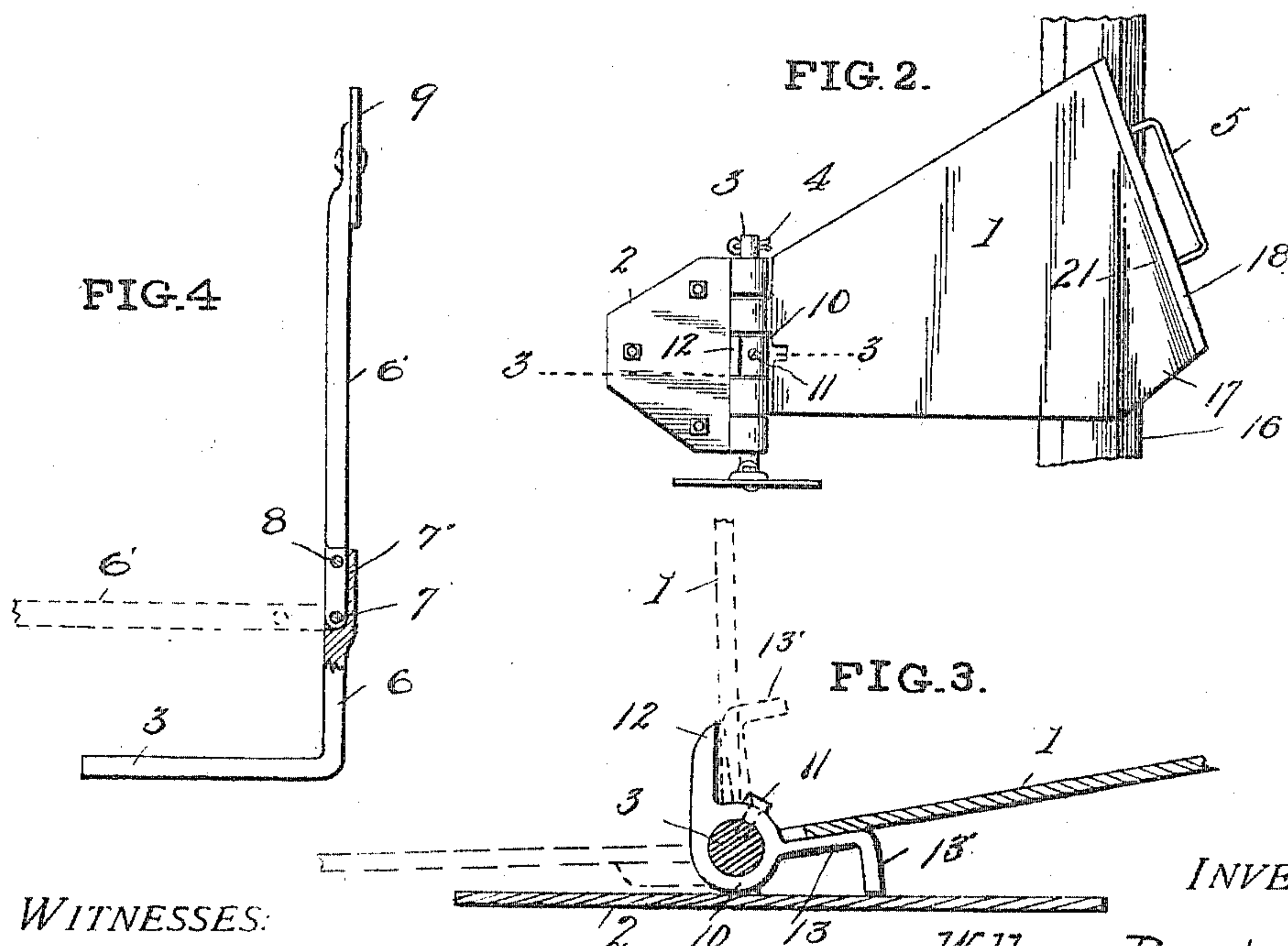
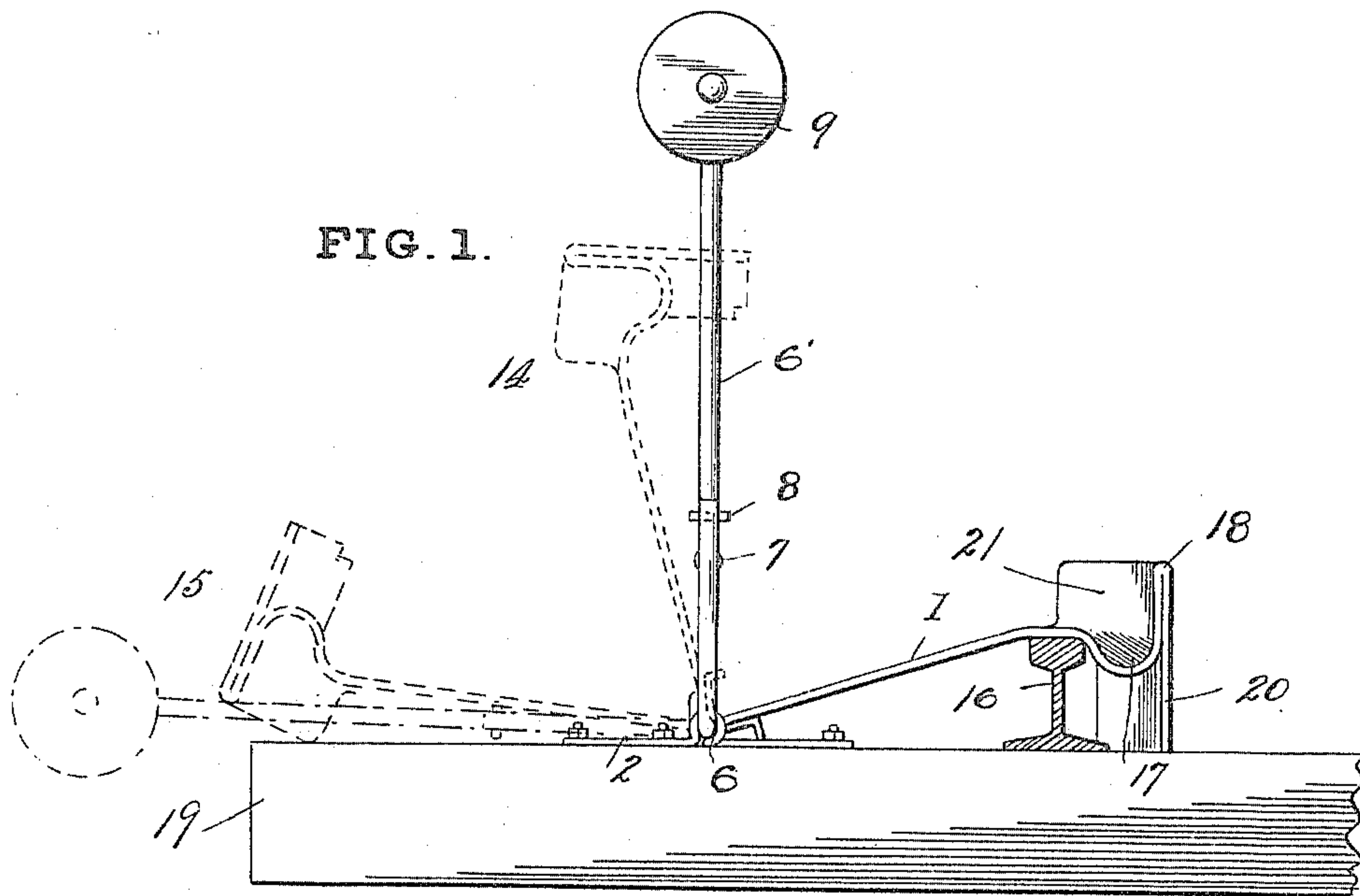


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PATENTED APR. 10, 1906.

W. ROACH.
CAR DERAILER.

APPLICATION FILED JULY 26, 1905.



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CAR-DERAILER.

No. 817,518.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM ROACH, a citizen of the United States, residing at Roswell, in the county of Miner and State of South Dakota, have invented new and useful Improvements in Car-Deraillers, of which the following is a specification.

My invention relates to improvements in car-derailers, and has for its object the provision of means for preventing cars which may be standing idle on the siding of a railroad from running onto the main track of a railroad, thus avoiding accident to passing trains on the main track.

Another object of my invention is to provide a derailer having a firm support independent of the rail itself.

In connection with the derailer I employ a signal which when in proper position will indicate to the operator of a train passing along the siding on which the derailer is located that the device is in position to derail a passing train, thus warning the trainmen to throw the derailer out of operative position to permit the passage of the train over the siding.

Another object is the provision of means for holding the signal device in upright position, which means consists of a breakable pin, such as wood, so that in case a car should run over the derailer the wooden pin or peg will be broken when the car strikes the signal-arm and the arm is forced down out of the way of the passing car, thus avoiding injury or destruction to the signal-arm.

A further object of the invention is the provision of means by which the movement of the derailing device and the signal arm or bar is permitted, so that both members of the apparatus may be moved to a safe position out of the way of a passing car when the device is not in use.

The invention consists in certain novel features of construction, combinations, and arrangements of parts, as will be hereinafter described in the specification, more specifically pointed out in the claims, and as illustrated in the accompanying drawings.

In the accompanying drawings I have illustrated one example of the physical embodiment of my invention.

Figure 1 is a view of a sufficient portion of a railroad to show the application of the derailer and signal, the derailer being shown in position on the rail and the signal arm or bar in upright position with the signal indicating

the position of the derailer. Fig. 2 is a top plan view of the device, as shown in Fig. 1. Fig. 3 is a broken sectional view of part of the device on line 3 3, Fig. 2; and Fig. 4 is a broken sectional detail view showing the wooden peg or pin for holding the signal-arm or rocker-arm in upright position.

The derailing portion of the device, as 1, is adapted to be located in position over the rail of the track, as shown in Figs. 1 and 2, and preferably constructed of boiler-iron. The portion 1 of the device forms one leaf of a hinge, the second member of the hinge being the plate 2, which is securely bolted or otherwise attached to one of the ties outside of the track. The pivot of the hinge is formed by the rock-shaft 3 and secured by a cotter, as 4. The derailer 1 may be lifted and turned out of operative position by the handle 5. The rock-shaft 3 is provided with an upright rocker-arm 6, formed integrally with said shaft. To avoid injury to or destruction of the signal on the rocker-arm, I provide a novel means for securing the portion 6' of the arm to the portion 6. As seen in Fig. 4, the two members of the rocker-arm are pivoted at 7. A slot or groove 7' is provided in the end of the portion 6, and the lower pivoted end of portion 6' is adapted to be seated in said groove, the member 6' being free to open or close in said slot like a penknife-blade.

To hold the members 6 and 6' in alinement when the member 6' is closed in the slot 7, I insert a pin or peg 8, preferably of wood, through holes formed in the upper slotted member of the slotted end of bar 6 and also through the bar 6'. Thus the two bars or arms 6 and 6' are held firmly in alinement, as shown in Fig. 4; but should a passing car strike the rocker-arm 6' the arm will be bent over, breaking the wooden peg 8, thus avoiding destruction to the arm 6' and signal 9.

I provide a novel means for folding the derailing apparatus and signal-arm out of the way of passing cars when their presence is not desirable. To the rock-shaft 3 I secure a collar or sleeve 10, preferably by a binding-screw 11. This collar is provided with two extensions or lugs 12 and 13, as clearly shown in Fig. 3. The lug 12 is approximately at right angles to the lug 13 and extends practically upright when the derailer is in operative position. The lug 13 is formed with a foot 13', which preferably rests upon the tie or plate of the hinged part of the derailer when

said derailer is in position, and the lug 13 may be adapted to act as a support for the member 1, as indicated in Fig. 3.

In moving or turning the derailer out of the way upon reference to Fig. 1 it will be seen by the dotted lines that the movement of the derailer from the position shown in full lines to the dotted position 14 is confined only to the derailing device itself, the signal as yet standing in upright position. By a continued turn of the derailer to the left in Fig. 1 the member 1 contacts with the lug 12 on the collar 10, and, as stated, said collar being rigid with the rock-shaft 3 a continued bearing on said lug 12 will rock the shaft 3, thus turning the shaft, and with it the rocker-arm 6 6', and the derailer and signal device are both folded over to the dotted position 15, Fig. 1. In returning the derailer to operative position on the rail when the derailer 1 is turned to the right from dotted lines 15 it alone travels to upright position 14 before the lug 13 is reached. Then a further turn of the derailer to the right causes the same to bear on the lug 13, by which means the shaft 3 is rocked or turned, and of course the arms 6 6' turn with the shaft to the upright position in Fig. 1, in which position the derailer is ready for use.

The derailer 1 is fashioned to pass over the head of the rail 16, presenting at this point a surface parallel with the rail-head. A depression 17 is then formed in the metal to a distance approximating the depth of the ordinary car-wheel flange. The metal is then continued outwardly and upwardly practically in a perpendicular line to the uppermost portion 18, where a fold is made, and the metal again turned downwardly and extended to the tie 19, the turned-down portion 20 forming a support for the derailer. From this construction it will be observed that when the wheel enters the depression 17 of the derailer and passes up the incline therein the flange of the wheel will pass along the oblique wall 21, and as the wheel rises the wall 21 will cause it to shift to the left out of alinement with the rail 16, and a continued movement of the wheel will cause the same to leave the track, as will be understood.

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

1. A car-derailer comprising a base-plate and a hinged member; said hinged member having a wheel-guiding groove therein, and provided with an extension beyond the line of the rail adapted to support the derailer.

2. In a car-derailer, an integral hinged member formed with a wheel-guiding groove therein, and provided with an upward extension from the groove, and said extension being turned over and projected downwardly to rest on a railway-tie and support the derailer.

3. The combination with a pivoted derailer, of a signal device arranged at an angle thereto, the parts being so connected that the derailer may be independently turned out of operative position, and by a further movement said derailer is adapted to carry the signal into inoperative position, substantially as described.

4. The combination with a pivoted derailer, of a signal device arranged at an angle thereto, a rock-shaft, and means on said rock-shaft so that the derailer may be moved independently out of operation and by a further movement thereof carry the signal into inoperative position.

5. The combination with a hinged derailer of a rock-shaft and signal device connected thereto, and means on the rock-shaft whereby the derailer may be moved out of operative position and by a further movement of the derailer the signal device is moved to inoperative position.

6. The combination with a hinged derailer of a rock-shaft and signal device connected thereto, said signal device being jointed and capable of a folding movement, and the parts being so connected that the derailer may be moved out of operative position and by its movement move the signal to inoperative position.

7. The combination with a hinged derailer of a rock-shaft and signal device connected thereto, and an obstruction on the rock-shaft in the path of movement of the derailer, whereby the derailer in its turning movement is adapted to ride down the signal device.

8. The combination with a derailer, of a rock-shaft and signal device connected thereto, said signal device consisting essentially of a jointed rocker-arm and means for temporarily holding said arm rigid, and an obstruction located on the rocker-shaft in the path of movement of the derailer, whereby the derailer may be thrown out of operative position and by a continued movement throw the signal out of operative position.

9. The combination with a derailer, of a rock-shaft and a signal device connected thereto, a collar on the rock-shaft and a pair of lugs secured to said collar, whereby the movement of the derailer to operative position or inoperative position will carry the signal device to a similar position.

10. The combination with a derailer of a signal device having a pivoted arm and temporary means for securing said arm in operative position.

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

WILLIAM ROACH.

Witnesses:

STEPHEN JONES,
HUGH SMITH.