

E. O. NOESKE.
 SIGNAL FOR RAILWAY CROSSING GATES.
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1,374,027.

Patented Apr. 5, 1921.

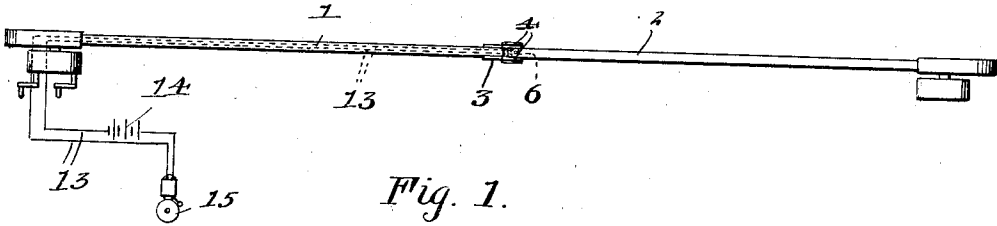


Fig. 1.

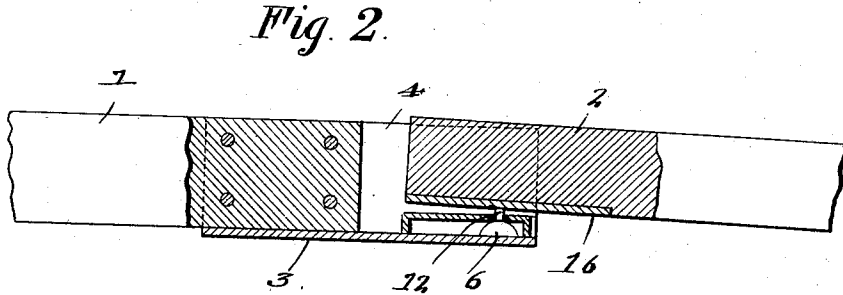


Fig. 2.

Fig. 3.

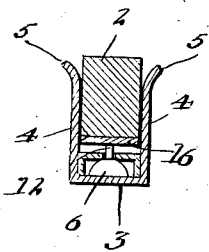
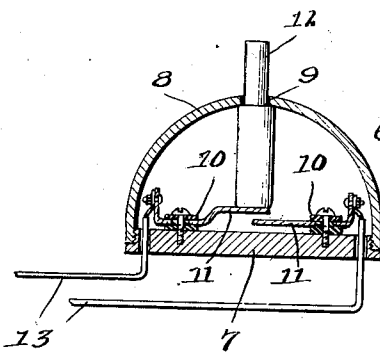


Fig. 4.



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SIGNAL FOR RAILWAY-CROSSING GATES.

1,374,027.

Specification of Letters Patent.

Patented Apr. 5, 1921.

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To all whom it may concern:

Be it known that I, ELMER O. NOESKE, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Signals for Railway-Crossing Gates, of which the following is a specification.

This invention relates to improvements in signaling devices for use in connection with the gates at railway crossings and has particular application to a gate controlled signal.

In carrying out the present invention it is my purpose to provide a railroad crossing signal for use at the intersection of railroad trackways and highways and which will be automatically operated when the gates are lowered to closed position thereby notifying pedestrians and traffic approaching the railroad track upon the highway of the position of the gates and the approach of traffic over the track.

It is also my purpose to provide a signal device of the class described which will embrace the desired features of simplicity, efficiency and durability, which may be manufactured and marketed at small cost, and which, when once installed, may be maintained at small expense.

With the above recited objects in view and others of a similar nature the invention resides in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the appended claims.

In the accompanying drawing:—

Figure 1 is a diagrammatic plan view showing my invention installed.

Fig. 2 is a fragmentary longitudinal sectional view through the meeting ends of the gates.

Fig. 3 is a cross sectional view through the same.

Fig. 4 is an enlarged sectional view through the switch controlling the signal circuit.

Referring now to the drawing in detail the numbers 1 and 2 designate the usual vertically swinging gates mounted at the opposite sides of the highway and the intersection of the latter with the railroad crossing. As is well known, these gates 1 and 2 remain in an upright or vertical position when the highway is open to traffic

while, when the highway is closed to traffic and a train is traveling upon the railway track across the highway, the gates 1 and 2 are swung downwardly to a substantially horizontal position to close the highway.

In accordance with my present invention the outer end of one of the gates is equipped with a plate 3 folded or otherwise secured to the underside of the gate and projecting beyond the end thereof. In the present instance this plate 3 is formed with upwardly projecting side flanges 4 that engage the respective sides of the gates at the outer end thereof. These flanges 4 are of a length equal to the similar dimension of the plate 3 and have their upper side edges curved outwardly as at 5 to form a mouth or entrance through the space defined by the bottom plate 3 and the side plates or flanges 4.

Secured to the inner side of the projecting portion of the bottom plate 3 is a switch casing 6 embodying a bottom flat wall 7 and a bell shaped top wall 8 formed centrally with an opening 9. Secured to the inner surface of the bell shaped wall 8 and suitably spaced apart are insulated blocks 10. Secured to the blocks 10 respectively are contact fingers 11 that are normally spaced apart. Passed through the opening 9 is a plunger 12 having the inner end resting upon one of the contact fingers 11 and the other end extending above the wall 8 so that when the plunger 12 is depressed the fingers 11 will be engaged with each other. The fingers 11 are connected with the terminals of an electric circuit 13 that includes a suitable source of electrical energy as a battery 14, and a bell 15 which sounds when the circuit is closed at the contact fingers 11 incident to the downward movement of the plunger 12.

Secured to the underside of the other gate and projecting outwardly therefrom is a plate 16 adapted to enter the space defined by the plates 3 and 4 on the other gate and engage the plunger 12 to depress the latter to close the signal circuit.

In practice, the gate carrying the plates 3 and 4 is so timed relatively to the other gate that to reach its lowered position before the other gate reaches a similar position and in the downward movement of the gate carrying the plate 16 such plate enters the space defined by the plate 3 and the

flanges or plates 4 and depresses the plunger 12 thereby closing the circuit and sounding the signal 15 to warn traffic and pedestrians upon the highway of the track that the railway gates are closed.

While I have herein shown and described one particular form of my invention by way of illustration I wish it to be understood that I do not limit or confine myself to the precise details of construction herein shown and described and modification and variation may be made within the scope of the claims and without departing from the spirit of the invention.

The current carrying wires of the electric circuit are preferably extended along the gate carrying the switch. It will be noted that the plate 3 and the flanges 4 in combination with the plate 16 acts, after the fashion of a lock at the meeting ends of the gates in order to prevent relative lateral movement of the gates, thereby effectively preventing traffic from entering upon the railway track when the gates are down or in closed position.

I claim:—

1. The combination with a pair of spaced members pivoted for movement toward and away from each other, of a member carried by and projecting beyond the end of one of said members, and designed to receive the adjacent end of the other member, a switch including a switch operating element disposed in the path of movement of the second mentioned member, whereby said switch is closed upon the final position of said members when moved toward each other.

2. The combination with a pair of spaced members pivoted for movement toward and away from each other, of a substantially U-shaped member secured to and projecting

beyond the end of one of said members, and adapted to receive the adjacent end of the other member when the members are moved toward each other, a switch operated element carried by the U-shaped member and disposed in the path of movement of the second mentioned member, whereby said switch is closed when said members assume final position upon adjustment toward each other.

3. The combination with a pair of spaced members pivoted for movement toward each other, of a substantially U-shaped member secured to and projecting beyond one end of one of said members, a compartment arranged within said U-shaped member, said U-shaped member being arranged to receive the adjacent end of the other of said members when the members are moved toward each other, a switch arranged in said compartment and including a movable operating element, projecting within the U-shaped member in the path of movement of the second mentioned member whereby the switch is closed upon movement of said members toward each other.

4. The combination with a pair of spaced members pivoted for movement toward and away from each other, of a substantially U-shaped member secured to and projecting beyond the end of one of said members, the open end of said member being flared to provide an entrance passage for the adjacent end of the other of said members, a switch including a switch operating element arranged within the U-shaped member and disposed in the path of movement of the second mentioned member whereby the switch is closed upon the movement of said members toward each other.

In testimony whereof I affix my signature.
ELMER O. NOESKE.