

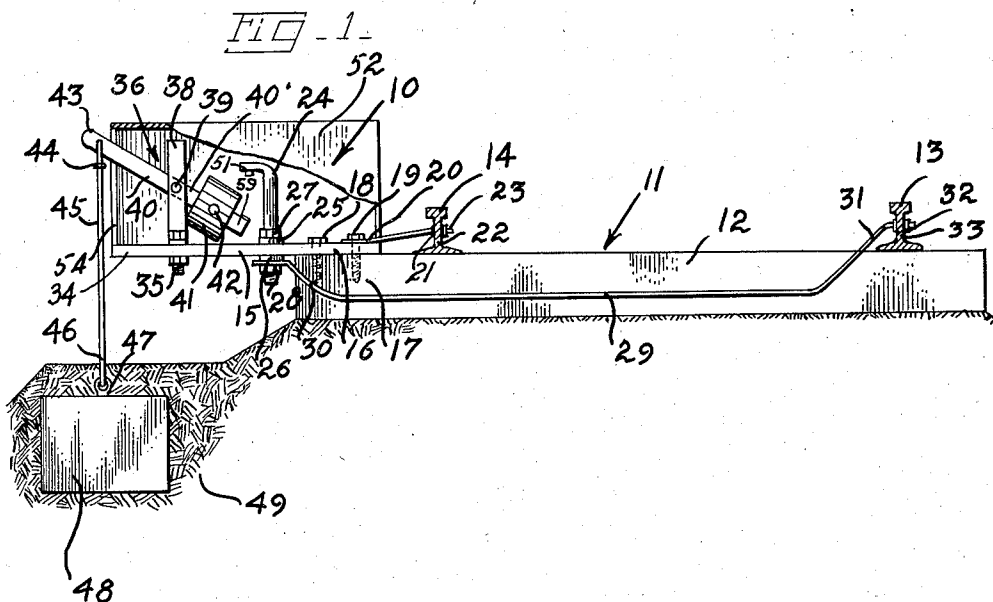
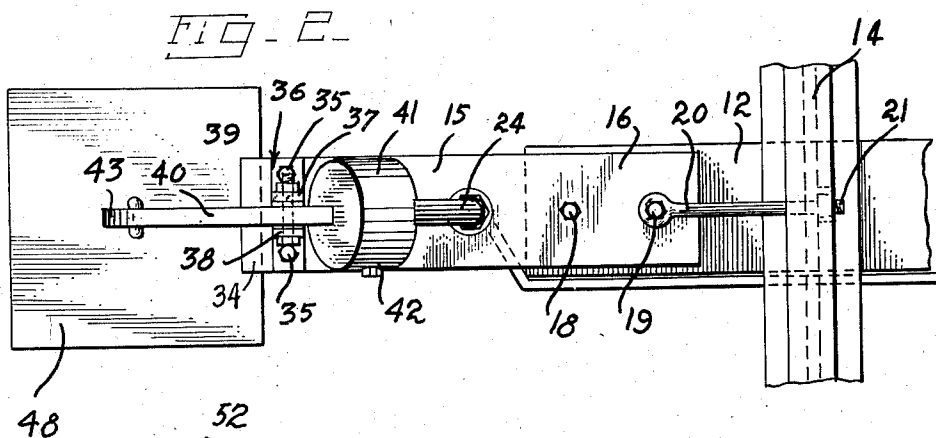
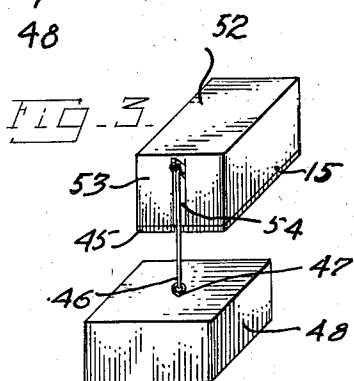
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A. E. SHELDON

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RAILROAD WASHOUT SIGNAL CONTROLLER

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Inventor

Allan E. Sheldon -

By

Clarence A. O'Brien
and Harvey B. Jacobson
Attorneys

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RAILROAD WASHOUT SIGNAL CONTROLLER

Allan E. Sheldon, Yakima, Wash.

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1 Claim. (Cl. 246—121)

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My invention as described herein, and illustrated in the accompanying drawings, consists of a signal system for railroads, an object of which is to provide means whereby when a washout occurs an electric signal will be immediately transmitted to the nearest block signal stations.

Another object of my invention is to provide a weight controlled electric switch.

A further object of this invention is to provide an electric switch controlled by weights for holding the switch open and for closing the same.

A primary object of my invention is the provision of means whereby railway wrecks due to road bed washouts and the loss of life and injury to persons and property incident thereto may be prevented.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings in which:

Figure 1 is a transverse section of a railroad embracing my invention, and

Figure 2 is a top plan view of a portion thereof.

Figure 3 is a reduced detail perspective view of a casing and weight.

In the accompanying drawings, and in the following specification, the same reference characters are used to designate the same parts and elements throughout and in which 10, refers to my invention in its entirety and 11, indicates a railroad bed comprising ties 12, and rails 13 and 14. My switch and actuating means therefor consists of a steel base plate 15, secured at its end 16, to the end 17, of a tie 12, by spikes 18 and 19. The latter spike or bolt 19, has the conductor end 20, fixed thereto, the other end of the conductor being connected at 21, to the flange 22, of the rail 14, as indicated at 23.

Mounted upon the plate 15, outwardly of the tie end 17, is a conductor L-bolt 24, which is insulated from the said plate 15, by non-conducting bushings 25 and 26, secured by nuts 27 and 28, which also lock the bolt 24, to the plate 15. A conductor wire 29, has its end 30, also held in contact with bolt 24, by the said nut 28, and the end 31, of said wire 29, is carried across the track and connected at 32, to the web 33, of rail 13.

Fixed to the end 34, of the plate by bolt 35, is a U-bearing 36, the arms 37 and 38, of which form a support for the pin 39, upon which the rocker arm 40, is pivotally mounted. Upon the end 40', of said arm is adjustably mounted a weight 41, adapted to be held in fixed adjusted position by a set screw 42. To the outer end 43, of the arm

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40, is attached one end 44, of a cable 45, the other end 46, of which is attached to an eye 47, of the weight 48, which is seated upon a low place 49, adjacent the road-bed, where a washout may occur in case of heavy rainfalls. Should a washout occur adjacent the weight 48, its support being washed away, said weight will drop due to the fact that it is heavy enough to overcome the weight 41, and in falling will pull down with it the cable 45, and arm end 43, raising the end 40', of the arm and bringing its terminal 50, into contact with the hooked end 51, of bolt 24, whereby a circuit will be closed between the rails 13 and 14, which are in an electric circuit with block signal station danger lights in both directions from the circuit closer 10. The members 40, 36 and 15, as well as the member 20, are conductors of electricity, as also are members 24 and 29, whereby the rails 13 and 14, may be brought into a closed circuit.

In order to protect the operating mechanism of the device I provide a casing 52, the rear wall 53, of which is provided with a longitudinal centrally disposed slot 54, through which the end 25 43, of the arm 40, projects. This casing 52, is not only for protecting the mechanism enclosed therein from weather conditions or being struck by objects which may be dragging from a train, but also from being tampered with by unauthorized persons. The casing may be locked to the base plate 15.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Changes in shape, size and rearrangement of details and parts such as come within the purview of the invention claimed may be resorted to, in actual practice, if desired.

Having now described my invention that which I claim as new and desire to procure by Letters Patent is:

45 In a washout signalling system, a rearwardly open circuit closer adapted to be closed when the surrounding earth becomes dislodged, which includes a base plate of conducting material adapted to be attached to the upper side of a railroad tie adjacent one end, an electrical conductor adapted to couple the plate with a railroad rail supported on the tie adjacent the base plate, the base plate being adapted to project longitudinally beyond the end of the tie adjacent to which it is attached, a substantially U-shaped bracket of

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conducting material fixed to the base plate adjacent the end remote from the tie, a rock arm of conducting material mounted in the upper end of the bracket to rock about a pivot which lies perpendicular to the longitudinal axis of the base plate and having one end projecting beyond the end of the base plate remote from the tie, a relatively light weight mounted on the rock arm for adjustment between the bracket and the end of the rock arm remote from that which projects beyond the base plate yieldingly to hold the last-mentioned end of the rock arm elevated, an electrically isolated contact post of conducting material rising from the base plate between the U-shaped bracket and the tie to which the base plate is attached, a contact arm extending perpendicularly from the upper end of the contact post and lying in the path of movement of the rock arm, a conductor adapted to couple the contact post electrically with the rail of the railroad which is supported on the tie adjacent the end remote from the base plate, a flexible member coupled at one end to the end of the rock arm remote from the weight, a relatively heavy weight secured to the end of the flexible member remote

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from the rock arm and adapted to be supported by the road bed of the railroad adjacent the tie so that when the material of the road bed upon which the heavy weight is supported becomes dislodged, the heavy weight will fall and move the rock arm into contact with the contact arm thereby closing a signal circuit through the rails, a case enclosing the contact post and the U-shaped bracket and said case having a vertical elongated slot in one end through which projects the end of the rock arm carrying the flexible member whereby access may be had to the rock arm without opening the case.

ALLAN E. SHELDON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
835,411	Dowler	Nov. 6, 1906
1,696,209	Pool et al.	Dec. 25, 1928
2,024,784	Stanton	Dec. 17, 1935