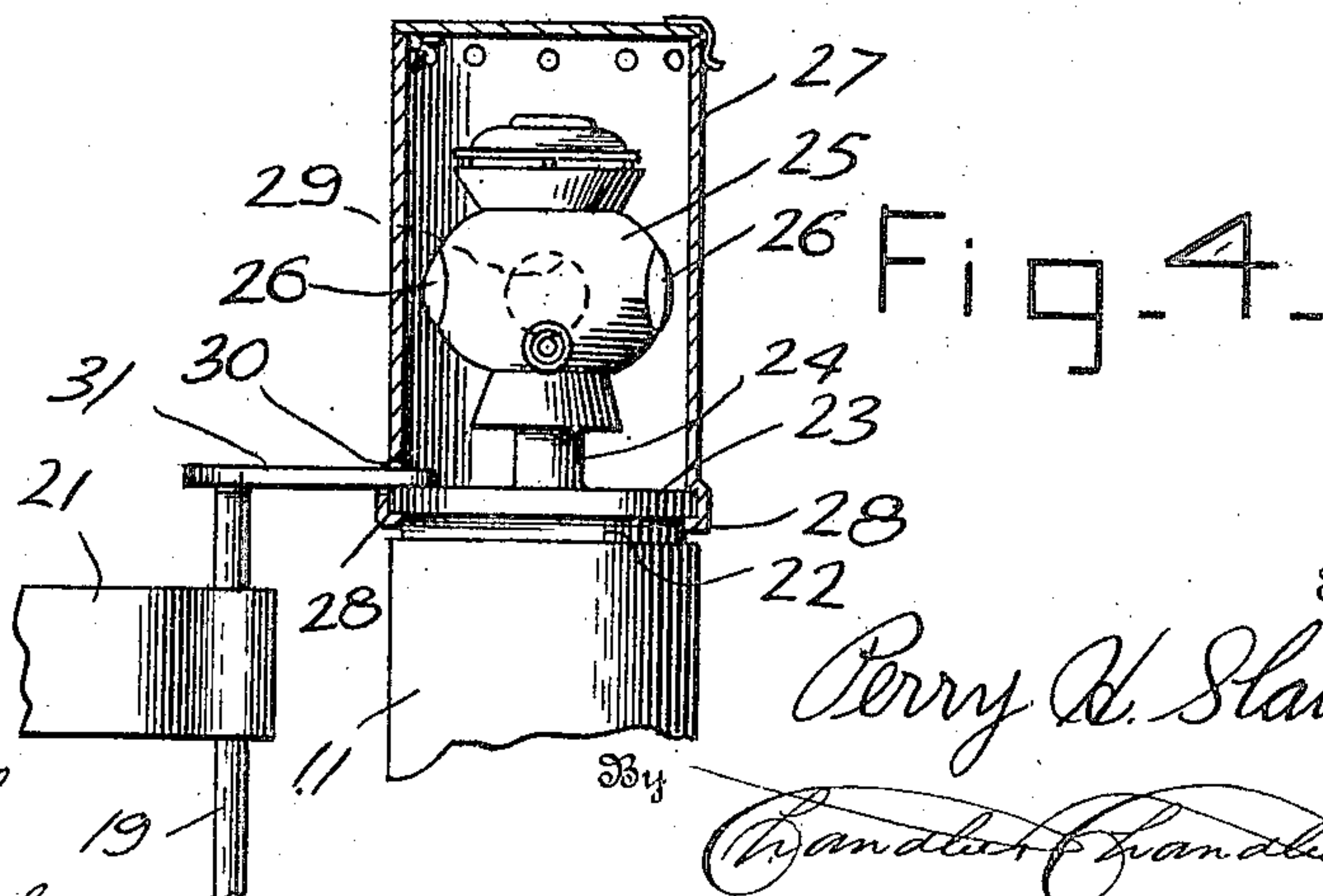
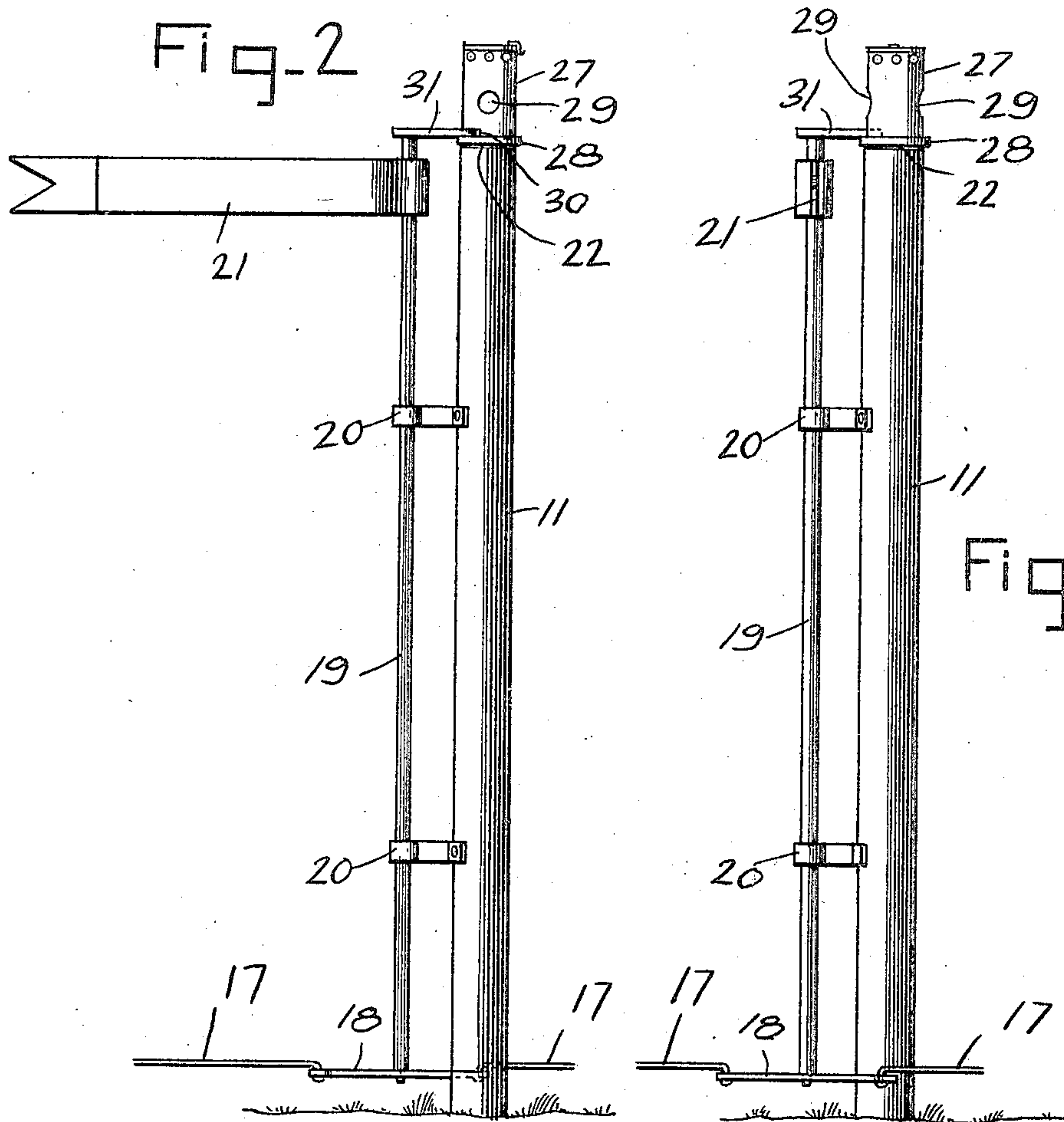
No. 875,123.

PATENTED DEC. 31, 1907.

P. H. SLAUGHTER.
RAILWAY SIGNAL.

APPLICATION FILED MAY 2, 1907.

3 SHEETS—SHEET 2.



Witnesses

M. Rockwell

H. G. Smith

Inventor

Perry H. Slaughter

By

Charles H. Chandler

Attorney

No. 875,123.

PATENTED DEC. 31, 1907.

P. H. SLAUGHTER.
RAILWAY SIGNAL.

APPLICATION FILED MAY 2, 1907.

3 SHEETS—SHEET 3.

Fig. 6.

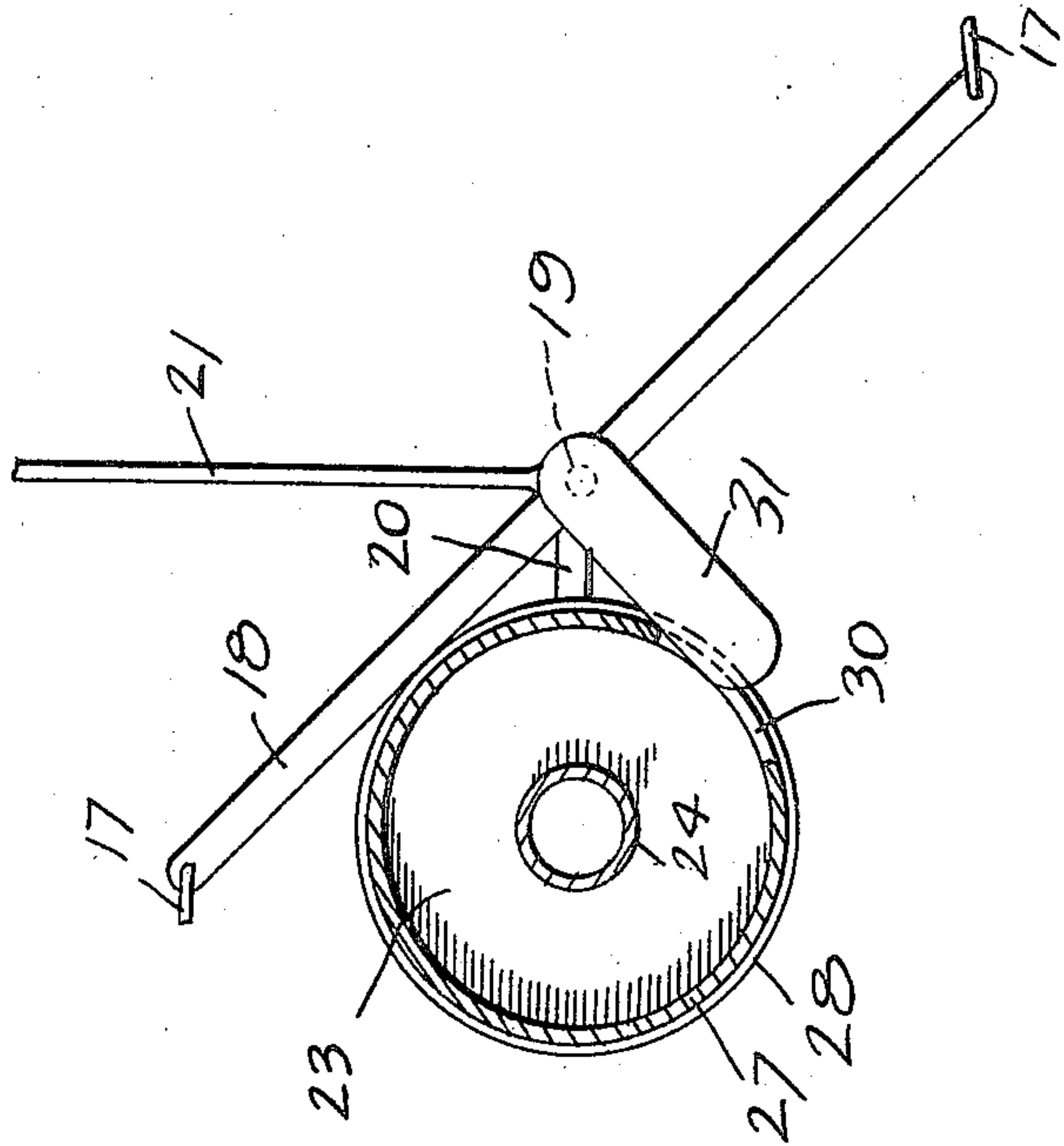
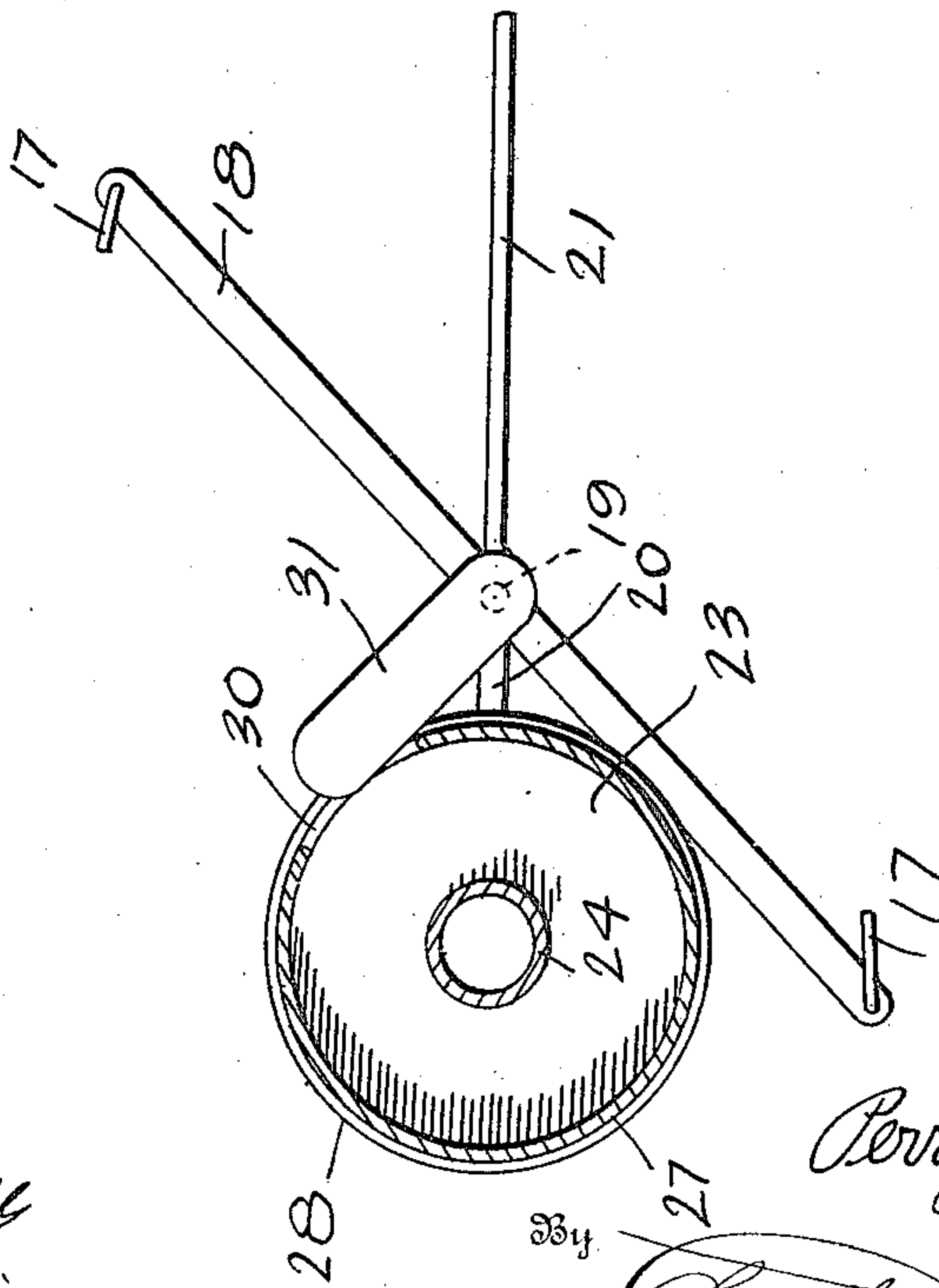


Fig. 5.



Witnesses

W. H. Rockwell

G. G. Smith

Inventor

Perry H. Slaughter

Samuel Thomas

Attorney

UNITED STATES PATENT OFFICE.

PERRY H. SLAUGHTER, OF MANASSAS, GEORGIA, ASSIGNOR OF ONE-THIRD TO W. T. S. SLATER, OF BROXTON, GEORGIA.

RAILWAY-SIGNAL.

No. 875,123.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed May 2, 1907. Serial No. 371,481.

To all whom it may concern:

Be it known that I, PERRY H. SLAUGHTER, a citizen of the United States, residing at Manassas, in the county of Tattnall, State of Georgia, have invented certain new and useful Improvements in Railway-Signals; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to railway signals and more particularly to that class which are designed for use upon a single track railway and more especially at curves and the primary object of the invention is to provide a signal of this class which will indicate to a train approaching in either direction, whether or not another train is upon the curve either coming or going toward or from the signaled train.

In carrying out my invention I employ trips which are arranged adjacent the beginning of the curve or rather at each end thereof and are adapted for actuation by the pilot of the engine to display a signal upon a signal post which is located opposite the middle of the curve but some little distance from the same so as to be visible from a train approaching either end of the curve and before passing on to the curve. This signal consists of two members, namely, a semaphore arm and a light signal which latter comprises a lantern having red lenses which are presented in opposite directions, and a casing about the lantern and adapted to be turned at the time the arm is swung into operative position, to bring openings in the casing in registration or opposition to the lenses so that the red light will be displayed.

In the accompanying drawings, Figure 1 is a plan view of a track curve showing the application of my invention, Fig. 2 is a view in elevation and in detail of the signal post showing the position of the parts when the signals are in inoperative position, Fig. 3 is a similar view showing the parts in operative position, Fig. 4 is a detail vertical sectional view through the light signal, the lamp, and the post upon which it is supported being shown in elevation, Fig. 5 is a detail horizontal sectional view taken in a plane directly beneath the lamp, showing the casing and other elements in one position, Fig. 6 is a similar view showing the elements in their

other position, and, Fig. 7 is a detail perspective view of one of the trip members.

Referring more specifically to the drawings there is shown in Fig. 1 a curved section of track 10 and a signal post 11 which is positioned at a point directly opposite the center of the curve but a considerable distance from the outside rail thereof so as to be visible from an engine approaching either end of the curve. Pivottally mounted upon a suitable support 12 adjacent the outer rail of the track and at each end of the curve is a trip arm 13, one portion of which extends beneath the outer rail of the track and to a point substantially midway between the middle of the track and the outer rail and to the extreme end of this portion of each arm 13 is pivoted a rocking arm 14. These arms 14 however have only a limited rocking movement with respect to the arms 13 due to the connection between the arms 13 and the said arms 14 of pairs of springs 15, which springs serve to normally hold the arms 14 in planes directly at right angles with respect to their respective arms 13; in other words each trip comprising the arms 13 and 14 is substantially in the form of a T. At each end of each arm 14 there is journaled a roll 16 the purpose of which rollers will be presently explained.

It will be understood of course that the support 12 may be of any suitable nature such for example as an ordinary railroad tie and in fact this form of support is shown in the drawings. When a tie is used for this purpose it is of course cut-away or reduced in height so as to permit of swinging of the arm 13 therebetween and the outer track rail of the curve, the said rail merely bridging the tie and not being spiked thereto.

To the end of each arm 13 opposite that end to which the arm 14 is connected, one end of a connecting rod 17 is pivottally connected and the other end of each of these rods is pivottally connected to one of the two ends of a cross arm 18 which is rigidly supported to the lower end of a vertically disposed rock shaft 19 mounted in suitable bearings 20 upon the signal post 11. Rigidly secured to this shaft 19 adjacent the upper end thereof is the inner end of a semaphore arm 21 it being understood that this arm is adapted to be swung in a horizontal plane when the shaft is rocked.

The extreme upper end of the signal post 11 is slightly reduced as at 22 and upon the upper end of the post is secured a disk 23 which is of the same diameter as the body of the post and hence there is an annular groove or channel formed between the disk and the shoulder formed by reducing the post. This disk includes an upstanding lamp supporting stud 24 upon which is rigidly fixed a lamp 25 having diametrically oppositely presented lenses 26. Fitted over this lamp is a cylindrical casing 27 which is closed at its upper end and has its lower edge bent by stamping to fit around the edge portion of the disk 23, there being an annular rib formed by the stamping process which rib is indicated by the numeral 28 and projects into the groove or channel formed at the upper end of the post. While I have described the casing as having its upper end closed, it is to be understood of course that the casing may be opened by removal of its upper end to permit of refilling and lighting of the lamp therewithin. It will be understood of course that the manner heretofore described of mounting the casing upon the posts permits of its rotation and the purpose of this rotation of the casing is to at times bring the openings 29 in the sides of the casing into opposition with the lenses 26 of the lamp so as to display a light signal in addition to the semaphore arm. In order that this casing may be rotated as stated, it is slotted as at 30 adjacent its lower edge and an arm 31 which is carried at the upper end of the rock shaft 19, engages in this slot and performs the function stated upon rotation of the shaft.

From the foregoing description of my invention it will be observed that when the parts are in their normal position, as disclosed in Fig. 1 by full lines, the pilot of an engine approaching a curve from either direction will strike the roller 16 upon the arm 14 and swing the arm 13 to the position shown in dotted lines in the said figure, the spring 15 serving to cushion the force of impact and adapt the trip to be struck by a pilot of different shapes and dimensions. So long as the parts are in their normal position,

the semaphore arm will point substantially in a line with the track and will consequently be practically invisible at a considerable distance and furthermore the casing surrounding the lamp will be in such position that its openings will be in a plane transversely of the plane in which the lenses are located, but, when the trips have been struck and moved to the position shown in dotted lines in Fig. 1, the semaphore arm will be swung so as to point directly toward the track consequently visible from a train approaching the curve in either direction, and the casing surrounding the lamp will be rotated one-half its circumference to bring the openings formed therein into position in front of the lenses of the lamp.

It is to be understood that I do not desire to be limited to the exact details of construction shown and described for obvious modifications will occur to a person skilled in the art.

What is claimed is—

1. A signal of the class described comprising trips adapted to be struck by the pilot of an engine, a signal post, a vertically disposed rock shaft carried by the post, a semaphore arm carried by the shaft for swinging movement with the shaft when the same is rocked a lamp supported upon the post, a casing inclosing the lamp and having openings adapted to be brought into position in front of the lenses of the lamp, connections between the trips and the rock shaft for rocking the latter when the former are struck, and a connection between the rock shaft and the casing surrounding the lamp for turning the same.

2. A trip for a signal of the class described comprising a pivoted arm, a cross arm pivoted to the said arm, springs connecting the cross arm upon opposite sides of its pivot and the said arm, and rotatable rollers carried by the ends of the cross arm.

In testimony whereof, I affix my signature, in presence of two witnesses.

PERRY H. SLAUGHTER.

Witnesses:

C. C. AUDERROW,
R. T. DUFFIELD.