No. 750,991. PATENTED FEB. 2, 1904.

J. R. MARCHESSEAULT.

RAILROAD SIGNALING DEVICE.

APPLICATION FILED NOV. 13, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

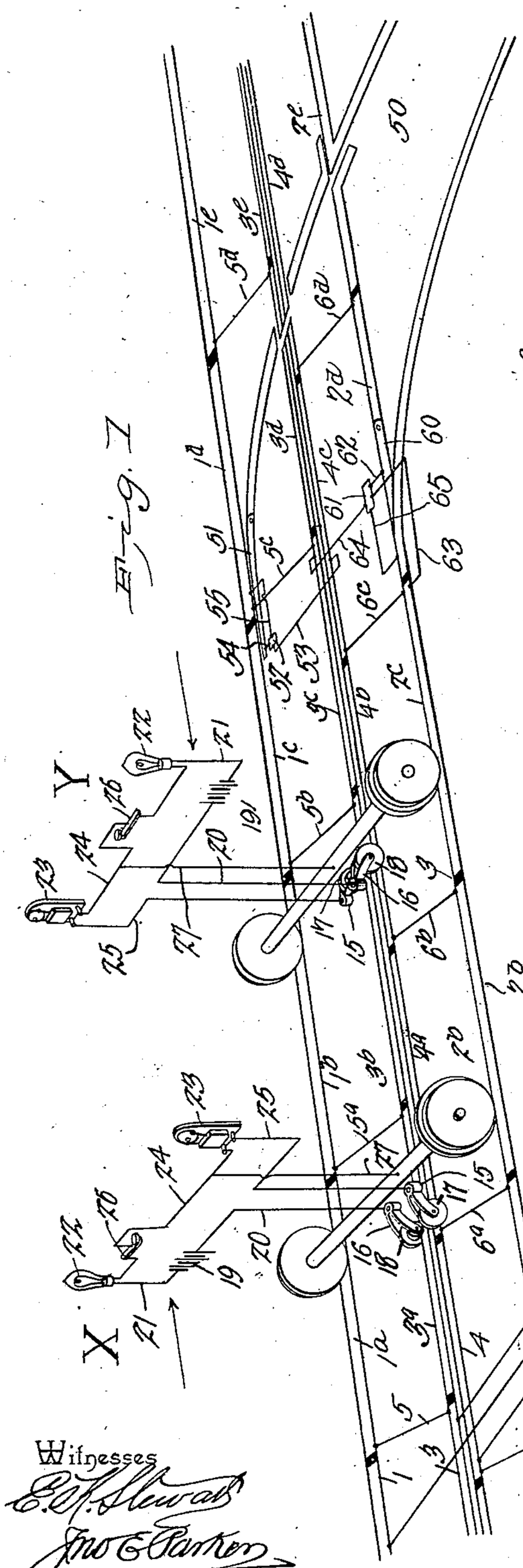

Fig. 1.

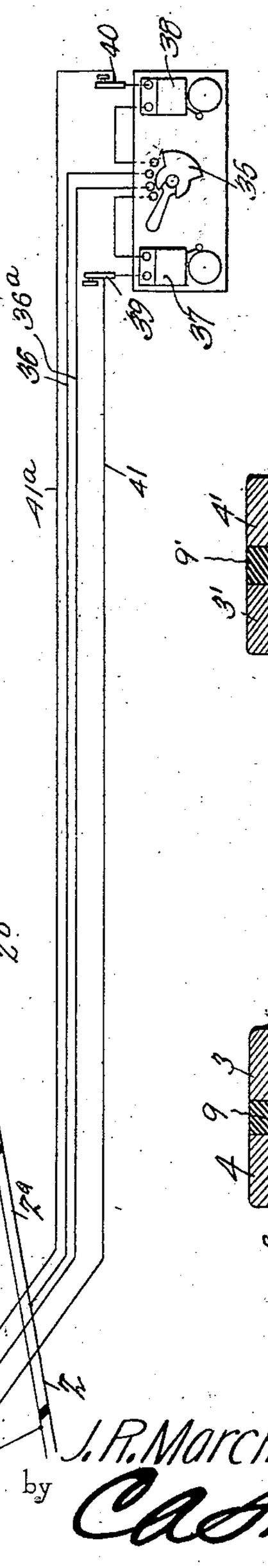

Fig. 3.

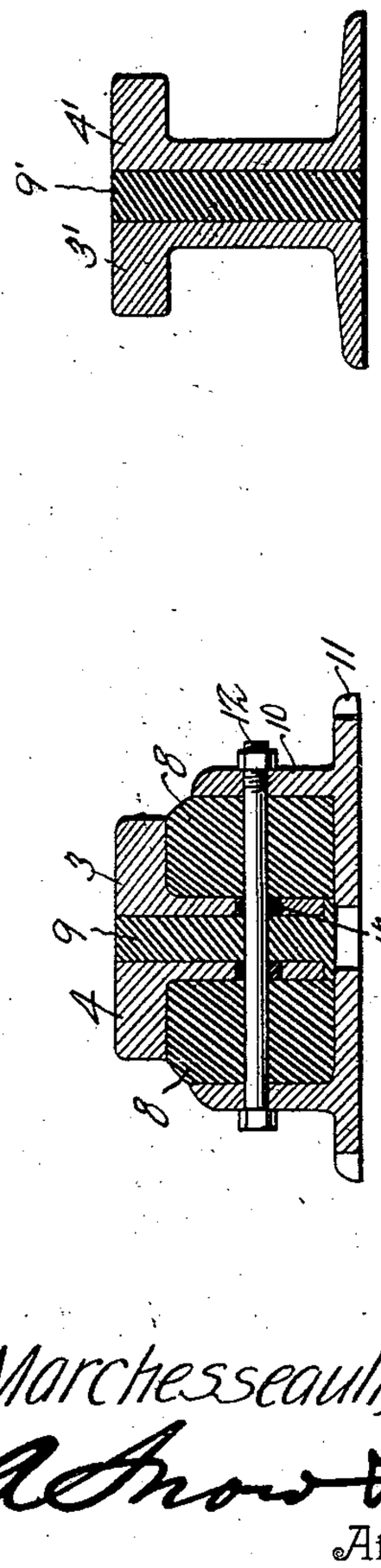

Fig. 5.

Fig. 4.

Witnesses
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Jno. E. Parker

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NO MODEL. 2 SHEETS—SHEET 2.

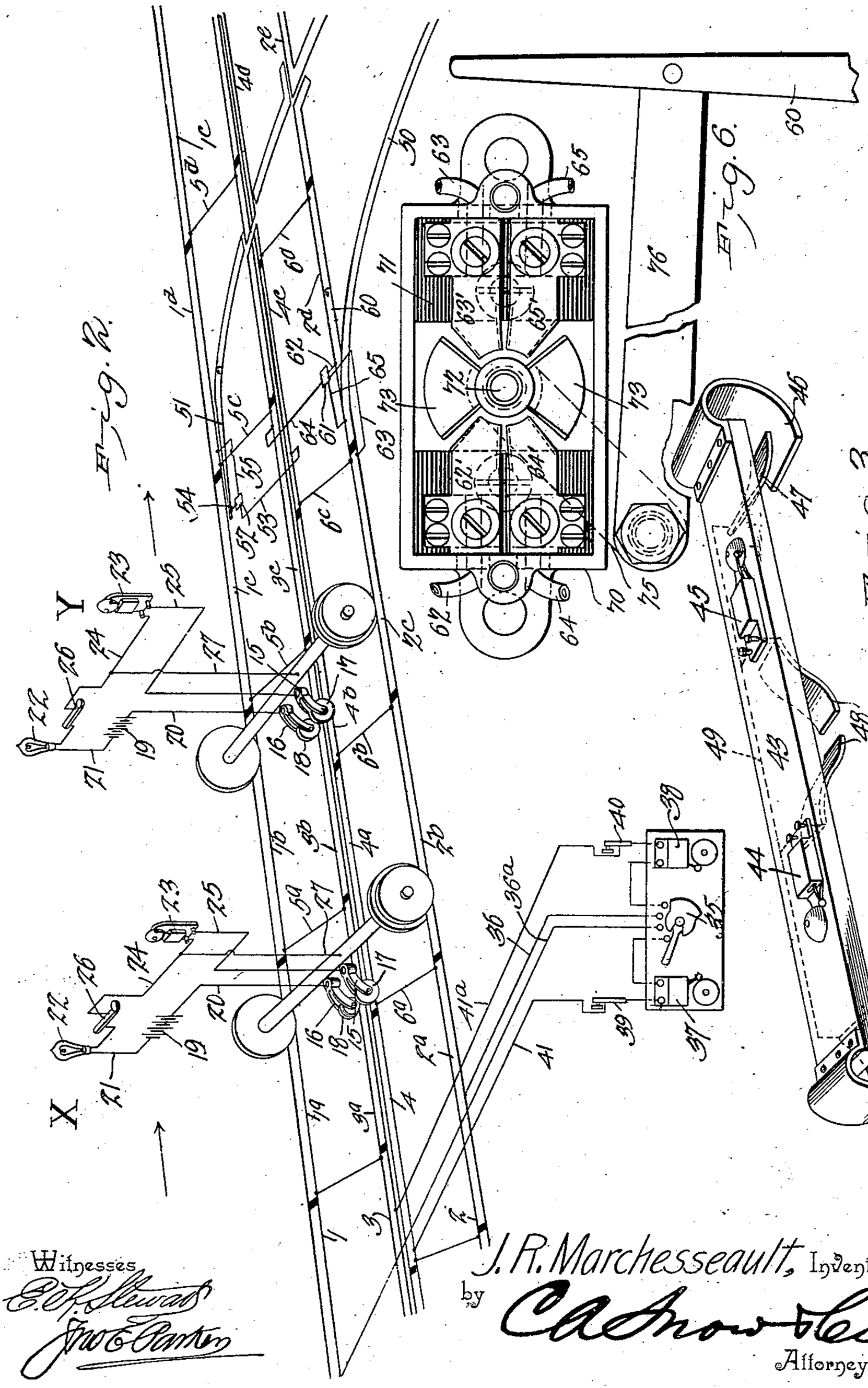

Fig. 2.

Fig. 3.

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No. 750,991. Patented February 2, 1904.

UNITED STATES PATENT OFFICE.

JOSEPH ROI MARCHESSEAULT, OF MERIDEN, CONNECTICUT.

RAILROAD SIGNALING DEVICE.

SPECIFICATION forming part of Letters Patent No. 750,991, dated February 2, 1904.

Application filed November 13, 1902. Serial No. 131,230. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ROI MARCHESSEAULT, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Railroad Signaling Device, of which the following is a specification.

This invention relates to railroad signaling systems of that general class in which a warning-signal is displayed or sounded in a train on the approach of another train on the same block.

The principal object of the invention is to provide a signaling system by which the engineer of a train is positively warned of any danger ahead of his train, as from an approaching train traveling in the opposite direction, a preceding train traveling in the same direction, or an open switch, and by which he is also warned of danger from a following train.

A further object of the invention is to provide a system of this class in which the signals caused by the closing of electrical circuits from various causes may be distinguished in order that the engineer may be informed as to the character or source of danger, and, further, to provide a system comprising a plurality of signals of which one is preferably visual and the other audible, the signals being operated one after the other as the train approaches the danger-point, and the signals varying in character and becoming more noticeable as the distance between trains or an open switch and train is lessened.

A still further object of the invention is to provide a system of this character in which the engineers on a block may exchange signals in accordance with a predetermined code and in which the station-master or other person at a signaling station may communicate with all the trains on a block.

A still further object of the invention is to so arrange the system that the section-hands, track-walkers, or other employees may signal an approaching train and by which workmen on the line may be notified of the approach of a train in either direction.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a diagram, partly in perspective, illustrating a section of railroad-track provided with a signaling system in accordance with my invention and illustrating the arrangement of the alarms and local circuits on two trains approaching each other. Fig. 2 is a view similar to Fig. 1, the diagram illustrating two trains traveling in the same direction in order that the circuits may be readily traced. Fig. 3 is a detail perspective view of the circuit-closer to be carried by the section-hands or other employees for establishing communication with trains at any point on the line. Fig. 4 is a detail sectional view of a form of double trolley-track which it is preferred to employ. Fig. 5 is a similar view of a modified form of track. Fig. 6 is a detail view of one of the circuit-closing switches employed at the switch-points of a side track.

Similar characters of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The traffic-rails 1 and 2 are arranged in sections of any length insulated from each other by suitable insulating-blocks and the insulating-blocks of the rails being arranged in staggered relation, so that the block of one rail shall come at a point about midway between the two blocks of a section of the opposite rail. In this way the traffic-rail 1 is divided into a number of sections, as indicated at 1^a, 1^b, 1^c, 1^d, and 1^e, and the traffic-rail 2 is similarly divided into sections 2^a, 2^b, 2^c, 2^d, and 2^e. Between the two traffic-rails are arranged two trolley-rails 3 and 4, insulated from each other and also arranged in insulated sections, the sections of the trolley-rail 3 being directly opposite and of a length equal to the insulated sections of the traffic-rail 1, while the trolley-rail sections 4 bear a similar relation to the

traffic-rail 2, the insulating-blocks or other devices of the trolley-rail sections being thus disposed in staggered relation. The sections of the trolley-rail 3 and the sections of the traffic-rail 1 are connected to each other to form a series of sets, each including a trolley-rail section and a traffic-rail section. Thus a trolley-rail 3^a is connected by a conductor 5^a to the traffic-rail 1^b and the section 3^b of the trolley-rail is connected by a conductor 5^b to the section 1^c of the traffic-rail and the connection continued in similar manner throughout the length of the railway-line. The sections of the trolley-rail 4 are connected to the sections of the traffic-rail 2 by conductors 6^a 6^b 6^c 6^d in a manner similar to the connections between the other tracks, suitable provision being made at switches and at stations for special connections, as more fully described hereinafter.

The trolley-rails 3 and 4 are preferably in the form of channel-bars resting on blocks or stringers 8, of wood or other material, and separated by a block 9, which may also be formed of wood. The several members are supported at intervals by chairs 10, having notches 11 for the passage of securing-spikes, there being suitable securing-bolts 12 to confine the several members in position, insulating sleeves or bushings 13 being introduced between the bolts and the trolley-rails. In some cases it may be desired to employ a trolley-rail such as indicated in Fig. 5, wherein the members 3′ and 4′ are in the form of half-sections of an ordinary T-rail separated by a suitable insulating-block 9′.

On each railway-train, preferably at a suitable point under the engine-frame, are pivoted two trolley-wheel brackets 15 16, insulated from each other in any suitable manner, the bracket 15 carrying a trolley-wheel 17, which bears on the trolley-rail 4 and the bracket 16, carrying a trolley-wheel 18, bearing on the trolley-rail 3. These wheels must be perfectly insulated from each other to prevent short-circuiting of the current. At a convenient point on the engine or other portion of the frame is a source of electrical energy, (indicated in the present instance by a battery 19,) one pole of which is connected by a conductor 20 to the trolley-wheel bracket 16 and the opposite pole being connected by a conductor 21 to a lamp 22. The lamp is connected in series with an electromagnetic bell 23 by conductors 24 and 25, the latter being electrically connected to the trolley-wheel bracket 15. The alarm devices are preferably arranged in the cab of the engine where the engineer may see and hear them, and in the conductor 24 is placed a circuit-breaker 26, which may take the form of an ordinary sending-key or a switch to permit the engineer to make and break the circuit in accordance with any predetermined signal code. The conductor 24 is connected by a conductor 27 to the frame of the engine or such other portion of the mechanism as will permit the traffic-rails to be electrically connected to said conductor.

Referring now to Fig. 1, where two engines approaching each other from opposite directions have arrived within signaling distance of each other, a circuit may be traced from the battery 19 of train X to bracket 16, trolley-wheel 18, trolley-rail 3^a, conductor 5^a, traffic-rail section 1^b, the wheel and frame of engine Y, conductor 27, conductor 24, lamp 22, the battery 19 of engine Y, conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 4^b, conductor 6^b, traffic-rail section 2^b, the wheel and frame of engine X, conductor 27, conductor 24, lamp 22, and conductor 21 to battery of engine X, thus connecting the lamps and batteries of both engines in series and both lamps being lighted. At first, owing to the resistance of the line, the current is feeble, but as the trains continue to approach each other the resistance decreases and the lamps glow more brightly. Should the engine X be stopped or traveling but slowly, while the engine Y is running at high speed and crosses from the rail-section 2^c to the rail-section 2^b, the circuits will be somewhat changed and may be traced from the battery of engine X to conductor 20, bracket 16, trolley-wheel 18, trolley-rail 3^a, conductor 5^a, traffic-rail 1^b, the car-wheel and frame of engine Y to conductor 27, conductor 24, lamp 22, conductor 21, battery 19, conductor 20, bracket 16, trolley-wheel 18, trolley-rail section 4^a to trolley-wheel 17 of engine X, trolley-wheel bracket 15, conductor 25, bell 23, conductor 24, lamp 22, conductor 21, and back to battery of engine X, thus notifying the engineer of the latter that the danger is approaching and the engine should be stopped or reversed. Should the trains approach still closer and both arrive in the same section—that is to say, with trolley-wheel 17 of engine Y and trolley-wheel 18 of engine X in contact with the same trolley-rail section, as 4^a, and trolley-wheel 17 of engine Y and trolley-wheel 18 of engine X on the same trolley-rail section, as 4^b—the circuit will be closed in direct lines between the respective trolley-wheels and trolley-rail sections and the bells and lamps of both engines included in the circuit, the warning being continuous and the lamps glowing brighter and the bells ringing louder as the trains approach each other and the resistance of the line is lessened. It will be observed that the warning-signals are distinctive in that the engineers may determine by the brightness of the lamps or the commencement of the sounding of the bell the distance between the trains, and as the distance shortens the signal is of more pronounced character and more likely to attract the engineer's attention. When the trains are within signaling distance of each other, each engineer may utilize the circuit-

breaker 26 to send signals to the approaching train in accordance with any predetermined code, the lamp or bell, or both, being employed as receivers, or a sounder or like instrument may be connected in the circuit for the purpose.

In Fig. 2 I have shown the system in connection with two trains traveling the same direction, the train X following the train Y. When the train X approaches within signaling distance of the train Y, a circuit is established, which may be traced from the battery 19 of engine X, conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 3^a, conductor 5^a, traffic-rail section 1^b to wheel and frame of engine Y, thence through conductor 27, bell 23, conductor 25, trolley-wheel bracket 15, trolley-wheel 17, trolley-rail section 4^b, conductor 6^b, traffic-rail 2^b, the wheel and frame of engine X to conductor 27, conductor 24, lamp 22, conductor 21 and back to battery of engine X. It will be noted in this instance that the forward engine Y receives only the bell-signal, the lamp being cut out and notifying the engineer of the forward train that the danger lies in the rear, while in the following train X the lamp is lighted to notify the engineer that the danger is ahead. It then becomes the duty of the engineer of the latter to send a warning-signal to the following train by means of the circuit-breaker 26 and notify the following engine to proceed with caution. In this way an engineer may determine whether the danger lies in front or to the rear of his train and is also notified of the probable speed of travel of the approaching or following train by the consecutive energizing of the alarms, and at the same time both the visual and audible signals become more pronounced in character as the trains near each other.

In order to establish communication between a station and any train on the block, I provide at each of the stations a switch 35, by which a circuit may be closed through conductors 36 36^a, 41 and 41^a connected to the trolley-rails and traffic-rails, the switch forming, in effect, the car-wheels and axle or frame of the engine to establish electrical connection between the two traffic-rail sections through the conductors 36 and 36^a. At each station are two alarm-bells 37 and 38 and two circuit-breakers 39 and 40, which may be in the form of ordinary sending-keys. The bell 37 and circuit-breaker 39 are connected in a circuit extending from the traffic-rail 1 through the conductor 36^a and a returning-wire 41 to one of the sections of the trolley-rail 4, so that when the circuit is closed by the switch the bell 37 will be energized, and the bell 38 is connected in a circuit leading from the traffic-rail 2 through wire 36 and by return-wire 41^a to a trolley-rail section 3, circuits being established when the switch is closed and energized by the batteries on the trains as the latter approach within signaling distance of the station. If the switch is closed and the engine Y in traveling in the direction indicated by the arrow in Fig. 1 arrives within the block in which the station is situated, a circuit will be established from battery 19, conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 4^a, conductor 6^a, traffic-rail section 2^a, conductor 36, switch 35, bell 38, circuit-closer 40, conductor 41^a, trolley-rail section 3, conductor 5, traffic-rail section 1^a, engine wheel and frame, conductor 27, circuit-closer 26, lamp 22, and conductor 21 to battery, so that at this time communication is established and signals may be exchanged between the station and the engine. When the engine has passed into the next block, the circuit will be from battery 19, conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 4, conductor 41, circuit-closer 39, bell 37, switch 35, at which point the current will divide itself, one portion through the bell 38, key 40, conductor 41^a, trolley-rail section 3, conductor 5, traffic-rail section 1^a, engine wheels and frame, conductor 27, circuit-closer 26, lamp 22, and conductor 21 to battery. Another portion of the current on leaving switch 35 will travel through conductor 36, traffic-rail section 2^a, and thence by way of the engine wheels and frame to the battery. If on further travel the engine Y reaches the section of track directly connected to the station-wire, a number of circuits may be traced as follows: from battery 19, conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 4, conductor 41, key 39, bell 37, switch 35, the current being divided at the switch and returning to the battery by several routes. One of these may be traced from the switch through bell 38, key 40, conductor 41^a, trolley-rail section 3, trolley-wheel 17, trolley-wheel bracket 15, conductor 25, bell 23, conductor 24, circuit-closer 26, lamp 22, conductor 21 to battery. A second division of the circuit may be traced from the switch 25, conductor 36, traffic-rail section 2^a, engine wheels and frame, conductor 27, circuit-closer 26, lamp 22, conductor 21 to battery. A third division of the circuit may be traced from the switch through conductor 36^a, traffic-rail section 1, engine wheels and frame, conductor 27, circuit-closer 26, lamp 22, conductor 21 to battery. Similar circuits will be established from trains traveling in the opposite direction, so that the station master is first advised of the approach of a train in either direction and then by the variation of the signals of the speed of which the train is traveling, and during all this time signals may be exchanged between the train and the station. This arrangement permits a station master to communicate with any train on a block and is of especial value for use at flag-stations where it is necessary to signal the engineer to stop for passengers.

In Fig. 3 is illustrated a circuit-closing device to be used by section-hands, track-walkers, or other employees when it becomes necessary to open communication with a train. The device consists of a narrow strip of wood or insulated metal 43, on which are arranged two electromagnetic bells 44 and 45 and, if necessary, sending-keys. At each end of the strip are clips 46, which engage under the heads of the traffic-rails when it becomes necessary to fasten the device in position, and on the under side of the board are spring-contacts 47 and 48, the contacts 47 being connected by a conductor 49, which is also connected to both of the bells, and a binding-post of each bell is connected separately to one of the contact-springs 48. When in position, the contact-springs 47 engage the traffic-rails and the contact-springs 48 engage the trolley-rails, the signals being received in the same manner as those at a station.

The system is further applicable for use in connection with siding-switches, turnouts, drawbridges, and the like, where the continuity of the main-line rail may be interrupted. The system is arranged in such manner as to send a warning-signal to an engineer as his train approaches an open switch or other interruption of the main-line track, as at a drawbridge, the signals being similar to those received by a train on approaching another train traveling in the opposite direction or in the same direction, the lamp being first included in the circuit and then as the switch is neared the electromagnets of the bell being energized.

50 indicates a siding having a switch-point 51 movable from and toward the traffic-rail 1, and adjacent to the switch-point is a double-pole-contact switch 52, connected by a conductor 53 to the trolley-rail section 4^c and by a conductor 54 to the switch-point 51. The switch is further connected by a conductor 55 to the traffic-rail section 1^d, and when the switch-point is in closed position and renders it impossible for an approaching train to remain on the main line a signal will be sounded in the cab of the approaching train to warn the engineer of the danger. When a train, such as Y in Fig. 2, is approaching the switch, a circuit will be established from battery 19, conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 3^b, conductor 5^b, traffic-rail section 1^c, conductors 54 and 53, (through switch 52,) trolley-rail section 4^c, conductor 6^c, traffic-rail section 2^c, the car wheel and frame, conductors 27 and 24, to lamp, and thence to battery. The signal here is the lamp-signal, the same which the engineer receives at the first closing of the circuit on approaching another train or any danger ahead.

At a point adjacent to the main-rail switch-point 60 is a second double-pole-contact electric switch 61, connected by a conductor 62 to the switch-point, which forms a part of the section 2^d of the traffic-rail 2. The switch is further connected by conductors 63 and 65 to the sections 2^c and 2^d of the traffic-rail. Another conductor 64 leads from the switch to the section 3^c of the trolley-rail 3, so that as the train advances to the section in which the switch is located the circuit is established from battery 19 through conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 3^c, conductor 64 to switch 61, conductor 63 to main-track section 2^c, to engine wheel and frame, conductors 27 and 24, lamp 22, and return to battery, the lamp or head-on signal being constantly displayed. If an engine is traveling in the opposite direction and approaching the switch, the engine-wheels being on the traffic-rail sections 1^d and 2^e, a circuit is established from the battery through conductor 20, trolley-wheel bracket 16, trolley-wheel 18, trolley-rail section 4^d, conductor 6^d, traffic-rail section or switch-point 60, conductor 62 to switch, conductor 64, trolley-rail section 3^c, conductor 5^c, traffic-rail section 1^d, engine wheels and frame to conductors 27 and 24 to lamp 22, and thence to battery. If the engine continues to advance and reaches the section in which the switch is placed, the circuit will be established through the opposite switch 52.

The double-pole contacts 61 may be of the character shown in Fig. 6, wherein the several conductors 62, 63, 64, and 65 are led through insulated bushings into the interior of the box or casing 70 and connected, respectively, to clips 62′, 63′, 64′, and 65′, all mounted on insulated blocks 71 and held out of contact with each other. At the center of the box or casing are suitable bearings for a vertical shaft or spindle 72, carrying knife-blades 73, which may be moved between the clips at the terminals of the current-conducting wires to close the circuits. The spindle is extended through a guiding-opening in the bottom of the box or casing and is provided with a rocker-arm 75, connected by a link 76 to the movable switch-point 60, so that when the latter is moved to place the siding in communication with the main line the circuits will be closed through the switch 61 in order that the engineers of approaching trains may be notified of the danger.

It will be noted that in arranging the rail system all the traffic-rail sections and trolley-rail sections are of equal length between insulation-points and at each traffic-rail section and the adjacent trolley-wheel section terminate at the same point, while the end of a trolley-wheel section is connected electrically to the adjacent end of a traffic-rail system, so that the effective signaling distance corresponds to the length of two sections. The opposite traffic-rail sections and trolley-rail sections also terminate at alining points; but the insulation-blocks are disposed at points midway of the length of the section of rail on

the opposite side of the road-bed or, in other words, are arranged in staggered order, while the relation of the trolley-wheel and engine-frame wheels is such that while a trolley-wheel is in electrical connection with a traffic-rail section in advance the engine-frame wheel is electrically connected to a trolley-rail section to the rear, and this relation is maintained throughout, so that when two trains come within the distance of two sections communication will immediately be established. This portion of the system may be used at draw-bridges or at grade-crossings where gates are situated and so arranged that when the draw-bridge or the gate are opened the switch will be automatically turned to close the circuits and permit the sounding of an alarm on the approach of a train.

Having thus described my invention, what I claim is—

1. In a railway signaling system, a pair of trolley-rails and a pair of traffic-rails all divided into insulated sections, each trolley-rail section and the adjacent traffic-rail section being of equal length and terminating at the same point in the length of the road-bed, the trolley-rail section and corresponding traffic-rail section at one side of the road-bed being arranged in staggered relation with the trolley-rail section and traffic-rail section at the opposite side of the road-bed, and one end of each trolley-rail section being electrically connected to the adjacent end of an advance traffic-rail section while the adjacent trolley-rail section is connected at one end to the adjacent end of a rear traffic-rail section.

2. In a railway signaling system, a pair of traffic-rails and a pair of trolley-rails all divided into insulated sections and one end of each trolley-rail section being electrically connected to the adjacent end of an adjoining traffic-rail section to thereby couple two sections and establish a signaling limit of a length equal to two sections, each traffic-rail section and the adjacent trolley-rail section being of equal length and terminating at the same point and the traffic-rail and trolley-rail sections of one side of the road being arranged in staggered relation with those of the opposite side of the road.

3. The combination with a pair of traffic-rails divided into insulated sections, of a pair of trolley-rails or conductors all divided into insulated sections of a length corresponding to those of the traffic-rails, each traffic-rail section and the adjacent trolley-rail section constituting a pair and terminating at the same points and the traffic-rail and trolley-rail sections of one side of the road being arranged in staggered relation with those of the opposite side of the road, and electrical conductors each connecting one end of a trolley-rail section and the adjacent end of the next traffic-rail section, substantially as specified.

4. In a railway signaling system, the combination with a pair of traffic-rails and a pair of trolley-rails each divided into insulated sections, electrical connections between each trolley-rail section and the adjacent traffic-rail section to thereby form a signaling limit of a length equal to the combined length of both, a pair of signals and a source of electrical energy carried by each train, trolley-wheels in contact with the trolley-rails and connected in series with the source of electrical energy and the alarms, a multiple connection between the traffic-rails and the signals, and a circuit-breaker carried by each train, substantially as specified.

5. In a railway signaling system, the combination with a pair of traffic-rails and a pair of trolley-rails or conductors each divided into insulated sections, of signals and a source of electrical energy carried by each train and connected in series with the trolley-rails and in multiple with the traffic-rails, a station-switch, a pair of signals arranged at the station and each having independent connection through the switch with different portions of the track system to effect the energizing of one signal by a train traveling in one direction and the other by a train traveling in the opposite direction.

6. In a railway system, the combination with a pair of traffic-rails and a pair of trolley-rails or conductors each divided into insulated sections, electrical connections between adjacent trolley and traffic rail members, a station-switch, two independent circuits each including switch-contacts, an alarm and a circuit-breaker, the circuit-wires being each connected to one of the traffic-rail sections and one of the trolley-rail sections being energized respectively on the closing of circuits by trains traveling in opposing directions.

7. The combination in a train signaling system, of a pair of traffic-rails and a pair of trolley-rails or conductors all divided into insulated sections, electrical conductors each connecting one end of a trolley-rail section and the adjacent end of the next traffic-rail section, a pair of signals and a source of electrical energy carried by each train, conductors connecting the two alarms in multiple to the traffic-rail sections, and auxiliary conductors connecting both signals in series with the trolley-rail sections, to thereby effect the energizing of one or both signals in accordance with the closing of the circuit at different points, substantially as specified.

8. The combination in a train signaling system, of a pair of traffic-rails and a pair of trolley-rails or conductors all divided into insulated sections, electrical conductors each connecting one end of a trolley-rail section and the adjacent end of the next traffic-rail section, a pair of signals of different character and a source of electrical energy carried by each train, contact or trolley wheels insulated from each other and connected in series with the

source of electrical energy and both signals, and a conductor electrically connecting the two traffic-rails in multiple with both signals.

9. In a railway signaling system, the combination with a pair of trolley-rails and a pair of traffic-rails each divided into insulated sections, electrical conductors each connecting one end of a trolley-rail section to the adjacent end of a traffic-rail section while the adjacent trolley-section is connected at one end to the adjacent end of a rear and opposite traffic-rail section, a siding or switch forming a part of the railway-line and including switch-points, circuit-controlling switches connected to and movable with said switch-points, and electrical conductors connecting said switch to the adjacent portions of the trolley and traffic rail sections to thereby effect short-circuiting between the traffic and adjacent trolley rail sections when the switch-points are moved to open the siding, a source of electrical energy and signals carried by each train, a series connection between the signals and the trolley-rail sections and a multiple connection between the signals and the traffic-rail sections.

10. The combination in a railway signaling system of a pair of traffic-rails and a pair of trolley-rails all divided into insulated sections, electrical conductors each connecting a trolley-rail section with the adjacent end of a traffic-rail section, a source of electrical energy and signals carried by each train, traveling contacts carried by the train and engaging said traffic and trolley rail sections, and a movable circuit-closing device comprising a strip of non-conducting material, a pair of signals carried thereby and adapted to be sounded respectively by the closing of circuits from trains traveling in opposite directions and contact-plates carried by the strip and adapted to engage both the traffic and trolley rail sections and thereby effect a short-circuiting of a portion of the circuits through said signals.

11. The combination in a train signaling system, of a pair of the traffic-rails and a pair of trolley-rails divided into insulated sections, electrical conductors each connecting the end of a trolley-rail section to the adjacent end of a traffic-rail section, signals and a source of electrical energy carried by each train, and a detachable circuit-closing device comprising a strip of insulating material having clips for engaging the heads of the traffic-rails, spring contact-plates carried by said strip and adapted for engagement with the traffic and trolley rail sections, independent signals carried by said strip, and current-conductors connecting the signals to the contact-plates and establishing circuits for the energizing of different signals on the approach of trains traveling in different directions.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH ROI MARCHESSEAULT.

Witnesses:

IRVING I. GARDNER,

MYRTLE S. CALHOUN.